

# Sump provision under the building

RADON / METHANE

## USE

Placement of a radon sump within the granular fill under the floor slab can aid radon reduction by reducing the pressure under a building. Sumps used in this manner operate passively, relying on positive and negative pressure to naturally exhaust radon via a connecting pipe(s) that rises and discharges the radon. (Normally above roofline in a manner similar to a soil vent pipe).

When used in conjunction with total footprint protection no further measures such as assisting extraction using an integral fan are normally required.

## SUMP

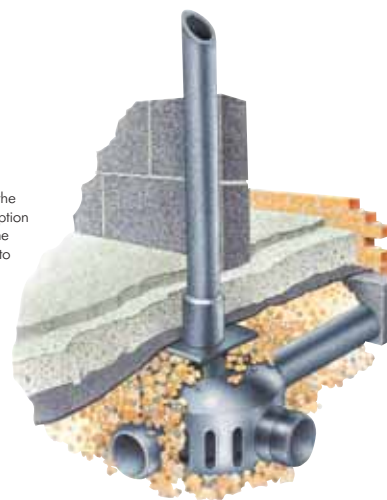
This is because the presence of uninterrupted protection across the building footprint guards wall and floor junctions via which ingress entry can commonly occur. Thus the purpose of the sump is to aid reduction rather than eliminate it.

## 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.

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.

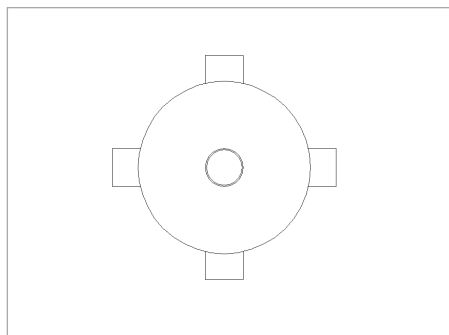
Both outlet options are illustrated. Vertical stack or up to four horizontal connections are possible. Thus gas evacuation can be to perimeter walls if appropriate, terminating with round converter and Cavibrick.



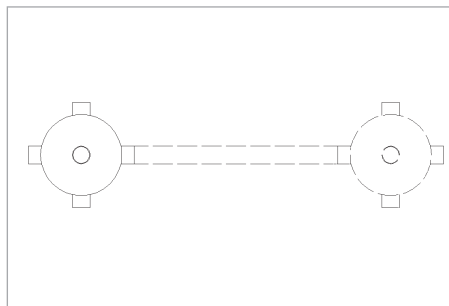
## SPECIFICATION WORDING

Radon Gas reception sump by Cavity Trays of Yeovil Somerset BA22 8HU (01935 474769).

Incorporate sump centrally within granular fill in accordance with best practice, to service area not exceeding 250m<sup>2</sup>. Connect extraction pipe. Spur connect additional sumps to service static pockets or sub-floor areas. Number.....



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



<b>PRODUCT NAME</b>	Radon / Methane gas reception sump
<b>DIMENSIONS</b>	510mm x 240mm + 110mm porthole projections x 5
<b>GAS EXIT RATIO</b>	4:1
<b>MAXIMUM SERVICEABLE AREA</b>	>250m <sup>2</sup>
<b>MAXIMUM SUMPS PER OUTLET PIPE</b>	5
<b>SUMP TO FAR LIMIT OF ANY AREA</b>	Not more than 15 metres
<b>OUTLET</b>	Via soil / drain 110mm nom pipe
<b>MATERIAL</b>	Polypropylene

## DESIGNERS' COMMENTS

Do not use excessive fines around sump. In sub-floor applications performance is dependent on the water table being below and therefore not adversely affecting exhalation. Note maximum pipe runs and areas serviced by any single or interconnected sump.