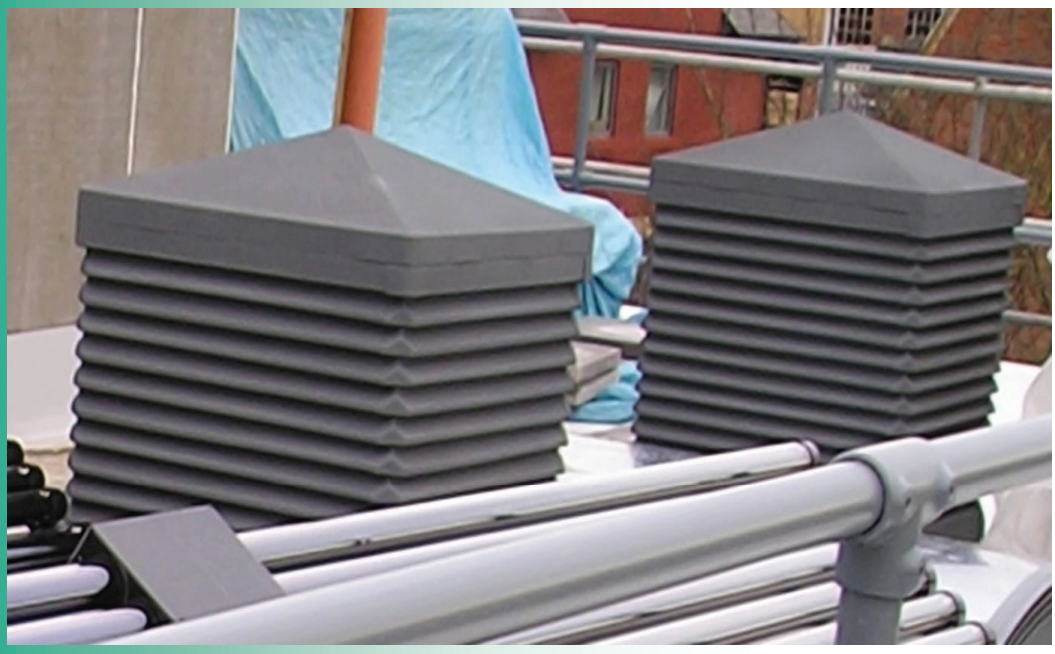
Passive Stack Ventilation



Passive Stack Ventilation (PSV) systems are designed with a ‘stack effect’. This enables the movement of planned air paths through the dwelling as a result of internal and external temperature differences and wind induced pressure differences.

The PSV systems ventilate the whole dwelling by siting extracts in ‘wet’ rooms (e.g. kitchens and bathrooms, including en-suites), and ducting vertically to individual terminals sited on the roof. Wind induced pressure differences cause moist air through inlet vents situated in the walls or window frames of habitable rooms. A free flow of fresh air from ‘dry’ to ‘wet’ areas creates whole house ventilation.

Suitable dwellings, such as housing, commercial buildings and student or residential apartment blocks, up to 4 storeys high, require three or less individual stacks. Each ‘wet’ room must be ventilated by an individual stack.

The design of an effective, practical system relies on a number of interrelated criteria, including floor plans and room volumes, plus geographical location and site exposure factors.

Standard PSV systems have no manual control mechanisms. They work by the air flow responding to temperature difference, increasing and decreasing when internal and external temperatures vary, making the system self-regulating.

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