

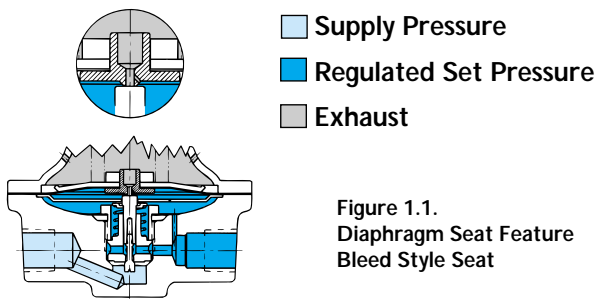
# TERMINOLOGY

**Air Consumption.** The maximum rate at which air is vented or bled from the device in order for the device to operate within its specifications.

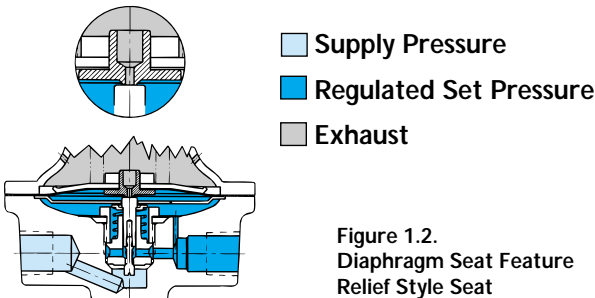
**Ambient Temperature Range.** The minimum and maximum temperature of the medium surrounding a device.

**Back Pressure Regulator.** A pressure regulator which controls an inlet (supply) pressure. Conceptually, back pressure regulators are similar to relief valves, since these devices relieve inlet pressure when a set point is reached. Unlike relief valves, a back pressure regulator setting is not proportional to the difference between inlet (upstream) and exhaust (downstream) pressure. Back pressure regulators are much more accurate than a relief valve since the pressure sensing element is considerably larger than the valving element within the device.

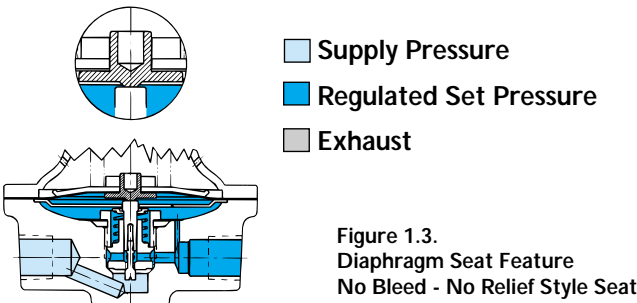
**Diaphragm, Bleed.** A diaphragm assembly feature which contains a small orifice which allows a constant exhaust through the diaphragm. This constant exhausting increases responsiveness and stability of the regulator by keeping the nozzle in a dynamic state. See figure 1.1.



**Diaphragm, Relief.** A diaphragm assembly feature that allows exhausting to atmosphere when regulated output pressure exceeds set point pressure. See figure 1.2.

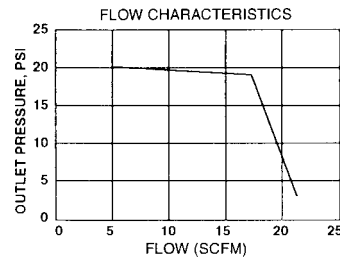


**Diaphragm, No Bleed - No Relief.** A diaphragm assembly that does not allow process medium to exit through the diaphragm. See figure 1.3.



**Differential pressure.** The output difference between two or more independent pressure sources.

**Drop.** The deviation of output from set point pressure as downstream flow requirements change. See figure 2.1.



**Exhaust Capacity.** The relief flow capability of the output to atmosphere in situations where the output pressure is greater than the regulated set pressure.

**Flow Capacity - Dynamic.** The rate which a volume will pass forward through a given device within a unit of time while variables are undergoing a change. Typically expressed in SCFM for gases or GPM for liquids.

**Flow Chart.** A set of regulator performance curves depicting droop under different inlet pressures, set points and flow rates.

**GPM.** Acronym for Gallons Per Minute.

**Leakage.** Flow of gas or fluid past a seat or seal, in the closed position.

**Maximum Supply Pressure.** The maximum safe pressure that may be applied to the signal port of a device to create a predetermined signal at the output of the device.

**Pressure Reducing Regulator.** A pressure regulator which controls an output (discharge) pressure from a higher supply (inlet) pressure.

**Ratios.** The relation between two similar magnitudes in respect to the number of times the first contains the second (i.e., 1:2, 2:1).

**Regulated Vacuums.** Control of pressure in a vessel at pressures less than atmospheric.

**Sensitivity.** The least change in the variable to which the device will respond.

**SCFH.** Acronym for Standard Cubic Feet Per Hour.

**SCFM.** Acronym for Standard Cubic Feet Per Minute.

**Set Point.** (Control setting ranges/control back pressure ranges). The output or control pressure under non-flowing conditions.

**Single Stage Regulator.** A pressure reducing regulator which reduces supply (inlet) pressure to output (controlled) pressure with a single pressure sensing element and control valve. Single stage regulators are typically used when supply pressure is constant (such as a pipeline regulator), or where frequent adjustment is not a problem.

**Static.** See Steady-State.

**Steady-State.** A characteristic of a condition, such as value, rate, periodicity, or amplitude, exhibiting only negligible change over an arbitrary long period.

**Supply Pressure Effect.** The effect of supply pressure variations relative to output pressure at a constant set point.

**Vent Port.** A feature of some regulators which permits the user to install a fluid connector into the regulator bonnet (control spring chamber) and pipe away any fluid which enters the bonnet. Capture ports are used when the user needs to contain the regulated media in case of catastrophic failure of the pressure sensing element, or when self-relieving is required. Capture ports may be user positionable, or fixed, depending on the model.