

Product Specification & Installation Guide.



GRANADA
secondary glazing

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Product Index.



Specialists
in Bespoke
Secondary
Glazing

www.grnadaglazing.com



Product Index.

Classic

4mm Glazing

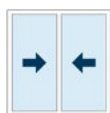
Enhanced

6mm – 10.8mm Glazing (28mm DGU available in Hinged Unit)

Horizontal Sliding

HS2

2 Panel



MAX WIDTH
4,900mm
OR MAX HEIGHT
2,700mm

HS3

3 Panel



MAX WIDTH
4,900mm
OR MAX HEIGHT
2,700mm

HS4

4 Panel



MAX WIDTH
4,900mm
OR MAX HEIGHT
2,700mm

HS5

5 Panel



MAX WIDTH
4,900mm
OR MAX HEIGHT
2,700mm

MAX WEIGHT: 80KG

Vertical Sliding

BVS

Balanced vertical slider

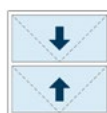


MAX WIDTH
1,600mm
OR MAX HEIGHT
3,300mm

MAX WEIGHT: 45KG

TBVS

Tilt-in balanced vertical slider



MAX WIDTH
1,600mm
OR MAX HEIGHT
3,300mm

SPBVS

Slide Past Balanced Vertical Slider



MAX WIDTH
1,600mm
OR MAX HEIGHT
3,300mm

Lift Out

LO Lift Out Unit

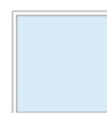
MAX WIDTH
3,250mm
OR MAX HEIGHT
3,250mm



MAX WEIGHT: 50KG

Insert Panel

INS



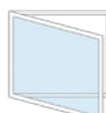
MAX WIDTH
1,200mm
OR MAX HEIGHT
2,000mm

Hinged Unit

Hinged unit will house up to 28mm sealed unit*

SLHU

Slimline Hinged Unit



MAX WIDTH
1,500mm
OR MAX HEIGHT
3,000mm

MAX WEIGHT:
100KG**HDHU**

Hinged Unit



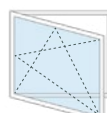
MAX WIDTH
1,500mm
OR MAX HEIGHT
3,000mm

MAX WEIGHT:
180KG**DHU**

Double Hinged Unit



MAX WIDTH
3,000mm
OR MAX HEIGHT
3,000mm

MAX WEIGHT:
180KG**HUTT**Hinged Unit
Tilt & Turn

MAX WIDTH
1,700mm
OR MAX HEIGHT
2,800mm

MAX WEIGHT:
170KG

Optional extras

- Curved head window
- Gothic head window
- Trickle vent
- Acoustic tile board
- Raked corners

All windows are supplied fully assembled and ready to install. Unites comprise of an aluminium outer frame joined to a seasoned timber surround.

Please note: Stable door and fixed sash variations of our Hinged products are also available. Speak to a member of our team for more information.

*Please note: 28mm DGU is not available with our Slimline Hinged Units.

Horizontal Slider.

A slim and versatile horizontal sliding system that provides easy access for cleaning and ventilation, and is suitable for treating most window types. Available with 2, 3, 4 or 5 sliding panels.

Features

- Slim, unobtrusive aluminium profile
- Smooth sliding action on panels for easy operation using brass wheels or rollers on panels over 40kg
- All panels lift out for complete access to primary window
- Excellent noise and thermal insulation
- Suitable to have bevelled timber subframe to fix in to bays/splayed reveals
- Can be coupled or stacked with other units in the range to treat large areas of glazing or long runs of windows
- Available in right hand (RH) or left hand (LH) orientation

Specification

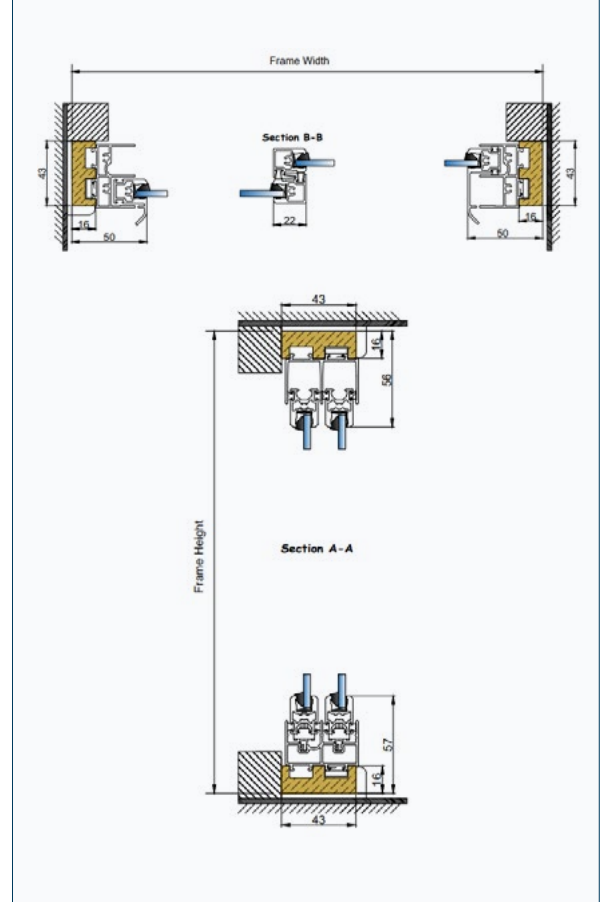
- Glazing options: 4mm in our Classic range
- Glazing options: 6mm – 10.8mm in our Enhanced range
- Choice of timber subframes
- Pre-drilled and countersunk for face fix and reveal fix through timber. Reveal fix through aluminum is self-drilled
- Woolpile inserted in to panel section groove to create outer frame seal
- Gasket colour – white as standard, black also available upon request
- PVCu trims supplied for the face of the units to create a neat, clean finish
- Standard colour 9003 Satin White

Variations of Basic Unit

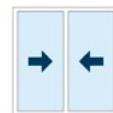
- Locking push button available to secure panels (fitted to the interlock sections)
- Standard and acoustic trickle vents are available
- Unit available with no subframe – reveal fix only and self-drilled
- Larger trims and timber trims available at additional cost
- Variety of stock colours available, plus access to over 200 RAL Colours (charges apply).

 **Optimum Noise Reduction: 52dB (Rw)**
 Using 6mm toughened primary glazing and 6.8mm acoustic laminate secondary glazing.

 **Optimum U Value: 1.868 W/m²K**
 Using 4mm toughened Low E glazing, with 80mm glass-to-glass



HS2



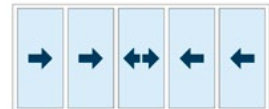
HS3



HS4



HS5



Balanced Vertical Slider (BVS).

Vertical sliding secondary glazing units designed specifically to accompany sash windows. These discreet units house self-supporting panes that remain in place at any chosen position.

NEW: Slidepast feature available, which enables both panels to slide entirely past one another, ensuring the whole of the secondary unit can be accessed and cleaned.

Features

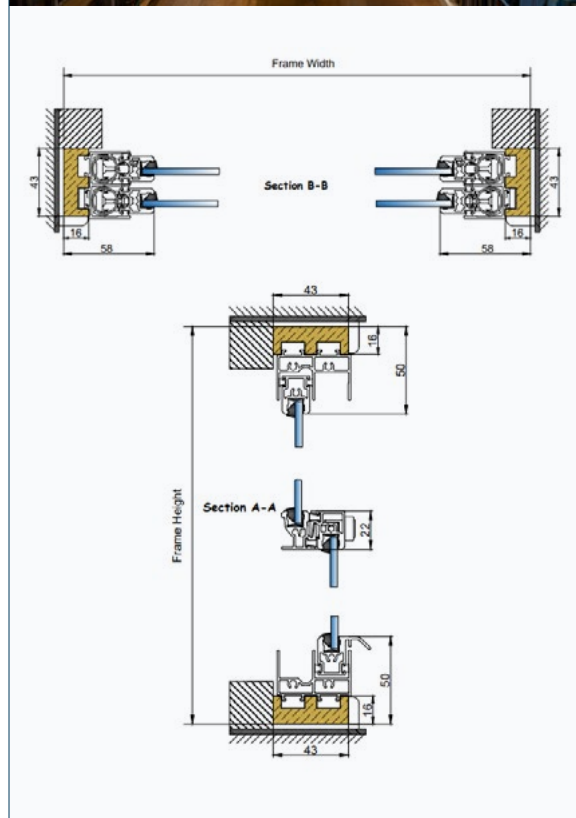
- Slim, unobtrusive aluminium profile
- Smooth sliding action utilising spring balances to ensure ease of use and to support the weight of panel
- Excellent noise and thermal insulation
- Enhanced security
- Suitable for arched applications
- Suitable to have bevelled timber subframe to fix in to bays/splayed reveals
- Can be coupled or stacked with other units in the range to treat large areas of glazing or long runs of windows

Specification

- Glazing options: 4mm in our Classic range
- Glazing options: 6mm – 10.8mm in our Enhanced range
- Choice of timber subframes
- Pre-drilled and countersunk for face fix and reveal fix through timber. Reveal fix through aluminum is self-drilled
- Woolpile & Q-Lon inserted into panel section groove for additional noise and thermal insulation
- Gasket colour – white as standard, black also available upon request
- PVCu trims supplied for the face of the units to create a neat, clean finish
- Standard colour 9003 Satin White
- Push button lock located centrally on mid rail

Variations of Basic Unit

- Slide past version of the unit available
- Standard and acoustic trickle vents are available
- Larger trims and timber trims available at additional costs
- Variety of stock colours available, plus access to over 200 RAL Colours (charges apply)
- Curved in plan option available



BVS



Optimum Noise Reduction: 50dB (Rw)

Using 6mm toughened primary glazing and 6.8mm acoustic laminate secondary glazing.



Optimum U Value: 1.868 W/m2K

Using 4mm toughened Low E glazing, with 80mm glass-to-glass

Tilt-In Balanced Vertical Slider (TBVS).

Discreet units with self-supporting panes. Tilt-in facility enables each secondary sash to be independently released from the outer frame and pivoted inwards through almost 180°.

Features

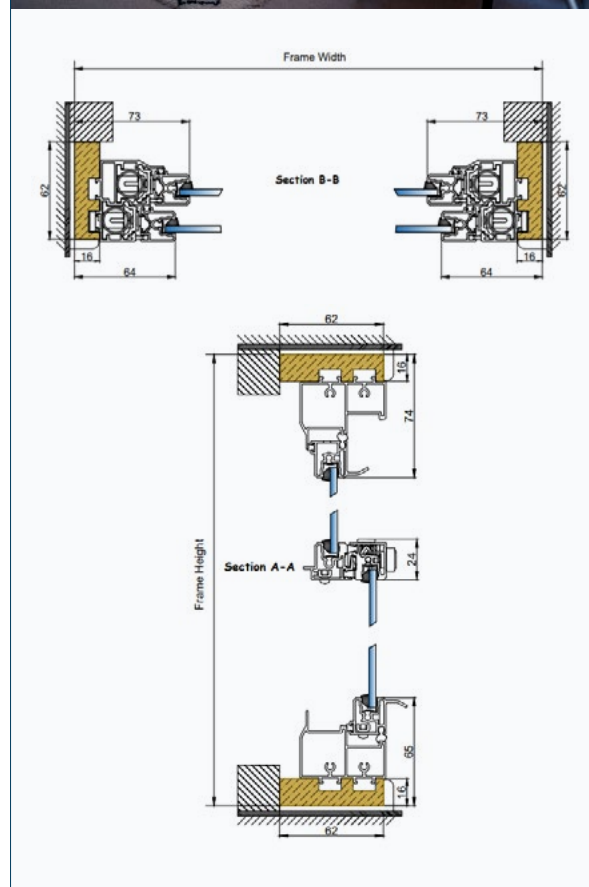
- Slim, unobtrusive aluminium profile
- Smooth sliding action utilising spring balances to ensure ease of use and to support the weight of panel
- Both panels tilt-in to allow easy access for cleaning and maintenance
- Excellent noise and thermal insulation
- Restrictors as standard
- Suitable to have bevelled timber subframe to fix in to bays / splayed reveals

Specification

- Glazing options: 4mm in our Classic range
- Glazing options: 6mm – 10.8mm in our Enhanced range
- Choice of timber subframes
- Pre-drilled and countersunk to suit either face fix or reveal fix
- Woolpile & Q-Lon inserted into panel section groove for additional noise and thermal insulation
- Gasket colour – white as standard, black also available upon request
- PVCu trims supplied for the face of the units to create a neat, clean finish
- Standard colour 9003 Satin White

Variations of Basic Unit

- Standard and acoustic trickle vents are available
- Tilt-in balanced vertical slider can be coupled and stacked using a heavy duty frame coupling section or timber to timber
- Larger trims and timber trims available at an additional cost.
- Variety of stock colours available, including all RAL options



TBVS



Optimum Noise Reduction: 50dB (Rw)

Using 6mm toughened primary glazing and 6.8mm acoustic laminate secondary glazing.



Optimum U Value: 1.868 W/m2K

Using 4mm toughened Low E glazing, with 80mm glass-to-glass

Hinged Unit (HDHU).

With 60mm sightlines and no transoms or mullions, our hinged units offer an unobstructed view beyond the window. The unit features single handle operation and multi-point locking. Top hung opening also available.

Features

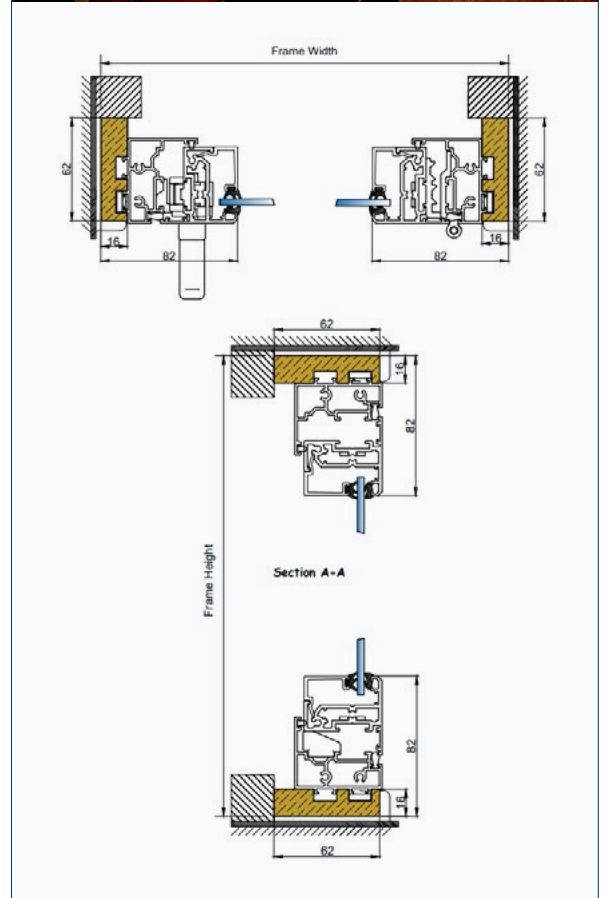
- Slim, unobtrusive aluminium profile
- Easy opening due to internal gearing
- Multi-point locking for enhanced security
- Excellent noise and thermal insulation
- Suitable to have bevelled timber subframe to fix into bays/splayed reveals
- Can be coupled or stacked with other traditional units in the range to treat large areas of glazing or long runs of windows
- Can be supplied with restrictors
- Butt hinges allow for 360° opening

Specification

- Glazing options: 4mm in our Classic range
- Glazing options: 6mm – 10.8mm in our Enhanced range
- 28mm DGU also available as part of our Enhanced range
- Choice of timber subframes
- Pre-drilled and countersunk for face fix and reveal fix through timber. Reveal fix through aluminum is self-drilled
- Q-Lon seal to front, woolpile seal to back
- Gasket colour – white as standard, black also available upon request
- PVCu trims supplied for the face of the units to create a neat, clean finish
- Standard colour 9003 Satin White

Variations of Basic Unit

- Various handle options (locking Espag as standard)
- Restrictors available
- Invisi-hinges available (Slimline Hinged Unit excluded)
- Standard and acoustic trickle vents are available
- No subframe version available
- Low Threshold, Stable Door, Double Hinged, Fixed and Tilt & Turn variations available
- LH, RH and top orientation available
- Variety of stock colours available, including all RAL options



HDHU



Optimum Noise Reduction: 52dB (Rw)

Using 6mm toughened primary glazing and 6.8mm acoustic laminate secondary glazing.



Optimum U Value: 1.868 W/m²K

Using 4mm toughened Low E glazing, with 80mm glass-to-glass

Slimline Hinged Unit (SLHU).

A super-slim variation of our Hinged Unit product. The unit features single handle operation and multi-point locking. Side and base opening also available.

Features

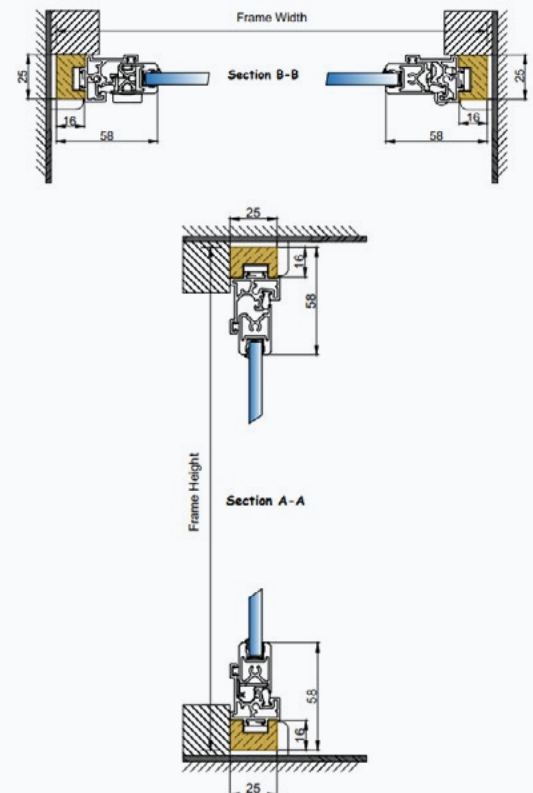
- Slim, unobtrusive aluminium profile
- Improved noise and thermal installation
- Suitable to have bevelled timber subframe to fix into bays/splayed reveals
- Can be coupled or stacked with other traditional units in the range to treat large areas of glazing or long runs of windows
- Can be supplied with restrictors

Specification

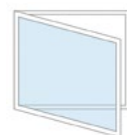
- Glazing options: 4mm in our Classic range
- Glazing options: 6mm – 10.8mm in our Enhanced range
- 28mm DGU also available as part of our Enhanced range
- Choice of timber subframes
- Pre-drilled and countersunk for face fix. Reveal fix through aluminum is self-drilled
- Q-Lon seal to front, woolpile seal to back
- Gasket colour – white as standard, black also available upon request
- PVCu trims supplied for the face of the units to create a neat, clean finish
- Standard colour 9003 Satin White

Variations of Basic Unit

- Butt hinges as standard for 180° opening. Restrictor hinge also available
- Standard and acoustic trickle vents are available
- No subframe version available
- Can be coupled and stacked using a heavy duty frame coupling section or timber to timber
- LH & RH orientation available
- Variety of stock colours available, including all RAL options



SLHU



MAX WIDTH
1,400mm
MAX HEIGHT
2,400mm



Optimum Noise Reduction: 52dB (Rw)

Using 6mm toughened primary glazing and 6.8mm acoustic laminate secondary glazing.



Optimum U Value: 1.868 W/m2K

Using 4mm toughened Low E glazing, with 80mm glass-to-glass

Lift Out (LO).

A removable secondary glazing panel within its own outer frame, which fixes to the face or reveal of the existing primary window. An ideal solution when only occasional cleaning access is required.

Features

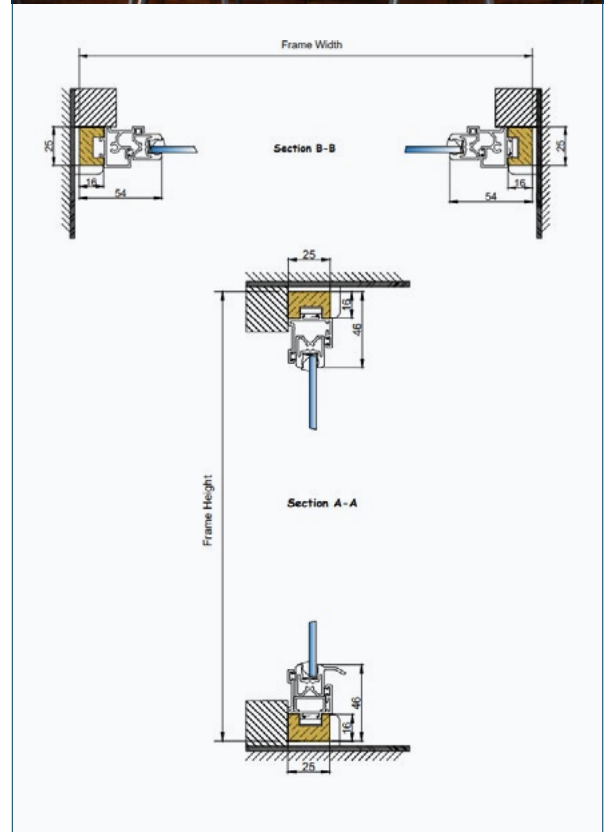
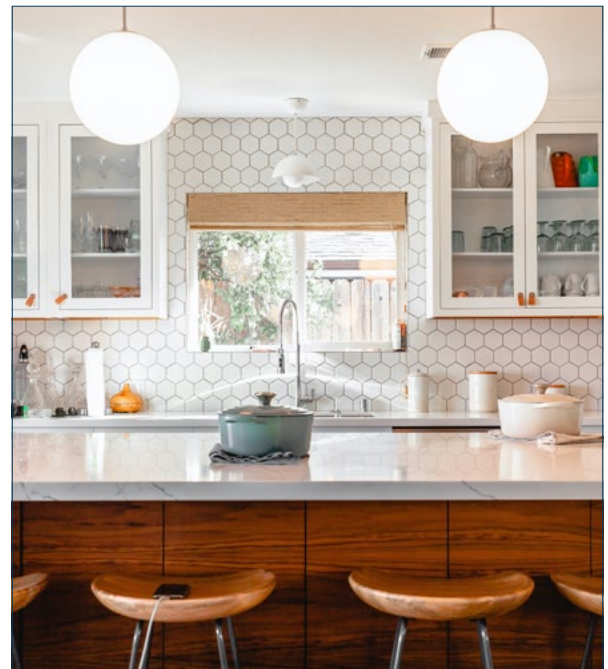
- Slim, unobtrusive aluminium profile
- Economical option to secondary glaze primary window
- Excellent noise and thermal insulation
- Suitable for arched and shaped applications
- Suitable to have bevelled timber subframe to fix in to bays/splayed reveals
- Can be coupled or stacked
- Easy to remove panel for cleaning and maintenance of primary window

Specification

- Glazing options: 4mm in our Classic range
- Glazing options: 6mm – 10.8mm in our Enhanced range
- Choice of timber subframes
- Pre-drilled and countersunk for face fix. Reveal fix through aluminium is self-drilled
- Woolpile inserted in to panel section groove to create outer frame seal
- Gasket colour – white as standard, black also available upon request
- PVCu trims supplied for the face of the units to create a neat, clean finish
- Standard colour 9003 Satin White

Variations of Basic Unit

- Standard and acoustic trickle vents are available
- Larger trims and timber trims available at additional costs
- Variety of stock colours available, plus access to over 200 RAL Colours (charges apply).
- Locking option available



Optimum Noise Reduction: 49dB (Rw)

Using 6mm toughened primary glazing and 6.8mm acoustic laminate secondary glazing.



Optimum U Value: 1.868 W/m2K

Using 4mm toughened Low E glazing, with 80mm glass-to-glass

LO



Insert Panel.

A fixed unit that can be directly and permanently fitted to a primary window or door. Ideal for windows that do not require any cleaning access.

Features

- Slim, unobtrusive aluminium profile
- Most economical secondary system in the range
- Quick and simple installation
- Improved noise and thermal insulation
- Enhanced security
- Suitable for arched, shaped and bespoke application
- Ideal for use where space is limited - i.e. behind shutter

Specification

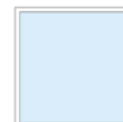
- Glazing options: 4mm in our Classic range
- Glazing options: 6mm – 10.8mm in our Enhanced range
- 16mm x 24mm aluminium section - no timber subframe, self-drilled
- Gasket colour – white as standard, black also available upon request
- Standard colour 9003 Satin White

Variations of Basic Unit

- Variety of stock colours available, plus access to over 200 RAL Colours (charges apply).



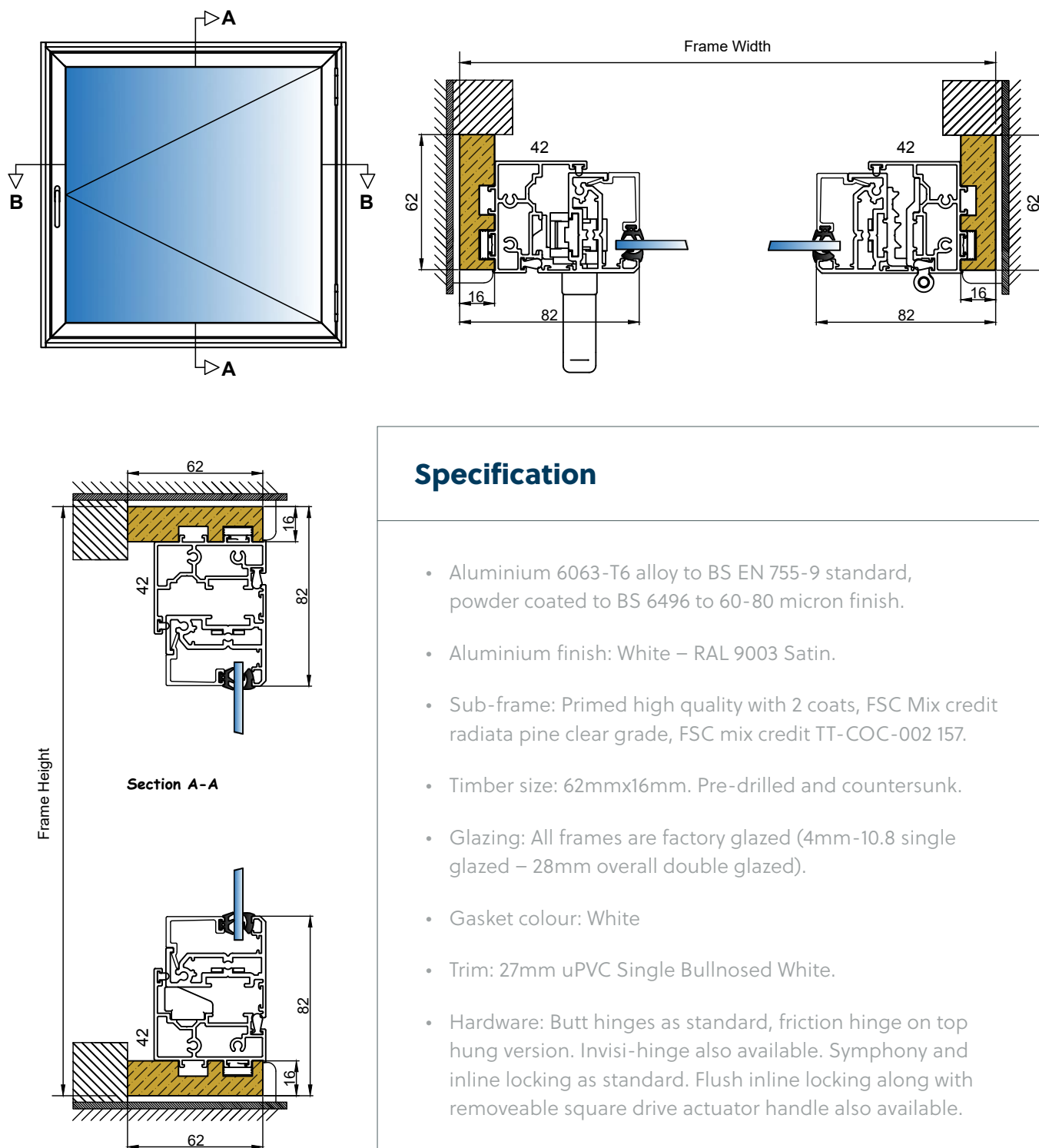
INS



MAX WIDTH
1,200mm
MAX HEIGHT
2,000mm

HDHU-R Hinge Unit, Face Fix.

4mm glass

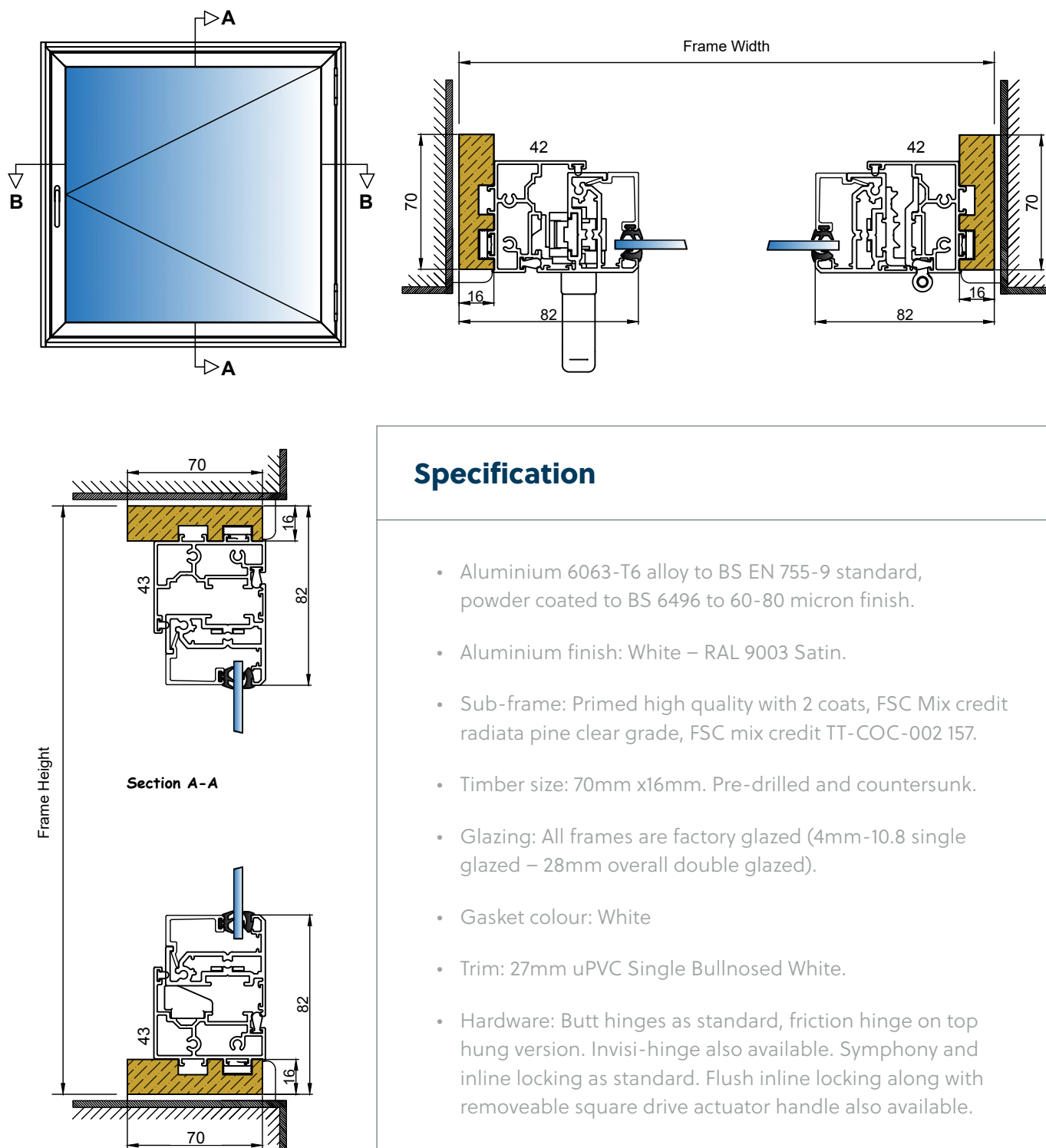


Specification

- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60-80 micron finish.
- Aluminium finish: White – RAL 9003 Satin.
- Sub-frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber size: 62mmx16mm. Pre-drilled and countersunk.
- Glazing: All frames are factory glazed (4mm-10.8 single glazed – 28mm overall double glazed).
- Gasket colour: White
- Trim: 27mm uPVC Single Bullnosed White.
- Hardware: Butt hinges as standard, friction hinge on top hung version. Invisi-hinge also available. Symphony and inline locking as standard. Flush inline locking along with removeable square drive actuator handle also available.
- Orientation: Left hand, right hand and top hung options.
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

HDHU-R Hinge Unit, Reveal Fix.

4mm glass

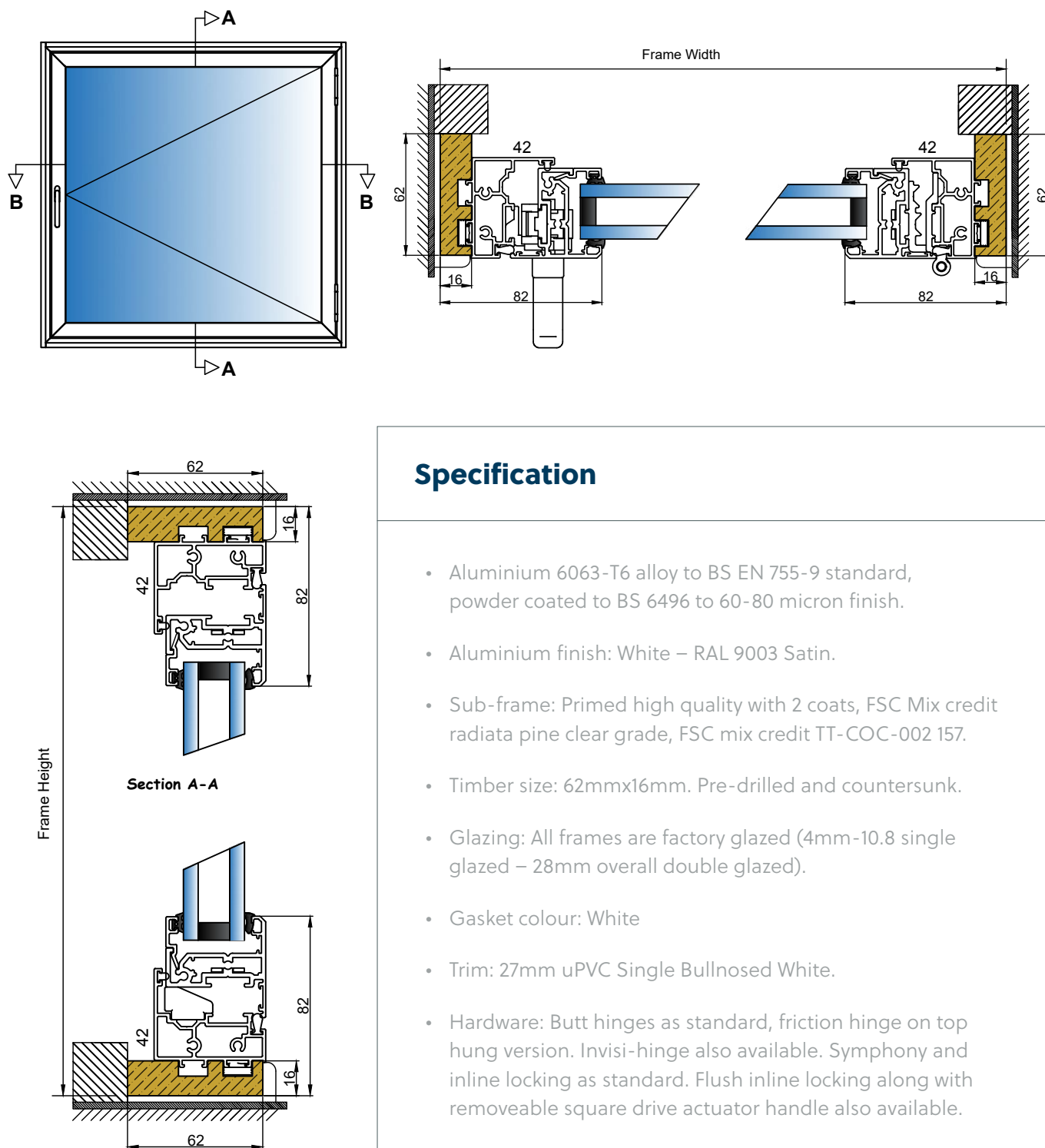


Specification

- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60-80 micron finish.
- Aluminium finish: White – RAL 9003 Satin.
- Sub-frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber size: 70mm x16mm. Pre-drilled and countersunk.
- Glazing: All frames are factory glazed (4mm-10.8 single glazed – 28mm overall double glazed).
- Gasket colour: White
- Trim: 27mm uPVC Single Bullnosed White.
- Hardware: Butt hinges as standard, friction hinge on top hung version. Invisi-hinge also available. Symphony and inline locking as standard. Flush inline locking along with removeable square drive actuator handle also available.
- Orientation: Left hand, right hand and top hung options.
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

HDHU-R Hinge Unit, Face Fix.

Double Glazed 28mm glass

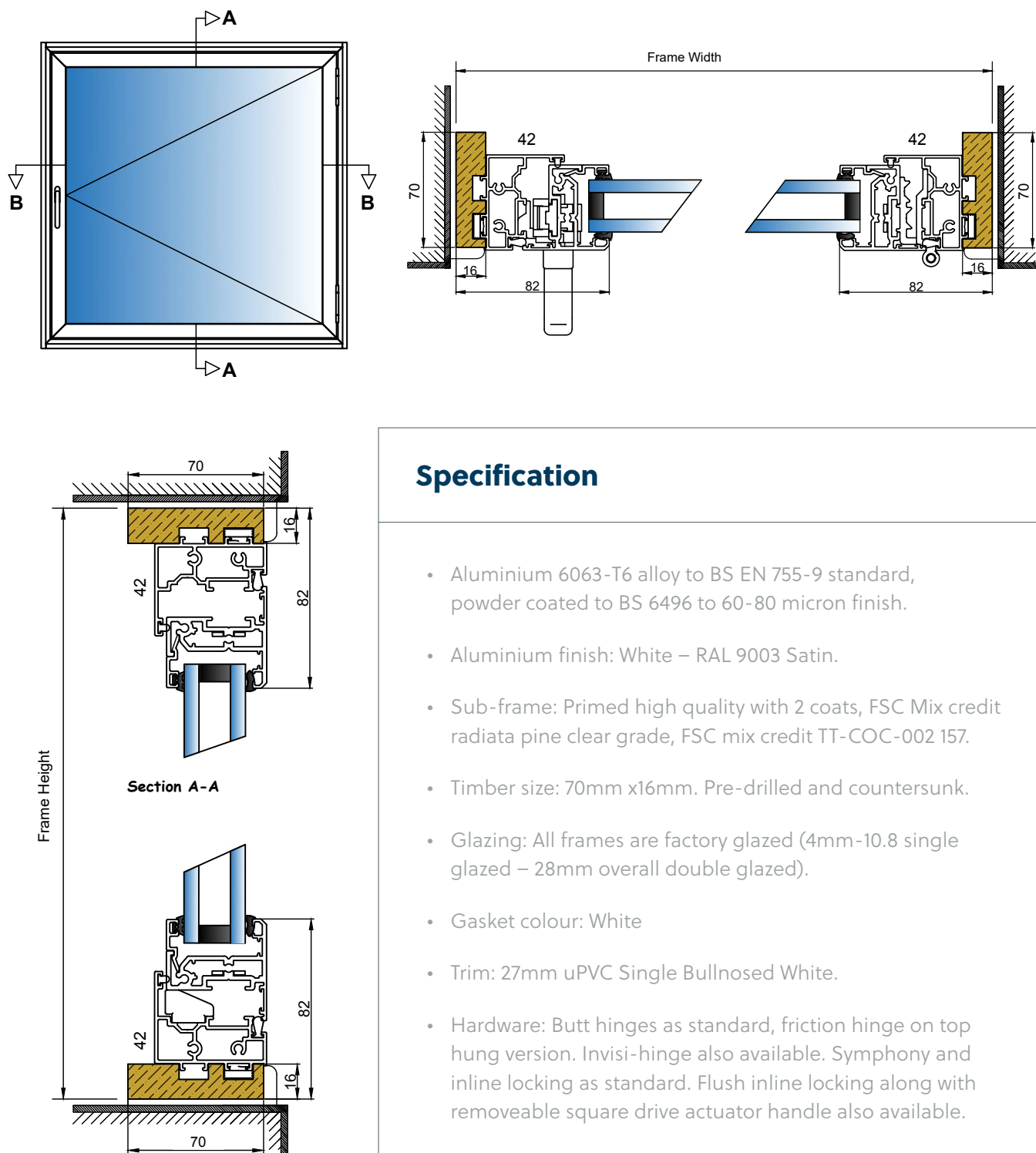


Specification

- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60-80 micron finish.
- Aluminium finish: White – RAL 9003 Satin.
- Sub-frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber size: 62mmx16mm. Pre-drilled and countersunk.
- Glazing: All frames are factory glazed (4mm-10.8 single glazed – 28mm overall double glazed).
- Gasket colour: White
- Trim: 27mm uPVC Single Bullnosed White.
- Hardware: Butt hinges as standard, friction hinge on top hung version. Invisi-hinge also available. Symphony and inline locking as standard. Flush inline locking along with removeable square drive actuator handle also available.
- Orientation: Left hand, right hand and top hung options.
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

HDHU-R Hinge Unit, Reveal Fix.

Double Glazed 28mm glass

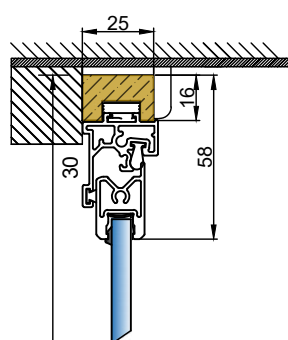
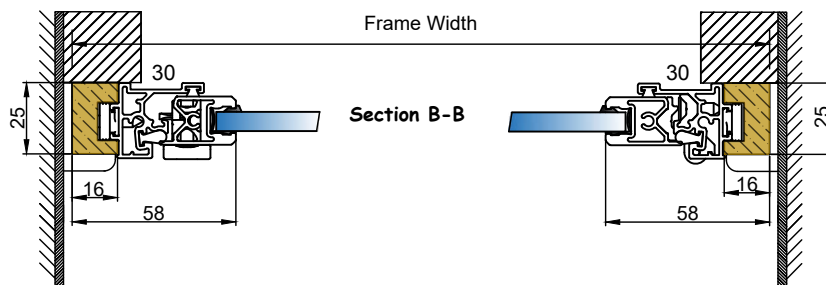
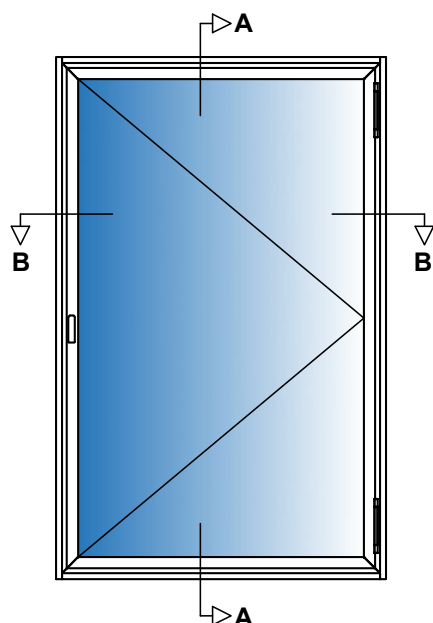


Specification

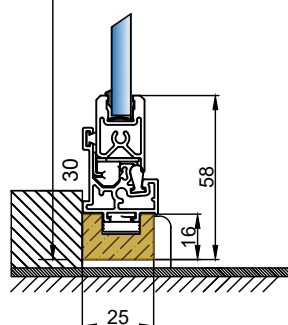
- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60-80 micron finish.
- Aluminium finish: White – RAL 9003 Satin.
- Sub-frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber size: 70mm x16mm. Pre-drilled and countersunk.
- Glazing: All frames are factory glazed (4mm-10.8 single glazed – 28mm overall double glazed).
- Gasket colour: White
- Trim: 27mm uPVC Single Bullnosed White.
- Hardware: Butt hinges as standard, friction hinge on top hung version. Invisi-hinge also available. Symphony and inline locking as standard. Flush inline locking along with removeable square drive actuator handle also available.
- Orientation: Left hand, right hand and top hung options.
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

SLHU-RH Hinge Unit, Face Fix.

Up to 6.8mm glass



Section A-A

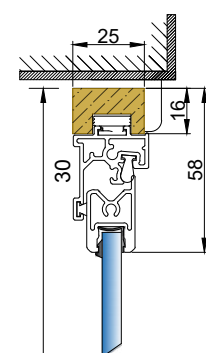
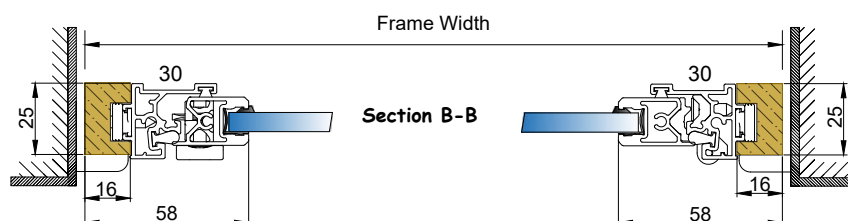
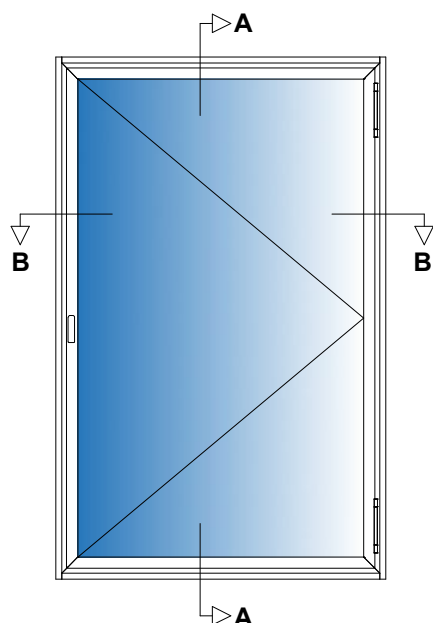


Specification

- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60 - 80 micron finish.
- Aluminium Finish: White - RAL 9003 Satin.
- Sub-Frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber Size: 25mm x 16mm. Pre-drilled and countersunk.
- Glazing: All frames are factory glazed. (4mm-6.8 single glazed).
- Gasket colour: White.
- Trim: 27mm uPVC Single Bullnosed White.
- Hardware: Butt hinges as standard. Flat pendant handle as standard, locking button as an option.
- Orientation: Left hand and right hand options.
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

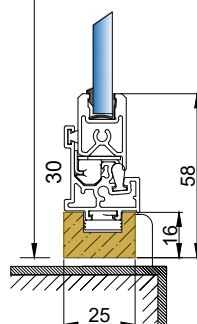
SLHU-RH Hinge Unit, Reveal Fix.

Up to 6.8mm glass



Frame Height

Section A-A

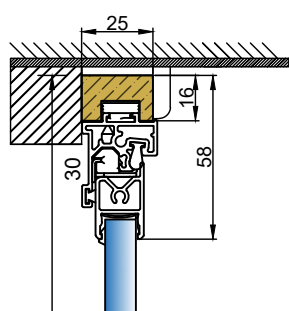
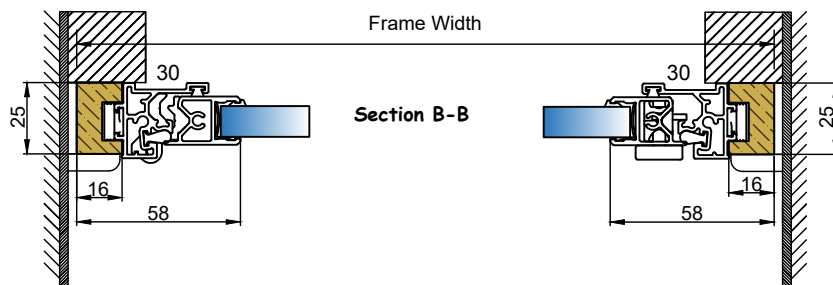
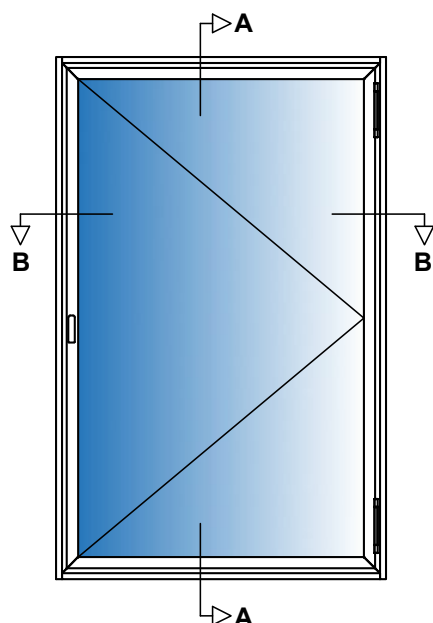


Specification

- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60 - 80 micron finish.
- Aluminium Finish: White - RAL 9003 Satin.
- Sub-Frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber Size: 25mm x 16mm. Self drill.
- Glazing: All frames are factory glazed. (4mm-6.8mm single glazed).
- Gasket colour: White.
- Trim: 27mm uPVC Single Bullnosed White.
- Hardware: Butt hinges as standard. Flat pendant handle as standard, locking button as an option.
- Orientation: Left hand and right hand options.
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alternations to specification without notice.

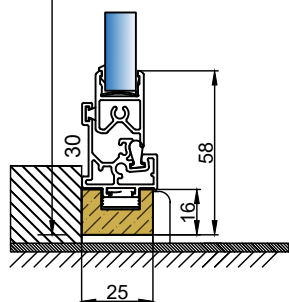
SLHU-RH Hinge Unit, Face Fix.

Up to 10.8mm glass



Frame Height

Section A-A

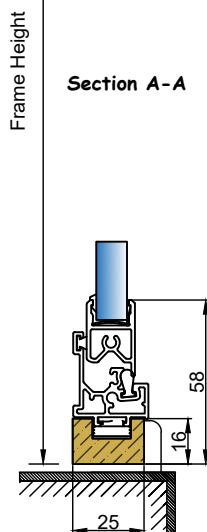
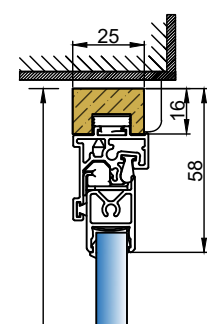
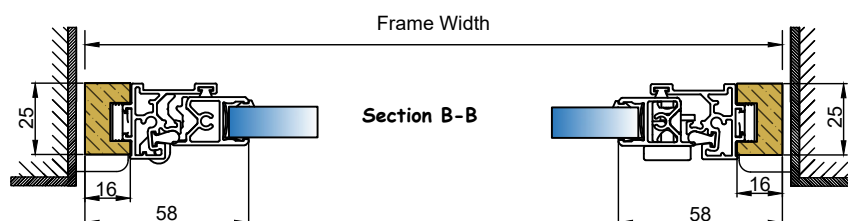
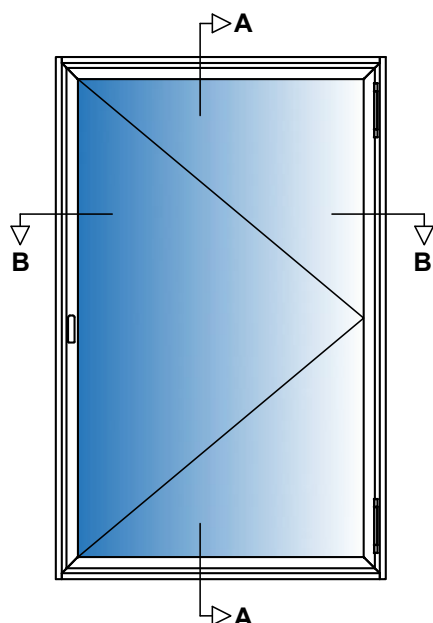


Specification

- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60 - 80 micron finish.
- Aluminium Finish: White - RAL 9003 Satin.
- Sub-Frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber Size: 25mm x 16mm. Pre-drilled and countersunk.
- Glazing: All frames are factory glazed. (4mm-10.8mm single glazed).
- Gasket colour: White.
- Trim: 27mm uPVC Single Bullnosed White.
- Hardware: Butt hinges as standard. Flat pendant handle as standard, locking button as an option.
- Orientation: Left hand and right hand options.
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alternations to specification without notice.

SLHU-RH Hinge Unit, Reveal Fix.

Up to 10.8mm glass

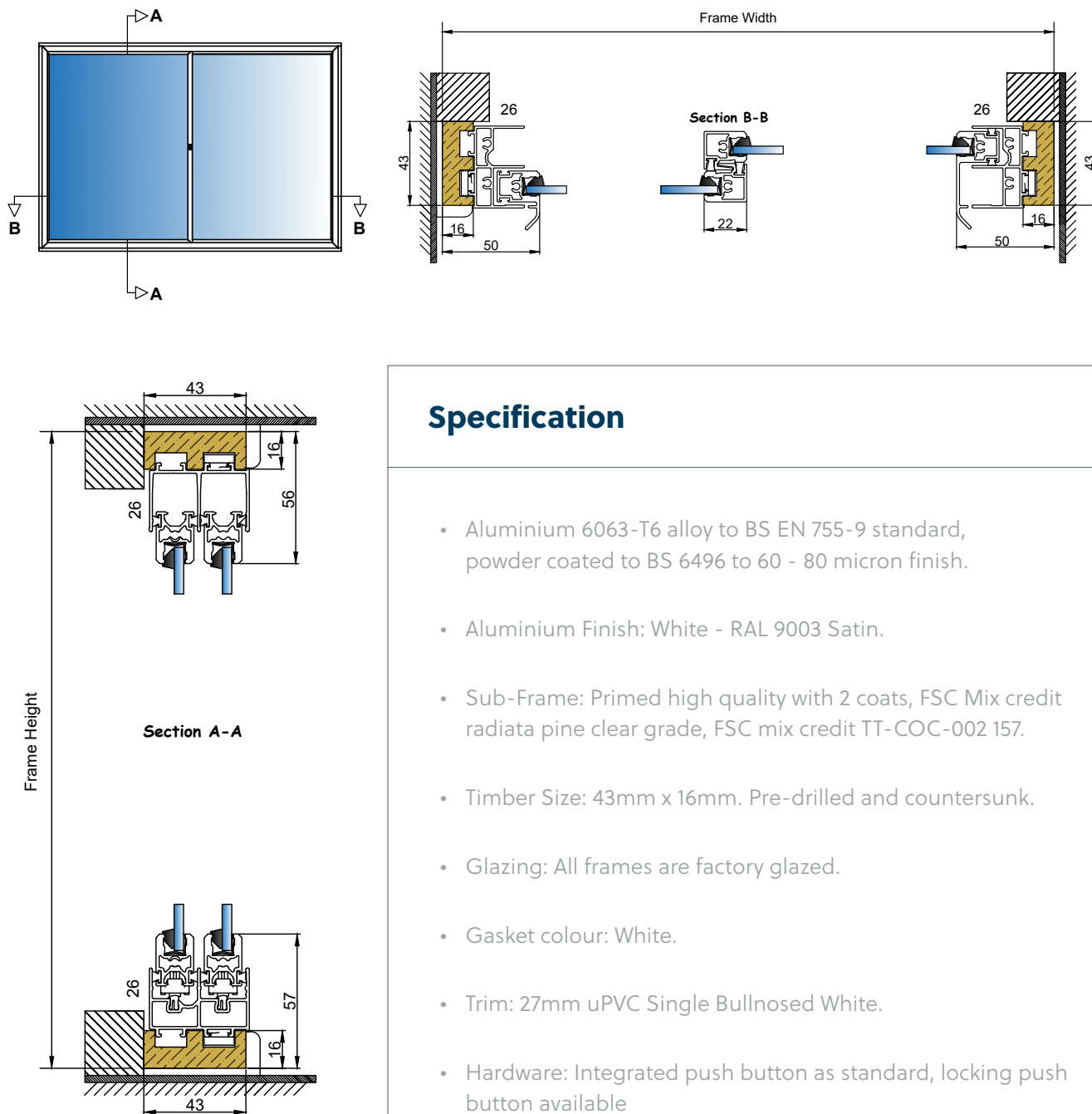


Specification

- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60 - 80 micron finish.
- Aluminium Finish: White - RAL 9003 Satin.
- Sub-Frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber Size: 25mm x 16mm. Self drill.
- Glazing: All frames are factory glazed. (4mm-10.8mm single glazed).
- Gasket colour: White.
- Trim: 27mm uPVC Single Bullnosed White.
- Hardware: Butt hinges as standard. Flat pendant handle as standard, locking button as an option.
- Orientation: Left hand and right hand options.
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

HS2 Horizontal Slider 2 Pane, Face Fix.

Up to 6.8mm glass



Specification

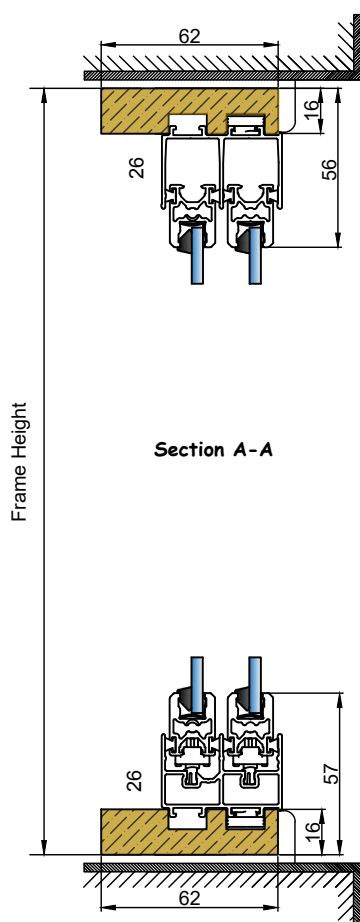
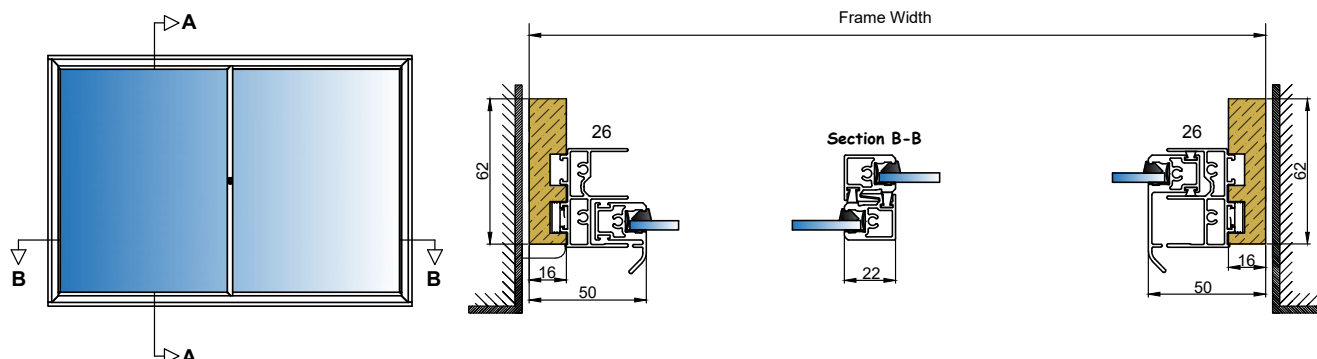
- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60 - 80 micron finish.
- Aluminium Finish: White - RAL 9003 Satin.
- Sub-Frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber Size: 43mm x 16mm. Pre-drilled and countersunk.
- Glazing: All frames are factory glazed.
- Gasket colour: White.
- Trim: 27mm uPVC Single Bullnosed White.
- Hardware: Integrated push button as standard, locking push button available
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

HS2 Horizontal Slider 2 Pane, Reveal Fix.

Up to 6.8mm glass



GRANADA
secondary glazing

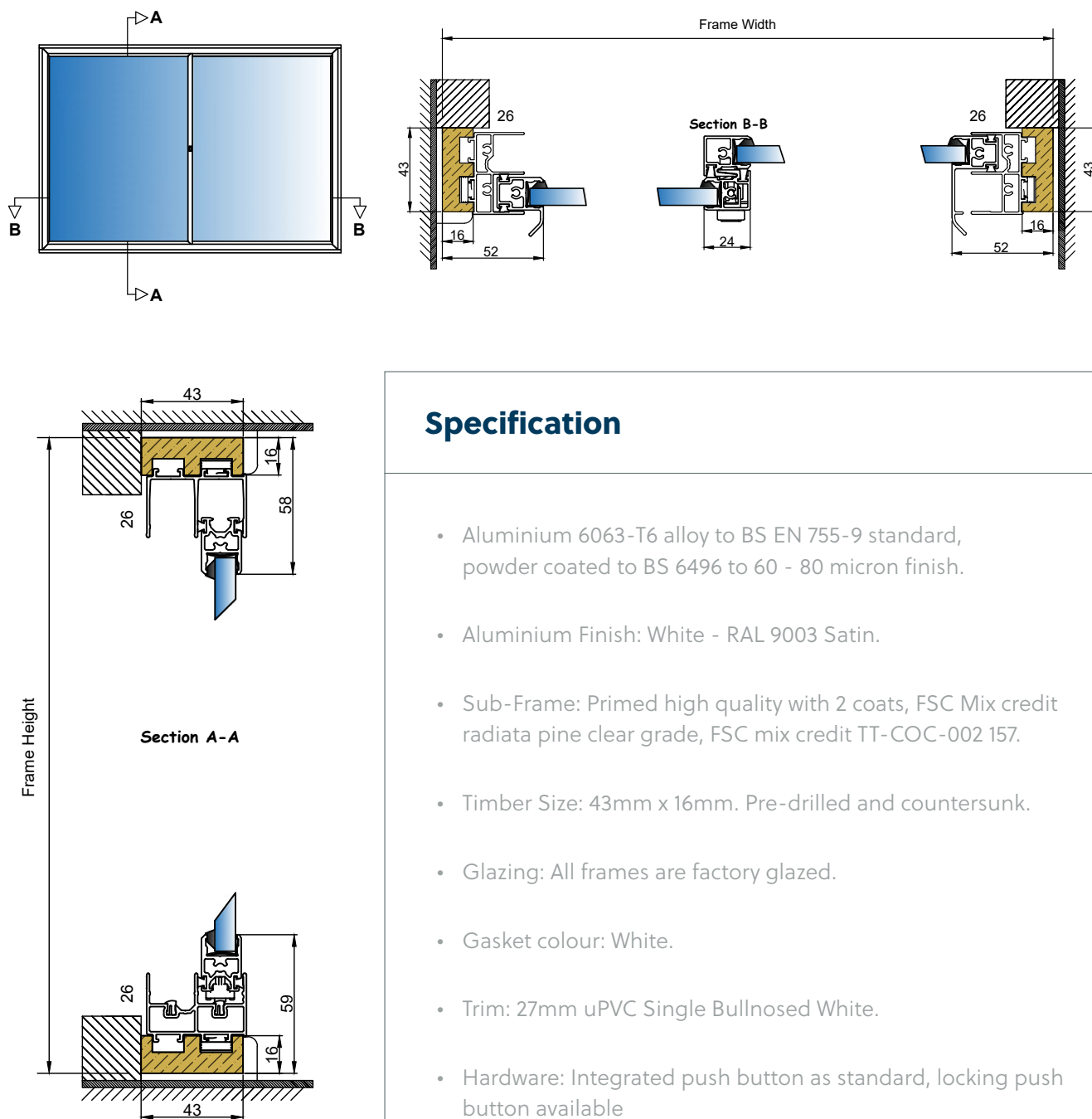


Specification

- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60 - 80 micron finish.
- Aluminium Finish: White - RAL 9003 Satin.
- Sub-Frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber Size: 62mm x 16mm. Pre-drilled and countersunk.
- Glazing: All frames are factory glazed.
- Gasket colour: White.
- Trim: 27mm uPVC Single Bullnosed White.
- Hardware: Integrated push button as standard, locking push button available
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

HS2 Horizontal Slider 2 Pane, Face Fix.

Up to 10.8mm glass



Specification

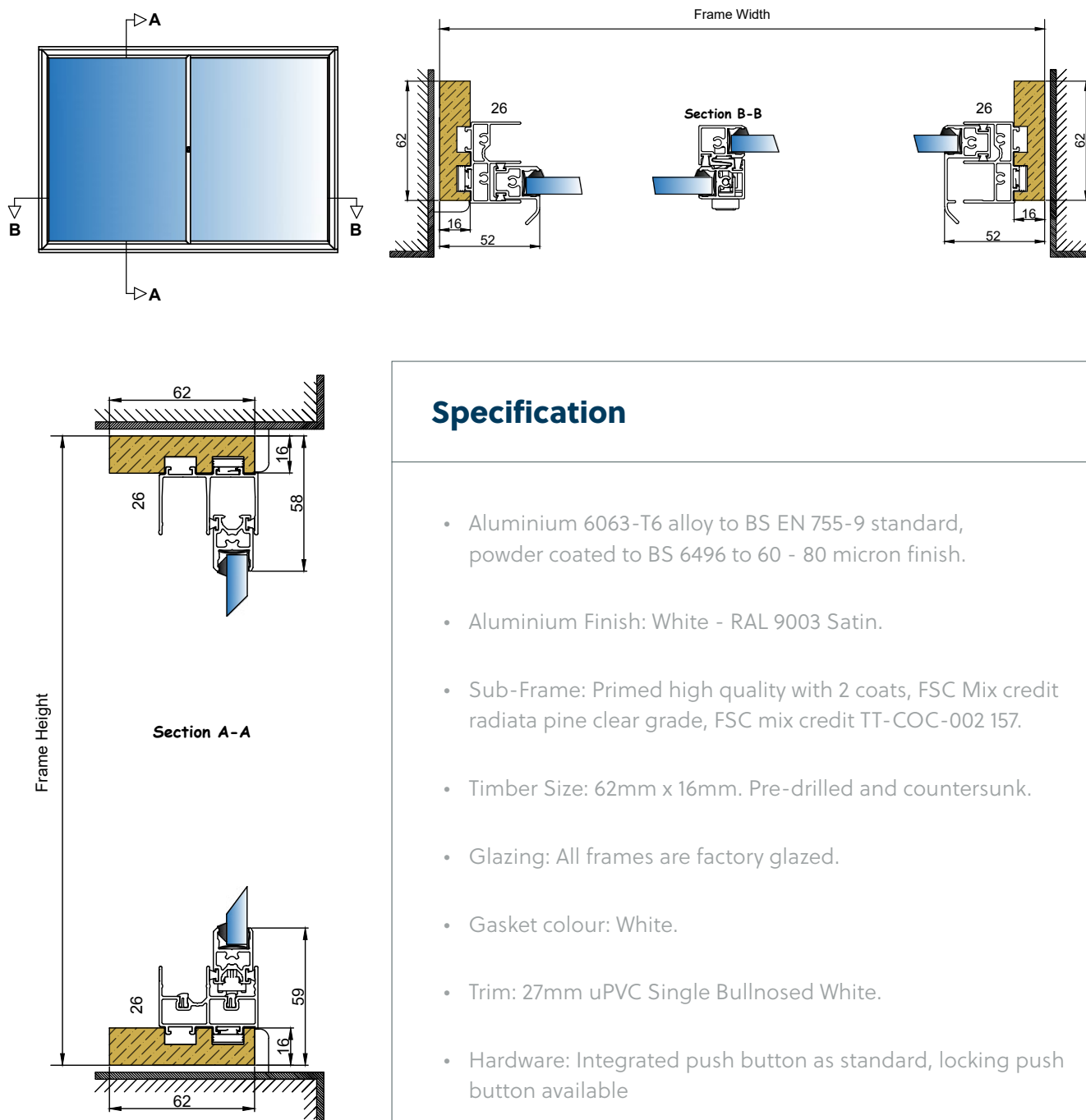
- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60 - 80 micron finish.
- Aluminium Finish: White - RAL 9003 Satin.
- Sub-Frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber Size: 43mm x 16mm. Pre-drilled and countersunk.
- Glazing: All frames are factory glazed.
- Gasket colour: White.
- Trim: 27mm uPVC Single Bullnosed White.
- Hardware: Integrated push button as standard, locking push button available
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

HS2 Horizontal Slider 2 Pane, Reveal Fix.

Up to 10.8mm glass



GRANADA
secondary glazing

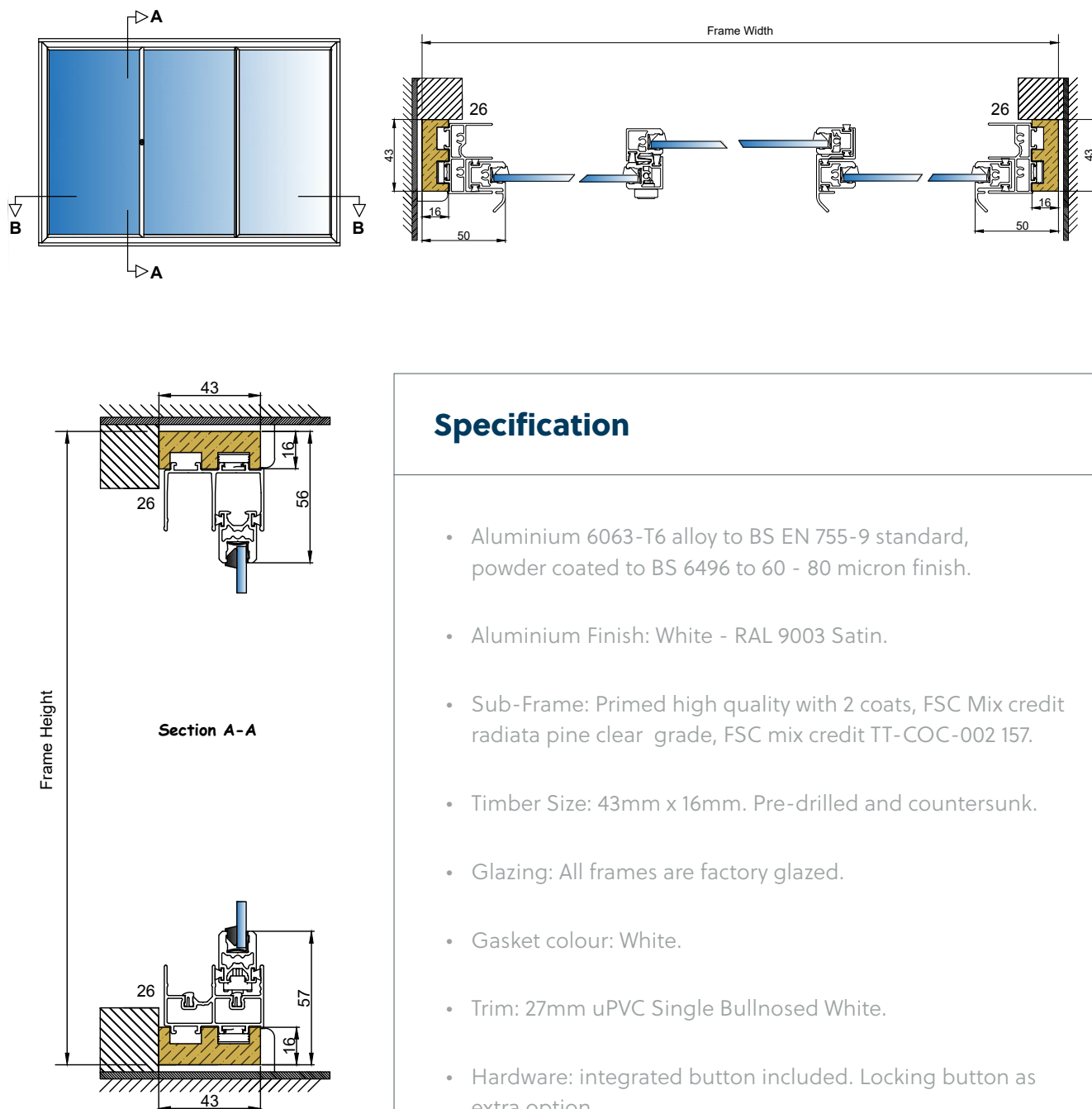


Specification

- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60 - 80 micron finish.
- Aluminium Finish: White - RAL 9003 Satin.
- Sub-Frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber Size: 62mm x 16mm. Pre-drilled and countersunk.
- Glazing: All frames are factory glazed.
- Gasket colour: White.
- Trim: 27mm uPVC Single Bullnosed White.
- Hardware: Integrated push button as standard, locking push button available
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

HS3 Horizontal Slider 3 Pane, Face Fix.

Up to 6.8mm glass

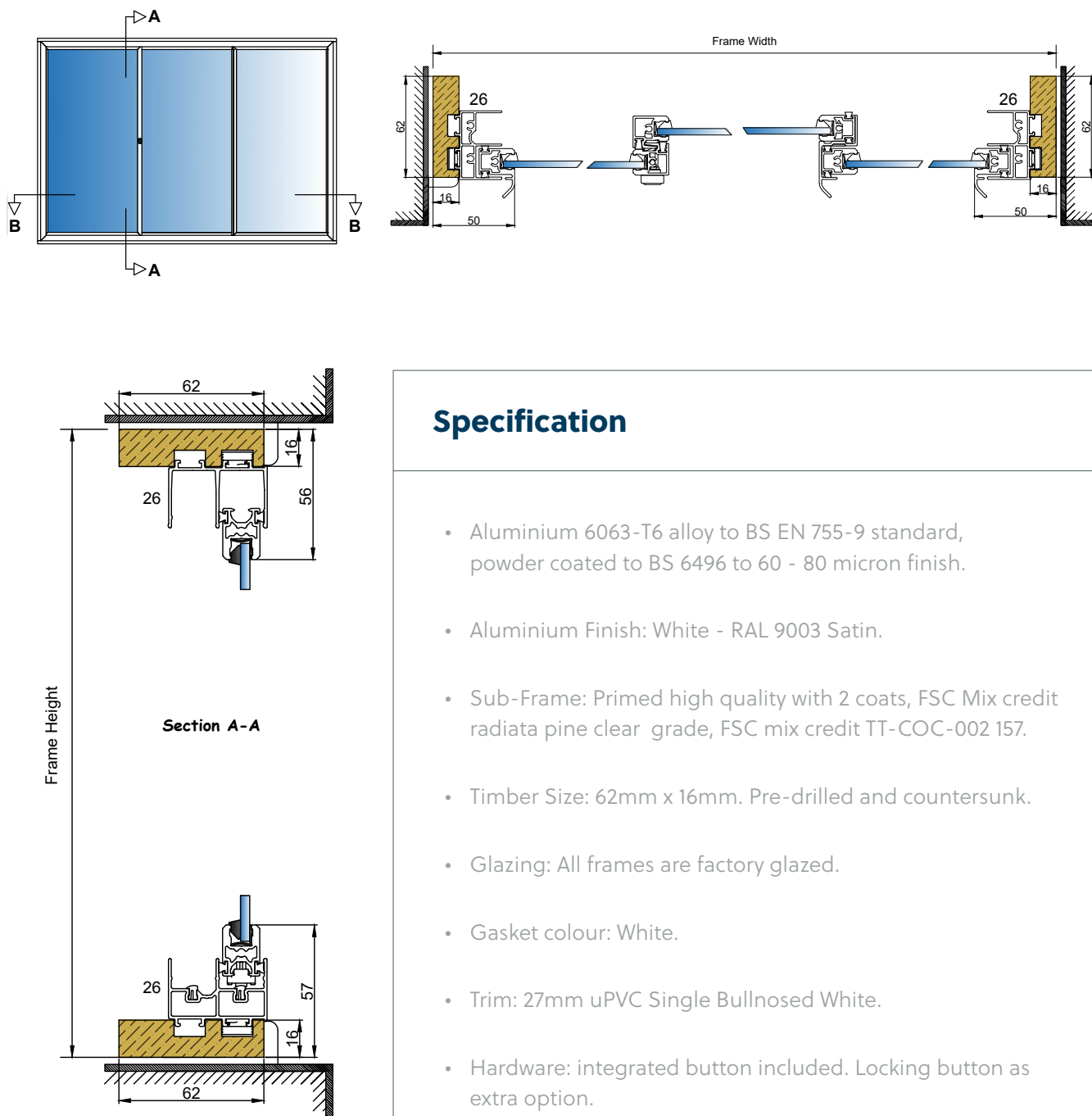


Specification

- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60 - 80 micron finish.
- Aluminium Finish: White - RAL 9003 Satin.
- Sub-Frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber Size: 43mm x 16mm. Pre-drilled and countersunk.
- Glazing: All frames are factory glazed.
- Gasket colour: White.
- Trim: 27mm uPVC Single Bullnosed White.
- Hardware: integrated button included. Locking button as extra option.
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

HS3 Horizontal Slider 3 Pane, Reveal Fix.

Up to 6.8mm glass

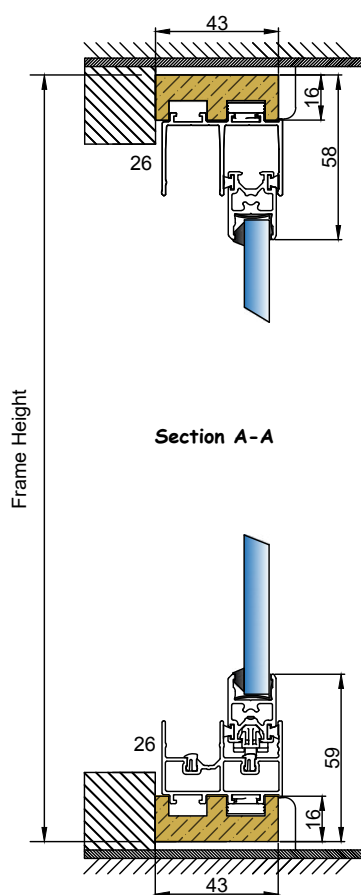
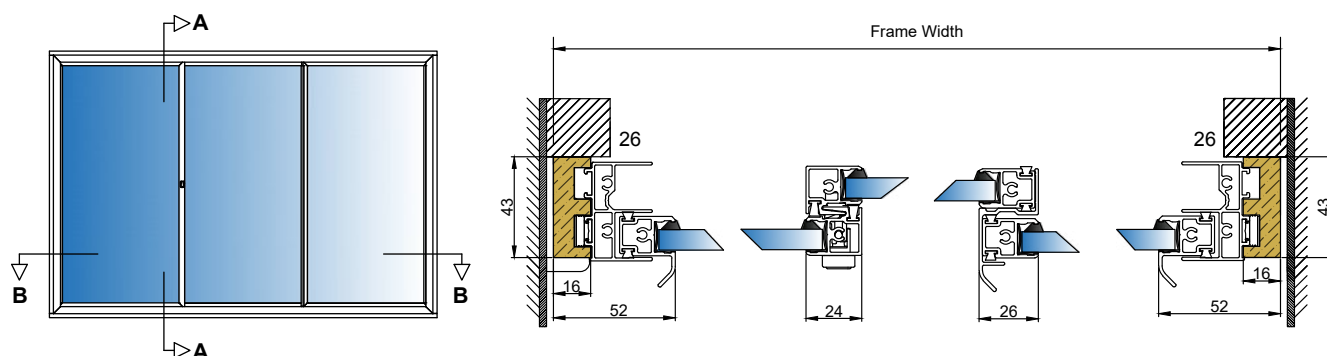


Specification

- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60 - 80 micron finish.
- Aluminium Finish: White - RAL 9003 Satin.
- Sub-Frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber Size: 62mm x 16mm. Pre-drilled and countersunk.
- Glazing: All frames are factory glazed.
- Gasket colour: White.
- Trim: 27mm uPVC Single Bullnosed White.
- Hardware: integrated button included. Locking button as extra option.
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

HS3 Horizontal Slider 3 Pane, Face Fix.

Up to 10.8mm glass



Specification

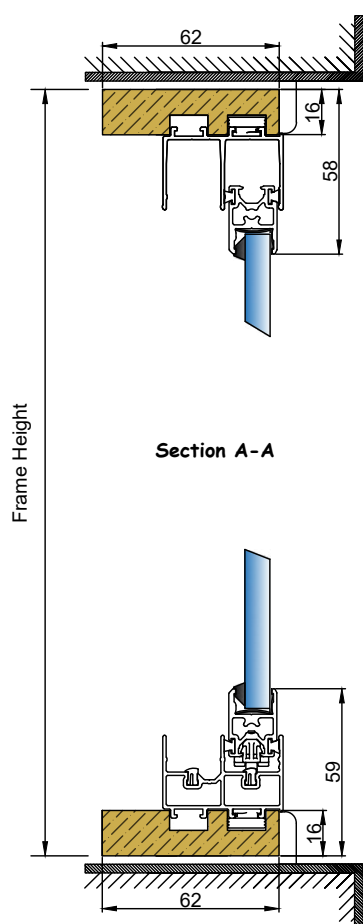
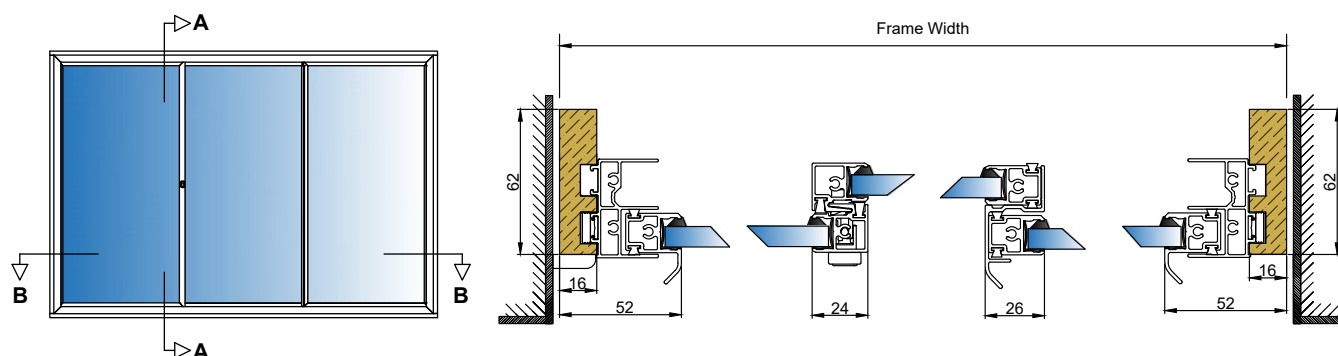
- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60 - 80 micron finish.
- Aluminium Finish: White - RAL 9003 Satin.
- Sub-Frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber Size: 43mm x 16mm. Pre-drilled and countersunk.
- Glazing: All frames are factory glazed.
- Gasket colour: White.
- Trim: 27mm uPVC Single Bullnosed White.
- Hardware: integrated button included. Locking button as extra option.
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

HS3 Horizontal Slider 3 Pane, Reveal Fix.

Up to 10.8mm glass



GRANADA
secondary glazing

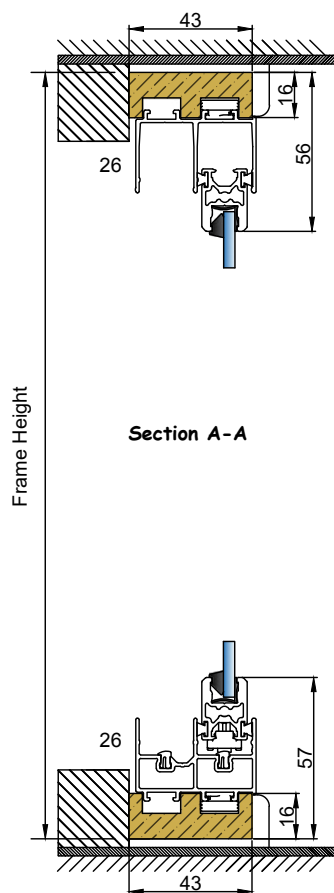
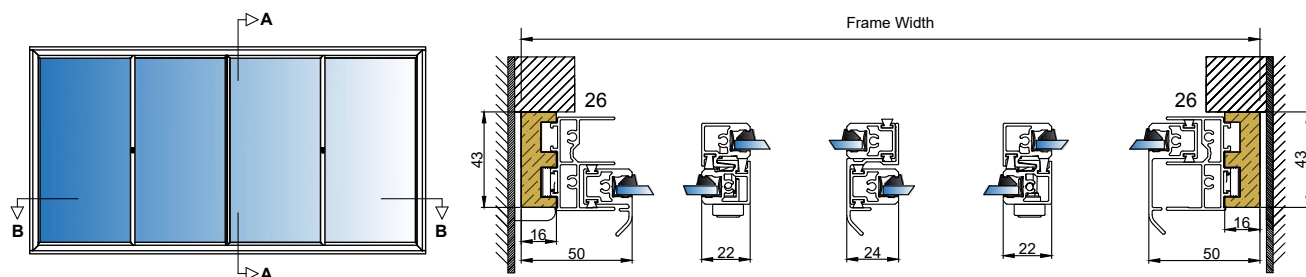


Specification

- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60 - 80 micron finish.
- Aluminium Finish: White - RAL 9003 Satin.
- Sub-Frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber Size: 62mm x 16mm. Pre-drilled and countersunk.
- Glazing: All frames are factory glazed.
- Gasket colour: White.
- Trim: 27mm uPVC Single Bullnosed White.
- Hardware: integrated button included. Locking button as extra option.
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

HS4 Horizontal Slider 4 Pane, Face Fix.

Up to 6.8mm glass



Specification

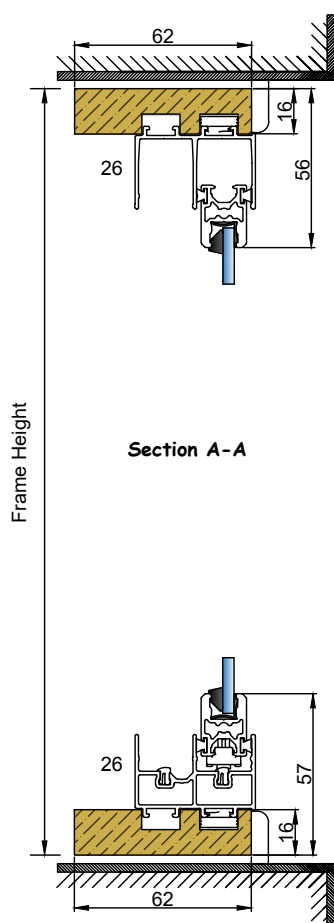
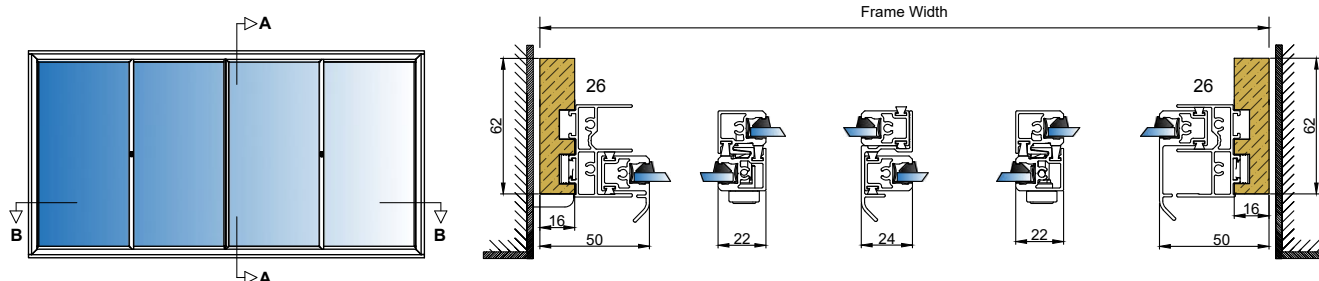
- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60 - 80 micron finish.
- Aluminium Finish: White - RAL 9003 Satin.
- Sub-Frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber Size: 43mm x 16mm. Pre-drilled and countersunk.
- Glazing: All frames are factory glazed.
- Gasket colour: White.
- Trim: 27mm uPVC Single Bullnosed White.
- Hardware: integrated button included. Locking button as extra option.
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

HS4 Horizontal Slider 4 Pane, Reveal Fix.

Up to 6.8mm glass



GRANADA
secondary glazing

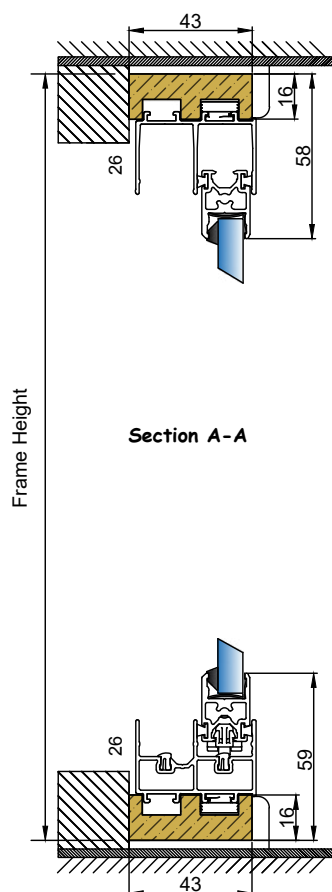
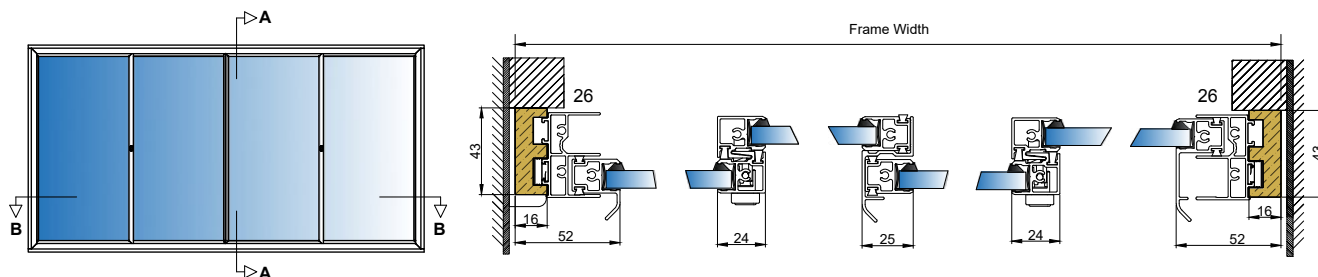


Specification

- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60 - 80 micron finish.
- Aluminium Finish: White - RAL 9003 Satin.
- Sub-Frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber Size: 62mm x 16mm. Pre-drilled and countersunk.
- Glazing: All frames are factory glazed.
- Gasket colour: White.
- Trim: 27mm uPVC Single Bullnosed White.
- Hardware: integrated button included. Locking button as extra option.
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

HS4 Horizontal Slider 4 Pane, Face Fix.

Up to 10.8mm glass



Section A-A

Specification

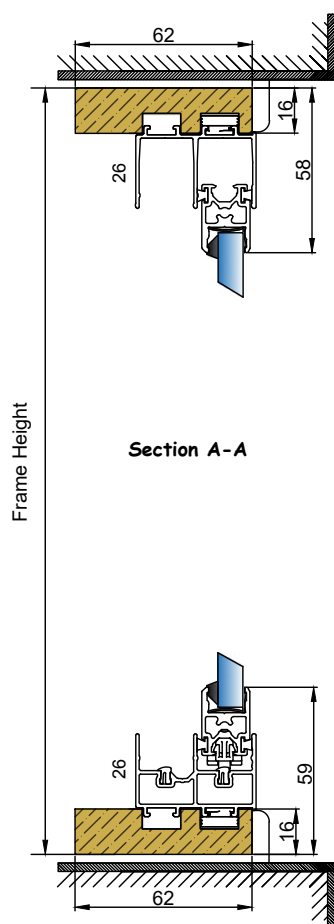
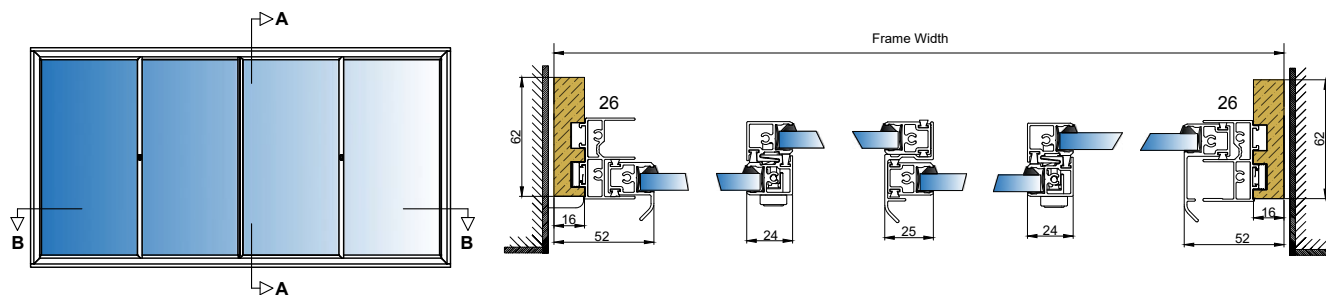
- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60 - 80 micron finish.
- Aluminium Finish: White - RAL 9003 Satin.
- Sub-Frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber Size: 43mm x 16mm. Pre-drilled and countersunk.
- Glazing: All frames are factory glazed.
- Gasket colour: White.
- Trim: 27mm uPVC Single Bullnosed White.
- Hardware: integrated button included. Locking button as extra option.
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

HS4 Horizontal Slider 4 Pane, Reveal Fix.

Up to 10.8mm glass



GRANADA
secondary glazing

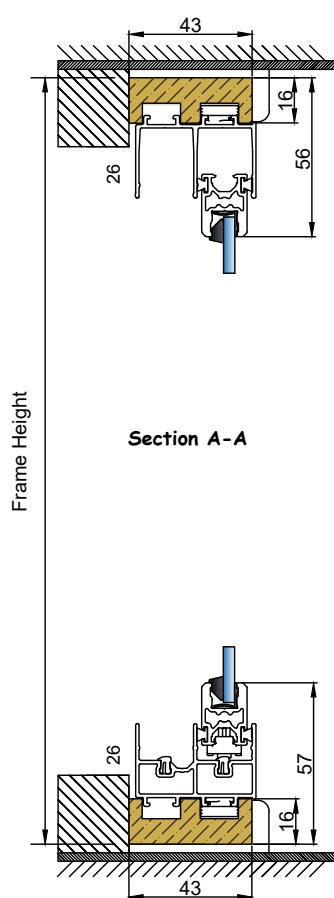
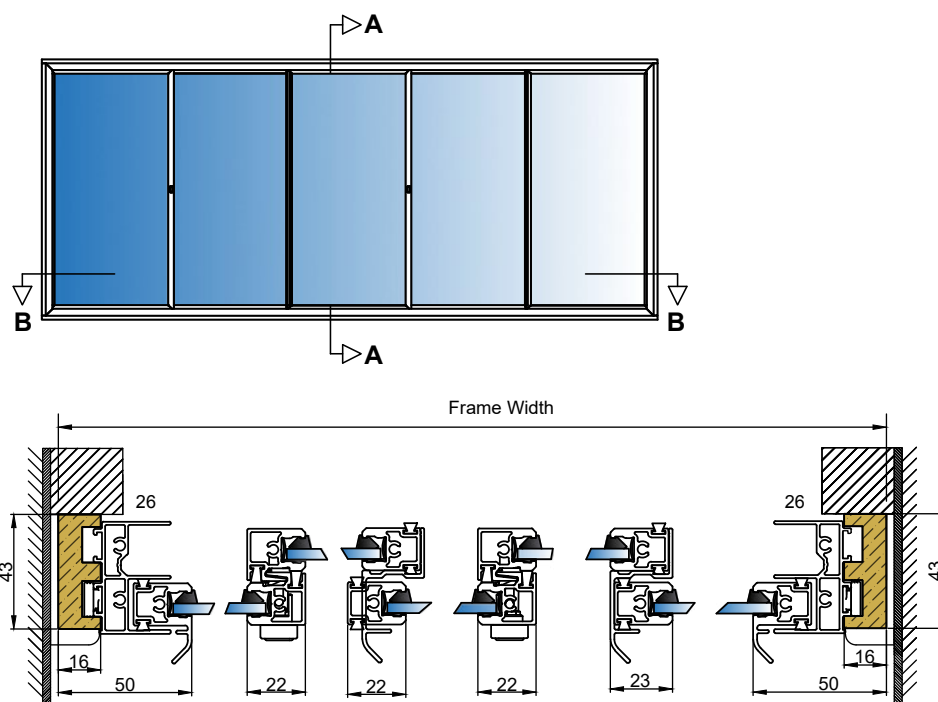


Specification

- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60 - 80 micron finish.
- Aluminium Finish: White - RAL 9003 Satin.
- Sub-Frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber Size: 62mm x 16mm. Pre-drilled and countersunk.
- Glazing: All frames are factory glazed.
- Gasket colour: White.
- Trim: 27mm uPVC Single Bullnosed White.
- Hardware: integrated button included. Locking button as extra option.
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

HS5 Horizontal Slider 5 Pane, Face Fix.

Up to 6.8mm glass



Specification

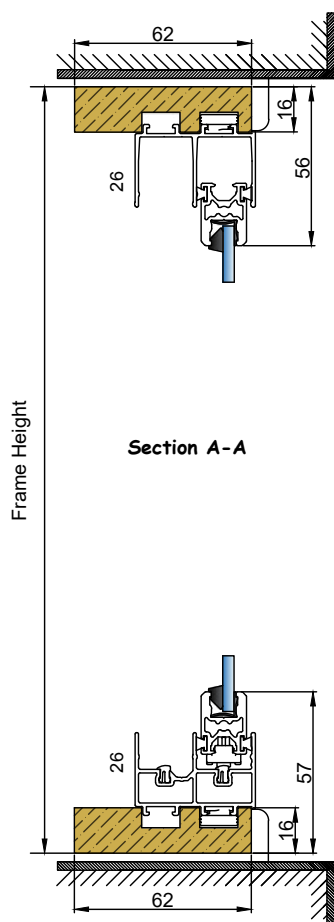
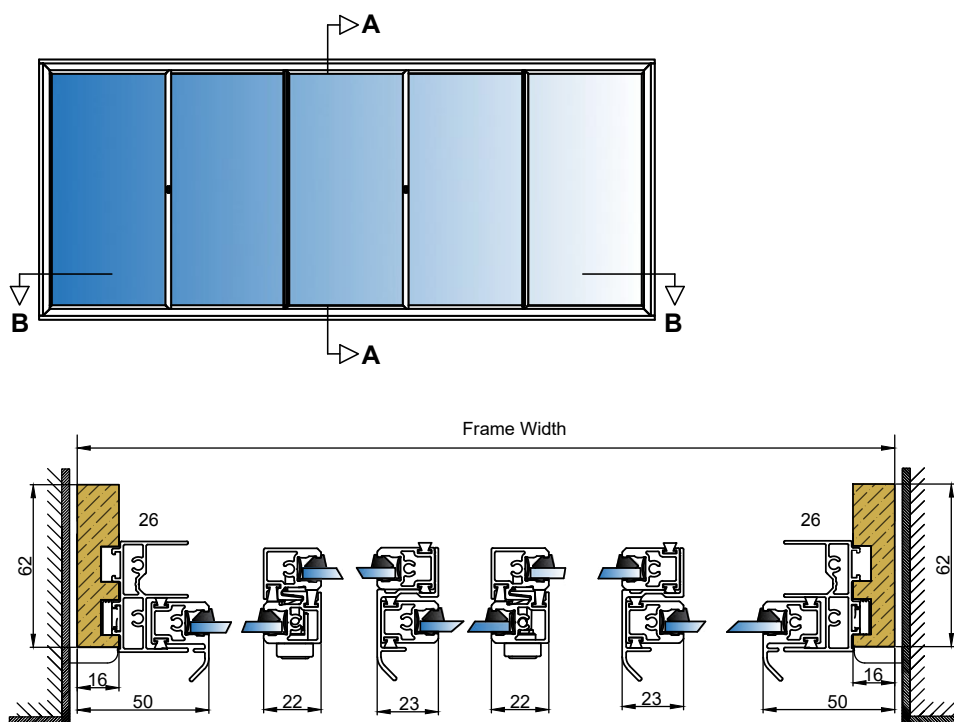
- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60 - 80 micron finish.
- Aluminium Finish: White - RAL 9003 Satin.
- Sub-Frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber Size: 43mm x 16mm.
- Glazing: All frames are factory glazed.
- Gasket colour: White.
- Trim: 27mm uPVC Single Bullnosed White.
- Hardware: integrated button included. Locking button as extra option.
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

HS5 Horizontal Slider 5 Pane, Reveal Fix.

Up to 6.8mm glass



GRANADA
secondary glazing



Specification

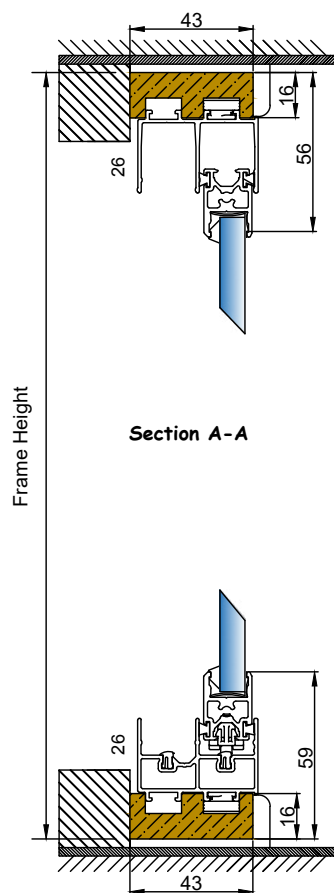
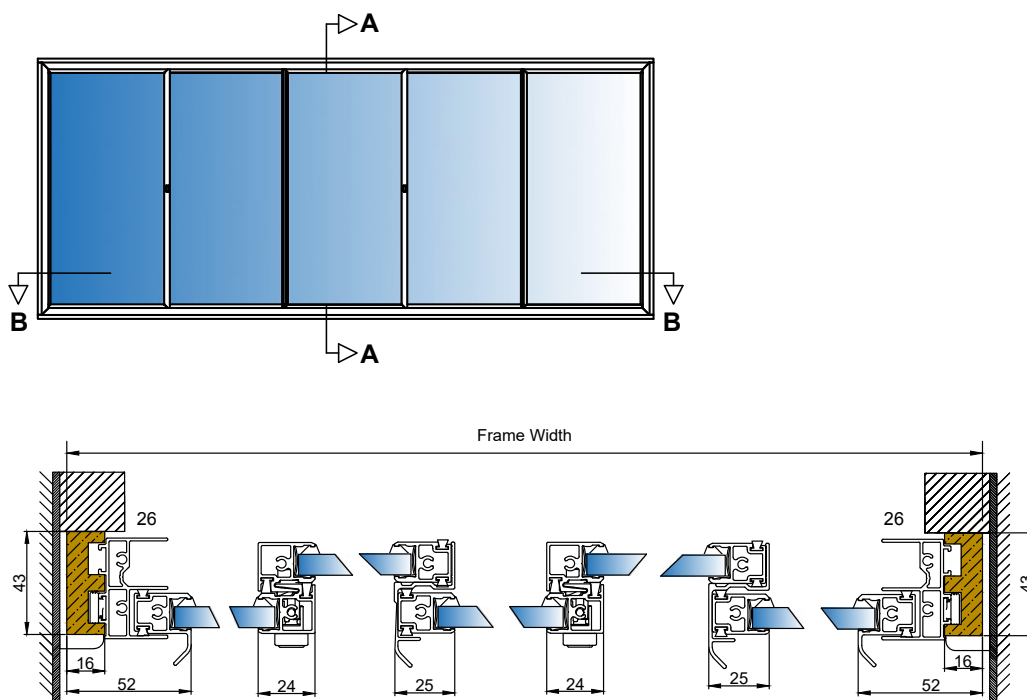
- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60 - 80 micron finish.
- Aluminium Finish: White - RAL 9003 Satin.
- Sub-Frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber Size: 62mm x 16mm.
- Glazing: All frames are factory glazed.
- Gasket colour: White. Trim: 27mm uPVC Single Bullnosed White.
- Hardware: integrated button included. Locking button as extra option.
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

HS5 Horizontal Slider 5 Pane, Face Fix.

Up to 10.8mm glass



GRANADA
secondary glazing



Specification

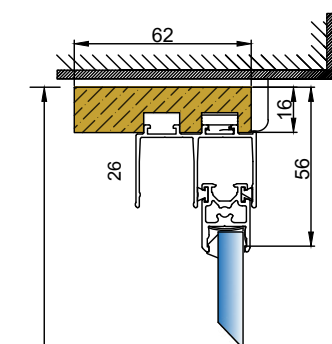
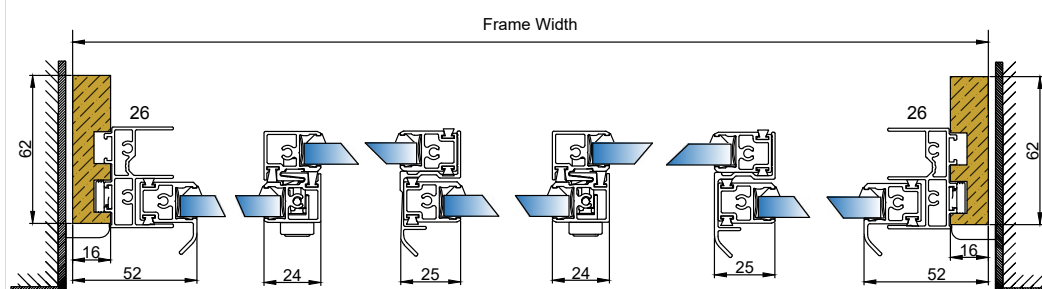
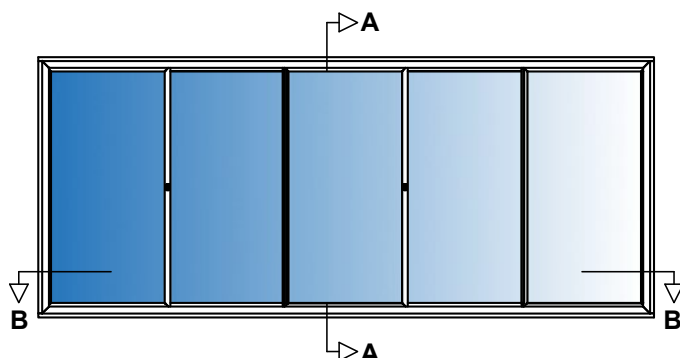
- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60 - 80 micron finish.
- Aluminium Finish: White - RAL 9003 Satin.
- Sub-Frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber Size: 43mm x 16mm.
- Glazing: All frames are factory glazed.
- Gasket colour: White.
- Trim: 27mm uPVC Single Bullnosed White.
- Hardware: integrated button included. Locking button as extra option.
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

HS5 Horizontal Slider 5 Pane, Reveal Fix.

Up to 10.8mm glass

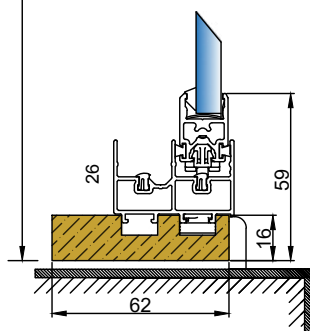


GRANADA
secondary glazing



Section A-A

Frame Height

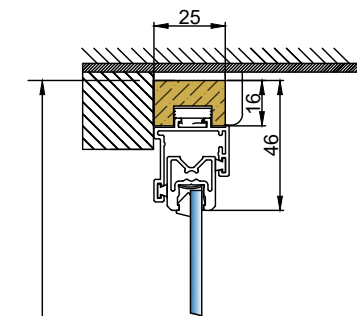
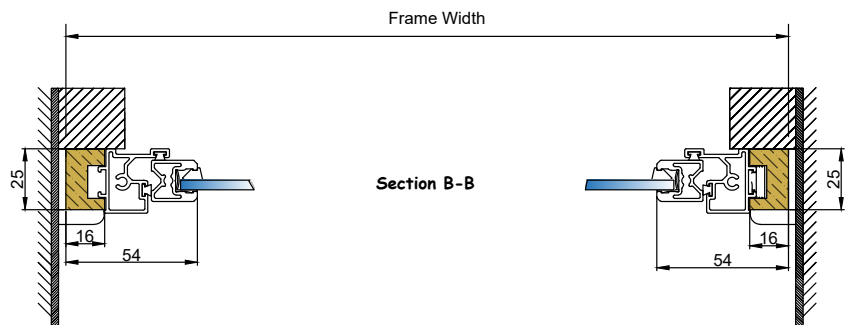
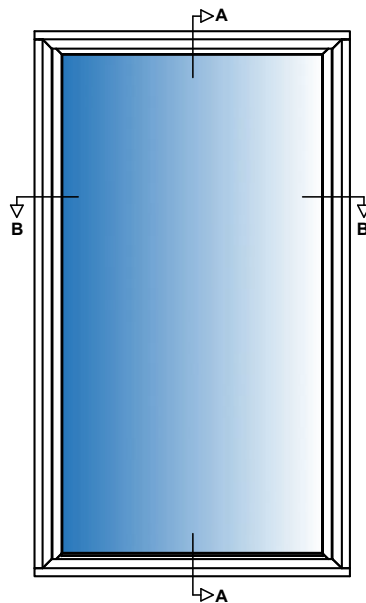


Specification

- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60 - 80 micron finish.
- Aluminium Finish: White - RAL 9003 Satin.
- Sub-Frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber Size: 62mm x 16mm.
- Glazing: All frames are factory glazed.
- Gasket colour: White. Trim: 27mm uPVC Single Bullnosed White.
- Hardware: integrated button included. Locking button as extra option.
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

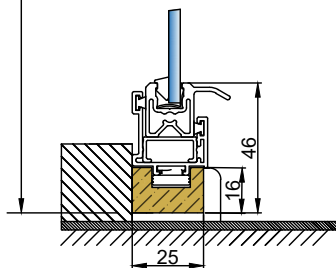
LO Lift Out, Face Fix.

Up to 6.8mm glass



Frame Height

Section A-A

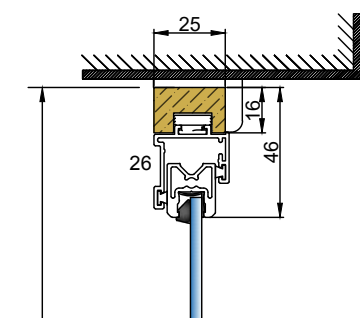
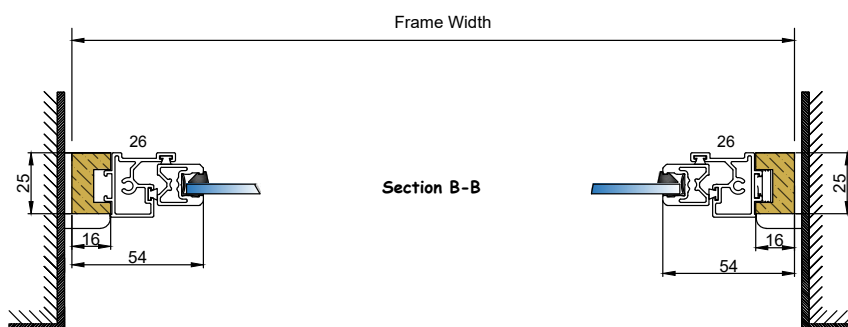
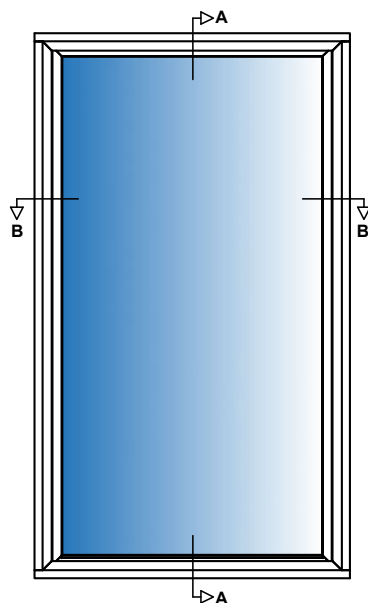


Specification

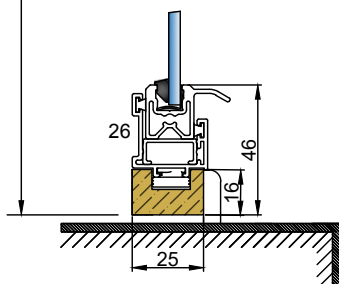
- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60 - 80 micron finish.
- Aluminium Finish: White - RAL 9003 Satin.
- Sub-Frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber Size: 25mm x 16mm. Pre-drilled and countersunk.
- Glazing: All frames are factory glazed.
- Gasket colour: White. Trim: 27mm uPVC Single Bullnosed White.
- Hardware: Locking option as an extra.
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

LO Lift Out, Reveal Fix.

Up to 6.8mm glass



Section A-A



Specification

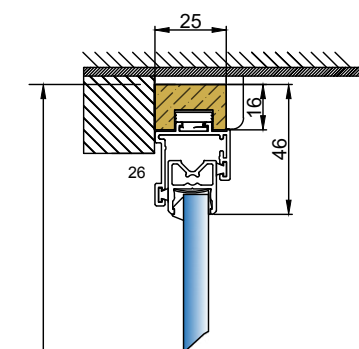
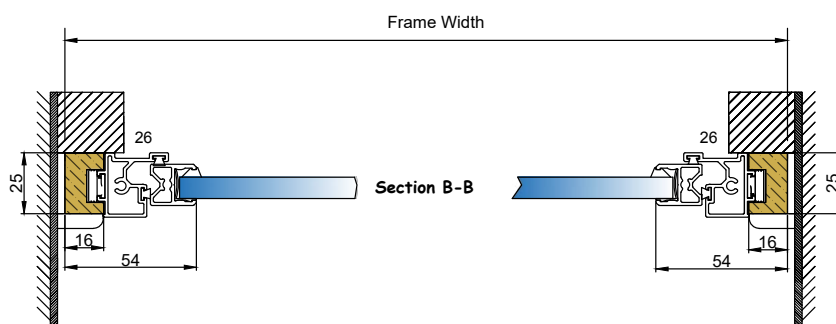
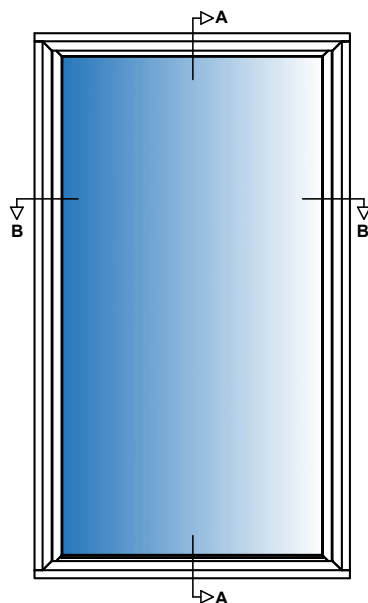
- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60 - 80 micron finish.
- Aluminium Finish: White - RAL 9003 Satin.
- Sub-Frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber Size: 25mm x 16mm. Self drill through aluminium.
- Glazing: All frames are factory glazed.
- Gasket colour: White. Trim: 27mm uPVC Single Bullnosed White.
- Hardware: Locking option as an extra.
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

LO Lift Out, Face Fix.

Up to 10.8mm glass

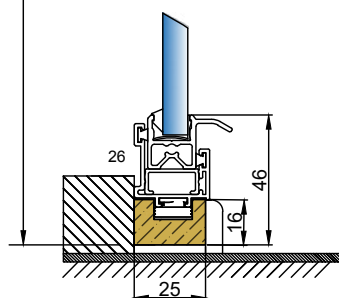


GRANADA
secondary glazing



Frame Height

Section A-A

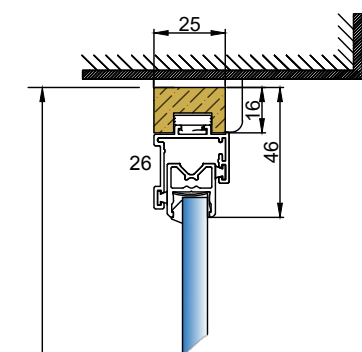
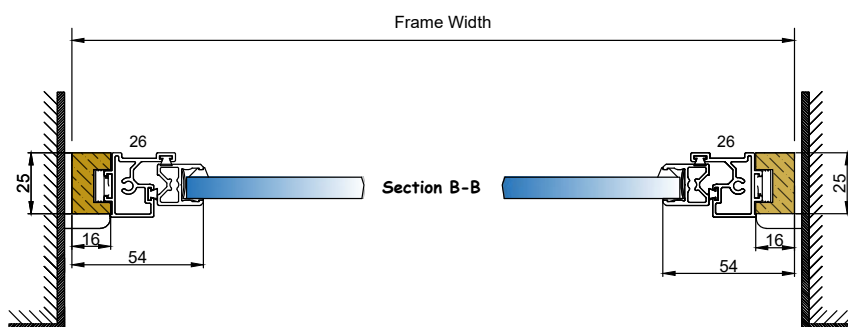
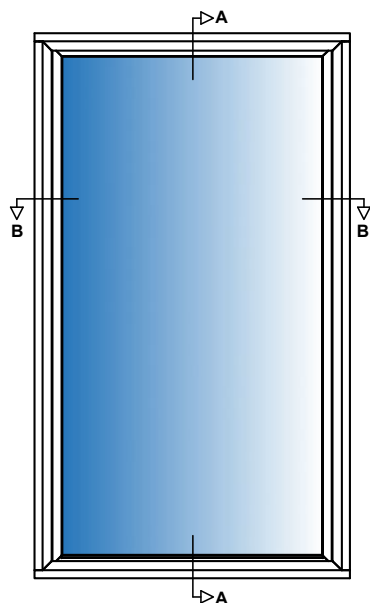


Specification

- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60 - 80 micron finish.
- Aluminium Finish: White - RAL 9003 Satin.
- Sub-Frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber Size: 25mm x 16mm. Pre-drilled and countersunk.
- Glazing: All frames are factory glazed.
- Gasket colour: White. Trim: 27mm uPVC Single Bullnosed White.
- Hardware: Locking option as an extra.
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

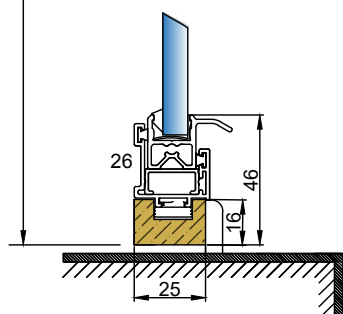
LO Lift Out, Reveal Fix.

Up to 10.8mm glass



Section A-A

Frame Height

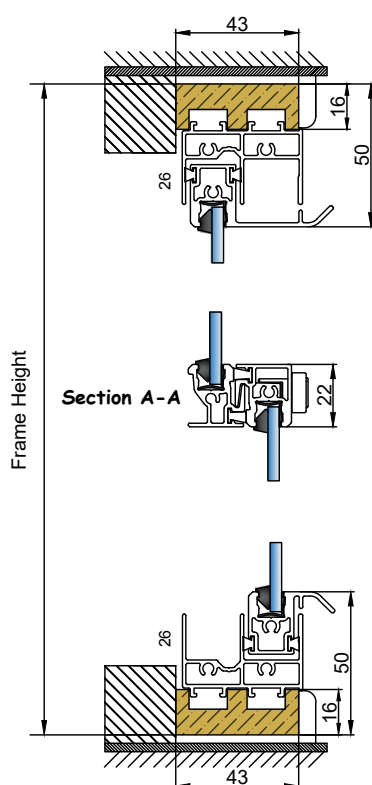
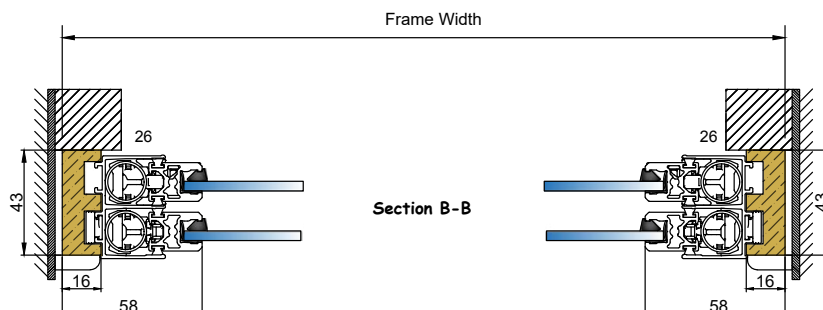
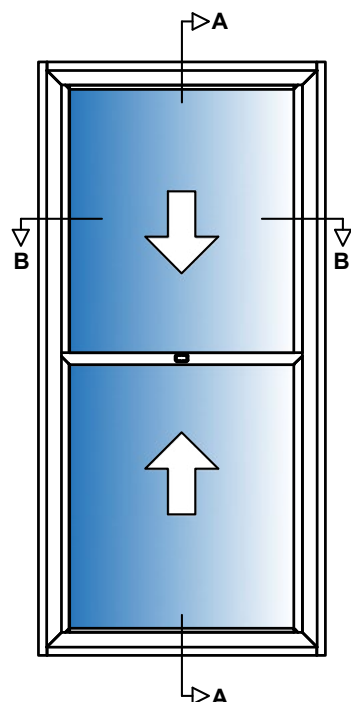


Specification

- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60 - 80 micron finish.
- Aluminium Finish: White - RAL 9003 Satin.
- Sub-Frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber Size: 25mm x 16mm. Self drill through aluminium.
- Glazing: All frames are factory glazed.
- Gasket colour: White. Trim: 27mm uPVC Single Bullnosed White.
- Hardware: Locking option as an extra.
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

BVS Balanced Vertical Slider, Face Fix.

Up to 6.8mm glass

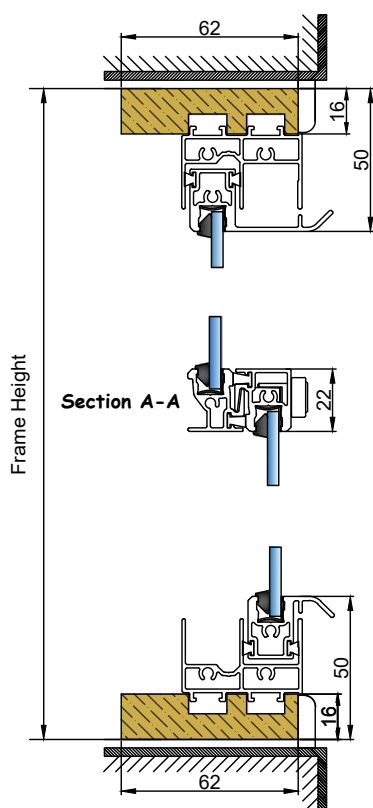
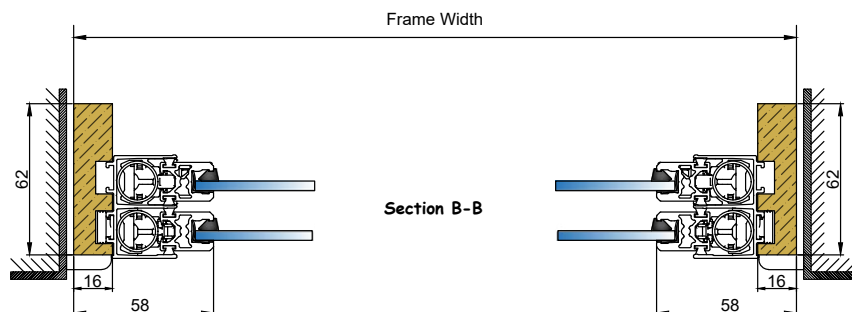
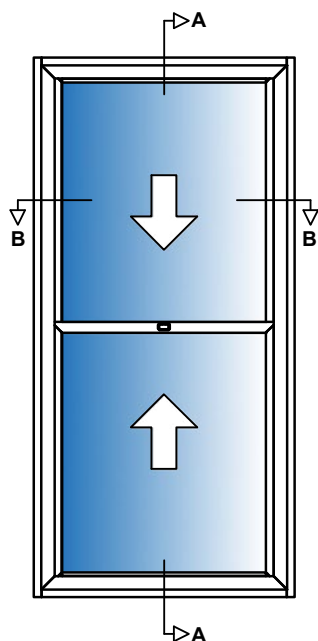


Specification

- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60 - 80 micron finish.
- Aluminium Finish: White - RAL 9003 Satin.
- Sub-Frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber Size: 43mm x 16mm. Pre-drilled and countersunk.
- Glazing: All frames are factory glazed.
- Gasket colour: White.
- Trim: 27mm uPVC Single Bullnosed White.
- Variations: Reverse sash and slide past BVS.
- Hardware: Integrated push buttons as standard, locking push button available.
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

BVS Balanced Vertical Slider, Reveal Fix.

Up to 6.8mm glass

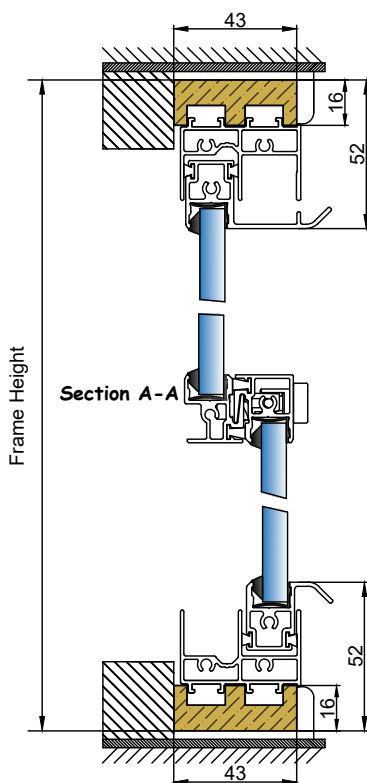
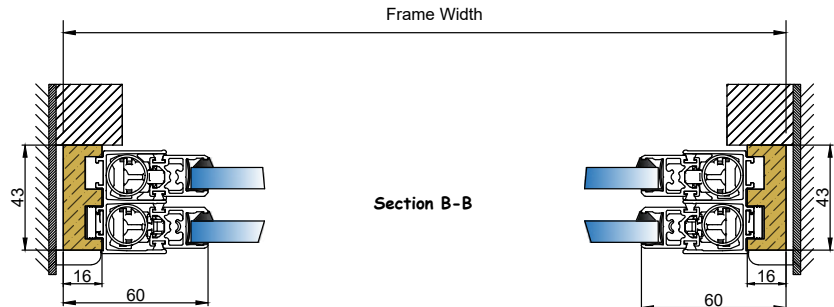
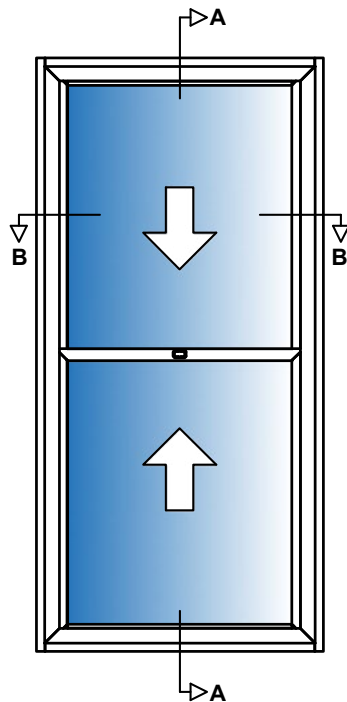


Specification

- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60 - 80 micron finish.
- Aluminium Finish: White - RAL 9003 Satin.
- Sub-Frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber Size: 62mm x 16mm. Pre-drilled and countersunk.
- Glazing: All frames are factory glazed.
- Gasket colour: White.
- Trim: 27mm uPVC Single Bullnosed White.
- Variations: Reverse sash and slide past BVS.
- Hardware: Integrated push buttons as standard, locking push button available.
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

BVS Balanced Vertical Slider, Face Fix.

Up to 10.8mm glass

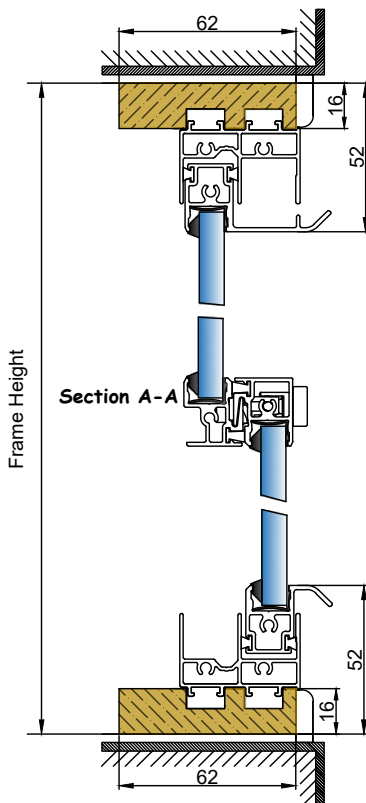
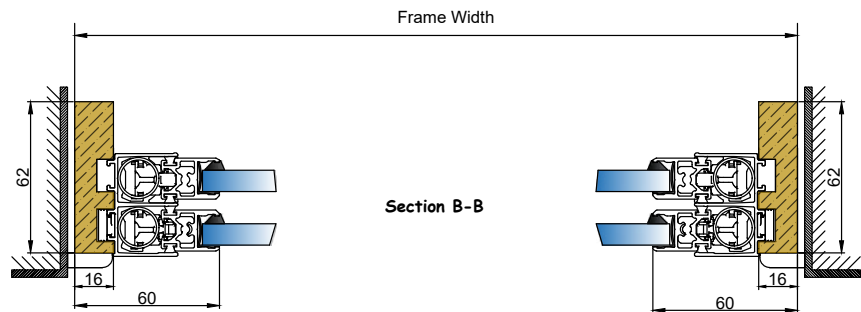
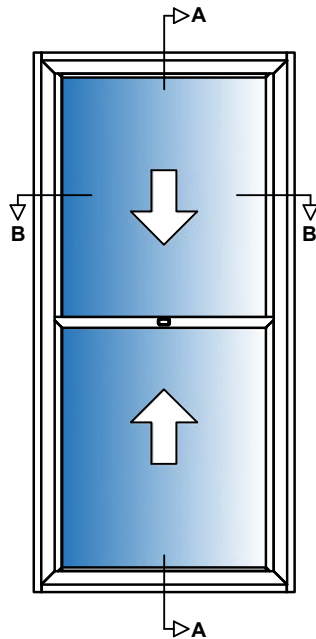


Specification

- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60 - 80 micron finish.
- Aluminium Finish: White - RAL 9003 Satin.
- Sub-Frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber Size: 43mm x 16mm. Pre-drilled and countersunk.
- Glazing: All frames are factory glazed.
- Gasket colour: White.
- Trim: 27mm uPVC Single Bullnosed White.
- Variations: Reverse sash and slide past BVS.
- Hardware: Integrated push buttons as standard, locking push button available.
- In line with our company policy of continuous product development and improvement, Gran^ada reserves the right to make minor alterations to specification without notice.

BVS Balanced Vertical Slider, Reveal Fix.

Up to 10.8mm glass

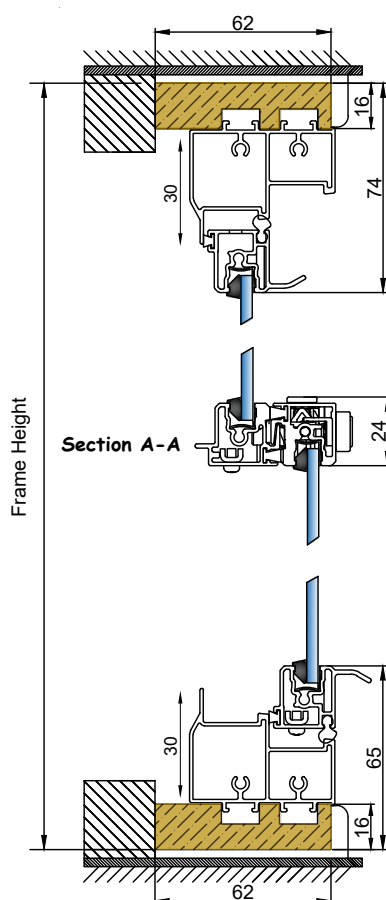
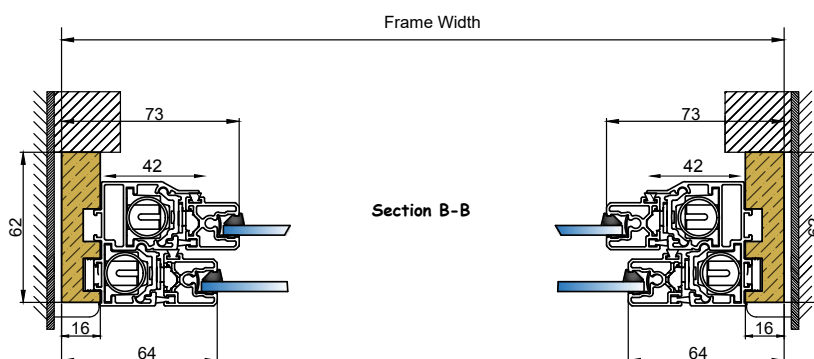
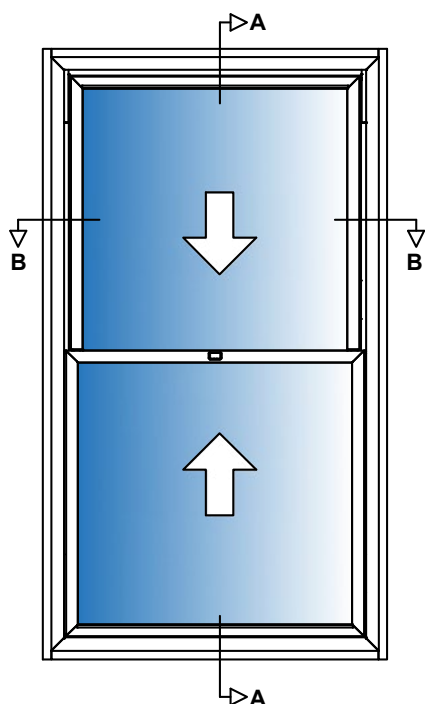


Specification

- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60 - 80 micron finish.
- Aluminium Finish: White - RAL 9003 Satin.
- Sub-Frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber Size: 62mm x 16mm. Pre-drilled and countersunk.
- Glazing: All frames are factory glazed.
- Gasket colour: White.
- Trim: 27mm uPVC Single Bullnosed White.
- Variations: Reverse sash and slide past BVS.
- Hardware: Integrated push buttons as standard, locking push button available.
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

TBVS Balanced Vertical Slider, Face Fix.

Up to 6.8mm glass



Specification

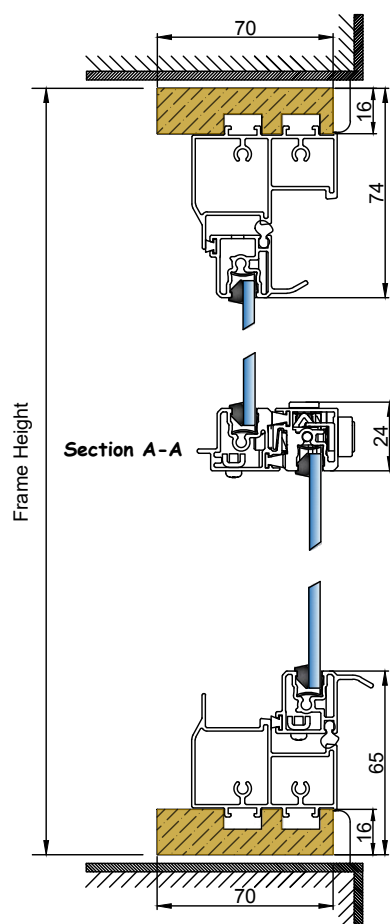
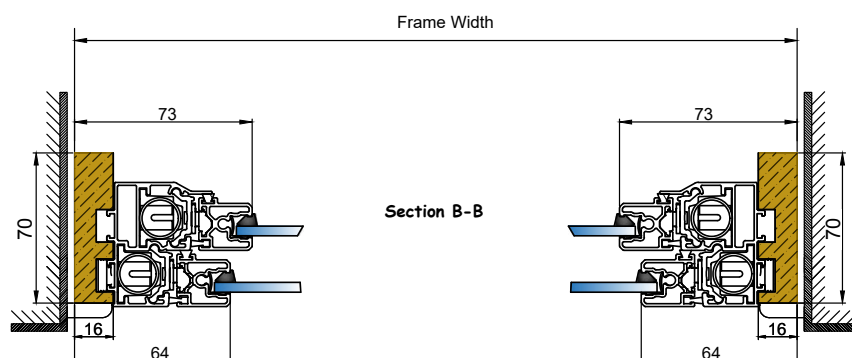
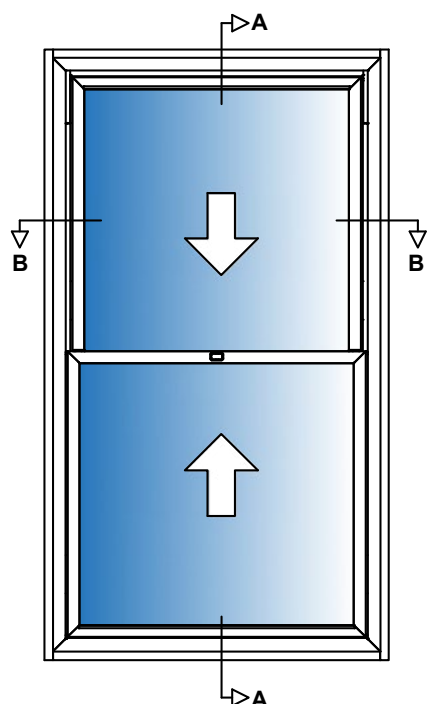
- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60 - 80 micron finish.
- Aluminium Finish: White - RAL 9003 Satin.
- Sub-Frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber Size: 62mm x 16mm. Pre-drilled and countersunk.
- Glazing: All frames are factory glazed.
- Gasket colour: White.
- Trim: 27mm uPVC Single Bullnosed White.
- Hardware: Non-Locking as standard or a Locking option. Tilt restrictors as standard.
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

TBVS Balanced Vertical Slider, Reveal Fix.

Up to 6.8mm glass



GRANADA
secondary glazing

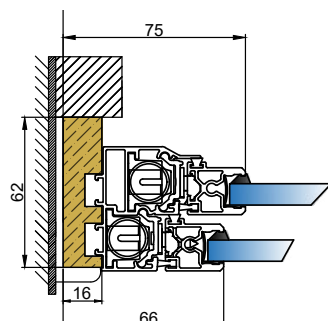
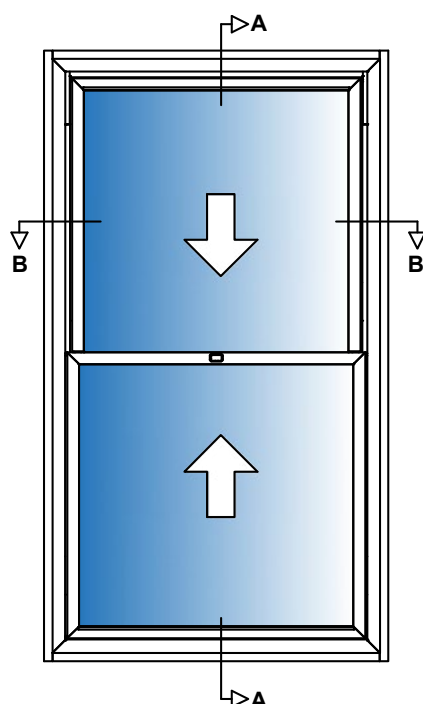


Specification

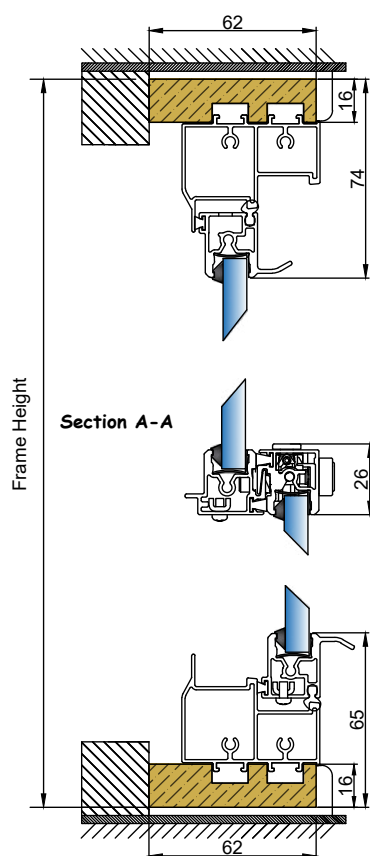
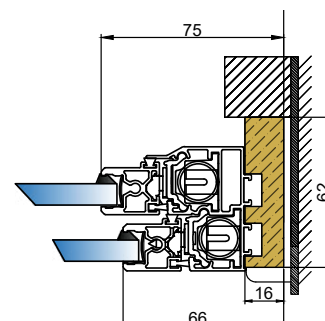
- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60 - 80 micron finish.
- Aluminium Finish: White - RAL 9003 Satin.
- Sub-Frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber Size: 70mm x 16mm. Pre-drilled and countersunk.
- Glazing: All frames are factory glazed.
- Gasket colour: White.
- Trim: 27mm uPVC Single Bullnosed White.
- Hardware: Non-Locking as standard or a Locking option. Tilt restrictors as standard.
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

TBVS Balanced Vertical Slider, Face Fix.

Up to 10.8mm glass



Section B-B



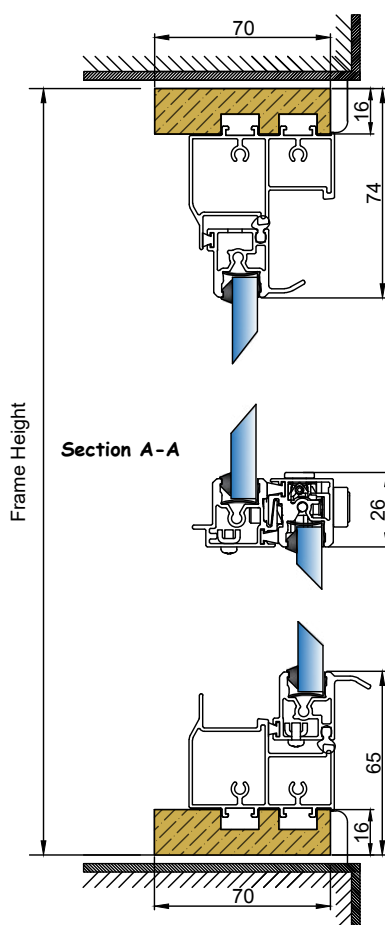
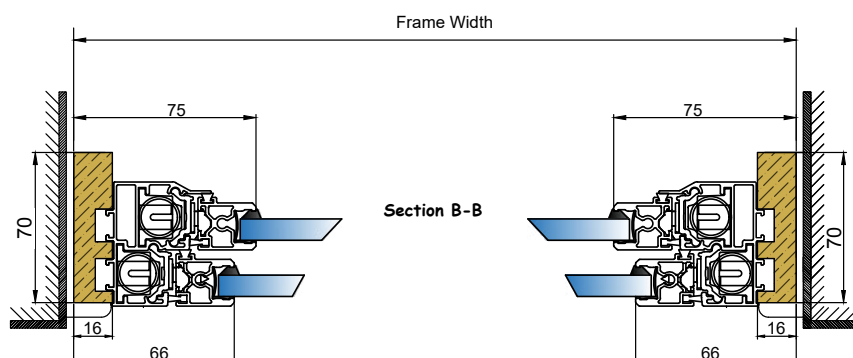
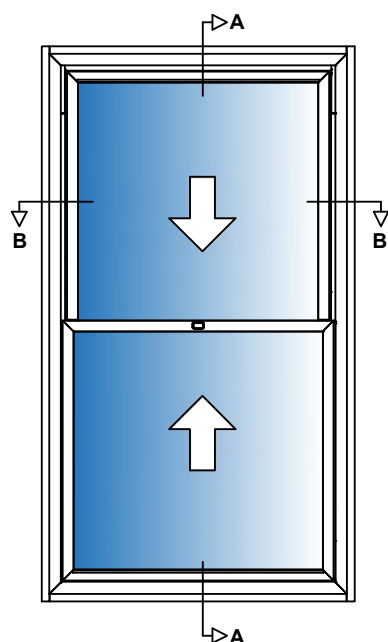
Section A-A

Specification

- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60 - 80 micron finish.
- Aluminium Finish: White - RAL 9003 Satin.
- Sub-Frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber Size: 62mm x 16mm. Pre-drilled and countersunk.
- Glazing: All frames are factory glazed.
- Gasket colour: White.
- Trim: 27mm uPVC Single Bullnosed White.
- Hardware: Non-Locking as standard or a Locking option. Tilt restrictors as standard.
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

TBVS Balanced Vertical Slider, Reveal Fix.

Up to 10.8mm glass



Specification

- Aluminium 6063-T6 alloy to BS EN 755-9 standard, powder coated to BS 6496 to 60 - 80 micron finish.
- Aluminium Finish: White - RAL 9003 Satin.
- Sub-Frame: Primed high quality with 2 coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-COC-002 157.
- Timber Size: 70mm x 16mm. Pre-drilled and countersunk.
- Glazing: All frames are factory glazed.
- Gasket colour: White.
- Trim: 27mm uPVC Single Bullnosed White.
- Hardware: Non-Locking as standard or a Locking option. Tilt restrictors as standard.
- In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

General Data Sheet.

Balanced Vertical Slider

Product Range	Glass Options	Max Panel Weights (kgs)	Minimum Panel Dims		Maximum Panel Dims			Panel
			Size (mm)		Size (mm)		Area m ²	Aspect Ratios
			Width	Height	Width	Height	Must not Exceed	Max Width to Height Ratio
Classic	4.0mm tough	14.5	175	175	1500	1800	1.45	1.5 : 1
Enhanced	6.0mm tough	45	175	175	1500	1800	3.00	1.5 : 1
Enhanced	6.4mm Laminate	45	175	175	1500	1800	2.81	1.5 : 1
Enhanced	6.8mm Laminate	45	175	175	1500	1800	2.65	1.5 : 1
Enhanced	8.8mm Laminate	45	175	175	1500	1800	2.04	1.5 : 1
Enhanced	10.8mm Laminate	45	175	175	1500	1800	1.66	1.5 : 1

Product Range	Glass Options	Maximum Window Dimensions by Window Type								
		Standard			Reversible - Maximum Sizes			Slide Past - Maximum Sizes		
		Width (mm)	Height (mm)	Area (m ²)	Width (mm)	Height (mm)	Area (m ²)	Width (mm)	Height (mm)	Area (m ²)
Classic	4.0mm tough	1575	3000	2.90	1500	3000	4.50	1500	3000	4.50
Enhanced	6.0mm tough	1575	3300	5.19	1575	3300	5.19	1575	3300	5.19
Enhanced	6.4mm Laminate	1575	3300	5.19	1575	3300	5.19	1575	3300	5.19
Enhanced	6.8mm Laminate	1575	3300	5.19	1575	3300	5.19	1575	3300	5.19
Enhanced	8.8mm Laminate	1575	3300	4.10	1575	3300	4.10	1575	3300	4.10
Enhanced	10.8mm Laminate	1575	3300	3.33	1575	3300	3.33	1575	3300	3.33

Product Range	Glass Options	Installation Options					
		Face Fix	Reveal	Reveal	Optional Deep	Bevels	Specials
		Through Timber	Fix Through Frame	Fix Through Timber	Reveal Fix Through Timber		
Classic	4.0mm tough	TIM-43x16	TIM-43x16	TIM-62x16	TIM-70x16	TIM-62x50	TIM-90x90
Enhanced	6.0mm tough	TIM-43x16	TIM-43x16	TIM-62x16	TIM-70x16	TIM-62x50	TIM-90x90
Enhanced	6.4mm Laminate	TIM-43x16	TIM-43x16	TIM-62x16	TIM-70x16	TIM-62x50	TIM-90x90
Enhanced	6.8mm Laminate	TIM-43x16	TIM-43x16	TIM-62x16	TIM-70x16	TIM-62x50	TIM-90x90
Enhanced	8.8mm Laminate	TIM-43x16	TIM-43x16	TIM-62x16	TIM-70x16	TIM-62x50	TIM-90x90
Enhanced	10.8mm Laminate	TIM-43x16	TIM-43x16	TIM-62x16	TIM-70x16	TIM-62x50	TIM-90x90

General Data Sheet.

Heavy Duty Hinged Unit

Product Range	Glass Options	Maximum Window Dimensions by Window Type								
		Low Threshold			Double Hung - Handle			Double Hung - Low Threshold		
		Width (mm)	Height (mm)	Area (m ²)	Width (mm)	Height (mm)	Area (m ²)	Width (mm)	Height (mm)	Area (m ²)
Classic	4.0mm tough	1500	2000	1.45	3000	2000	2.90	3000	2000	2.90
Enhanced	6.0mm tough	1500	3000	7.50	3000	3000	15.00	3000	3000	15.00
Enhanced	6.4mm Laminate	1500	3000	7.50	3000	3000	15.00	3000	3000	15.00
Enhanced	6.8mm Laminate	1500	3000	7.50	3000	3000	15.00	3000	3000	15.00
Enhanced	8.8mm Laminate	1500	3000	6.80	3000	3000	13.60	3000	3000	13.60
Enhanced	10.8mm Laminate	1500	3000	5.55	3000	3000	11.1	3000	3000	11.1
Enhanced	28.0mm Double Glazed	1500	3000	7.50	3000	3000	7.50	3000	3000	7.50

Product Range	Glass Options	Installation Options					
		Face Fix	Reveal	Reveal	Optional Deep	Bevels	Specials
		Through Timber	Fix Through Frame	Fix Through Timber	Reveal Fix Through Timber		
Classic	4.0mm tough	TIM-43x16	TIM-43x16	TIM-62x16	TIM-70x16	TIM-62x50	TIM-90x90
Enhanced	6.0mm tough	TIM-43x16	TIM-43x16	TIM-62x16	TIM-70x16	TIM-62x50	TIM-90x90
Enhanced	6.4mm Laminate	TIM-43x16	TIM-43x16	TIM-62x16	TIM-70x16	TIM-62x50	TIM-90x90
Enhanced	6.8mm Laminate	TIM-43x16	TIM-43x16	TIM-62x16	TIM-70x16	TIM-62x50	TIM-90x90
Enhanced	8.8mm Laminate	TIM-43x16	TIM-43x16	TIM-62x16	TIM-70x16	TIM-62x50	TIM-90x90
Enhanced	10.8mm Laminate	TIM-43x16	TIM-43x16	TIM-62x16	TIM-70x16	TIM-62x50	TIM-90x90
Enhanced	28.0mm Double Glazed	TIM-43x16	TIM-43x16	TIM-62x16	TIM-70x16	TIM-62x50	TIM-90x90

General Data Sheet.

Hinged Casement – Tilt & Turn

*See note below for precise details

Product Range	Glass Options	Max Panel Weights (kgs)	Minimum Panel Dims		Maximum Panel Dims			Panel
			Size (mm)		Size (mm)		Area m ²	Aspect Ratios
			Width	Height	Width	Height	Must not Exceed	Max Width to Height Ratio
Classic	4.0mm Tough	14.5	460	685	1700*	2800*	1.45	1.5 : 1*
Enhanced	6.0mm Tough	170	460	685	1700*	2800*	4.08	1.5 : 1*
Enhanced	6.4mm Laminate	170	460	685	1700*	2800*	4.08	1.5 : 1*
Enhanced	6.8mm Laminate	170	460	685	1700*	2800*	4.08	1.5 : 1*
Enhanced	8.8mm Laminate	170	460	685	1700*	2800*	4.08	1.5 : 1*
Enhanced	10.8mm Laminate	170	460	685	1700*	2800*	4.08	1.5 : 1*
Enhanced	28.0mm Double Glazed	170	460	685	1700*	2800*	4.08	1.5 : 1*

Product Range	Glass Options	Max Window Dimensions Tilt & Turn			Installation Options					
		Width (mm)	Height (mm)	Area (m ²)	Face Fix	Reveal	Reveal	Optional Deep	Bevels	Specials
					Through Timber	Fix Through Frame	Fix Through Timber	Reveal Fix Through Timber		
Classic	4.0mm tough	1700	2800*	1.45	TIM-43x16	TIM-43x16	TIM-62x16	TIM-70x16	TIM-62x50	TIM-90x90
Enhanced	6.0mm tough	1700	2800*	4.08	TIM-43x16	TIM-43x16	TIM-62x16	TIM-70x16	TIM-62x50	TIM-90x90
Enhanced	6.4mm Laminate	1700	2800*	4.08	TIM-43x16	TIM-43x16	TIM-62x16	TIM-70x16	TIM-62x50	TIM-90x90
Enhanced	6.8mm Laminate	1700	2800*	4.08	TIM-43x16	TIM-43x16	TIM-62x16	TIM-70x16	TIM-62x50	TIM-90x90
Enhanced	8.8mm Laminate	1700	2800*	4.08	TIM-43x16	TIM-43x16	TIM-62x16	TIM-70x16	TIM-62x50	TIM-90x90
Enhanced	10.8mm Laminate	1700	2800*	4.08	TIM-43x16	TIM-43x16	TIM-43x16	TIM-43x16	TIM-43x16	TIM-43x16
Enhanced	10.8mm Laminate	1700	2800*	4.08	TIM-43x16	TIM-43x16	TIM-43x16	TIM-43x16	TIM-43x16	TIM-43x16

*TILT AND TURN WINDOW SIZE LIMITATIONS

Tilt & Turn window dimensions and maximum areas are governed by the hardware manufacturer's guidelines. Please ensure the limitations below are followed.

Window Height between 600 mm and 1200 mm - Max Window Width = 1700 mm - Max Window Area = 2.04 m²

Window Height between 1201 mm and 1800 mm - Max Window Width = 1700 mm - Max Window Area = 3.06 m²

Window Height between 18.01 mm and 2400 mm - Max Window Width = 1700 mm - Max Window Area = 4.08 m²

Window Height between 2401 mm and 2800 mm - Max Window Width = 1201 mm - Max Window Area = 3.36 m²

Tilt & Turn Aspect Ratios for Panels (Width to Height)

Panel weight < 130 kgs - Ratio = 1.5 : 1

Panel weight 130 - 170 kgs - Ratio = 1 : 1

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General Data Sheet.

Horizontal Sliders

Product Range	Glass Options	Max Panel Weights (kgs)	Minimum Panel Dims		Maximum Panel Dims			Panel
			Size (mm)		Size (mm)		Area m ²	Aspect Ratios
			Width	Height	Width	Height	Must not Exceed	Max Width to Height Ratio
Classic	4.0mm Tough	14.5	175	175	1250	1900	1.45	1 : 2.5
Enhanced	6.0mm Tough	80	175	175	2450	2700	5.33	1 : 3.5
Enhanced	6.4mm Laminate	80	175	175	2450	2700	5.00	1 : 3.5
Enhanced	6.8mm Laminate	80	175	175	2450	2700	4.70	1 : 3.5
Enhanced	8.8mm Laminate	80	175	175	2450	2700	3.64	1 : 3.5
Enhanced	10.8mm Laminate	80	175	175	2450	2700	2.96	1 : 3.5

Product Range	Glass Options	Maximum Window Dimensions By Window Type								
		HS2			HS3			HS4		
		Width (mm)	Height (mm)	Area (m ²)	Width (mm)	Height (mm)	Area (m ²)	Width (mm)	Height (mm)	Area (m ²)
Classic	4.0mm tough	2500	1900	2.90	3750	1900	4.35	4900	1900	7.25
Enhanced	6.0mm tough	4900	2700	10.66	4900	2700	13.23	4900	2700	13.23
Enhanced	6.4mm Laminate	4900	2700	10.00	4900	2700	13.23	4900	2700	13.23
Enhanced	6.8mm Laminate	4900	2700	9.40	4900	2700	13.23	4900	2700	13.23
Enhanced	8.8mm Laminate	4900	2700	7.28	4900	2700	10.92	4900	2700	13.23
Enhanced	10.8mm Laminate	4900	2700	5.92	4900	2700	8.88	4900	2700	13.23

Product Range	Glass Options	Maximum Window Dimensions by Window Type			Installation Options					
		HS5			Face Fix	Reveal	Reveal	Optional Deep	Bevels	Specials
		Width (mm)	Height (mm)	Area (m ²)	Through Timber	Fix Through Frame	Fix Through Timber	Reveal Fix Through Timber		
Classic	4.0mm tough	4900	1900	7.25	TIM-43x16	TIM-43x16	TIM-62x16	TIM-70x16	TIM-62x50	TIM-90x90
Enhanced	6.0mm tough	4900	2700	13.23	TIM-43x16	TIM-43x16	TIM-62x16	TIM-70x16	TIM-62x50	TIM-90x90
Enhanced	6.4mm Laminate	4900	2700	13.23	TIM-43x16	TIM-43x16	TIM-62x16	TIM-70x16	TIM-62x50	TIM-90x90
Enhanced	6.8mm Laminate	4900	2700	13.23	TIM-43x16	TIM-43x16	TIM-62x16	TIM-70x16	TIM-62x50	TIM-90x90
Enhanced	8.8mm Laminate	4900	2700	13.23	TIM-43x16	TIM-43x16	TIM-62x16	TIM-70x16	TIM-62x50	TIM-90x90
Enhanced	10.8mm Laminate	4900	2700	13.23	TIM-43x16	TIM-43x16	TIM-62x16	TIM-70x16	TIM-62x50	TIM-90x90

General Data Sheet.



GRANADA
secondary glazing

Lift Out

Product Range	Glass Options	Max Panel Weights (kgs)	Minimum Panel Dims		Maximum Panel Dims			Panel
			Size (mm)		Size (mm)		Area m ²	Aspect Ratios
			Width	Height	Width	Height	Must not Exceed	Max Width to Height Ratio
Classic	4.0mm tough	14.5	250	300	2000	2000	1.45	N/A
Enhanced	6.0mm tough	50	250	300	3250	3250	6.66	N/A
Enhanced	6.4mm Laminate	50	250	300	3250	3250	6.66	N/A
Enhanced	6.8mm Laminate	50	250	300	3250	3250	6.66	N/A
Enhanced	8.8mm Laminate	50	250	300	3250	3250	6.66	N/A
Enhanced	10.8mm Laminate	50	250	300	3250	3250	6.66	N/A

Product Range	Glass Options	Maximum Window Dimensions by Window Type					
		Single Handle - Maximum Sizes			With Catches - Maximum Sizes		
		Width (mm)	Height (mm)	Area (m ²)	Width (mm)	Height (mm)	Area (m ²)
Classic	4.0mm tough	2000	2000	1.45	2000	2000	1.45
Enhanced	6.0mm tough	3250	3250	6.66	3250	3250	6.66
Enhanced	6.4mm Laminate	3250	3250	6.66	3250	3250	6.66
Enhanced	6.8mm Laminate	3250	3250	6.66	3250	3250	6.66
Enhanced	8.8mm Laminate	3250	3250	6.66	3250	3250	6.66
Enhanced	10.8mm Laminate	3250	3300	6.66	3250	3250	6.66

Product Range	Glass Options	Installation Options			
		Face Fix	Reveal	Bevels	Specials
		Through Timber	Fix Through Frame		
Classic	4.0mm tough	TIM-25x16	TIM-25x16	TIM-62x50	TIM-90x90
Enhanced	6.0mm tough	TIM-25x16	TIM-25x16	TIM-62x50	TIM-90x90
Enhanced	6.4mm Laminate	TIM-25x16	TIM-25x16	TIM-62x50	TIM-90x90
Enhanced	6.8mm Laminate	TIM-25x16	TIM-25x16	TIM-62x50	TIM-90x90
Enhanced	8.8mm Laminate	TIM-25x16	TIM-25x16	TIM-62x50	TIM-90x90
Enhanced	10.8mm Laminate	TIM-25x16	TIM-25x16	TIM-62x50	TIM-90x90

General Data Sheet.

Slimline Hinged Casement

Product Range	Glass Options	Max Panel Weights (kgs)	Minimum Panel Dims		Maximum Panel Dims			Panel
			Size (mm)		Size (mm)		Area m ²	Aspect Ratios
			Width	Height	Width	Height	Must not Exceed	Max Width to Height Ratio
Classic	4.0mm tough	14.5	205	463	1500	3000	1.45	1 : 1.5
Enhanced	6.0mm tough	100.0	205	463	1500	3000	6.67	1 : 1.5
Enhanced	6.4mm Laminate	100.0	205	463	1500	3000	6.25	1 : 1.5
Enhanced	6.8mm Laminate	100.0	205	463	1500	3000	5.88	1 : 1.5
Enhanced	8.8mm Laminate	100.0	205	463	1500	3000	4.54	1 : 1.5
Enhanced	10.8mm Laminate	100.0	205	463	1500	3000	3.70	1 : 1.5

Product Range	Glass Options	Maximum Window Dimensions by Window Type								
		Standard			Low Threshold			Restricted Opening		
		Width (mm)	Height (mm)	Area (m ²)	Width (mm)	Height (mm)	Area (m ²)	Width (mm)	Height (mm)	Area (m ²)
Classic	4.0mm tough	1500	3000	1.45	1500	3000	1.45	1500	3000	1.45
Enhanced	6.0mm tough	1500	3000	6.67	1500	3000	6.67	1500	3000	6.67
Enhanced	6.4mm Laminate	1500	3000	6.25	1500	3000	6.25	1500	3000	6.25
Enhanced	6.8mm Laminate	1500	3000	5.88	1500	3000	5.88	1500	3000	5.88
Enhanced	8.8mm Laminate	1500	3000	4.54	1500	3000	4.54	1500	3000	4.54
Enhanced	10.8mm Laminate	1500	3000	3.70	1500	3000	3.70	1500	3000	3.70

Product Range	Glass Options	Installation Options			
		Face Fix	Reveal	Bevels	Specials
		Through Timber	Fix Through Frame		
Classic	4.0mm tough	TIM-25x16	TIM-25x16	TIM-62x50	TIM-90x90
Enhanced	6.0mm tough	TIM-25x16	TIM-25x16	TIM-62x50	TIM-90x90
Enhanced	6.4mm Laminate	TIM-25x16	TIM-25x16	TIM-62x50	TIM-90x90
Enhanced	6.8mm Laminate	TIM-25x16	TIM-25x16	TIM-62x50	TIM-90x90
Enhanced	8.8mm Laminate	TIM-25x16	TIM-25x16	TIM-62x50	TIM-90x90
Enhanced	10.8mm Laminate	TIM-25x16	TIM-25x16	TIM-62x50	TIM-90x90

General Data Sheet.

Tilt-in Balanced Vertical Slider

Product Range	Glass Options	Max Panel Weights (kgs)	Minimum Panel Dims		Maximum Panel Dims			Panel
			Size (mm)		Size (mm)		Area m ²	Aspect Ratios
			Width	Height	Width	Height	Must not Exceed	Max Width to Height Ratio
Classic	4.0mm tough	14.5	175	175	1500	1800	1.45	1.5 : 1
Enhanced	6.0mm tough	45	175	175	1500	1800	3.00	1.5 : 1
Enhanced	6.4mm Laminate	45	175	175	1500	1800	2.81	1.5 : 1
Enhanced	6.8mm Laminate	45	175	175	1500	1800	2.65	1.5 : 1
Enhanced	8.8mm Laminate	45	175	175	1500	1800	2.04	1.5 : 1
Enhanced	10.8mm Laminate	45	175	175	1500	1800	1.66	1.5 : 1

Product Range	Glass Options	Maximum Window Dimensions by Window Type TBVS (all)			Installation Options					
					Face Fix	Reveal	Reveal	Optional Deep	Bevels	Specials
		Width (mm)	Height (mm)	Area (m ²)	Through Timber	Fix Through Frame	Fix Through Timber	Reveal Fix Through Timber		
Classic	4.0mm tough	1575	3000	2.90	TIM-43x16	TIM-43x16	TIM-62x16	TIM-70x16	TIM-62x50	TIM-90x90
Enhanced	6.0mm tough	1575	3300	5.19	TIM-43x16	TIM-43x16	TIM-62x16	TIM-70x16	TIM-62x50	TIM-90x90
Enhanced	6.4mm Laminate	1575	3300	5.19	TIM-43x16	TIM-43x16	TIM-62x16	TIM-70x16	TIM-62x50	TIM-90x90
Enhanced	6.8mm Laminate	1575	3300	5.19	TIM-43x16	TIM-43x16	TIM-62x16	TIM-70x16	TIM-62x50	TIM-90x90
Enhanced	8.8mm Laminate	1575	3300	4.10	TIM-43x16	TIM-43x16	TIM-62x16	TIM-70x16	TIM-62x50	TIM-90x90
Enhanced	10.8mm Laminate	1575	3300	3.33	TIM-43x16	TIM-43x16	TIM-62x16	TIM-70x16	TIM-62x50	TIM-90x90

Standard Timber Sizes & Finishes.

Product	Face Fix through timber	Reveal Fix through timber	Reveal Fix through aluminum (self-drill)
Balanced Vertical Slider	43mm x 16mm	62mm x 16mm	43mm x 16mm
Horizontal Slider	43mm x 16mm	62mm x 16mm	43mm x 16mm
Hinged Unit - Slimline	25mm x 16mm	N/A	25mm x 16mm
Lift Out	25mm x 16mm	N/A	25mm x 16mm
Tilt In Balanced Vertical Slider	62mm x 16mm	70mm x 16mm	62mm x 16mm
Hinged Unit all variations	62mm x 16mm	70mm x 16mm	62mm x 16mm

Our standard white finish is RAL 9003 Satin, and all windows produced in our standard white will be manufactured with a timber subframe (face or reveal fix) unless specified otherwise at the above sizes.

The subframe paint finish for our standard white RAL 9003 Satin is to all sides of the timber as it is a primed finish from the timber manufacturer.

We will supply a 28mm PVC trim with all standard white windows unless specified otherwise at point of order.

The timber specification is as below:

- Primed high quality with two coats, FSC Mix credit radiata pine clear grade, FSC mix credit TT-CC-002 157.

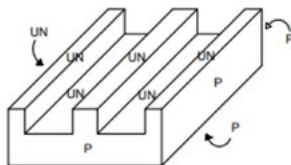
Stock colours & custom ral colours:

- Should a stock colour or a custom ral be requested the following surfaces are painted as standard
- If any further surfaces or other decorative finishes are required, please specify this at point of order
- Please note this may incur additional costs and increased lead times due to the drying time and labour required.

Key: P = Painted UN = Unpainted

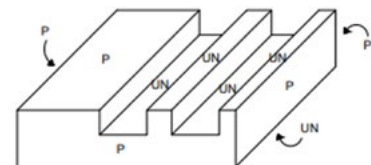
Face Fix

TIM-01
43x16 Section
BVS/HS
Face Fix



Reveal Fix

TIM-03
62x16 Section
BVS/HS
Through Timber
Reveal Fix



Trims.

All our units apart from the insert are supplied with a 27mm SBN PVC trim which are cut in lengths approx. 100mm larger than length and widths as standard this is supplied separately and the customer applies them to the face of the timber once the unit has been installed.

The Insert does not have a timber subframe therefore does not require a trim. We are able to supply additional trims in varying sizes should the customer require this the following are available from stock:

All the trims are SBN (Single Bull Nose) this means one side has a curved edge.

On occasion a DBN (Double Bull Nose) may be required this has a curved edge both sides.

PVC

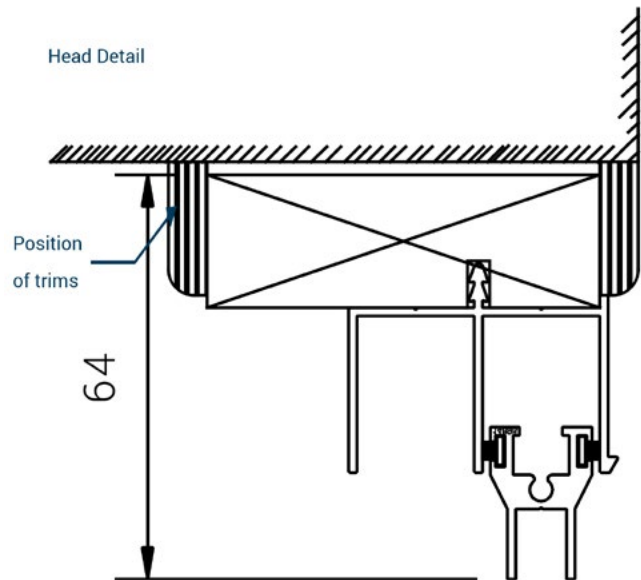
- 6mm x 21mm SBN
- 6mm x 27mm SBN
- 6mm x 45mm SBN
- 6mm x 65mm SBN
- 6mm x 95mm SBN

Painted Timber

- 6mm x 27mm SBN
- 6mm x 40mm SBN
- 6mm x 60mm SBN
- 6mm x 90mm SBN

Larger trims are usually required to finish off windows where the reveals are not square or if the reveals are splayed.

If the back of the secondary unit will be visible the customer may require trims to cover the back of the subframe.



Bay & Splay Windows.

Bays are made up of 3, 4, 5, 6, and 7 sections.

Square Bays

A square bay consists of three separate windows joined together at 90 degree angles to create a return. We require the front or back finished sizes and the angle to process the order.

Splayed Bays

Every style of secondary in our range can be utilised to make up a splayed bay apart from the insert as this does not have a subframe.

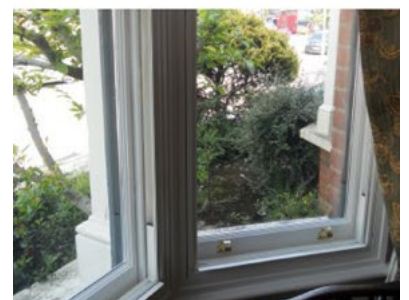
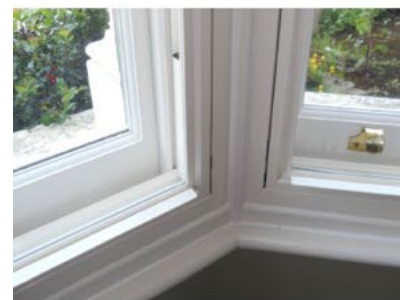
A splayed bay consists of three separate windows joined together at an angle greater than 90 degree angles to create a return.

When a bay is made up of standard range product and heritage hinged units the timber subframe on the heritage is wider than the standard product to accommodate the handle.

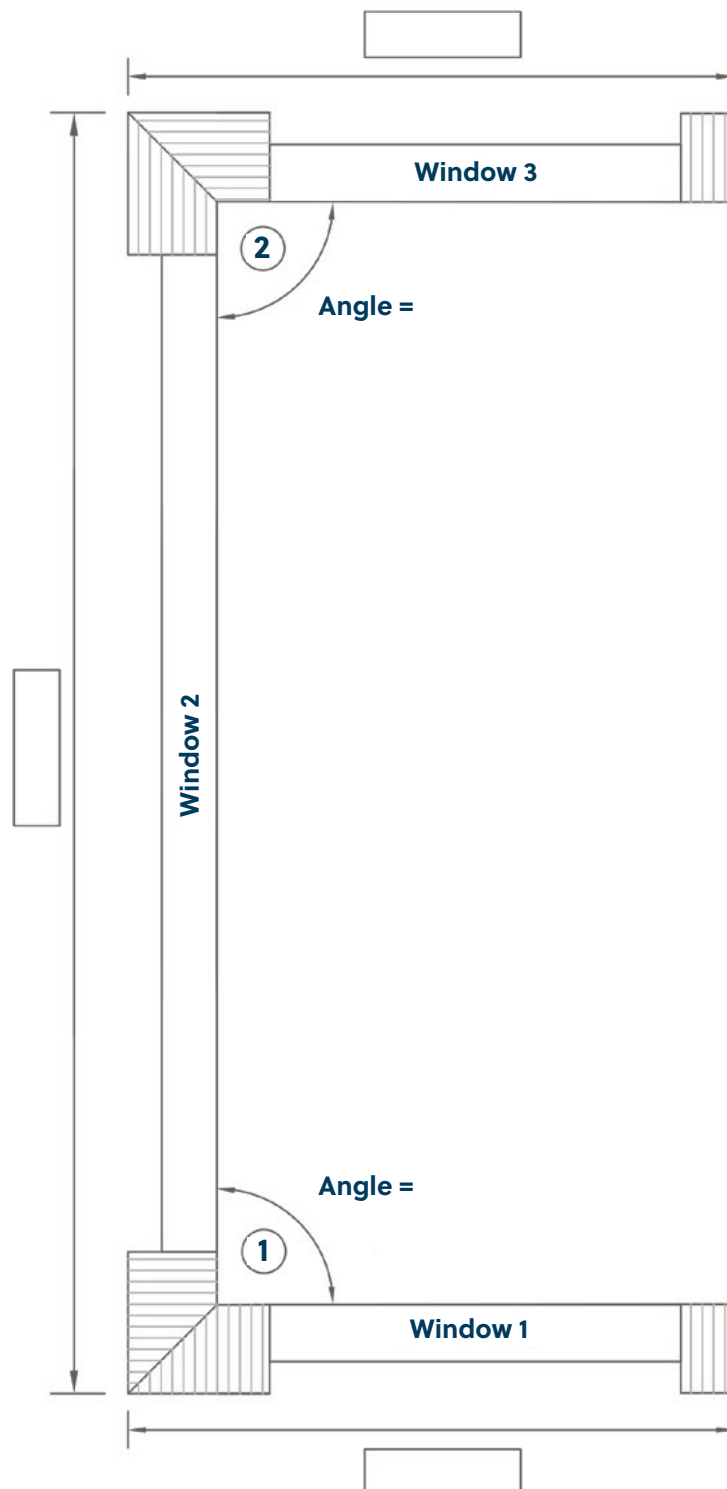
The customer will need to be made aware of above prior to quote/order.

Splayed Windows

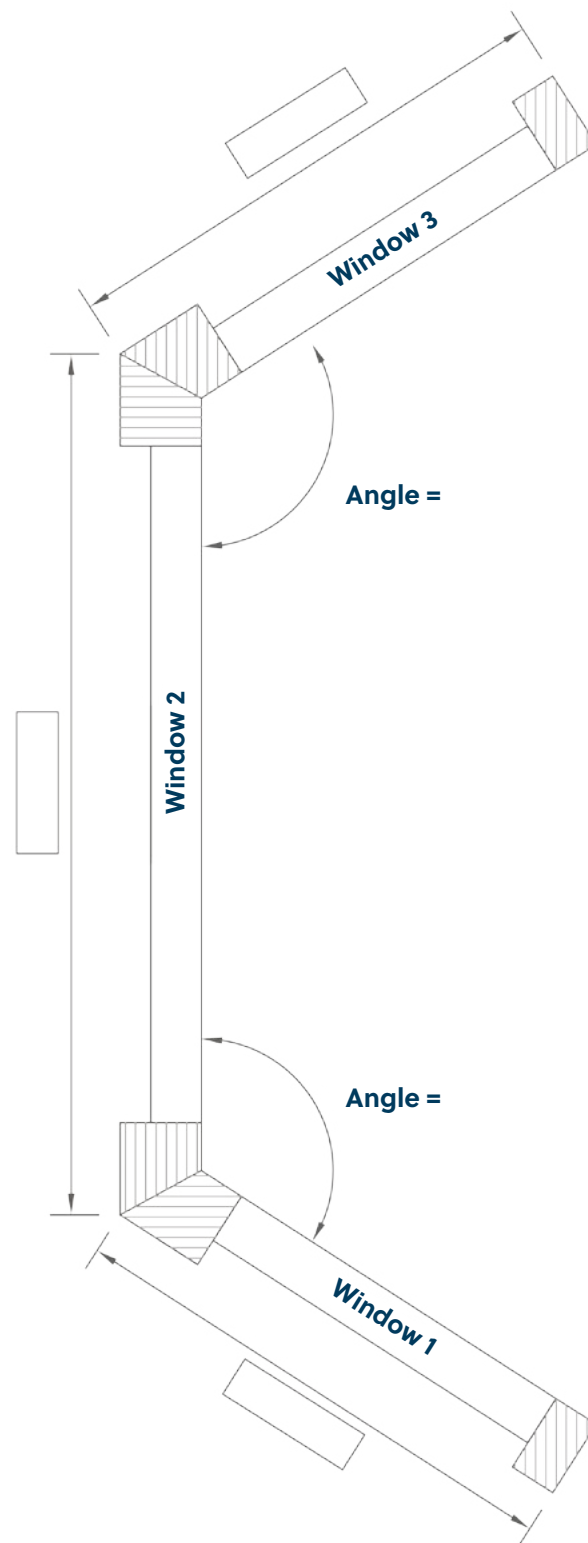
We are able to bevel the timber on the sides, top or bottom to accommodate sloping window openings. It is most common to have the side timbers bevelled and this is usually requested when customers are using secondary in older properties most modern properties are built with square reveals.



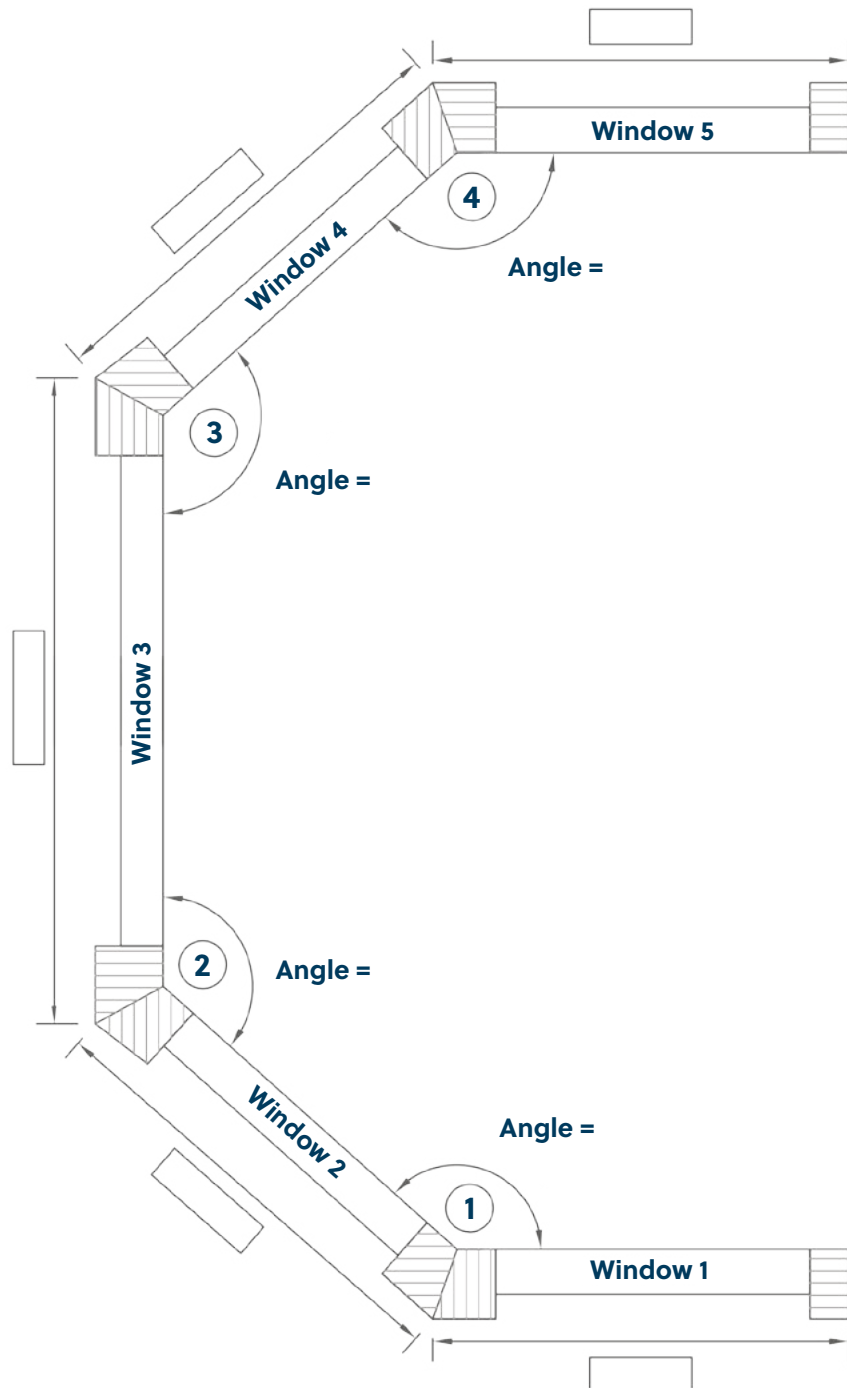
Type: Square Bay Measuring Form



Type: 3 Bay Measuring Form



Type: 5 Part Bay Order Form



Recommended noise levels in a residential property

- Bedroom: 30db
- Living Room: 35db

Aluminium 6063T6 alloy to BS EN 755 standard, powder coated to BS 6496 to 60 micron finish.

Single Glazed windows typically perform between 28-30db Solid stone walls typically perform around 40db. Brick and Block 2 inch cavity walls (new build) typically perform around 50db. On the rare occasion a customer is dis-satisfied with the performance of the Secondary Glazing it may be that the noise reduction is affected by the walls as the noise performance is only as good as the weakest point in the room.

Prior to the installation of the secondary glazing the primary window may have performed at 28db and the walls may have performed at 40db. The householder will distinguish the window as being the problem area as this is the weakest point. After installation the walls will still perform at the same level but dependant on which glass and style of secondary it will be at a higher Db level than the walls but the householder will still hear the noise the wall let through but there perception will be the window is not performing.

Soft furnishing will aid noise reduction by absorbing the noise energy inside the room.

Rw dB values for Granada Secondary Glazing								
200mm Glass to Glass								
Secondary Glazing	Primary Window with 4mm Float Glass				Primary Window with 6mm Float Glass			
	SS2	HHU	BVS	HTBVS	SS2	HHU	BVS	HTBVS
4mm Float	49	50	49	47	51	51	51	48
6mm Float	50*	51*	51*	47*	51*	52*	52*	48*
6.4mm Stadip Silence	51	52	53	48	52	53	54	50
8.8mm Stadip Silence	N/A	52*	52*	48	N/A	53*	53*	49
10.8mm Stadip Silence	N/A	53	N/A	N/A	N/A	54	N/A	N/A
4/12/6.4mm Sealed Unit	N/A	53	N/A	N/A	N/A	53	N/A	N/A
150mm Glass to Glass								
4mm Float	48*	48*	47*	46*	51	50*	50*	47*
6mm Float	49*	49*	48*	46*	51*	50*	50*	47*
6.4mm Stadip Silence	50*	50*	49*	47*	52	51*	52*	48*
8.8mm Stadip Silence	N/A	50*	N/A	47*	N/A	51*	N/A	48*
10.8mm Stadip Silence	N/A	51*	N/A	N/A	N/A	52*	N/A	N/A
4/12/6.4mm Sealed Unit	N/A	51*	N/A	N/A	N/A	52*	N/A	N/A

KEY

SS2 - 2 Pane Horizontal Slider

HHU - Side Hung Unit

BVS - Balanced Verticle Slider

HTBVS - Heritage Tilt-In Balanced Verticle Slider

*Sound reduction figures predicted by Chiltern Dynamics using the basis of actual laboratory test results. Sound Reduction (Rw) measured in dB.

How do we measure sound?

Sound energy travels in waves and is measured in frequency and amplitude. Amplitude measures how forceful the wave is. It is measured in decibels or dBA of sound pressure. 3 dBA is the softest level that a person can hear. Normal speaking voices are around 65 dBA. A rock concert can be about 120 dBA.

Decibel reduction is measured over four stages where all four stages are important to ensure the window performs well.

Cavity - The larger the cavity the better as noise passes through solid objects quite easily but when a cavity is introduced the noise passing through changes from noise energy to heat energy as it goes from solid object to air.

Stiffness - The stiffness of the product the noise is passing through is also important as the more flexible it is the more energy it will absorb thus reducing the noise.

Mass - The higher the mass of the product the noise is passing through is beneficial, the thicker the glass the better. Please bear in mind this offsets the stiffness factor as more mass in the glass is likely to be stiffer so this could be detrimental to energy absorption.

Air Leakage - If the seal/woolpile etc. are not effective this will have a negative effect on the overall results.

Glass Thickness

Conflicting thickness of glass is very important because if you have two pieces of glass the same thickness this will cause a coincidence drop as the levels of noise will pass through exactly the same therefore you always require a conflicting thickness of glass in the secondary to the primary window to ensure the coincidence drop does not occur. If the above rules are adhered to the customer can expect a high noise reduction dependant of type of glass used.

How noise is perceived by the human ear

The human ear does not register low frequency noise but responds very well at high frequency i.e. baby crying or phone ringing 3db is the lowest frequency the human ear can distinguish. An additional 5db is perceived as a clearly noticeable difference. An additional 10db difference is the human ear perception of doubling the noise.

Examples of external noise levels

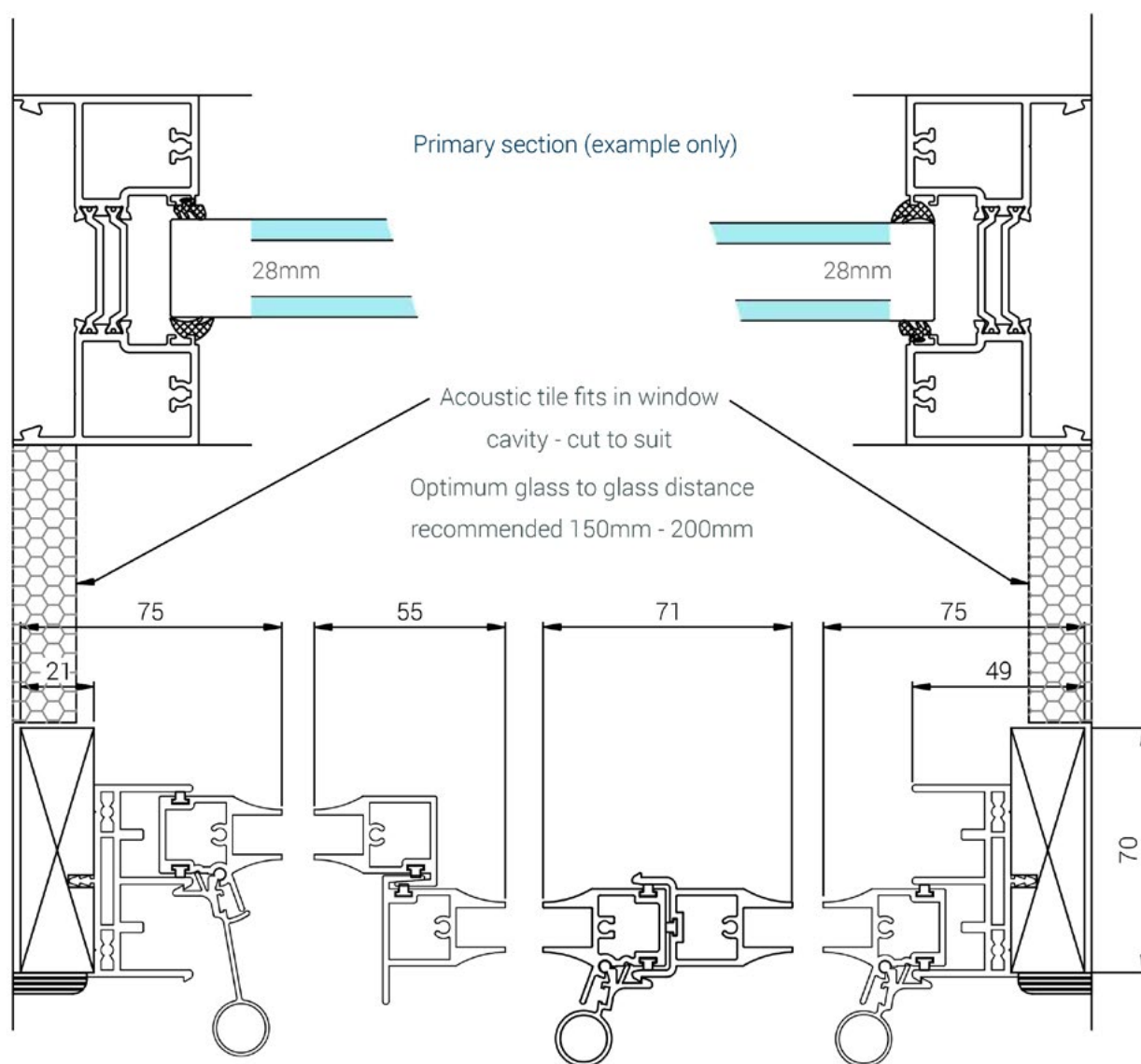
- Nightclub noise levels approx. 120db
- Road Traffic noise levels during the day (B Road) 80-85db
- Road Traffic noise levels during the night (B Road) 70-75db
- Road Traffic noise levels city centre 90db

Acoustic Tiles.

Acoustic tiles are used to further enhance the secondary glazing by lining the window reveals and head.

The acoustic tile is sold in sizes of 600mm x 1,200mm and can be cut to size by the customer to fit the reveals it is not usually applied to the cill of the window. The acoustic tile is similar to a ceiling tile you frequently see in offices.

The sound reduction the tile offers is 33db and the sound absorption is 0.85. Sound reduction is the level of noise blocked or contained by a product. Sound absorption is the level of noise/echo absorbed by a product. The sound reduction figure is what is important to our customers.



Arches, Circles and Shapes.

Arched Windows

Every style of secondary in our range can be arched apart from the horizontal sliders.

Some window styles require certain specification changes to accommodate the arches. Please speak to a member of our sales team to discuss your specific requirements.

There are three types of arch we can produce:

- True Radius – This is a symmetrical arch, meaning the radius is the same all around
- Varying Radius – An arch with a varying radius
- Gothic Arch – A gothic shaped arch which features a point at the top

If the arch is not a true arch we require a template or detailed drawing to be able to quote or manufacture accurately.

The timber sub frame is also arched as are the trims to be able to create a neat finish to the installed unit.

The trims for the arch are only available in MDF material, the customer needs to be made aware of this prior to quote or order especially if order is made up of several units as PVC trims will be standard on square units so option of timber needs to be made available to customer so windows look uniform.



Circular Windows

Only Insert, Lift Out and Heritage Hinged Units can be manufactured as circles. Should a customer require a circular Heritage Hinged Unit, this will split into two sections.

The trims for the circular units are available exclusively in MDF material. This also applies to circular windows.

Arches, Circles and Shapes.

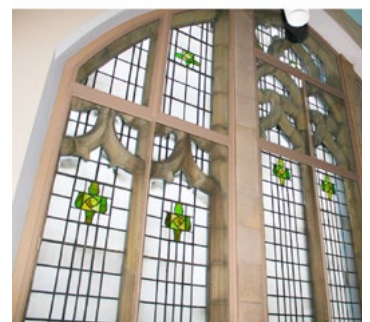
Shaped Windows

Some styles of secondary in our range can be shaped. Shaped Units usually are diamond, triangle or units with corners notched out and this can be applied to the majority of our product ranges.

Comprehensive drawing or a template would need to be provided prior to quote/order.

Raked Windows

Raked is a term used to describe windows that feature one side longer than the other, often giving the effect of coming to a point or angle. Barring Horizontal Sliders, all our product ranges can be made to accompany raked windows.



Coupling and Stacking Units.

When large areas of glazing are required to be treated by secondary glazing due to limitations on size and weight we are able to offer the customer an option to couple and stack units together.

Every unit apart from insert and slim line lift outs can be coupled or stacked either using a heavy duty frame coupling section or timber to timber.

Coupling

When coupling units using an aluminium coupling section this is a finished product and requires no further parts, the timber is removed at the point of the join and the interlock section replaces the timber.

When coupling using the timber sub frames this basically is two units butted together and an aluminium bar to cover the join.

Slim line Lift Out can only be coupled using the timber and flat aluminium bar to finish this is due to the outer frame only being 20mm single track rather than the 40mm double track.

Inserts cannot be coupled.

Stacking

When stacking horizontal sliding units using an aluminium coupling section you must include for a support bar this prevents any 'sagging' in the units and is located behind the mullions.

Sagging will occur due to the weight of the top unit transferring down through the mullions onto the bottom unit the support bar will brace the overall unit. You may need to allow for a support bar.

When the support is used it requires a 70mm sub frame to accommodate the support bar the support bar is fixed through into the interlock section using a bolt.

Support bar measurements is 25mm x 25mm.

All other units can be stacked using just the aluminium coupling section or timber to timber and the 38mm flat aluminium bar.



Thermal.

Thermal Insulation is measured in U Values, the U Value outlines how well a window can keep heat inside a room.

What is a U-Value?

The U-Value is a measurement of heat flow through a window. The lower the U Value the better the performance and, ultimately, the less heat escaping out through the window.

U-Value measures only the 'centre pane value'. This means it solely measures the U Value of the glass as opposed to the entire window.

Traditionally, the U-Value is measured in $W/(m^2K)$.

What is WER?

WER stands for Window Energy Rating and is a relatively new system which took effect from 2010. WER specifically measures the performance of new windows (both replacement double glazing and windows in newly built properties).

WER measures the whole thermal performance of a window, including the U-Value, to help better explain to homeowners the thermal properties of various window solutions.

Secondary Glazing with 6mm energy saving (low E) K glass, fitted over a typical traditional timber window will achieve a WER rating scale of B or C.

Secondary Glazing with double glazed energy saving (low E) K glass, fitted over a typical traditional timber will achieve a WER rating scale of A.

The rating is generally dependent on the cavity and glazing thickness (usually 4mm) of the primary window.

Important Information

The guidelines set out in Part L of the Building Regulations do not, and never have, applied to secondary glazing. The secondary unit does not have to comply.

Building Regulations

L1B – Existing dwellings, England & Wales

Windows

- Window Energy Rating minimum Band C
- Whole element U-Value $1.6W/m^2K$ or better

Doors

Whole element U-Value $1.8W/m^2K$ or better

L1A – New dwellings, England & Wales Windows, doors and curtain walling

- Whole element U-Value $2.0W/m^2K$

Trickle Vents.

A Trickle Vent allows air to trickle into a room at a reasonable rate to naturally ventilate the room and ensures that the occupant does not feel a cold draught, the window security will not be compromised.

Granada are able to install trickle vents through the subframe at the top, bottom or either side of the units.

When installing the subframe needs to be increased to 42mm deep and is routed out to accept the vent, a trim is also supplied to fit around the vent creating a neat finish.

Requirement & Regulations

Part F of building regulations dictates the following requirements:

England & Wales

Living room/Bedroom – 5000mm²

Bathroom/Kitchen – 2500mm²

Scotland

Apartment – 12000mm²

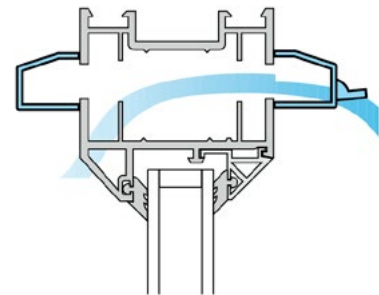
Bathroom – 10000mm²

Although there is no specific legislation in regards to trickle ventilation and secondary glazing it is 'good practice' to install a trickle vent into the secondary if there is one in the primary window and if the secondary glazing is being installed into older properties where a 'leaky' primary window or a badly sealed window would have provided some natural ventilation then installing a very well-sealed secondary would effectively block the air flow into the room and possibly cause condensation so again it would be 'good practice' to install a trickle vent to allow a free flow of air into the room.



Standard Trickle Vent

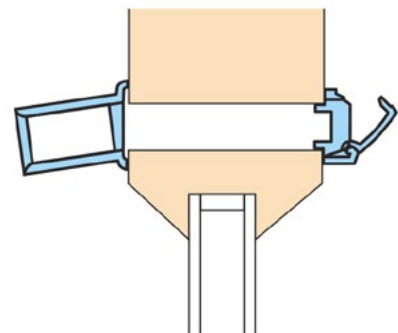
- Granada currently supply the Greenwood S Vent 4000s
- Equivalent Area coverage: 3200mm²
- Dimension: 400mm x 22mm x 23mm
- Acoustic Attenuation in open position: 33db



Acoustic Trickle Vent

- Granada currently supply the Greenwood DN Vent
- Free Area coverage: 1600MM²
- Dimension: Internal: 202mm x 22mm x 11mm
- External: 278mm x 22mm x 38mm
- Acoustic Attenuation: 37.7db

Trickle Ventilators may help to combat condensation by allowing a free flow of air from the outside through the primary window and out the secondary glazing thus stopping any build-up of warm vapour heavy air in the cavity.



Operation & Maintenance.

Lift Out (LO).



A removable secondary glazing panel within its own outer frame, which fixes to the face or reveal of the existing primary window. An ideal solution when only occasional cleaning access is required.

Operating Instructions

To remove the panel from the outerframe lift up into the head and lift panel forward to clear the bottom of the outerframe.

Reverse the procedure to replace the panel in the outerframe. To prevent the panel falling, please ensure the panel is secure in the outerframe.

Please note: for frames of 20kg or higher, standard manual handling practices should apply. Glass suckers should be used if available or, failing that, a second person should be consulted to help lift the frame.

Maintenance

There are no special maintenance requirements other than periodic cleaning as all moving parts are factory sealed with lubricant before assembly.

Environmental issues will dictate the cleaning cycle, i.e. location, weather, traffic etc. and should consist of washing down the glass and aluminium frames with a non-alkaline detergent in warm water using a soft cloth or a sponge.

Avoid abrasive cleaners, steel wool, strong acids or alkalis. After cleaning it is advisable to rinse the surface with clean water and wipe dry.

Chips or scratches in the paint finish can be touched up by using a nitro cellulose lacquer paint, but care must be taken to prevent paint from getting into draught seals or moving parts.

LO



Operation & Maintenance.

Hinged Units.

HU Hinged Unit

HUTT Hinged Unit Tilt & Turn

DHU Double Hinged Unit

With 60mm sightlines and no transoms or mullions, our hinged units offer an unobstructed view beyond the window. The unit features single handle operation and multi-point locking. Side and base opening also available.



Operating Instructions

Single Side Hung Unit

Turn the handle to a horizontal position this will allow the windows to open.

Tilt and Turn

Turn the handle upwards by 90°, this will allow the window to tilt inwards for a secure night time venting position. To fully open the window turn the handle upwards by 180° and pull towards you.

Double Side Hung Unit

Turn the handle to a horizontal position this will allow the windows to open. The "slave sash" of the double casement has a retention bolt fitted at cill level. This must be re-engaged when closing the window to ensure a good seal.

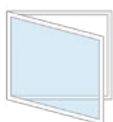
Maintenance

There are no special maintenance requirements other than periodic cleaning as all moving parts are factory sealed with lubricant before assembly. Environmental issues will dictate the cleaning cycle, i.e. location, weather, traffic etc. and should consist of washing down the glass and aluminium frames with a non-alkaline detergent in warm water using a soft cloth or a sponge.

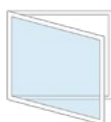
Avoid abrasive cleaners, steel wool, strong acids or alkalis. After cleaning it is advisable to rinse the surface with clean water and wipe dry.

Chips or scratches in the paint finish can be touched up by using a nitro cellulose lacquer paint, but care must be taken to prevent paint from getting into draught seals or moving parts.

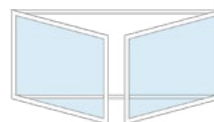
SLHU



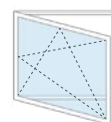
HU



DHU



HUTT





A slim and versatile horizontal sliding system that provides easy access for cleaning and ventilation, it is suitable for treating most window types. Available with 2, 3, 4 or 5 sliding sashes (panels).

Operating Instructions

To open the panels the push button must be released, this will then allow the panels to slide freely in the tracks.

Take care not to slam the panels or push them too fast. To open and close the panels a smooth and even movement is recommended.

It is advised to use two hands to move the panels. This will ensure the panels slide smoothly and do not foul in the track.

To close and secure the panels slide the panels to the closed position.

To remove the panels from the outer frame lift the panel up into the head and lift forward to clear the bottom of the outerframe. Reverse the procedure to replace the panel into the outerframe.

Please note: for frames of 20kg or higher, standard manual handling practices should apply. Glass suckers should be used if available or, failing that, a second person should be consulted to help lift the frame.

Maintenance

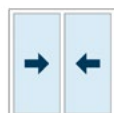
There are no special maintenance requirements other than periodic cleaning as all moving parts are factory sealed with lubricant before assembly.

Environmental issues will dictate the cleaning cycle, i.e. location, weather, traffic etc. and should consist of washing down the glass and aluminium frames with a non-alkaline detergent in warm water using a soft cloth or a sponge.

Avoid abrasive cleaners, steel wool, strong acids or alkalis. After cleaning it is advisable to rinse the surface with clean water and wipe dry.

Chips or scratches in the paint finish can be touched up by using a nitro cellulose lacquer paint, but care must be taken to prevent paint from getting into draught seals or moving parts.

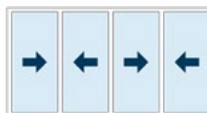
HS2 2 Panel



HS3 3 Panel



HS4 4 Panel



HS5 5 Panel



Operation & Maintenance.

Balanced Vertical Slider (BVS).



Vertical sliding secondary glazing designed especially for secondary glazing sash windows. These discreet units house self-supporting panes that remain in place at any chosen position.

Operating Instructions

Hold the bottom handle section of the unit and push in the button which is located to the centre of the meeting styles. This allows the bottom panel to slide up and the top panel to slide down. In order to locate the push button again, the top panel must be pushed right to the top and the bottom panel right to the bottom.

In order to lock the catch again, the top panel must be pushed right to the top and the bottom panel, right to the bottom and the button will locate automatically.

Maintenance

There are no special maintenance requirements other than periodic cleaning as all moving parts are factory sealed with lubricant before assembly.

Environmental issues will dictate the cleaning cycle, i.e. location, weather, traffic etc. and should consist of washing down the glass and aluminium frames with a non-alkaline detergent in warm water using a soft cloth or a sponge.

Avoid abrasive cleaners, steel wool, strong acids or alkalis. After cleaning it is advisable to rinse the surface with clean water and wipe dry.

Chips or scratches in the paint finish can be touched up by using a nitro cellulose lacquer paint, but care must be taken to prevent paint from getting into draught seals or moving parts.

BVS



SPBVS



Operation & Maintenance.

Slide Past Balanced Vertical Slider (SPBVS).



Vertical sliding secondary glazing designed especially for secondary glazing sash windows. These discreet units house self-supporting panes that remain in place at any chosen position.

Operating Instructions

Hold the bottom handle section of the unit and push in the button which is located to the centre of the meeting styles. This allows the bottom panel to slide up and the top panel to slide down. In order to locate the push button again, the top panel must be pushed right to the top and the bottom panel right to the bottom.

Maintenance & Cleaning

Our Balanced Vertical Slider with the slide past facility will allow the panels to fully pass each other to give full access to the primary window and cavity for cleaning and general maintenance, the back face can then be accessed from either the bottom or top by reaching into the cavity. To compliment this you may also consider using a magnetic cleaning cloth to assist on larger windows.

Avoid abrasive cleaners, steel wool, strong acids or alkalis. After cleaning it is advisable to rinse the surface with clean water and wipe dry.

There are no special maintenance requirements other than periodic cleaning as all moving parts are factory sealed with lubricant before assembly.

Environmental issues will dictate the cleaning cycle, i.e. location, weather, traffic etc. and should consist of washing down the glass and aluminium frames with a non[1] alkaline detergent in warm water using a soft cloth or a sponge.

Chips or scratches in the paint finish can be touched up by using a nitro cellulose lacquer paint, but care must be taken to prevent paint from getting into draught seals or moving parts.

SPBVS



Operation & Maintenance.

Tilt-In Balanced Vertical Slider (TBVS).



Discreet units with self-supporting panes. The tilt-in facility enables each secondary sash (panel) to be independently released from the outer frame and pivoted inwards through almost 180°.

Operating Instructions

Hold the bottom handle section of the unit and push in the button which is located to the centre of the meeting styles. This allows the bottom panel to slide up and the top button to slide down. In order to locate the push button again, the top panel must be pushed right to the top and the bottom panel right to the bottom.

To operate the tilt in facility, press the push button in the centre of the meeting styles and slide the panel up slightly. Using the small sliding catch located to the left and right hand side of the bottom panel, pull the release catches towards the centre and tilt panel towards you.

To tilt the top panel, the bottom panel has to be in the tilt in position. Slide the top panel down as far as required and then repeat the operation of pulling the small catch towards the centre then tilt panel towards you.

To return the top panel into a closed position, tilt the panel back towards the window and ensure the catches are locked into the track securely and slide as normal into the original position. Repeat this procedure with the bottom panel.

Maintenance

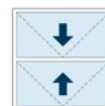
There are no special maintenance requirements other than periodic cleaning as all moving parts are factory sealed with lubricant before assembly.

Environmental issues will dictate the cleaning cycle, i.e. location, weather, traffic etc. and should consist of washing down the glass and aluminium frames with a non-alkaline detergent in warm water using a soft cloth or a sponge.

Avoid abrasive cleaners, steel wool, strong acids or alkalis. After cleaning it is advisable to rinse the surface with clean water and wipe dry.

Chips or scratches in the paint finish can be touched up by using a nitro cellulose lacquer paint, but care must be taken to prevent paint from getting into draught seals or moving parts.

TBVS

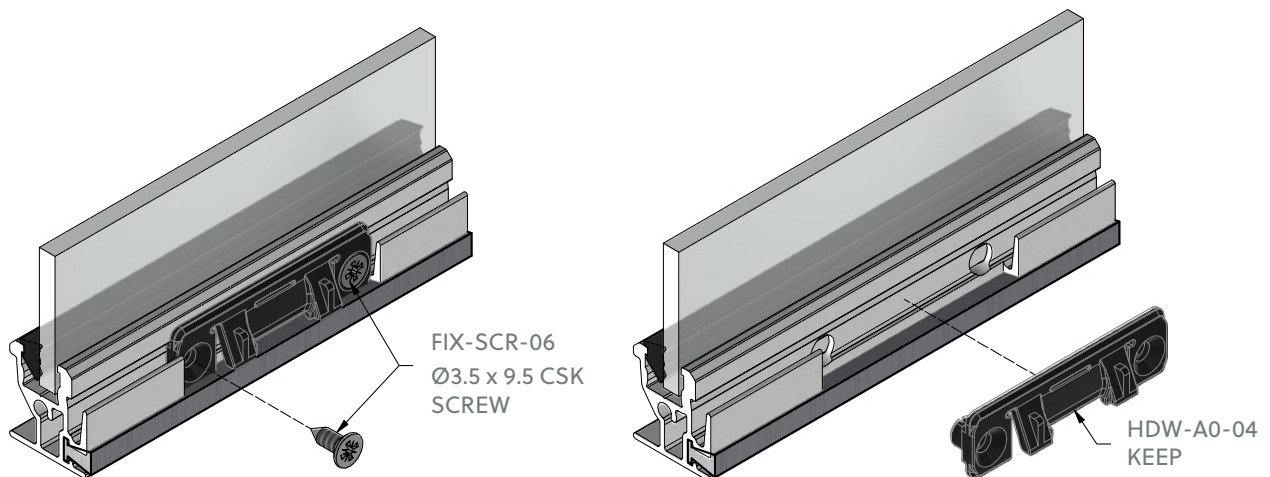


Redesigned Keep Replacement.

Step 1 – The original HDW-A0-04 keep will need removing and discarding prior to fitting of the HDW-A0-22 keep.

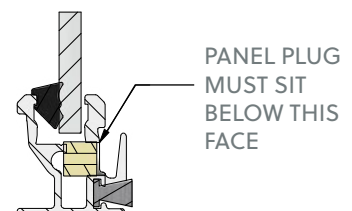
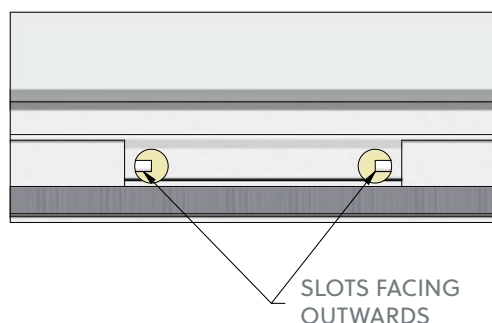
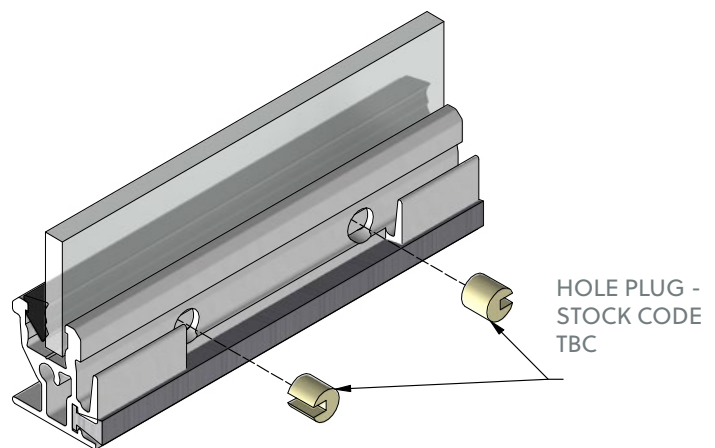
Remove the 2 x FIX-SCR-06 Ø3.5 x 9.5 csk self tapping screws that retain the HDW-A0-04 keep.

Remove the HDW-A0-04 keep from the panel rail. It may be necessary to lever the keep from the rail using a flat blade screwdriver or similar.



Step 2 – Push the 2 x hole plugs into the panel rail with the slots facing outwards as shown. It may be necessary to tap these into position as they are intended to be a tight fit.

Important note - The face of the hole plug must be below the face of the panel profile as shown. If it is above then it is necessary to trim the panel plug back with a sharp blade.





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