



As building standards improve and our focus on airtightness increases we can no longer rely on air-leakage as a mechanism for ventilation within the building envelope.

Operable windows can provide fresh air and natural ventilation, however studies have shown they are rarely used to maximise natural ventilation. Reliance on HVAC systems for airflow has become common place and poor Indoor Air Quality (IAQ) has become a growing concern for architects and building occupants.

Ventilation has been proven to achieve positive impacts on the health and productivity of building occupants. Air change rates are an

important consideration in building design and mechanisms to allow ventilation are essential.

The AWS Ventient™ solution incorporates state of the art trickle ventilation technology into Australia's leading range of residential and commercial windows and doors. A seamless solution to maximise health, efficiency and comfort in the building envelope.

## KEY FEATURES

- Temperature sensing flow control - Utilising a patented shape memory alloy spring system the AWS Ventient™ system automatically adjusts the size of the ventilation inlet as ambient temperature changes. Two models available suitable for use in cool to moderate or tropical climates.
- Insect, rodent and ember screens - AWS Ventient™ systems incorporate a screen to guard against insects, rodents and embers. The non-combustible mesh has a maximum aperture of 2mm to comply with bushfire codes. Screen can be removed for cleaning & maintenance
- Intumescent fire barrier - For further protection against fire intumescent seals can be specified which expand to fill the opening when extreme high temperatures are reached as experienced in a fire.
- Air filter - Dust and pollen filters are fitted to the interior side of the vent to reduce up to 68% of typical airborne dust. Filter can be removed for cleaning & maintenance.
- Integrated system - The AWS Ventient™ system is integrated into the window or door system which means no additional penetrations in the building envelope are required to install the system.
- Manual Override - The system can be manually closed by occupants if necessary.
- Sound absorption - Recognising that outside air also carries noise AWS Ventient™ systems can be specified with a proprietary SoundOUT™ diffuser fitted with sound wafers to trap and diffuse sound without obstructing airflow.

## WATER PERFORMANCE

- The ventilated subhead rated:
- 200Pa water without SoundOUT™ diffuser.
  - 450Pa water with SoundOUT™ diffuser.

## VENTILATION VOLUME

AWS Ventient Air flow test results based on single vent in sub head over 2400 x 1000mm Series 466 window.

With vent fully open and 6.off SoundOUT™ boxes fitted

	L/s	m³/h
10 Pa	6.17 L/s	22.21 m³/h
20 Pa	8.89 L/s	32.00 m³/h
30 Pa	11.20 L/s	40.32 m³/h
150 Pa	28.53 L/s	102.71 m³/h

With vent fully open, SoundOUT boxes not fitted (6.off 75 x 23 intake)

	L/s	m³/h
10 Pa	6.71 L/s	24.16 m³/h
20 Pa	9.56 L/s	34.42 m³/h
30 Pa	11.72 L/s	42.19 m³/h
150 Pa	27.47 L/s	98.89 m³/h

## ACOUSTIC PERFORMANCE

Acoustic testing on a typical commercial fixed window fitted with ventilated subhead demonstrated the following performance results:

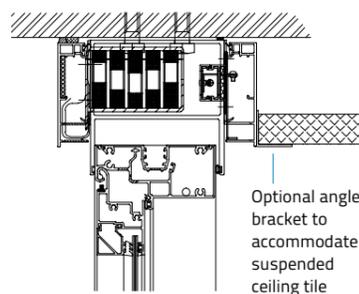
Typical commercial fixed window 6.38mm Laminated Glass

Window only no ventilated subhead	RW 34
Window + ventilated subhead	RW 26
Window + ventilated subhead + SoundOUT™ difuser	RW 29

Typical commercial fixed window 10.38mm Laminated Glass

Window only no ventilated subhead	RW 34
Window + ventilated subhead	RW 27
Window + ventilated subhead + SoundOUT™ difuser	RW 30

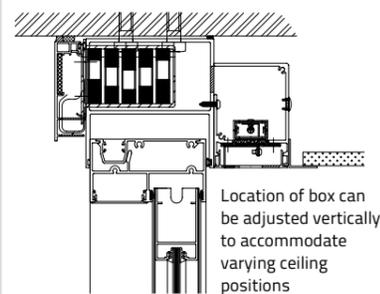
From our testing we can conclude that the ventilation opening drops the sound performance of the product by up to 6 to 7 Rw's. The addition of the SoundOUT™ difuser improves this result by 3 Rw's.



Optional angle bracket to accommodate suspended ceiling tile

### Standard Subhead Installation 100mm

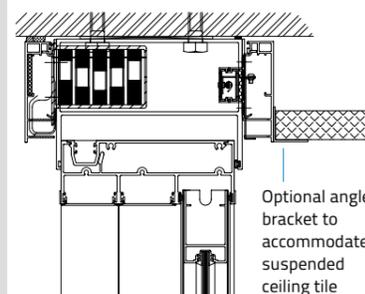
Standard subhead configuration with optional angle bracket to accept suspended ceiling panels. This configuration is compatible with AWS 100mm platform windows. Ideal for commercial applications.



Location of box can be adjusted vertically to accommodate varying ceiling positions

### Subhead with Vent box 100mm

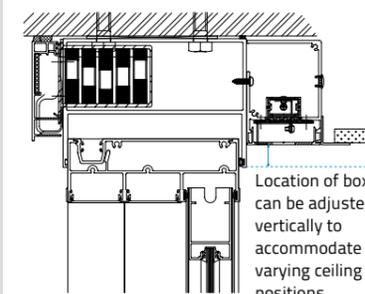
Subhead configuration with internally mounted vent housing box, allows a integration with a flush plasterboard ceiling. This configuration is compatible with AWS 100mm platform windows. Ideal for commercial applications.



Optional angle bracket to accommodate suspended ceiling tile

### Standard Subhead Installation 150mm

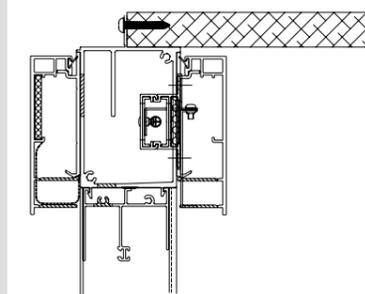
Standard subhead configuration with optional angle bracket to accept suspended ceiling panels. This configuration is compatible with AWS 150mm platform doors. Ideal for commercial applications.



Location of box can be adjusted vertically to accommodate varying ceiling positions

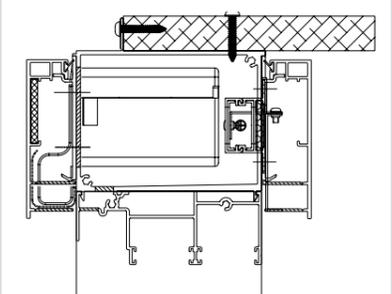
### Subhead with Vent box 150mm

Subhead configuration with internally mounted vent housing box, allows a integration with a flush plasterboard ceiling. This configuration is compatible with AWS 150mm platform doors. Ideal for commercial applications.



### Head extension 50mm

Head extension designd for use in residential applications, Ventient device is housed directly above the window system. This configuration is compatible with Vantage Residential Series 50mm platform windows.



### Head extension 100mm

Head extension designd for use in residential applications, ventient device is housed directly above the window system. This configuration is compatible with AWS 100mm platform windows.