



Ventive Windhive[®]

COMBINING PASSIVE VENTILATION, HEAT RECOVERY AND SYSTEM INTELLIGENCE

Years of collaboration between Ventive, UCL, Brunel University and Imperial College has produced a breakthrough in ventilation system design.

Ventive Windhive is an innovative ventilation system that delivers 100% fresh air and comfortable temperatures, whatever the weather.

- ✓ **100% fresh air**
delivered to rooms,
no mixing of stale air
- ✓ **Heat recovery**
of up to 72%, providing
comfort at almost zero
energy cost
- ✓ **Connected** to the
Ventive cloud for real-time
performance monitoring and
proactive maintenance
- ✓ **Seamless design**
and silent operation, well
within noise limits
- ✓ **Year-round comfort**
enabled by night-time
cooling mode in summer,
and heat recovery mode
in winter

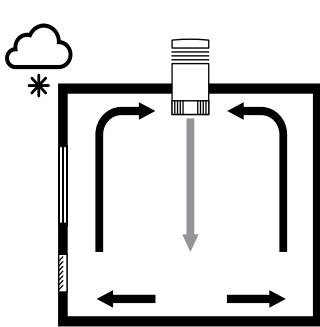


Passive Ventilation with Heat Recovery (PVHR[™]) is a patented method of delivering high thermal efficiency and consistent air flow using natural ventilation systems by securely transferring the heat from exhaust air to fresh incoming air.

How does Ventive Windhive work?

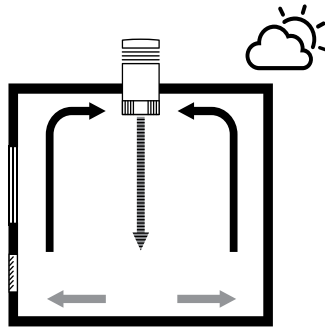


Ventive windhive has various operation modes that can be set to bespoke parameters to maintain air quality and ensure occupant comfort



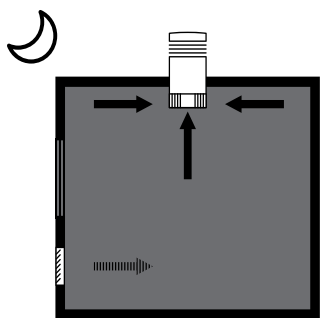
Full heat recovery

The windhive passes 100% fresh air to the classroom while reducing up to 72% of heat loss. In winter the dampers close to ensure heat is retained overnight.



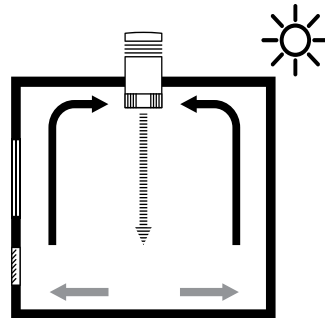
Bypass mode

The windhive dynamically adjusts to classroom temperatures and CO₂ levels to provide an optimal balance of heat recovery with air quality.



Passive cooling

Supplying fresh air through a wall louvre, the Windhive opens three dampers to draw warm air out of the room overnight. Capable of 4 air changes per hour, this method can reduce temperatures overnight by up to 10°C.



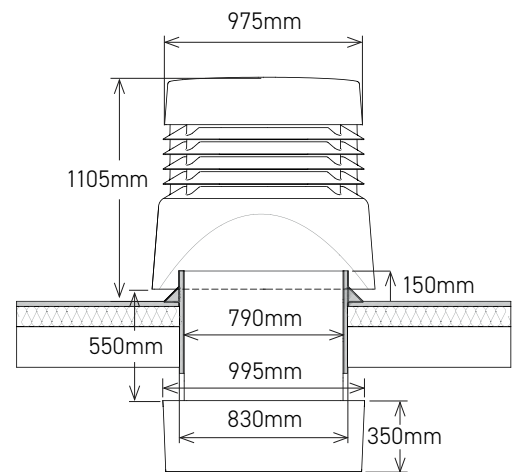
Active cooling*

Incoming summer air is cooled down when passing through the Heat Exchanger to maintain fresh air and prevent overheating.

*with an optional heat pump

Key:

 Cool air ■ Tempered air ■ Warm air



Performance:

Ventilation: 200 l/s, 0W
 Heat Recovery: 0W, up to 72% heat recovery
 Night time cooling: 4 ACH or 10°C
 Daytime cooling: Up to 2.2kW thermal output

Energy Use:

Ventilation: 0W
 Heat Recovery: 0W
 Night time cooling: 0W

Free Consultation:

Email us at: contact@ventive.co.uk quoting "Windhive" to get a free consultation on your next project. We offer a full design package that includes an IES report, thermal performance and BIM objects that provide precise modelling data.



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