

# World Radon Solutions Database

## Existing Buildings

[www.worldradonsolutions.info](http://www.worldradonsolutions.info)

### Existing Buildings

### Case Study

Sheet N°

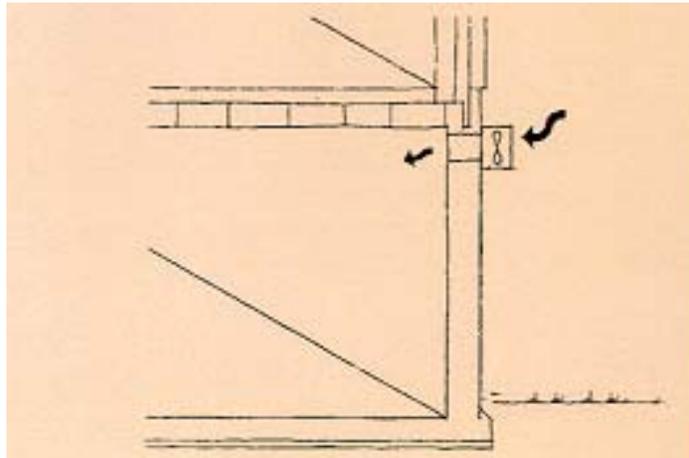
### Type

Controlled ventilation:  
Dilution and reduction negative building air pressure

### Country

Switzerland

### Illustration



## Description

This system renews room air in a controlled way and mixes it with fresh air. If the quantity of air is doubled, the pollutants in the room air are reduced by a factor of 2.

There is also a change in the pressures inside the house. If the quantity of supply air is slightly greater than the quantity of exhaust air, there is a slightly overpressure (0 to 1 Pascal) compared with that of the soil and less radon is transported into the house.

This system is installed in the lowest inhabited storey and automatically reduces the radon concentration of higher storeys. Radon concentrations in the next storey up are generally 15% lower.

## Selection

This remediation is ideal for airtight houses with very small cracks and fissures in the walls and the floors in contact with the ground.

## Pre-installation Diagnosis

A temporary fan should be installed preferably with variable airflow and measure the radon concentration in the inhabited rooms with a continuous monitor.

It is better to effect this simulation in the cold period.

## Radon reduction achieved

Radon reduction from 1200 Bq/m<sup>3</sup> down to 100 Bq/m<sup>3</sup>

## Problems

Noise and dust: use a device with a sound insulation to reduce the outside noise and an air filter. In winter, it's necessary to heat the fresh air.

## System enhancements

In the case that you know exactly the time that the premises are used, turn the system on 2 hours before they arrived and turn it off, when the people are leaving. It's very important to check that the concentration is low enough with a radon monitor

## Further Information

More information about this system in the "Swiss Radon Guide" could be bought or downloaded from our website [WWW.CH-RADON.CH](http://WWW.CH-RADON.CH)

[www.bag.admin.ch/strahlen/ionisant/radon/pdf/d/Radonhandbuch-en.pdf](http://www.bag.admin.ch/strahlen/ionisant/radon/pdf/d/Radonhandbuch-en.pdf)

or direct from

Swiss Federal Office of Public Health

Division of Radiation protection

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