T: 1300 385 665 - 1300 EVKOOL
E: sales@evakool.com
or visit us at evakool.com.au

Cross Flow Ventilation Guide

Cross flow ventilation ensures that there is sufficient fresh air entering the space where your refrigerator is operating and that the stale hot air is extracted from the area. Fresh air is supplied to the space, through openings or vents, preferable from the outside to reduce the risk of hot air recycling through the condenser. The used hot air is extracted from the space either through natural convection or the use of an extraction fan. This results in cross flow ventilation.

Natural Convection

Warm air naturally will rise up. If you have vents of equal size at the top and bottom of your space, the warm air will naturally rise up and out the top vent which draws cooler air from outside through the bottom vent, this method naturally replaces the hot stale air with fresh cool air automatically. Cross flow, in one vent and out the other.

Extraction Fan

If your space is an odd size, shape or extraction has to go through cupboards or voids, then extraction fans are needed to create the flow of air from your cool air intake vent to your exhaust vent.

Fan Selection

Fan selection is a very important part of this process, the volume of the area where the fridge is kept, needs to be worked out. And the fan selected needs to be able to remove this volume, this is measured in litres per minute (Ltr/Min) or cubic feet per minute (CFM). The other is static pressure of a fan, and this is its ability to push or pull air through resistance. Eg. Through a vent, the fins on the condenser and around corners and obstructions.

As a general rule of thumb:

- 120mm DC fan (minimum).
- 7 blade and aggressive curved blades (air flow and static pressure).
- If noise is going to be an issue, 40dB-A and under is recommended.