



European Radon Solutions Database

Prepared by
: ERRICCA 2 *European Radon Research and Industry Collaboration Concerted Action*
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Existing Buildings

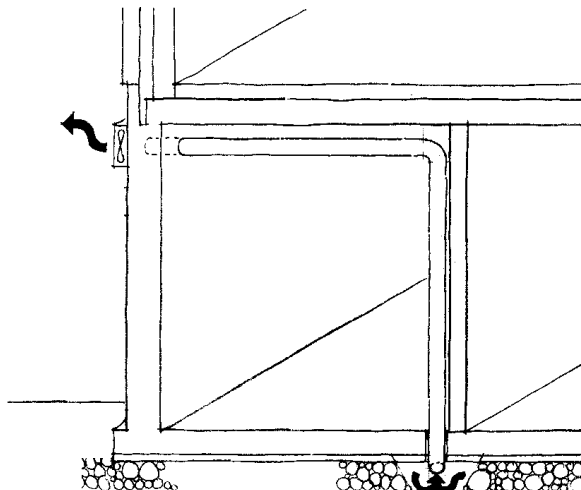
Case Study

Sheet N°

Type Internal radon sump

Country Switzerland

Illustration



Description

The soil air is extracted under the floor. The pipe (10 cm) entry must be fitted tightly. According to the properties of the soil and the size of the building, one extract point may be enough, or several may have to be installed. If the exhaust vent is placed high enough above the roof, a fan may not be necessary. Otherwise, the exhaust vent should be sheltered (snow, rain) and be at least 2 metres away from windows and doors.

Selection

This solution could be used in many configurations: Houses with crawl space, or built on a soil with high permeability.

Pre-installation Diagnosis

Drill a 5 cm suction hole in the floor and install a temporary fan and measure the radon concentration in the inhabited rooms with a continuous monitor.
It is better to effectuate this simulation in the cold period.

Radon reduction achieved

Radon reduction from 1500 Bq/m³ down to 120 Bq/m³

Problems

The opening should be made at the most accessible place, at least 2 metres away from windows and doors, so that the severely contaminated air does not re-infiltrate the interior.
Sealing: It is very important to seal around the pipe-work to prevent air leakage.

System enhancements

Increase the surface area of the suction point: the largest possible cavity is created around the pipe, by hand or using a vacuum cleaner.

Further Information

More information about this system in the "Swiss Radon Guide" could be bought or downloaded from our website WWW.CH-RADON.CH
www.bag.admin.ch/strahlen/ionisant/radon/pdf/d/Radonhandbuch-en.pdf

or direct from
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