Anemostat®
A MESTEK COMPANY

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Model RME - Room Variable Air Volume Boxes
Installation, Balancing, Maintenance

The Anemostat Model RME single duct Relief Box provides energy-saving low pressure variable volume (VAV) temperature control at the lowest prime cost for the popular low and medium pressure packaged air handling, air conditioning units.

Temperature control is achieved by supplying only enough cool air to the space to satisfy the room thermostat demand. Excess cool air is returned directly to the return air plenum. The Model RME Relief Box should be used when variable volume temperature control is required, but fan inlet control or other automatic pressure control not feasible.

The Model RME Relief Box system is a constant volume system. A constant volume of conditioned air is supplied to all RME Boxes at all times. If Inlet balancing dampers are used to achieve this function, they should be located at least three diameters upstream of the RME Box. Caution should be used so that these balancing dampers do not create excessive noise.

Each RME Box should be balanced with full air flow being discharged to the conditioned space. Therefore, the thermostat should be set at the full cooling position.

With correct air flow (± 15%) being discharged to the conditioned space, measure the static pressure at the inlet of the RME Box.

Turn the thermostat to the full heating position (minimum cooling). so that all air is relieved to the ceiling plenum.

Now adjust the relief dampers located at the top of the box so that the inlet static pressure is the same as when the thermostat was at the full cooling position. Now the RME Box is balanced to deliver essentially constant air flow for any thermostatic demand position. Note that all downstream ductwork and diffusers must be complete before any balancing of the RME Box can commence.

Since RME boxes are designed with a minimum number of moving parts, there is no requirement for periodic maintenance.