



# Roof Ventilation Calculation

How to calculate the number of vents required for a roof.

Building Control will usually specify High Level (Ridge) or Low Level (Eaves) airflow requirements for the roof – eg. 5mm continuous airflow, or 25mm continuous airflow.

To find out how many vents to install at what centres, we need to convert this figure from “mm of airflow” to “number of vents” and “centres for roof vents”.

## 1. Find the total airflow required.

How long is the ridge of the roof in mm?

Multiply the length in mm, by the continuous airflow required.

Eg – for a 10m long roof, requiring 5mm continuous airflow

Do  $10\text{m} \times 1000 = 10,000\text{mm}$  long roof

Then  $10,000\text{mm} \times 5\text{mm} = \mathbf{50,000\text{mm}^2}$  airflow.

## 2. Work out the number of vents required.

How many vents would it take to provide the same amount of airflow?

Divide the total airflow (calculated above), by the amount of airflow per vent.

Eg – for a CV20K vent with an airflow of 20,000mm<sup>2</sup>

Do  $50,000\text{mm}^2 \div 20,000\text{mm}^2$

This makes 2.5. We do not supply half vents, so **3 vents** would be required.

## 3. Work out the centres for the vents.

How far apart do the vents need to be?

Divide the length of the roof by the number of vents.

In this case  $10,000\text{mm}$  long roof  $\div$  3 vents = centres of **3,333mm**.