



# Ventive Windhive<sup>®</sup>

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

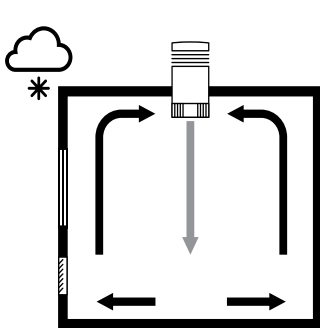


Passive Ventilation with Heat Recovery (PVHR<sup>™</sup>) is a patented method of delivering high thermal efficiency and consistent air flow using natural ventilation systems by securely transferring the heat from exhaust air to fresh incoming air.



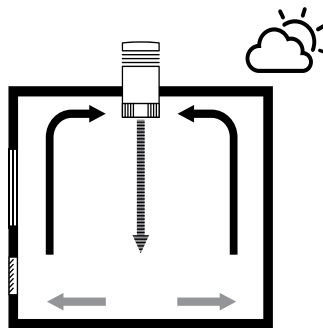
# How does Ventive Windhive work?

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



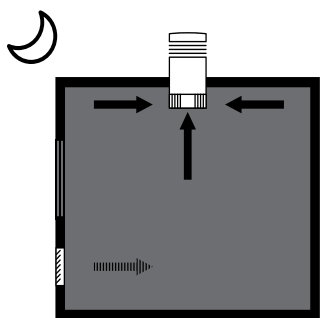
### Full heat recovery

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.



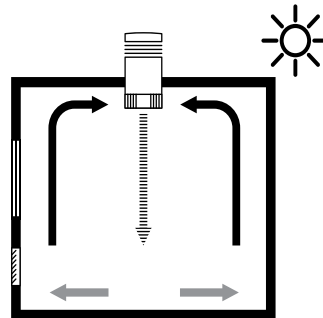
### Bypass mode

The windhive dynamically adjusts to classroom temperatures and CO<sub>2</sub> 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.



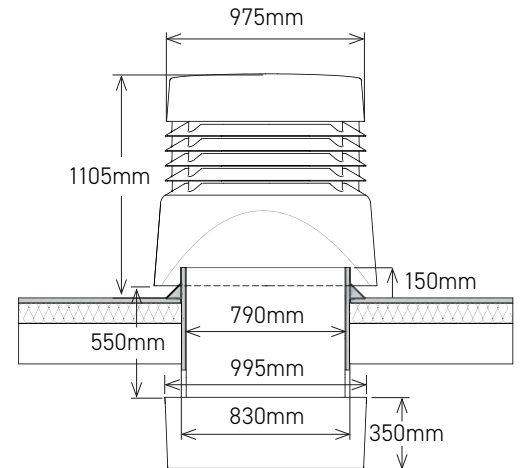
### Active cooling\*

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

### Learn More:

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



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