

# Q & A

## *Why are systems affected by building changes?*

The pressures levels/egress velocities achieved on a new system are critical to its overall performance.

Too little pressure and the area could be overwhelmed (smoke ingress); too much and escape doors may become 'locked' with over pressure.

In either case, the result could be potentially disastrous. One 'wedged open' door or failed door closer for example, can defeat a complete pressurisation system.

## *Why comparison test?*

Part of the rigorous service cycle requires mandatory regular comparison testing of the scheme against original commissioning data.

This provides confirmation that the pressure/velocity levels are retained within the guidelines.

Even small changes to the pressurised area can seriously affect overall performance, for example

- Changes to the building structure
- Weakened automatic door closers
- Worn or dropped hinges
- General door damage creating excess leakage paths.

A visual inspection is insufficient to determine the overall effectiveness of the pressure system - only performance comparison testing will highlight defects.

## *What support is required?*

Regulatory Compliance and Certification of active pressurisation and pressure differential systems requires specific expertise and levels of whole life support.

It is not sufficient to maintain these schemes as part of the HVAC package, since different and quite specific Regulations and Standards apply, in keeping with their accepted importance as Life Safety Systems.

Where original Commissioning information is not available, then it is necessary to carry out a detailed design review to determine the nature and required performance criteria for the installed system prior to carrying out servicing and comparison performance tests.

