

# Beyond Bellows: Crosby™ Balanced Diaphragm



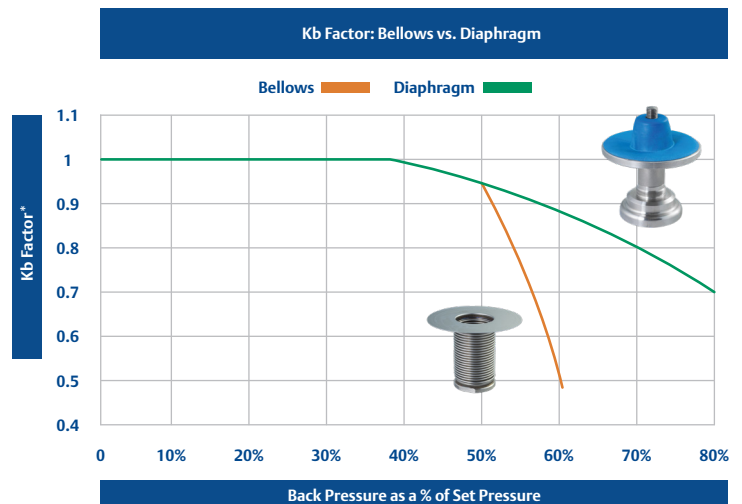
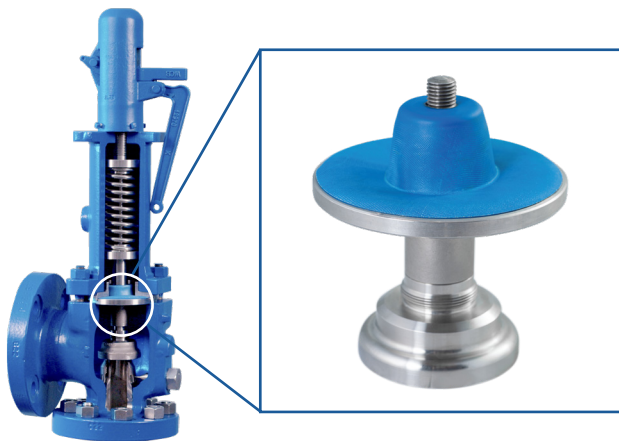
**CROSBY™** The Crosby J-Series with Balanced Diaphragm technology eliminates the need for bellows in pressure relief valves, providing lower costs and improved performance.

## Reinventing Pressure Relief Valves

The Crosby Balanced Diaphragm extends back pressure limits to 80% of set pressure and increases the Kb factor up to 15%, expanding the application range of spring-loaded PRVs.

Diaphragms are inherently more resilient than bellows for higher back pressures and rapid pressure cycling applications.

The Balanced Diaphragm technology lowers maintenance costs, improves reliability and increases safety.



\*Kb = Capacity correction factor due to back pressure



# Crosby™ Balanced Diaphragm Technology

## How it works

The diaphragm effective area subjected to back pressure has the same area as the nozzle seating area, ensuring balanced operation.

Its location is above the guide and not in the main flow path of the media. Therefore, it reduces exposure to the media, improving reliability and valve flow performance.

Additionally, the absence of bellows removes its spring rate effect, enhancing stability during operation.

## The Crosby Balanced Diaphragm difference

- 20% greater back pressure handling improves reliability during back pressure surges
- 15% improvement in Kb factor enables sizing of smaller and/or fewer valves
- 100x more resilient than metal bellows for high-frequency cycling, ensuring safety
- Same springs as JOS valves reducing spare parts and inventory costs
- Cycle, burst and fire tested and independently witnessed by Lloyd's Register
- Easily convert existing Crosby J-Series with Balanced Diaphragm upgrade kits



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