

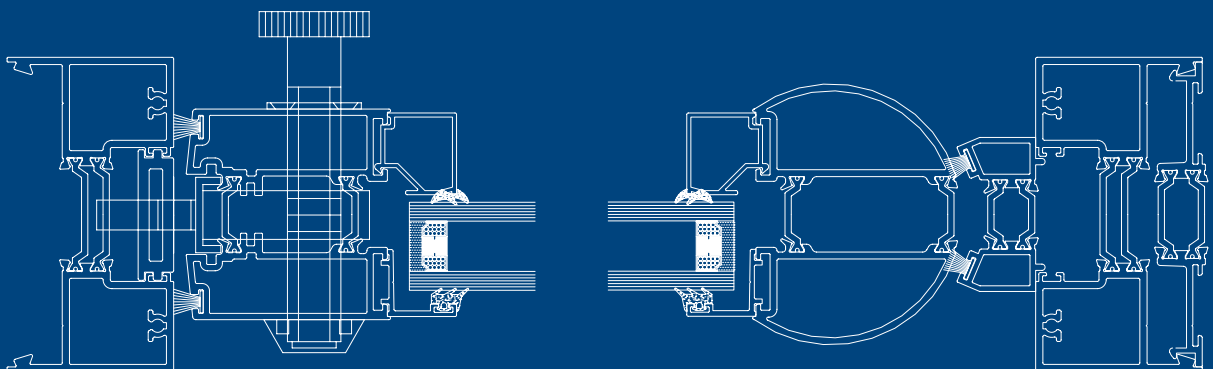


**smart**  
architectural aluminium

## Smart Wall

Smart Wall is a thermal shop front screen and door system suitable for all types of ground floor treatment where enhanced thermal performance is required. The system is ideal for use in schools, colleges and other educational buildings.

- U Value 1.8 W/m<sup>2</sup>K for Smart Wall Doors
- U Value 1.4W/m<sup>2</sup>K for Smart Wall Screens
- LPS 1175 Level 2; Enhanced Security Performance
- BS EN 1627 Level 3; Enhanced Security Performance
- BS 6375 Part 1: 2009 Weather rated, anti-finger trap doors
- PAS 24:2012 Security rated doors





## Project

### ss Great Britain Visitor Centre

Great Western Dockyard, Gas Ferry Road, Bristol

## Architect

### Stride Treglown

Promenade House, Clifton Down, Bristol BS8 3NE

## Main Contractor

### Linden Homes

86 Kingskerswell Road, Newton Abbot, Devon

## Summary

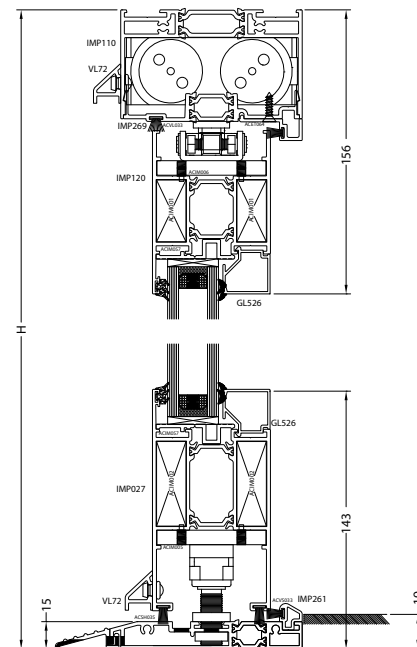
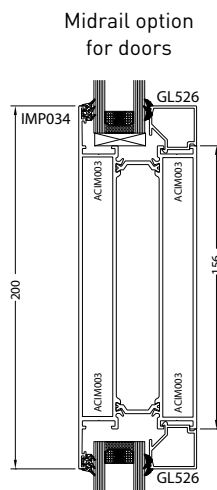
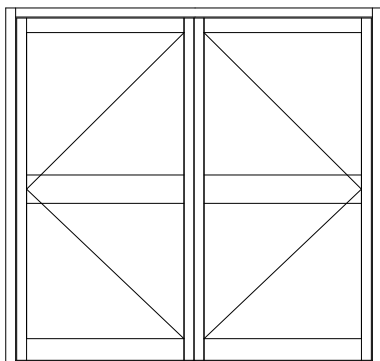
This high profile project, which was completed in 2010, was part new-build and part refurbishment, with the scheme ultimately delivering a new visitor centre and museum on the site as well as 145 apartments. The new building was designed to reflect Brunel's original Steam Engine Factory that was built in the 1830s, with the brickwork and window and door detailing echoing its original features.

A combination of some 600 Smart Visoline tilt & turn and casement windows and Visoline doors, was installed in the building, with the window combination design producing the look of 'dummy doors' on the building's balconies. The front elevation also appears to feature arch-headed windows, although these are actually square-headed on the inside, with feature panels on the external face forming the arch. Internally, the building's walkways feature narrow window 'strips' in the kitchens of the apartments, allowing light and air into rooms, without compromising privacy.

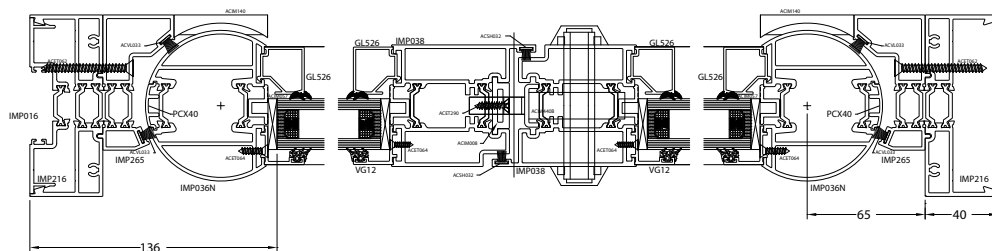


## Examples of Typical Sections

### Smart Wall – Double Rebated Door with Anti-Finger Trap



Vertical section

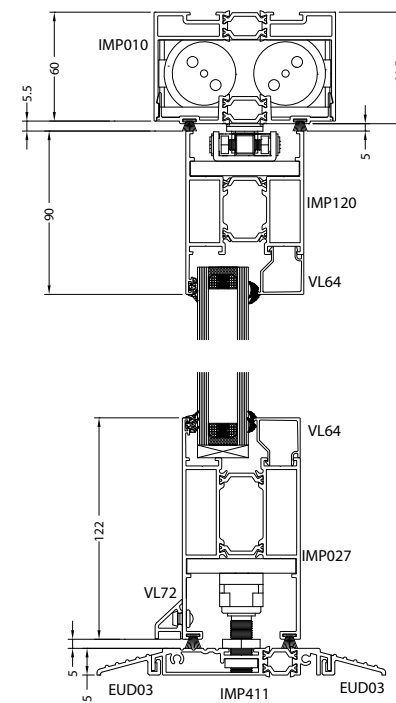
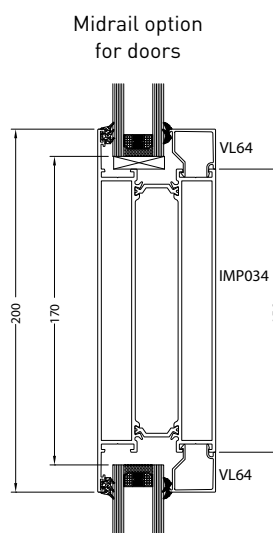
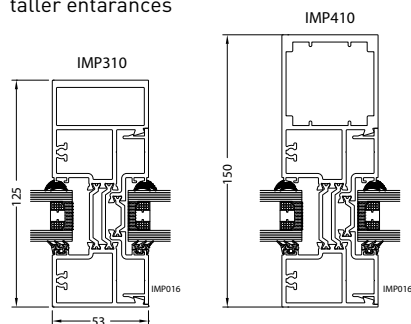


Horizontal section

### Smart Wall – Double Door with Anti-Finger Trap

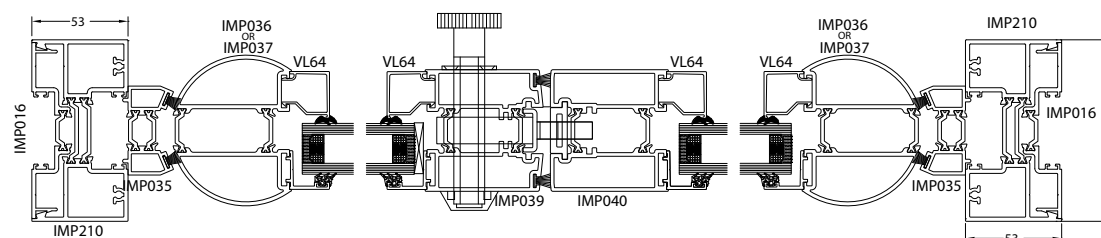
Shown in heritage style window

Bolstered mullions for taller entrances



Vertical section

Horizontal section



# Smart Wall

Smart Wall has recently been successfully tested to LPS 1175 level 2 and BS EN 1627 Level 3 for enhanced security performance making the door one of the best performing fully thermally broken screen and entrance doors available in the UK. Screen work is either beaded or pocket glazed. Smart Wall doors are weather rated to BS 6375 and are available with anti-finger trap door sections and drainable low thresholds. All profiles feature polyamide barriers to maximise thermal performance and can be internally or externally glazed. Unlike non-thermal alternatives, Smart Wall is available in dual colour from an extensive range of standard and non-standard finishes. Smart Wall complies with the latest requirements of Document L for thermal transmittance.



## Features

- Fully rebated swing door with anti-finger trap
- Thermally broken, heavy duty doors & screens
- 30kg Dynamic impact test
- 6kN Static load test
- Security grade 6 locking mechanism
- Locking bolt withstands 10kN side load
- Polyamide thermal break
- Achieves U value 1.8W/m²K
- Internally beaded sash
- Anti-finger trap
- Thermally broken low threshold

## Application

- Swing, hinged & automatic commercial entrance doors and ground floor treatment

## Finish

Polyester powder coat to marine quality as standard

## Technical Performance

|                |                                                                           |                    |
|----------------|---------------------------------------------------------------------------|--------------------|
| <b>U Value</b> | 1.8 W/m²K for Smart Wall Doors<br>U Value 1.4W/m²K for Smart Wall Screens |                    |
|                | <b>Rebated Door</b>                                                       | <b>Screen Work</b> |
| <b>Air</b>     | Class 2, 300Pa                                                            | Class 4, 600Pa     |
| <b>Water</b>   | Class 7a, 150Pa                                                           | Class 9a, 600Pa    |
| <b>Wind</b>    | Class A5, 2000Pa                                                          | Class A4, 1600Pa   |

Document L Compliant

## Dimensions

|                        |        |
|------------------------|--------|
| <b>Frame Width</b>     | 53mm   |
| <b>Frame Depth</b>     | 100mm  |
| <b>Max Sash Height</b> | 2500mm |
| <b>Max Sash Width</b>  | 1150mm |
| <b>Max Sash Weight</b> | 80kg   |

## Smart Systems Limited

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IMS130SMW.201410

## Glass

24-32mm double or triple glazed sealed units

## Test Certification

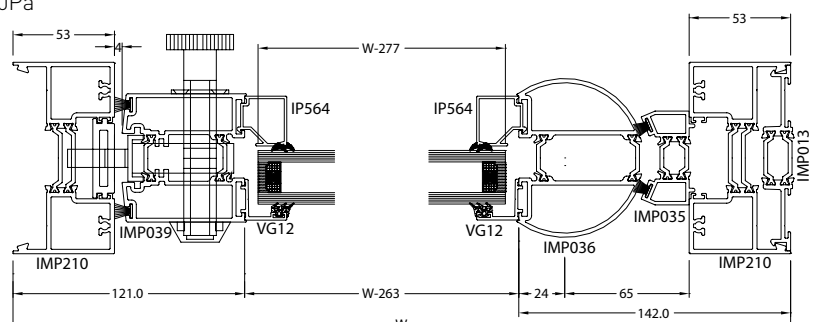
|                             |                               |
|-----------------------------|-------------------------------|
| <b>LPS 1175 Level 2</b>     | Enhanced Security Performance |
| <b>BS EN 1627 Level 3</b>   | Enhanced Security Performance |
| <b>PAS 24: 2012</b>         | Security Performance          |
| <b>BS 6375 Part 1: 2009</b> | Weather Performance           |



Rebated Door

Screen Work

|                            |                        |                     |                       |                       |
|----------------------------|------------------------|---------------------|-----------------------|-----------------------|
| <b>U Value</b><br>1.8W/m²K | <b>Document L</b><br>✓ | <b>Air</b><br>300Pa | <b>Water</b><br>150Pa | <b>Wind</b><br>2000Pa |
| <b>U Value</b><br>1.4W/m²K | <b>Document L</b><br>✓ | <b>Air</b><br>600Pa | <b>Water</b><br>600Pa | <b>Wind</b><br>1600Pa |



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