



## CONDENSATION IN YOUR ROOF SPACE

At Calder Stewart Roofing we occasionally see what appears to be a leaking roof but is actually a condensation problem in the roof space.

To understand condensation in a building it is helpful to compare it to a common experience - condensation or fogged up windows in your car. When the weather is humid and after recent rain, it doesn't take long for your windscreen to become fogged up with condensation. The reason this condensation forms, is that the humidity inside the car is increased as we breathe out water vapour.

When this warm air vapour touches the colder glass it forms condensation - water. The cure is to put the heater and fan on and to let fresh air in to ensure we are not recirculating the moist air.

Condensation in a building works in a similar way. The moisture can be generated by clothes dryers, gas fires, range hoods and bathroom fans vented into the roof space. The warm moist air condenses on the underside of the roofing iron, creating drips which appear to be a leaking roof.

This problem has increased in recent years, due to changes in home heating, (less chimneys), increased insulation and the use of aluminium joinery which have made buildings more airtight.

### **The Solution**

The first thing to do is to re-direct any vents opening into the roof space from moist areas, ie; range hoods, bathroom fans, dryer vents, etc. Bathroom fans and dryer vents can be ducted through exterior walls, soffit or the roof. Range hood flues should be extended up through the roof.

You should be aware that it is a fire risk to vent a range hood into the roof space as the air extracted is not only moist but greasy as well. Any fire on the range can quickly spread into the roof space and the rest of your building.

Also ensure the building has adequate ventilation to remove moist air. This can easily be achieved by opening windows and doors. If the building has a timber floor, check to see if the ground below is excessively moist, as this moisture can also travel up into the roof space to cause condensation. This problem can be solved by increasing the subfloor ventilation and laying polythene over the ground.

If there is still a problem then the next step is to ventilate the roof space, creating an air flow so the moist air is not trapped.

This can be achieved by the following methods:

- Roof air exhausts, three models are available:  
static vent, natural wind turbine or with a motorised fan.
- louvre vents in gable ends  
Attractive ready-made louvres are available and can add an extra feature to the exterior of the building.
- louvre vents in soffit linings.
- ridge ventilators.

Ventilating the roof space also has other advantages. These include:

- making ceiling insulation more effective.
- reduces roof noise due to metal expansion and contraction.

reduces decay of roof framing due to timber rot.



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