European Radon Solutions Database

Prepared by

: ERRICCA 2 *European Radon Research and Industry Collaboration Concerted Action*

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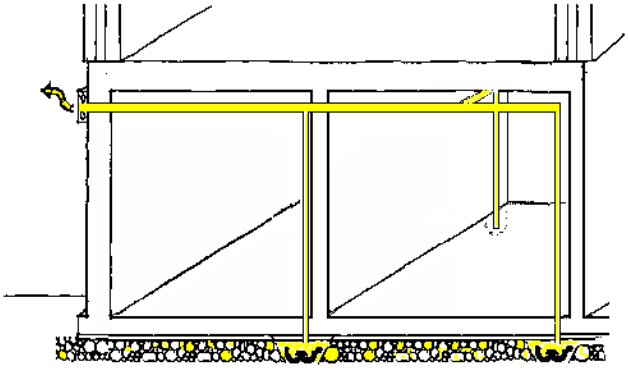
Existing Buildings

Case Study

Sheet N°

Type	Internal radon sumps (thin pipes)
Country	Switzerland

Illustration



Description

The soil air is extracted under the floor in each room. The pipes (diameter 2 cm) must be fitted tightly. According to the properties of the soil and the size of the building, several suction points are necessary. The fan must produce a large pressure difference about 500 Pascals, the flow rate is low.

Selection

Medium permeability from the sub slab material is necessary.

Pre-installation Diagnosis

Drill a suction hole in the floor and install a temporary fan and estimate the air flow. In tight soils the air flow is really low, in this cases this system could work very well. In permeable soils this system doesn't work.

Radon reduction achieved

Radon reduction from 1100 Bq/m^3 down to 100 Bq/m^3

Problems

EThe exhaust have to at least 2 metres away from windows and doors, so that the severely contaminated air does not re-infiltrate the interior.

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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