



“IVAC” ENERGY SAVER SYSTEM

“IVAC” INFINITELY VARIABLE AIR CONTROL SYSTEM

The fume cupboard(s) shall be fitted with the energy saving, infinitely variable air control, “IVAC” system as supplied by **Conditionaire International Pty Limited**.

The system must infinitely vary the speed of the fan to maintain a constant velocity through the face opening of the fume cupboard, irrespective of sash position. The system must be capable of comparing velocity with fan speed and therefore indicate an airflow fault at any sash position if the face velocity falls below that required by AS2243.8. The minimum sash opening shall be 100mm.

A boost facility shall be incorporated on the control touch panel which, when activated, will override the “IVAC” system and increase the fan to maximum extraction rate. A flashing signal will show that the boost facility has been activated and the boost will automatically revert to “IVAC” control after a period of ten minutes or it may be manually reset at any time.

The energy and cost saving **Conditionaire “IVAC”** system complies with AS2243.8-2006 and AS2430.3-1991. The system was developed to dramatically reduce the quantity of conditioned air exhausted through fume cupboards.

The savings are achieved by infinitely varying the exhaust fan speed in relation to the sash position. An electronic circuit compares the face opening of the fume cupboard to the velocity in the duct, therefore reducing the air quantity, whilst maintaining a constant face velocity.

The table below shows the quantities of air exhausted and achievable savings using “IVAC.” The air quantities are in litres and based on a **Conditionaire 2015** operating for an eight (8) hour day.

SASH POSITION	WITHOUT “IVAC”	“IVAC” FITTED	DAILY SAVINGS
650mm (MAX)	13,384,800 L	13,384,800 L	
325mm	13,384,800 L	6,692,400 L	6,692,400 L
100mm (MIN)	13,384,800 L	2,574,720 L	10,810,080 L

USER BENEFITS

- ❖ Can reduce, by up to 81%, the quantity of conditioned air exhausted depending on the sash position.
- ❖ Reduces load on air conditioning system and thus the cost of running and maintenance.
- ❖ Eliminates the use of belt drive fans and associated maintenance
- ❖ “IVAC” is fully integrated with the **Conditionaire “SAFE-TEE”** controller.
- ❖ Fitted with a “boost” facility to override the “IVAC” at any time.
- ❖ Lower air quantities result in lower noise levels at fume cupboard.
- ❖ Can be fitted to existing fume cupboard installations.

