



Unit 14, The Homeground, Buckingham Industrial Park, Buckingham. MK18 1UH
Tel: 0870 4422 644 Fax: 0870 4422 645 Email: info@fireprosystems.co.uk

Guide to the selection and use of pressure relief vents

Pressure relief vents are required for inert gas extinguishing systems (including Argonite, Inergen and Argon) to ensure that the residual oxygen concentration is achieved to achieve the design concentration; and to ensure that no over-pressure develops that may cause structural damage. The basic pressure relief unit is determined on the amount of free venting area required. This depends on the assumed wall strength. This is nominally assumed at 500 Pa. For lesser pressures this should be indicated at the proposal stage.

The pressure relief unit is a weighted damper that opens at 100 Pa and closes once the pressure has fallen below this. As such, the standard unit must be wall mounted, i.e. in the vertical position. Roof mounted units are available. These require extra depth as the pressure relief damper blades are mounted vertically, like a beehive arrangement. The pressure relief unit requires a minimum wall aperture. This is the size of aperture that must be opened to allow fitment.

The pressure relief unit has a number of options that are modular:

Egg-crate

This is only required for decorative purposes and adds no function to the unit.

Fire damper

If the protected area is compartmented to a specified fire resistance (e.g. a computer room within an office designed to BS6266) then a fire damper is required.

Weather Louver

If the pressure relief is to outside then a weather louver will provide protection from external weather, i.e. wind and rain. The unit will function correctly in all but extreme conditions (e.g. horizontal wind & rain).

Backing Flange

This neatens the outer wall and is required for decorative purposes and adds no function to the unit.

Ducting

Should the pressure relief not to be outside, or not to a volume at least twice that of the protected volume, ducting should be used. There are no rules governing ducting but it should **not** provide a pressure impedance to flow. As a general guide the ducting should be twice the cross-sectional area of the aperture area, or an additional 20% along all side & height dimensions.

Fit Price

Firepro Systems Ltd can fit pressure relief units as long as the building work, i.e. hole opening, is by others.
