



## The Technical Data



# Ventrolla Specification - VR90 & VPSS

The Ventrolla system consits of two parts. The first phase is the renovation process which treats the wood and ensures the window is fully operational. The second phase is the performance upgrade, by installing our unique draught proofing system, the Ventrolla Perimeter Sealing System (VPSS).

## Phase 1 - Window Renovation

Ventrolla have developed a unique Wood Repair System (VR90) that has been designed to extend the life of wooden windows and doors.

VR90 wood repair is a two part epoxy resin designed to impart the original strength to tenon joints and to fill cavities in sills, which it achieves through bonding with the original timber.

- The system's core benefits are:
- It retains the majority of the original timber
  - Provides long lasting repairs
  - Fast acting so minimises standing time
  - Reduces Carbon Footprint of repair
  - Enables existing profile to be matched

In the event of excessive deterioration or if beyond economical repair, we replace the timbers, as required.

## Application

All windows are inspected and surveyed prior to quotation and commencing work. At installation, sashes are removed and the condition of the timber, glass and pulleys are fully assessed.

- Decaying wood is removed back to the sound timber
- VR90 WS stabiliser is applied to provide anchorage
- VR90 filler is applied to fill gaps / joints and moulded to match the window profile
- All sash cords are replaced and the pulleys serviced ensuring smooth operation

NB: In the case of larger repairs or where economics dictate, we splice in new timber, or, in the case of a rotten sill, we can replace it completely.

## Phase 2 - Performance Upgrade

The Ventrolla Perimeter Sealing System (VPSS) has been specifically designed to be installed into any shape or size wooden window or door.

The system upgrades the performance of original wooden windows and doors without affecting either their appearance or character.

As shown in Diagram A overleaf, the system is installed to provide a seal on all faces and becomes an integral part of the window or door.

- The system's core benefits are:
- Virtually eliminates draughts and leaks
  - Eradicates sash rattle
  - Improves Window's Energy Rating by up to 30%
  - Helps reduce noise problems
  - Ensures smooth operation of the window
  - Recognised by English Heritage, Historic England, Historic Scotland and Cadw

## Application

A Perimeter Sealing System using Weatherfin two-piece parting bead, compromising of a pile carrier fitted into a U-section, is installed in and around the sashes.

- The sealing system:
- Conforms to BS 7386: 1997
  - Conforms to BS EN 12207 : 2000 and BS6375-1: 2009, Class 3
  - Is manufactured from multifilament polypropylene yarn that is silicon treated to be water repellent and UV stabilised
  - Can be supplied in any colour (additional cost may apply)

The sealing system is installed to the top of the box, mid rail, bottom rail, parting bead and the staff beads. See Diagram A overleaf for further details.

The sashes are weighed and the weights adjusted to ensure the window is correctly balanced and operates smoothly.

All exposed and bare wood is painted with one coat of white acrylic primer to BS5082. Final decorative painting is by others.

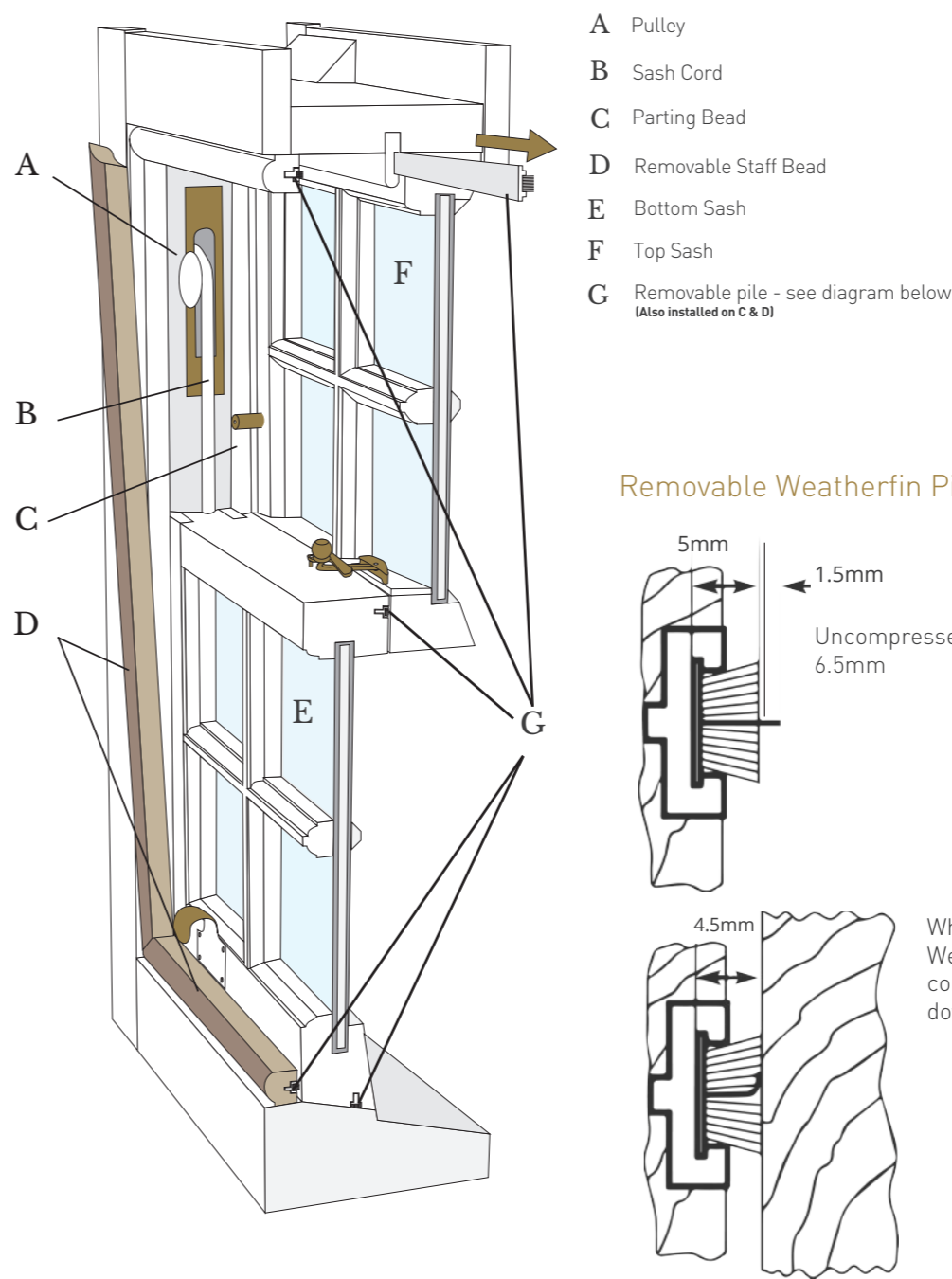
The sashes are reinstalled and staff beads fitted (if the easy release Sash Removal System is being installed removable staff beads are fitted and corked). Windows are then be checked for smooth operation.

## Independent Testing

- VPSS achieved the highest requirement of BS6375-1 2009, Class 3 (Tested to 600 Pa)
- VPSS provides up to a 30% improvement in a Windows Energy Rating (WER)
- Air change rates reduced to 0.4 air changes per hour
- Noise reduction levels of up to 6-10 dB(A) range
- Has been independently tested and proven to fall within the 6 to 10dB noise reduction range

# Ventrolla Renovated Window

## Diagram A: Ventrolla Renovated Window



## Sash Removal System (SRS)

Is discreetly mounted in the side of the sash, allowing safe and easy removal of both the upper and lower sashes, to therefore give free access to the window box frame, and is not visible either internally or externally during the normal operation of the sash window.



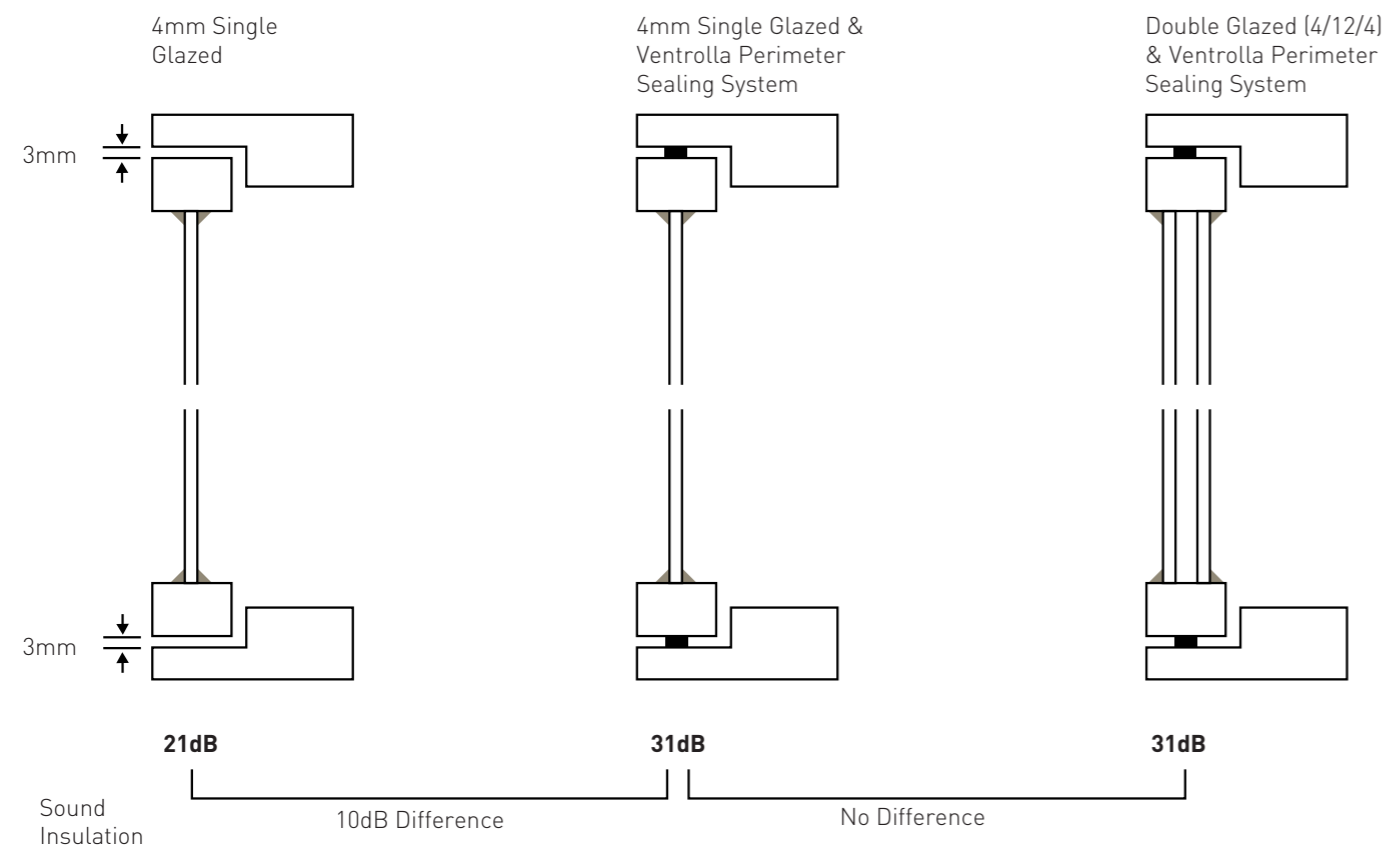
Close up of brake in it's engaged state



Close up of the brake itself unengaged and free to move

# Ventrolla Specification

Diagram B: Noise Reduction With VPSS



## Noise Control

There is misrepresentation that double glazing provides sound insulation due to the two panes of glass. In fact, it is the seal that offers the improvement, which as Diagram B above shows, is equalled by the Ventrolla Perimeter Sealing System (VPSS).

## Environmental Issues

Because the Ventrolla system retains much of the original material its Carbon Footprint is significantly less than replacement windows.

The Green Facts are:

- Replacement windows consume up to 40 times the energy of renovating windows
- Window renovation retains the invested energy within the original window
- Minimal waste is sent for recycling or to landfill
- Window Energy Rating is improved by 30%

If you would like further information about the Ventrolla Sash Window Renovation Service, or copies of our RIBA NBS Specifications, please call 0800 0277 454 or visit our website [www.ventrolla.co.uk](http://www.ventrolla.co.uk)

## Accreditations



# Ventrolla

By Design

SASH WINDOW SPECIALISTS

For information on our services,  
offices, case studies and news, visit  
our website at :

[www.ventrolla.co.uk](http://www.ventrolla.co.uk)

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Or call us on:  
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