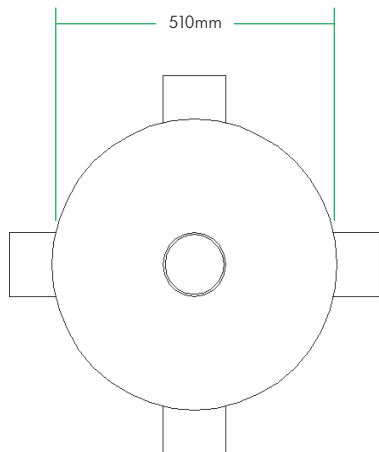


Specifications

Product name	Radon / Methane gas reception sump
Dimensions	510mm x 240mm + 110mm porthole projections x 5
Gas exit ratio	4:1
Maximum serviceable area	>250m ²
Maximum sumps per outlet pipe	5
Sump to far limit of any area	Not more than 9 metres
Outlet	Via soil / drain 110mm nom pipe
Material	Polypropylene



Each sump has four side connections and one top connection. This permits interconnection if a large area involving multiples of sumps is required.

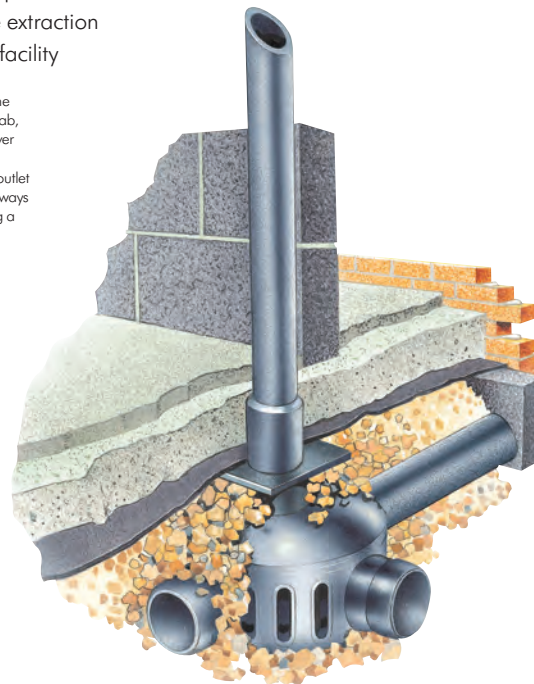
GAS RECEPTION SUMP

Reducing Gas Pressure Under the Building

- One-piece easy placement
- Passive or active extraction
- Interconnecting facility

In this example, the membrane is shown under the oversite slab, rather than above it. Whichever option is selected to suit the construction in question, the outlet from the reception sump is always linked to the membrane using a service pipe flashing.

Both outlet options are illustrated. Vertical stack or up to four horizontal connections are possible. Thus gas evacuation can be to perimeter walls if appropriate, terminating with round converter and Cavitybrick.



Use

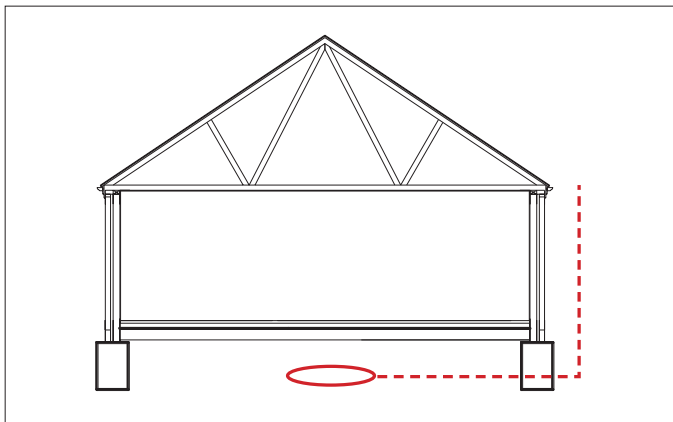
Depressurisation sumps, oversite membranes + compatible preformed cavity wall barriers with accessories integrate to form a radon gas protection arrangement of the building footprint to guard against gas permeation into the structure.

Solution

Sub-floor depressurisation is a way of reducing the pressure beneath a building and therefore directly influencing/easing the extent by which it seeks to infiltrate the construction.

Located beneath the floor slab in non-suspended floor configurations, one or more draw-sump is incorporated within the granular fill. The sump is connected and vented to the atmosphere using 110mm drainage pipe. Such sump configurations are termed passive and rely on the imbalance of pressure under and outside of the structure to naturally evacuate and dissipate gases. External termination dissipation options include Cavibricks, high-level pipe outlets or alternatively the outlet can receive an external cap in preparation to receive optional fan assistance at a later date.

One sump can influence an area up to 9m radius or an area of up to 250m² where the granular fill area is continuous and uninterrupted. How many sumps are required to provide optimum depressurisation depends on the foundation construction of the building and whether or not there is ventilated masonry between those foundation areas. Where a high-water table exists we recommend sump integration is reviewed to ensure functionality is not compromised by being waterlogged. (Note pressure differential requires the surface separating below ground from above ground to be sealed /capped not open).



Determining your Requirements

We recommend advantage is taken of our take-off service. We will be pleased to calculate your requirements and submit a proposal and scheduled for your consideration.

References

- The Environmental Industries Commission: www.eic-uk.co.uk
- The Radon Council: www.radoncouncil.org
- Public Health England: www.gov.uk/government/organisations/public-health-england

Designers' Comments

Public Health England (HPA) advises the only way of knowing the actual radon presence within a building is to test the building once it has been constructed. If a high reading then registers, corrective measures should be sought! It is preferable when constructing from new to remove uncertainty by protecting the entire building footprint. So doing using an appropriate gas grade oversite membrane linked to Radon Cavity Barriers reduces an addressable risk.

Bill of Quantity / Specification Wording

D21 - Clause 370 Depressurisation Sumps

Manufacturer: Cavity Trays Ltd, Yeovil Somerset BA22 8HU Tel: 01935 474769

Gas Reception Sump(s) to be incorporated within granular fill and connected to external discharge point(s) where shown.