



APPLICATIONS NOTICE

temperzone limited
Auckland, NEW ZEALAND.
Phone 0-9-279 5250, Fax 0-9-275 5637
Email sales@temperzone.co.nz

temperzone australia pty ltd
Sydney, AUSTRALIA.
Phone (02) 8822 5700, Fax (02) 8822 5711
Email sales@temperzone.com.au

Form NS 006

TO: AUTHORISED DEALERS/DISTRIBUTORS
 N.Z. APPROVED INSTALLERS
 H.O., REG'L & AUST. MANAGERS
 APPLIC. NOTICE GENERAL LIST

ISSUE NO. : 05/02

DATE : 26 September 2002
FROM : T King/K Edwards

SUBJECT: **FRESH AIR TEMPERING APPLICATIONS**

UNITS: **OSA/ISD, OPA & PA UNITS**

Operation of units on "High Proportion and Full Fresh Air" is covered in depth in Application Notice 06/01.

However there is another application involving full fresh air that deserves some attention in it's own right. That is the "Tempering" ("Pre-Warming and/or "Pre-Cooling") of fresh air. This application has it's own unique issues e.g. supply air temperature control requiring protection against short cycling and the use of multiple compressors amongst others.

"TEMPERING" applications require the air only to be pre-cooled or pre-warmed to something close to the room air conditions, or some other pre-determined condition, that is then fed into the return air system such that the fresh air load is no longer a heavy load on the standard indoor units.

Therefore the duty requirement will be very low in proportion to the design airflow.

If a standard unit were used, then the unit would have too much capacity on the cooling cycle and would overcool. Conversely on the heating cycle the standard unit would have insufficient capacity.

Units may be able to be specially modified to meet a tempering pre-cooling application or a tempering pre-heating application, but it is unlikely that a single unit can be modified to suit both situations as some of the modifications required for one application are directly opposite to those required for the other.

Tempering applications must be referred to temperzone engineering for consideration and design. Do not use standard units in this application.