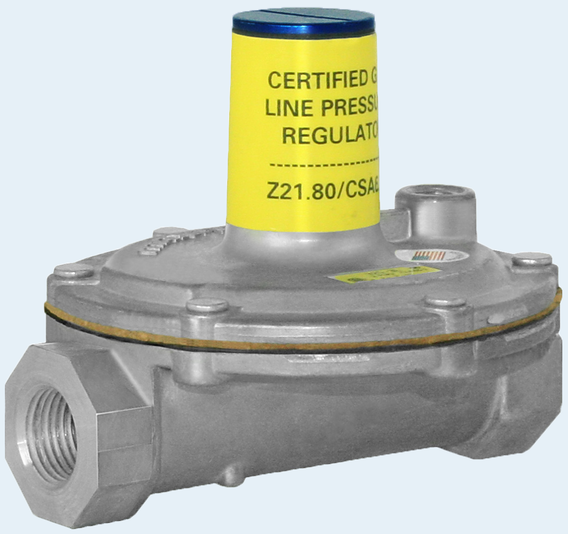
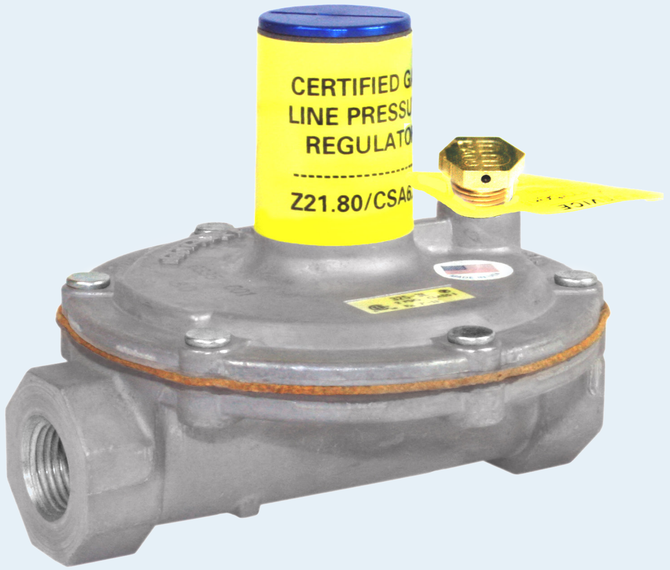
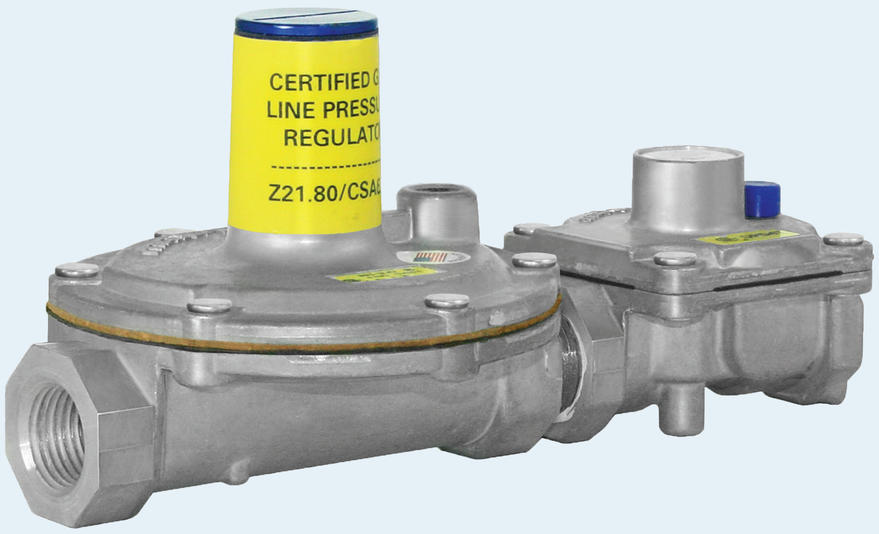
# Certified Line Pressure Regulator Training

## Elevated Pressure Systems



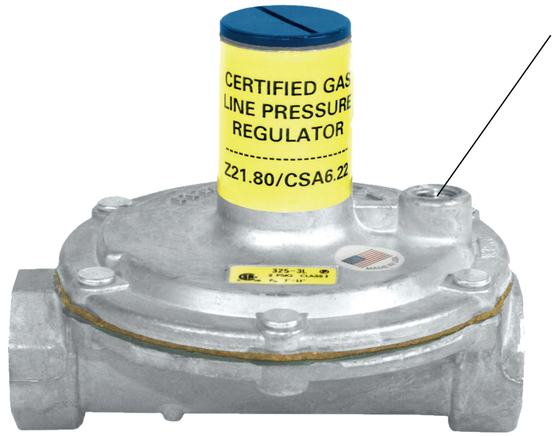



# Line Regulator Venting

- Venting must be controlled in accordance with government and plumbing codes and regulations to avoid the danger of escaping gas should there be any internal leakage.
- Vent pipes must be open and the open end protected against entry of foreign matter, including water.

See the latest of National Fuel Gas Code pt. 9.1.19, International Fuel Code latest edition Section 410.3, Uniform Plumbing Code/ IAMPO/ANSI UPC 1208.7.5




For Use Indoors

vLimiter

For Use Outdoors

vProtector

# Indoor Installation

## Venting to the Outdoors:

- The diaphragm must be allowed to breathe to the atmosphere for unrestricted movement. The effective regulator vent opening should never be restricted.
- Vent piping should be installed directly into the vent port.
- Vents that run longer than 10 feet in length may require an increase to the next larger size to allow for free movement of air.
- Each regulator should have a separate vent line unless approved by code.
- Vent ports must be open and the open end protected against entry of foreign matter, including water.

## Venting Indoors:

- vLimiter® vent limiters are designed for use indoors where limiting the amount of gas escapement due to diaphragm failure is critical.
- A vLimiter® vent limiter may only be used on a regulator that is approved for such usage. Always follow manufacturer's installation instructions for proper orientation of the pressure regulator using a vent limiting device.

# Outdoor Installation:

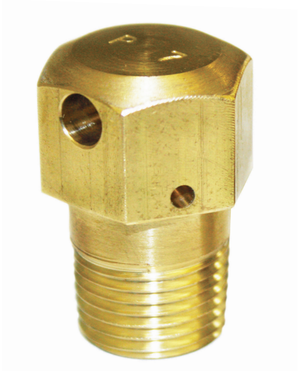
- vProtector® vent protectors are available for all outdoor applications to ensure proper vent protection.
- Vent ports must be open and the open end protected against entry of foreign matter, including water.
- vLimiter® vent limiters should NOT be used outdoors, even as a protective device.

## vLimiter ® Vent Limiting Devices

- Maxitrol vent limiting devices eliminate the need to run vent piping to the outside. Vent limiting devices are designed for use indoors and in spaces where limiting the amount of gas escapement due to failure is critical.
- Vent limiting devices should not be used outdoors if they are exposed to the environment.

12A09 (1/8" NPT)

12A39 (3/8" NPT)



12A49 (1/2" NPT)

## vProtector ® Vent Protecting Devices

- vProtector® vent protectors are available for all outdoor applications to ensure proper vent protection.

13A15 (1/8" NPT)

13A15-5 (3/8" NPT)

13A25 (1/2" NPT)

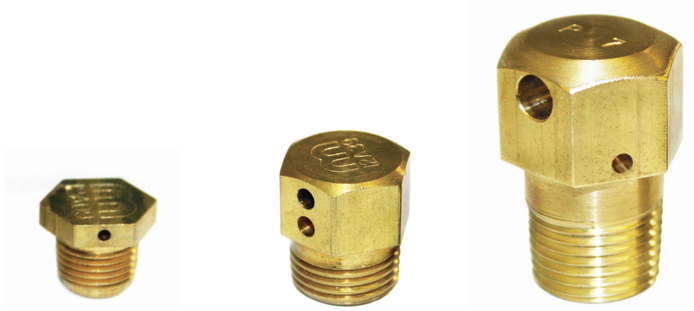
## vLimiter® Vent Limiting Device

Maxitrol vent limiting devices meet ANSI Z21.80/CSA 6.22

The requirement states:

- 1.11 Materials - 1.11.4
  "Vent Limiters shall be of materials having melting points of no less than 800°F (427°C)."

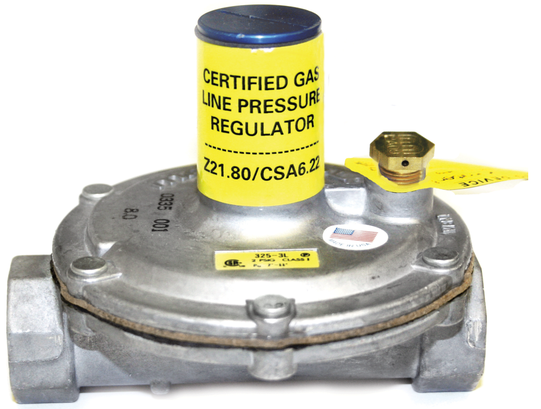
- 1.13 Markings - 1.13.2
  "Separate vent limiters shall be marked so as to be individually identifiable."



12A09 (1/8" NPT) 12A39 (3/8" NPT) 12A49 (1/2" NPT)

# Typical 2 psi Line Pressure with Vent Limiting Device Installed

- Venting must be controlled in accordance with government and plumbing codes and regulations to avoid the danger of escaping gas should there be any internal leakage.
- Maximum allowable vLimiter® vent limiter venting rate (see table below).
- vLimiter® vent limiters can only be installed in products they are certified for.
- Specific Gravity Air = 1.00




| Vent Limiter Maximum Allowable Venting Rate | | |
|---|---|---|
| Requirements for Vent Limiters | Specific Gravity | Maximum allowable flow rate, in cubic feet per hour ($cm^3/s$) |
| Vent limiter for use only with natural, manufactured, mixed gases and LP gas-air mixtures. | 0.64 | 2.5 (19.6) |
| Vent limiter for use with liquified petroleum gases. | 1.53 | 1.0 (7.9) |