

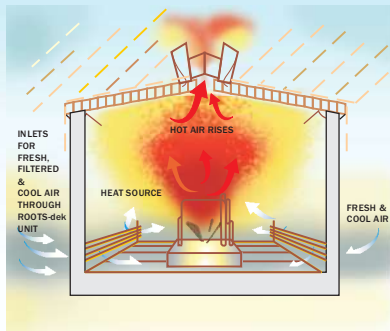
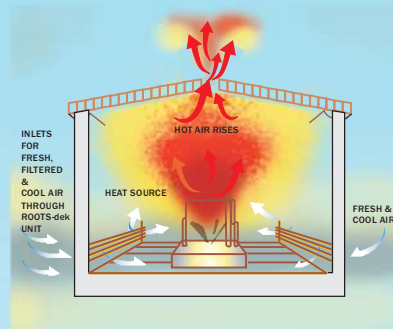


# GRAVENT

## NATURAL GRAVITY VENTILATION SYSTEM

### THE BEST WAY TO EXHAUST HEAT

The best way to exhaust heat from an industrial building is to let in fresh cool air at the working level, which absorbs heat from the process and rises into the roof space due to reduction in its specific gravity. If an opening is kept in the roof, this hot air will exhaust through it, drawing in fresh air through the low level inlets. This simple arrangement will however, let in rain and is also subject to back draught due to outside wind. The GRAVENT VENTILATOR has an effective weathering arrangement, which at the same time, offers the least resistance to flow of air. It's aerodynamic co-efficient is 0.45 (45%) and is 100% water proof and prevents

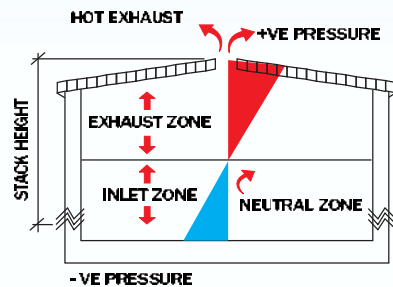


### NEUTRAL ZONE CONCEPT

A neutral zone exists in the building, with a positive pressure above and a negative pressure below. The location of this zone depends upon the ratio of the inlet area. The neutral zone is at a depth of half the stack height from the peak. If the inlet area is increased, the neutral zone moves down and vice -

### VENTILATOR SIZING

The GRAVENT VENTILATOR should be sized so as to maintain a layer of hot air above the working zone (2.5 mtrs, above the floor). The exhaust opening should be the restriction in the inlet-exhaust system. Since the exhaust opening rather than the inlet opening is the restriction, a temperature differential and thus a positive pressure is built up in the upper portion of the building. This leads to an



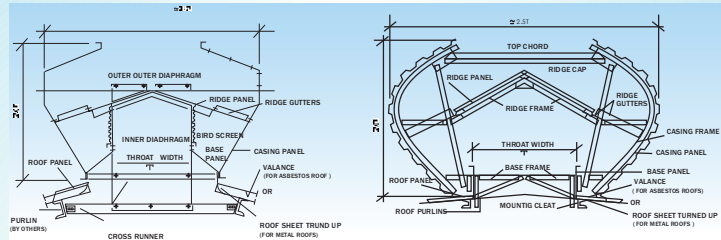
### INLET & EXHAUST AREA LOCATION

All inlets should be located in the negative pressure zone below the neutral zone.



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### SPECIFICATIONS

Supply and install Natural Roof Ventilator (GRAVENT or equivalent ) with a throat opening of ..... mm from GRID / AXIS..... to GRID / AXIS ..... that a total length of .... r.m. panelling material to be aluminium sheet (0.71 mm thk. ) or Galvanised sheet (0.60 mm thk. ) Panelling to be millfinished / pre-painted . Supporting structure to be Integral /



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