Some thoughts on downdraught.

Fire or stove hard to light or puffing smoke when it's windy?

Don't rush off to buy a different cowl or chimney fan. The solution could be easier and cheaper than you think.

Is your appliance fighting a battle?

Is your house double glazed, draught proofed and does it have solid, tiled or laminate flooring?

Do you have more than one chimney in the house?

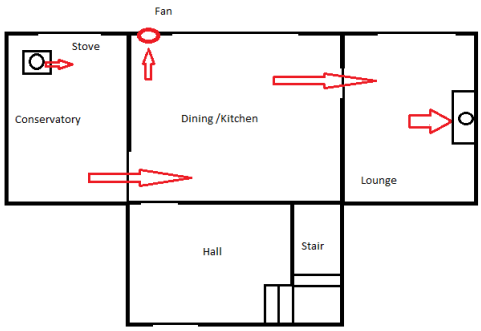
Do you have extract ventilation in your kitchen or bathrooms?

On many occasions down draught or lack of draught is blamed on lack of flue height or inappropriate terminal location. This may well be the case but sometimes a cure can be found without going to the expense of extending or relocating your flue.

Do a bit of investigation.

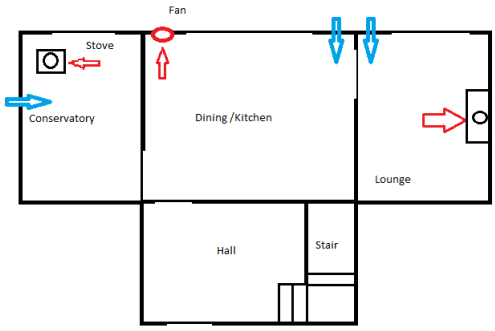
On windy days, do some of your doors close or slam themselves shut? This indicates the direction of airflow through the house. Is it away from your hearth or appliance?

When you have smoke coming out of your appliance we know where the air is coming from so try to find out where it's going. Closing a door to the point where the gap is very small will allow you to feel the air movement across that gap. You could also use smoke matches to see how the air is moving around your house.



You should now be in a position to draw a sketch plan showing the flow of air.

In the example opposite air is being removed via the flue in the Lounge and through the Kitchen extract. You need to establish a draught pattern where air is being made <u>available</u> to the stove.



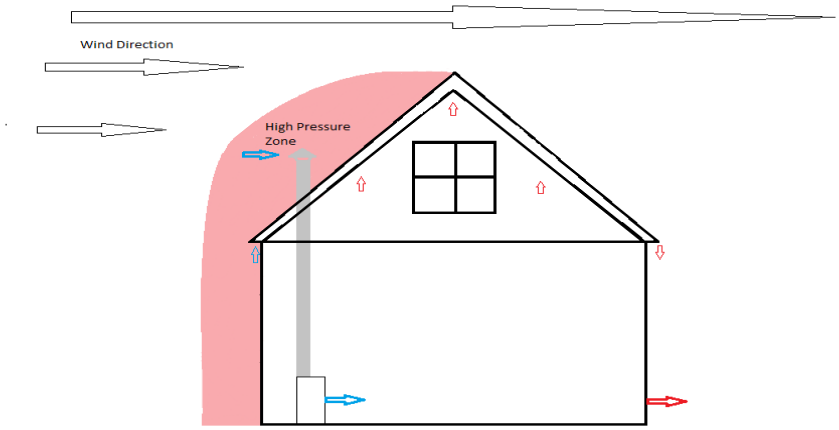
To do this, ensure the Lounge fire has its own supply of air and that the

kitchen extract is balanced and finally the stove has its own adequate supply of combustion air. Air bricks or core ventilators can be used but before you buy, try opening the Lounge and Kitchen windows. This will simulate the effect produced by introducing air via ventilation. The Conservatory should have its ventilation from outside anyway. So a solution to the problem may be something like this.

Still not done the trick! Don't buy a cowl or fan yet!

Let's have a look at the flue.

When wind blows on one side of the house it creates air movement through it.



Firstly, all modern roof spaces have to be provided with roof ventilation and this often done by holes or grilles in the soffit boards. In strong wind conditions this can feel like a gale blowing across your loft. This can extract air from the building via light fittings and loft hatches. This effect can be mitigated by reducing the number of openings on the leeward side of the building, or again by balancing the upstairs pressures in the building independently from the ground floor.

Secondly, the wind exerts a pressure on the windward side of the building creating a high pressure zone and at the same time a low pressure zone is created on the leeward side. Air moves to compensate for this pressure differential and, if the line of least resistance is the flue or chimney, the air will be forced downwards and out of the appliance. As flues generate little draught when they are cold, they are very sensitive to higher pressures at the terminal. The most practical solution in these circumstances is to extend the flue beyond the high pressure zone.

One further point, all flues should be sized properly. Don't just take the flue outlet size of the appliance. Consult with your local chimney expert or the manufacturer, before installation.

Finally there are some situations where turbulence is created around the top of flue for instance by overhanging trees and adjacent buildings. Having exhausted all other options cowls and fans will provide solutions, but always make sure it's not to the detriment of other appliances in the building.

Flue-Stox

chimney specialist....

For further information call 0161 848 8987