

Ventient Curtain Wall – SCW

Details

One advantage of using window trickle vents is that most rooms have at least one window so no additional penetrations in the building envelope is required to provide ventilation. Proctor Ventient™ trickle vents can be integrated into both windows and curtain walls.

Options include the Proctor Ventient™ SCW device which has a strong track record dating back to 2006, and has been used in high rise buildings in Japan over 40 stories high. This device can be mounted in any orientation and although it can be used with more conventional windows, the device is commonly installed as part of a curtain wall on the interior either at floor, sill or ceiling level.

Applications

Unlike conventional systems such as operable windows or louvres, Proctor Ventient™ can be left to get on with the job of providing fresh air circulation with less worry about negative impacts on indoor environment quality resulting from airborne contaminants, noise, high winds and rain ingress.

- Natural ventilation to reduce the need for cooling in office buildings and providing fresh air for educational and healthcare facilities.
- Providing ventilation for rooms or spaces that can remain unoccupied for periods throughout the year. Perfect for student accommodation and hotels.

Method of operation

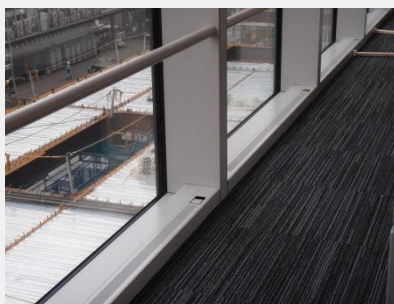
The Proctor Ventient™ SCW device is simple to operate by pulling up the lever to open and pushing flat to close ventilation.



Open



Closed



Ventient Curtain Wall Trickle Vent

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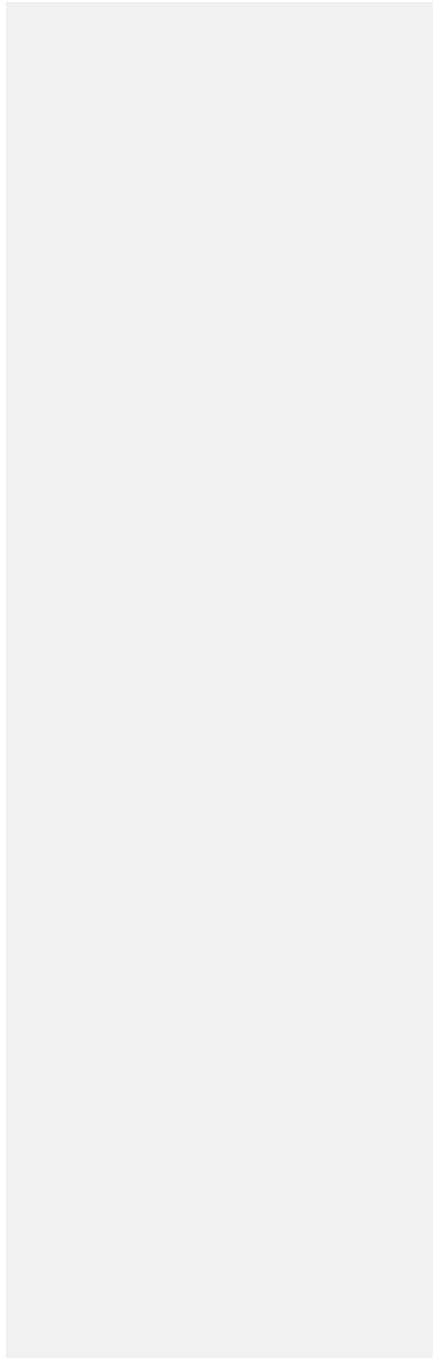
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- When occupants return home in the evening or after a few days away, they don't need to head straight for the air con control to get rid of warm humid and musty air. Ideal for residential buildings such as modern air tight medium and high rise developments.
- Known as night purge, on summer nights, outdoor air can enter the building via Proctor Ventient™ devices to lower interior temperatures and cool thermal mass, consequently reducing the energy requirements for air conditioning systems the following day.

Testing

- **Water tightness**
1,500Pa of wind driven rain in accordance with JIS A 1517 :
No water ingress when closed
- **Air Tightness**
100Pa of positive and negative wind pressure in accordance with JIS A 1516 :
No measurable air leakage
- **High wind loads**
3,600Pa of positive and negative wind pressure in accordance with JIS A 1515 :
less than 0.2mm deflection.
- **Noise**
Acoustic testing in accordance with JIS A 4706.





Material:	Extruded aluminium
Standard Colour:	Silver
Standard Dimensions (width):	500mm up to 1,500mm
Ventilation open area:	72cm ² (αA30cm ²) ~ 246.9cm ² (αA170.9cm ²)
Typical SMA passive temperature points:	Option A: Closed <12°C Fully Open >18°C Option B: Fully Open >24°C Closed <18°C
Strength test:	3,600Pa (JIS A 1515)
Air tightness:	100Pa (JIS A 1516)
Water tightness:	1,500Pa (JIS A 1517)
Acoustic performance:	T-2 Grade 30 (JIS A 4706)

Ventilation Volume

Ventilation device dimensions (width):	1000.0 mm
Ventilation volume @ ΔP=9.8Pa:	a = 111.0 m ³ /hr
Ventilation open area:	A = 170.9 cm ²
Effective open area:	αA = 78.0 cm ²
Ventilation volume:	Q = 111.0 (ΔP/9.8) ^{0.50} m ³ /hr