



No matter the temperature extremes or other harsh operating conditions, Pressure-Reducing and Back-Pressure **Regulators** must deliver premium performance to ensure worker and site safety and system optimization.

Has your supplier adequately tested its regulators? First, note there's no universal standard for testing common/uniform performance characteristics across multiple industries, and testing equipment can vary significantly among manufacturers.

Now what?

Apply predictive modeling...then prove any derived theories via these methodologies:

- **Burst Testing** Can your regulators maintain their integrity when operating at pressure? This is a means to learn if your components can yield steady results at working pressures several times a regulator's rated pressure.
- Fluid Dynamic Testing Do your regulators have velocity traps or pressure buildup spots? This is a process used by makers to investigate pressure zones within the regulator to ensure that the device is accurately reading and thereby controlling outlet pressure per system specifications. In other words, does the true outlet pressure match the product rating?
- Supply Pressure Effect Testing If the inlet pressure decreases or increases, is there a corresponding change in the outlet pressure? This is a method that determines the smallest and most precise possible value.
- Life Cycle Elements Testing Have any idea how long your regulators should last across numerous actuation cycles? This is a procedure that puts a regulator through a range of cycle loads to see when and where it might begin to show wear and lose performance.
- **Thermal Testing** How will you know if/when the seal has been compromised when your regulator is exposed to temperature extremes? This is an operation that assesses whether certain elastomeric materials swell or shrink/stiffen, thus greatly affecting performance, under very high and low temperatures.







Your surest route to a healthier overall Bottom Line:

When selecting and specifying regulators, consult with your vendors to fully understand just how their products are designed and tested to meet (or exceed) your most challenging real-world applications.

Swagelok General Industrial and High-Sensitivity Process Regulators deliver unparalleled, leak-tight performance in even the most challenging applications and operating environments.



General-service, spring-loaded. Controls downstream pressure. Simple robust design.



SGRD

General-service, dome-loaded. Controls downstream pressure. Highly customizable.

Pressure-Reducing



General-service, ratio-loaded. Controls downstream pressure. Controllable with lowpressure feed.

Back-Pressure



High-sensitivity, domeloaded. Controls downstream pressure. Highly customizable. Ideal sensitivity for lowpressure applications.



High-sensitivity, springloaded. Controls downstream pressure. Simple robust design. Ideal sensitivity for lowpressure applications.



General-service, springloaded. Controls upstream pressure. Simple robust design.

 (\mathbb{X})



General-service, dome-loaded. Controls upstream pressure. Highly customizable.



General-service, ratioloaded. Controls upstream pressure. Controllable with low pressure.



High-sensitivity, springloaded. Controls upstream pressure. Simple robust design. Ideal sensitivity for low-pressure applications.

Swagelok General Industrial Process Regulators...

...can accommodate working pressures up to 6000 psig and 250 psig for our High-Sensitivity designs.

All Swagelok Regulators operate effectively in temperatures from -49°F to 356°F and are available with numerous $\frac{1}{2}$ " to 1½" end connections.

P: 412.761.3212 W: pittsburgh.swagelok.com



