Choosing the Proper Regulator for Your Application

A regulator can be defined as any device that controls or maintains a designated characteristic. Taprite regulators are used to reduce and control compressed gases, specifically CO_2 and N_2.

Taprite manufactures two types of regulators: Primary Regulators and Secondary Regulators (for beer and soft drink dispense).

Primary Regulator or Secondary Regulator?

Primary regulators are used as control devices to reduce the high pressure of gas being dispensed from a compressed gas cylinder or "bulk" source to the safe, useable pressure needed in common applications.

They are designed to be used directly with the compressed gas source. Taprite primary regulators are designed and approved for use with both compressed gas cylinders and "bulk" gas dispense. These regulators can be connected to the gas source using fittings specifically designed for both the regulator and source. In some cases, an appropriately rated high pressure hose with fittings is added to the regulator to allow for remote mounting and dispense.

In general, primary regulators feature two Bourdon Type pressure gauges. One gauge indicates the pressure being delivered through the regulator's output port, while the other gives a reading of the pressure in the compressed gas cylinder. It is convenient, but not necessary, to have a gauge for the gas cylinder pressure on your regulator. Multiple primary regulators may be joined together in applications where multiple working pressures are required from a single gas source.

See Series 5740 for soft drink dispense and Series 740 for beer dispense.

Secondary regulators are designed to further reduce the gas' pressure after its output through the primary regulator. The specific set pressure for this regulator is dependent on the type of equipment being used (i.e., BIB syrup pumps, carbonators, FBC machines, etc.), or the type of beverage being served (i.e., lager, stout, etc.).

Secondary regulators typically feature a single Bourdon gauge to indicate final output pressure. As with primary regulators, secondary regulators can be joined together to allow for greater dispense capacity and multiple set pressures.

See Series 5260 for soft drink dispense and Series 1600 for beer dispense.

Metal or Polycarbonate Bonnet?

Taprite's current product line features regulators with ***polycarbonate bonnets*** and ***zinc bonnets***.

The polycarbonate bonnet is resilient and easy to use, and is featured on the vast majority of regulators we produce for commercial, CO_2 applications. It is rated (and UL Approved) to handle a maximum inlet pressure of 950psi.

Zinc bonnets are featured on all Taprite N_2 regulators . Zinc bonnet regulators for use with N_2 are designed for and approved to handle a maximum inlet pressure of 2200psi. *****For your safety, polycarbonate bonnet, primary regulators should never be used with N_2 or beer gas, as they are not approved for inlet pressures above 950psi. It is, however, safe to use a secondary, polycarbonate bonnet regulator with N_2 or beer gas once your pressure has been reduced to a safe level by the primary regulator.*****

While 3700 Series regulators designed for low volume applications also feature zinc bonnets, these small body regulators are not designed to handle inlet pressures beyond that seen with CO_2. For your safety, only zinc bonnet regulators from the 740 Series or 5740 Series should be used with N_2.

High Pressure or Low Pressure Regulator?

When referring to regulator types, the terms ***high pressure*** and ***low pressure*** are generally used to describe the maximum output pressure of the regulator. Your specific application will determine which type of regulator you need. Taprite's regulators for soft drink dispense have a working pressure of 0-120psi, and are considered to be "high pressure" regulators. Our regulators for beer dispense have a working pressure range of 0-50psi, and are considered to be "low pressure" regulators. If the maximum output pressure is exceeded on either type of regulator, the integral safety will "blow" and immediately begin to release gas. The safety can be reset by completely shutting down your dispense system and restarting from 0psi.

Occasionally, "low pressure" is used in reference to secondary regulators. This is because the pressure that goes into the regulator has already been "lowered" by a primary regulator.

Barb Fittings or Flare Fittings?

The outlet fittings you'll need on your regulator will be determined by your application. In general, commercial beer dispense applications (or home dispense applications with commercial kegs) will use barbed, shutoff outlet fittings. The most common barb size for these applications is 5/16" (for 5/16"ID x 3/8"OD hose), although 1/4" and 3/8" versions are available.

Most commercial soft drink applications use 1/4" Flare (SAE) fittings. Commercial soft drink canisters and related equipment are often reused in homebrew beer applications, so it is not unusual to find beer regulators for home use with flare fittings instead of barbs. **All Taprite fittings are sized to match the inside diameter (ID) of you hose, i.e., a 5/16" barb is designed for use with 5/16"ID hose.**

It is important to know whether or not your outlet fittings contain check valves. Check valves are used in outlet fittings to prevent the backflow of liquid into your regulator. If you are using a commercial beer keg, it is likely that your keg coupler has a check valve installed in the gas inlet port, so the check valve in your shutoff would simply be an additional failsafe. Soft drink and homebrew keg couplers ("ball lock" or "pin lock" couplers) do not have built in check valves, so it is best that you purchase a regulator with checks to prevent damage to the regulator's internal components in case of backflow. All of Taprite's standard, primary regulators have check valves in their outlet fittings; our secondary regulators may or may not include check valves so this feature should be verified before making your purchase.