



QUIET, WARMTH & STYLE



# Product Guarantee

*Here at Granada we aim to supply a product that – with regular maintenance – will give many years of trouble-free operation.*

*We have invested heavily into our machinery, premises and people, to ensure that the quality of the finished product is consistently delivered to the best of our ability.*

*Through these commitments to quality, we are confident in surpassing other window manufacturers with the comprehensive warranty that we offer on our products and installation.*

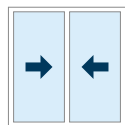
*The warranty period begins from the date of supply, and guarantees that the goods supplied will be free from inherent defects for a period of:*

*Five years for Aluminium frames and glazing*

*Two years for moving parts (including, but not limited to springs, locks, handles, rollers, hinges etc.)*

## Horizontal Sliding

## SS2 or HSS2

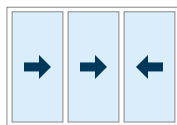


2 panel

Max width or max height

T	2,400mm	1,800mm
H	3,200mm	2,700mm

## CO3 or HCO3

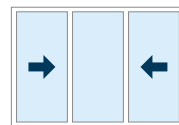


3 panel

Max width or max height

T	3,600mm	1,800mm
H	4,900mm	2,700mm

## SS3 or HSS3

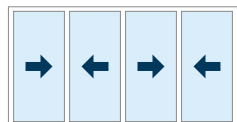


3 panel (fixed centre panel)

Max width or max height

T	3,600mm	1,800mm
H	4,900mm	2,700mm

## SS4 or HSS4



4 panel

Max width or max height

T	4,900mm	1,800mm
H	4,900mm	2,700mm

## SS5 or HSS5



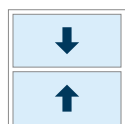
5 panel

Max width or max height

T	4,900mm	1,800mm
H	4,900mm	2,700mm

## Vertical Sliding

## BVS or HBVS

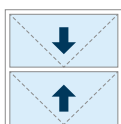


Balanced vertical slider

Max width or max height

T	1,500mm	3,000mm
H	1,500mm	3,000mm

## TBVS or HTBVS



Tilt-in balanced vertical slider

Max width or max height

T	1,500mm	3,000mm
H	1,500mm	3,000mm

## Insert Panel

## INS

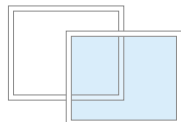


Max width or max height

T	1,200mm	2,000mm
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## Lift Out

## LO or HLO

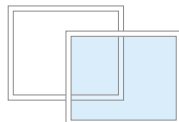


Lift out unit

Max width or max height

T	2,000mm	2,000mm
H	On Application	

## SLLO



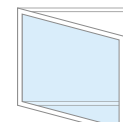
Slimline Lift out unit

Max width or max height

T	2,000mm	2,000mm
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## Hinged Casement

## HU



Traditional hinged casement

Max width or max height

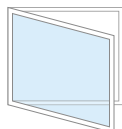
T	950mm	2,100mm
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## Optional extras:

- Curved head window
- Gothic head window
- Trickle vent
- Acoustic trickle vent
- Acoustic tile board
- Shaped corners
- Flyscreen

## Hinged Casement - (Heritage hinged unit will house up to 28mm sealed unit)

## HHU or HHU-TT

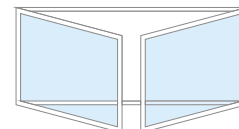


Heritage hinged casement

Max width or max height

H	1,400mm	2,400mm
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## DHHU



Double heritage hinged casement

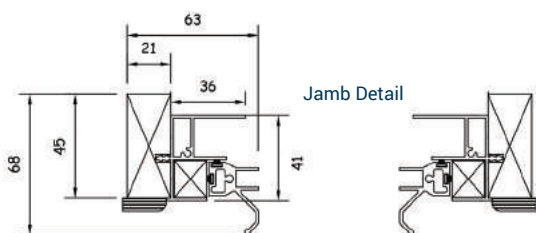
Max width or max height

H	2,800mm	2,800mm
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All windows are supplied fully assembled and ready to install. Units comprise of an aluminium outer frame joined to a seasoned hardwood timber surround.

## Lift Out (LO)

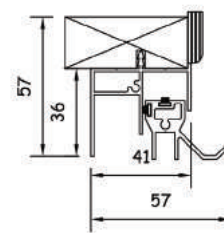
A removable panel within its own outer frame, fixed to the face or reveal of the existing window. These units use an aluminium twin track profile, to provide a secure fixing for larger panes of glass.



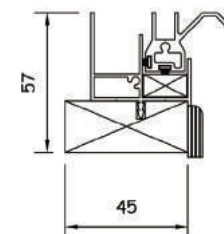
Jamb Detail



Head Detail



Cill Detail



## Features

- Slim, unobtrusive aluminium profile
- Economical option to secondary glaze primary window
- Improved noise and thermal installation
- Suitable for arched and shaped 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
- Easy to remove panel for cleaning and maintenance of primary window

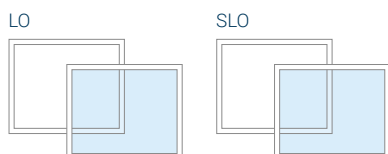
## Variations of Basic Unit

- Anti lift bolt is available to secure panel in place (fitted through subframe)
- No Subframe version available
- Slimline option available
- Standard and acoustic trickle vents are available duty frame coupling section or timber to timber
- Larger trims and timber trims available at additional costs
- Variety of stock colours available, including all RAL options
- Can accept flyscreen mesh
- Curved in plan option available

## Specification

- Glazing options: 4mm - 6.8mm
- Choice of timber subframes
- Pre-drilled and countersunk to suit either face fix or reveal fix
- Woolpile inserted in to panel section groove to create outer frame seal
- Gasket colour option of black or white
- PVCu trims supplied for the face of the units to create a neat, clean finish
- Standard colour white high gloss - RAL 9910
- Lift out section has one rib running along the section

Traditional  
Configurations



Based on 4mm Glass

Max width: 2,000mm  
or Max height: 2,000mm



### Optimum Noise Reduction: 52dB (Rw)

Using 6.4mm acoustic laminate glazing, with 200mm glass-to-glass

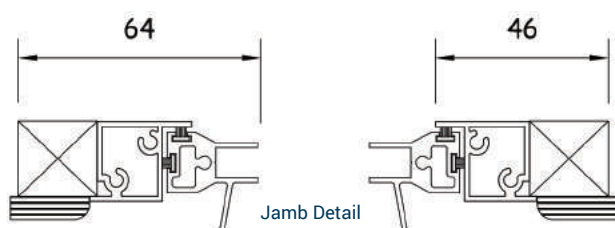


### Optimum U Value: 1.868 W/m<sup>2</sup>K

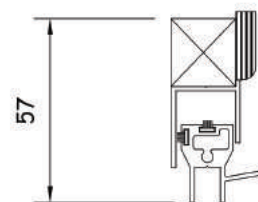
Using 4mm toughened Low E glazing, with 80mm glass-to-glass

## Slimline Lift Out (SLLO)

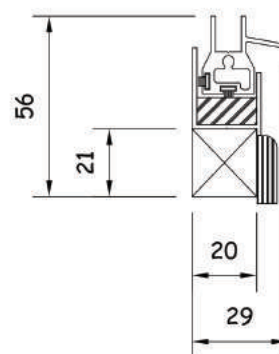
A removable secondary glazing panel within its own outer frame, which fixes to the face or reveal of the existing primary window. An ideal solution when only occasional cleaning access is required.



Head Detail



Cill Detail



### Features

- Slim, unobtrusive aluminium profile
- Economical option to secondary glaze primary window
- Improved noise and thermal installation
- Suitable for arched and shaped 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
- Easy to remove panel for cleaning and maintenance of primary window

### Variations of Basic Unit

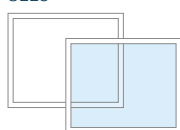
- Standard and acoustic trickle vents are available
- Larger trims and timber trims available at additional costs
- Variety of stock colours available, including all RAL options
- Can accept flyscreen mesh

### Specification

- Glazing options: 4mm - 6.8mm
- Choice of timber subframes
- Pre-drilled and countersunk to suit either face fix or reveal fix
- Woolpile inserted in to panel section groove to create outer frame seal
- Gasket colour option of black or white
- PVCu trims supplied for the face of the units to create a neat, clean finish
- Standard colour white high gloss - RAL 9910
- Lift out section has one rib running along the section

Traditional  
Configurations

SLLO



Based on 4mm Glass

Max width: 2,000mm  
or Max height: 2,000mm



#### Optimum Noise Reduction: 52dB (Rw)

Using 6.4mm acoustic laminate glazing, with 200mm glass-to-glass

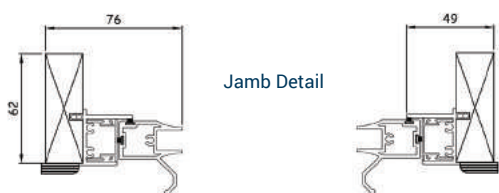


#### Optimum U Value: 1.868 W/m2K

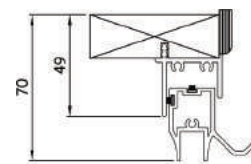
Using 4mm toughened Low E glazing, with 80mm glass-to-glass

## Lift Out (HLO)

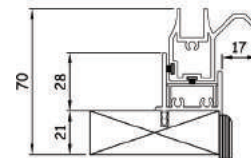
A removable secondary glazing panel within its own outer frame, which fixes to the face or reveal of the existing primary window. An ideal solution when only occasional cleaning access is required.



Head Detail



Cill Detail



### Features

- Slim, unobtrusive aluminium profile
- Economical option to secondary glaze primary window
- Improved noise and thermal installation
- Suitable for arched and shaped 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
- Easy to remove panel for cleaning and maintenance of primary window

### Variations of Basic Unit

- Anti lift bolt is available to secure panel in place (fitted through subframe)
- No subframe version available
- Standard and acoustic trickle vents are available
- Can be coupled and stacked using a heavy duty frame coupling section or timber to timber
- Larger trims and timber trims available at additional cost
- Variety of stock colours available, including all RAL options
- Can accept flyscreen mesh

### Specification

- Glazing options: 4mm - 8.8mm
- Choice of timber subframes
- Pre-drilled and countersunk to suit either face fix or reveal fix
- Woolpile inserted in to panel section groove to create outer frame seal
- Gasket colour option of black or white
- PVCu trims supplied for the face of the units to create a neat, clean finish
- Standard colour white high gloss - RAL 9910
- Lift out section has one rib running along the section

Heritage  
Configurations



Max width: 2,000mm  
or Max height: 2,000mm



#### Optimum Noise Reduction: 52dB (Rw)

Using 6.4mm acoustic laminate glazing, with 200mm glass-to-glass



#### Optimum U Value: 1.868 W/m2K

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



# Minimum & Maximum Size Guide

## On Application

Windows in this area are beyond our maximum size limit. However, we may be able to make the windows but we will not offer any guarantee of performance and will accept your order solely on this basis. Alternatively, please redesign the window to comply with the recommended sizes to benefit from the full product warranty.

- Maximum Glass Size 2050 x 3250
- Maximum Window size for delivery: 1800mm x 4000mm - Over sized windows will be packaged as kit form
- MAXIMUM AREA FOR 4mm Annealed / Float GLASS IS 1.6m<sup>2</sup> - Allow for 4mm TOUGHENED GLASS IF PANEL SIZE EXCEEDS THIS
- MAXIMUM AREA FOR 4mm Toughened GLASS IS 2.5m<sup>2</sup>
- MAXIMUM AREA FOR 6mm Annealed / Float GLASS IS 3.0m<sup>2</sup> - Allow for 6mm TOUGHENED GLASS IF PANEL SIZE EXCEEDS THIS
- Flyscreen Maximum size 1200mm in one direction (comes on a roll 1200 wide!)
- HORIZONTAL SLIDERS OVER 1800mm HIGH WILL HAVE 21243 MEDIUM STRENGTHENING INTERLOCK ADDED AT NO EXTRA COST
- HORIZONTAL SLIDERS OVER 2000mm HIGH WILL BE HERITAGE
- Our Standard White = Interpon SA 098E high gloss. Nearest RAL = 9910 high gloss
- Stacked units Standard or Heritage Reveal Fix - If the bottom unit is a Horizontal Slider Support Bars must be used which means deeper timbers. Standard 62mm becomes 70mm. Heritage 70mm becomes 80mm.
- + / - frame tolerance = 3mm
- To estimate the weight of a panel or window use the glass weight for the overall panel or window size.  
  
Multiply width x height x glass weight  
4mm glass = 10kg/m<sup>2</sup>    6mm glass = 15kg/m<sup>2</sup>    6.4mm glass = 16kg/m<sup>2</sup>  
8mm glass = 20kg/m<sup>2</sup>    8.4mm glass = 21kg/m<sup>2</sup>  
For double glazed units add the two panes together
- Points to note for any Large Frame
  - Can you get it in the building, up the stairs etc.?
  - Can it be operated safely i.e. Is there room to open a large Hinged Unit?
  - Should it be fixed and only operable by maintenance?
- Insert on plastic hinges must not exceed 10kg
- Minimum Width for Arched Head windows  
Insert 400mm (200mm radius)  
Lift Out            400mm (200mm radius)  
BVS                500mm (250mm radius)  
TBVS              500mm (250mm radius)  
HTBVS            800mm (400mm radius)  
HHU               800mm (400mm radius)
- Horizontal Sliders Panel - Maximum Aspect Ratio Width to Height 1:5
- Vertical Sliders Panel - Maximum Aspect Ratio Width to Height 5:1
- Heritage Hinged Casement Panel - Maximum Aspect Ratio Width to Height 1.5:1

Secondary Glazing		Max Panel Weight KG'S	Minimum overall size (equal split) (mm)		Minimum panel size (mm)		Maximum size (mm)		Maximum size (mm)		On Application (mm)		Maximum Glass Thickness
							4mm Glass		6mm Glass or 6.4mm Laminate		6mm Glass or 6.4mm Laminate		
			Width	Height	Width	Height	Width	Height	Width	Height	Width	Height	
Standard	SS2	40kg	400	250	1/2 of min overall width		2400	1800	2400	2000	4900	2000	6.8mm
	SS3 / CO3	40kg	550	250	1/3 of min overall width		3600	1800	3600	2000	4900	2000	6.8mm
	SS4	40kg	700	250	1/4 of min overall width		4900	1800	4900	2000	4900	2000	6.8mm
	SS5	40kg	850	250	1/5 of min overall width		4900	1800	4900	2000	4900	2000	6.8mm
	INS	40kg	200	200	NA		1200	2000	2000	2000	2000	2500	6.8mm
	BVS	25kg	300	600	1/2 of min overall height		1500	3000	1500	3000	1600	3600	6.8mm
	TBVS	25kg	300	700	1/2 of min overall height		1500	3000	1400	2700	1400	3000	6.8mm
	LO	on application	250	300	NA		2000	2000	on application	on application	on application	on application	6.8mm
	SLLO	on application	250	300	NA		2000	2000	on application	on application	on application	on application	6.8mm
	HU	35kg	347	385	NA		950	2,100	950	2100	950	2,100	6.8mm
Heritage	HSS2	60kg	1000	500	1/2 of min overall width		3200	2700	4900	2700	NA	NA	8.8mm
	HSS3 / HCO3	60kg	1500	500	1/3 of min overall width		4900	2700	4900	2700	NA	NA	8.8mm
	HSS4	60kg	2000	500	1/4 of min overall width		4900	2700	4900	2700	NA	NA	8.8mm
	HSS5	60kg	2500	500	1/5 of min overall width		4900	2700	4900	2700	NA	NA	8.8mm
	HBVS	48kg	400	900	1/2 of min overall height		1500	3000	1400	3000	1800	3800	8.8mm
	HTBVS	48kg	400	900	1/2 of min overall height		1500	3000	1400	3000	1800	3800	8.8mm
	HHU	130kg	350	500	NA		1400	2400	1500	3000	1600	3200	28mm
	HHU-TT	130kg	600	500	NA		1400	2400	1400	2400	1400	2400	28mm
	DHHU	130kg	700	500	1/2 of min overall width		2800	2800	3000	3000	3200	3200	28mm
	HSLO	on application	500	500	NA		2000	2000	on application	on application	on application	on application	8.8mm

**Important Note! Maximum sizes are for width OR height, not combined i.e. Do not exceed the maximum panel weight.**

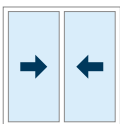
A LOW-RISK LIFT for a person of average strength and build is considered to be a maximum of 25kg. If you are in any doubt, look to reduce the risk by asking someone to share the lift with you or your client, particularly if you or the client are in a higher risk group e.g. Elderly, Disabled, Pregnant or Young. Refer to <http://www.hse.gov.uk/msd/mad/index.htm> for further help.

## Acoustic Performance Results

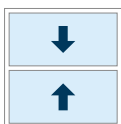
Secondary Glazing	Primary Window 4mm Float Glass				Primary Window 6mm Float Glass				Primary Window 4mm Float Glass				Primary Window 6mm Float Glass			
	200mm Glass to Glass				200mm Glass to Glass				150mm Glass to Glass				150mm Glass to Glass			
	SS2	HHU	BVS	HTBVS	SS2	HHU	BVS	HTBVS	SS2	HHU	BVS	HTBVS	SS2	HHU	BVS	HTBVS
4mm Toughened	49	50	49	47	51*	51	51	48	48*	48*	47*	46*	51*	50*	50*	47*
6mm Toughened	50*	51*	51*	47*	51*	52*	52*	48*	49*	49*	48*	46*	51*	50*	50*	47*
6.4mm Acoustic Laminate	51	52	53	48	52*	53*	54*	50	50*	50*	49*	47*	52	51*	52*	48*
8.8mm Acoustic Laminate	NA	52*	NA	48*	NA	53*	NA	49	NA	50*	NA	47*	NA	51*	NA	48*
10.8mm Acoustic Laminate	NA	53*	NA	NA	NA	54	NA	NA	NA	51*	NA	NA	NA	52*	NA	NA
4/12/6.4mm Sealed Unit	NA	53*	NA	NA	NA	53	NA	NA	NA	51*	NA	NA	NA	52*	NA	NA

Key :

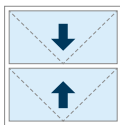
SS2



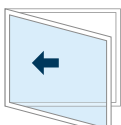
BVS



TBVS



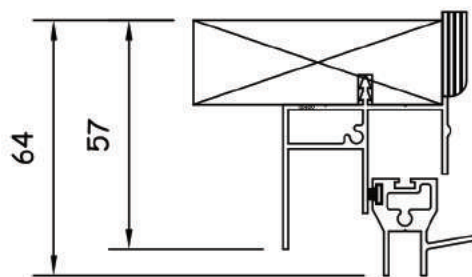
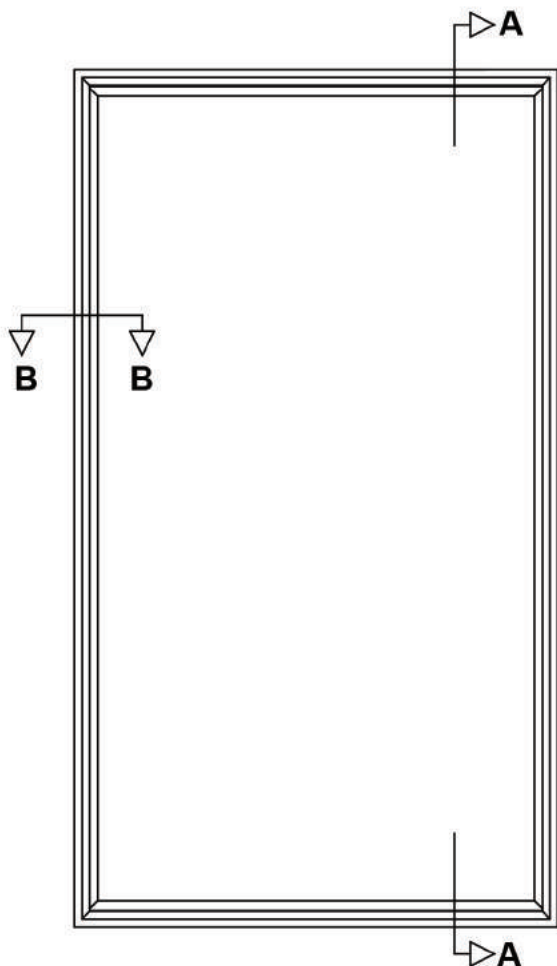
HHU



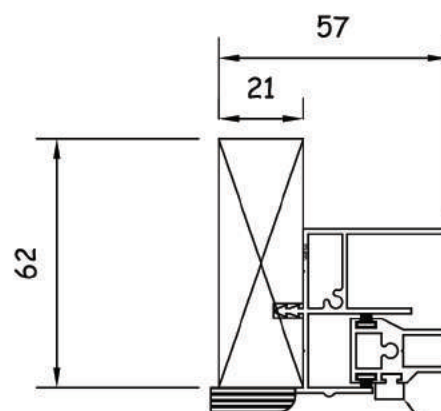
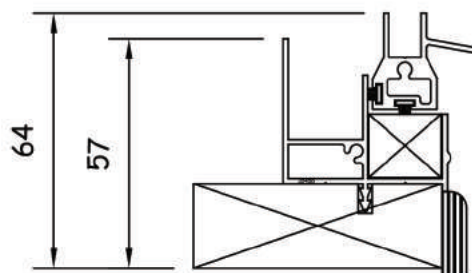
Granada Secondary Glazed windows have been tested at Chiltern Dynamics in accordance with BS EN ISO 10140-2: 'Laboratory measurement of airborne sound insulation of building elements'. The table shows results for secondary windows set at a 200mm and 150mm cavity with 4mm or 6mm float glass in the primary window. Chiltern's Dynamics lab is UKAS Accredited No.1762

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

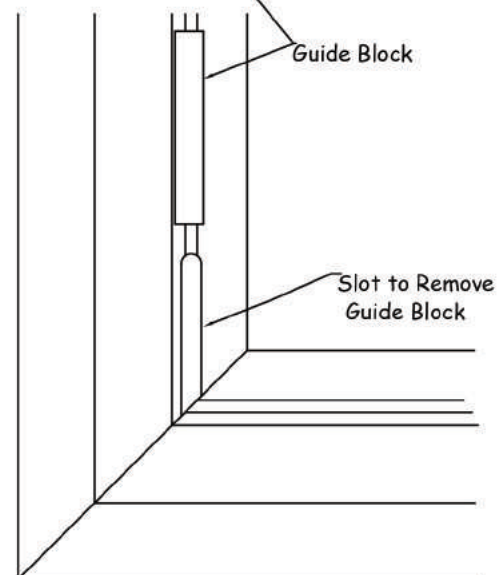




Section A-A



Section B-B



### Optional Extras

White gasket  
Chubb lock  
White aluminium coupling / stacking interlock  
Trickle vents / acoustic trickle vents  
RAL colour  
Flyscreen  
Timber sizes other than standard

### Specification:

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

Stock finishes: White - Interpon SA 098E high gloss, brown - van dyke and silver anodised. The sub-frame is manufactured from primed high quality, environmentally certified (MTCS) engineered timber. Standard sizes 45mm x 21mm & 62mm x 21mm.

All frames are factory glazed.  
Standard gasket colour is black.

All frames include pvc-u trim as standard - Primed MDF or PEFC timber available upon request.

In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

Lift Out Reveal Fix Shuffle Glaze

Drg. No. LO RF Shuffle

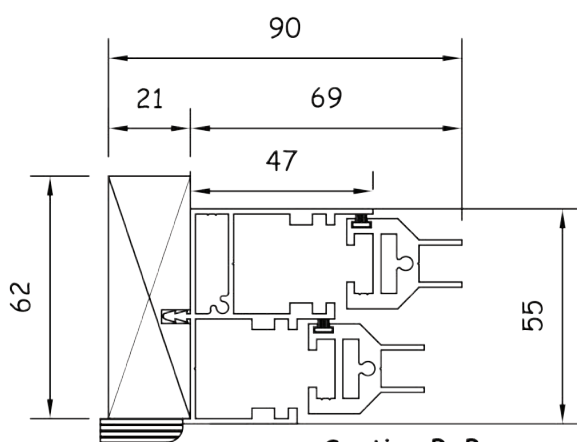
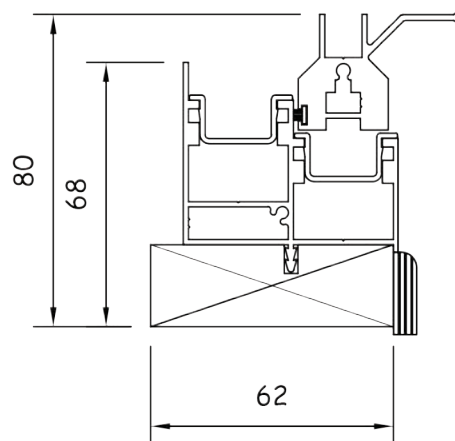
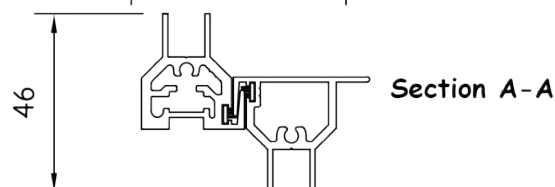
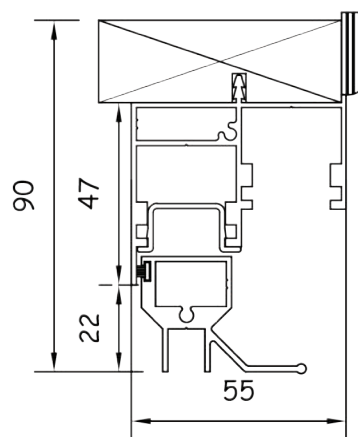
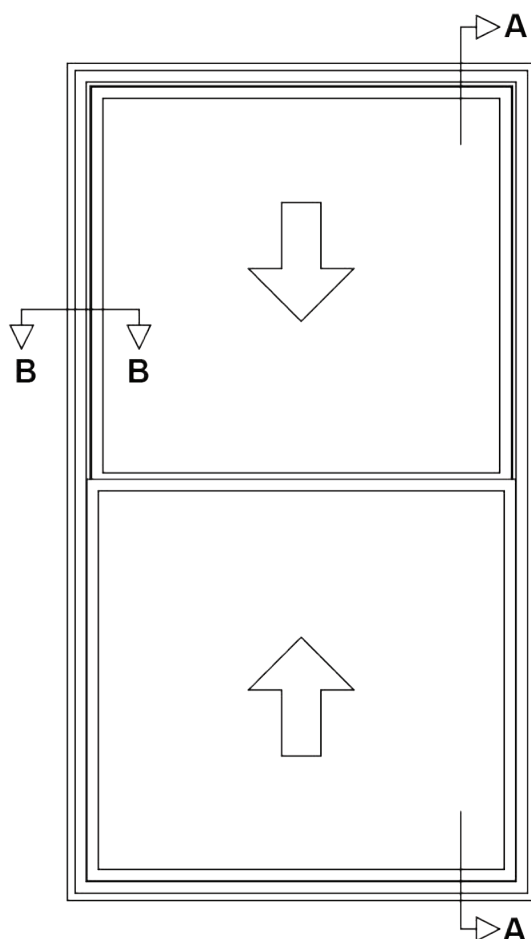
Rev:

Scale: 1:20 & 1:2 (at A4)

**GRANADA**  
secondary glazing

Campbell Way  
Dinnington  
Sheffield  
S25 3QD

Tel: 01909 499 899  
W: [www.granadaglazing.com](http://www.granadaglazing.com)



Section B-B

#### Specification:

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

Stock finishes: White - Interpon SA 098E high gloss, brown - van dyke and silver anodised. The sub-frame is manufactured from primed high quality, environmentally certified (MTCS) engineered timber. Standard sizes 45mm x 21mm & 62mm x 21mm.

All frames are factory glazed.

Standard gasket colour is black.

All frames include pvc-u trim as standard - Primed MDF or PEFC timber available upon request.

In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

#### Optional Extras

White gasket  
Chubb lock  
White aluminium coupling / stacking interlock  
Trickle vents / acoustic trickle vents  
RAL colour  
Flyscreen  
Timber sizes other than standard

Type: Lift Out Reveal Fix (50 x 21 Timber)

Drg. No. GS/05-001

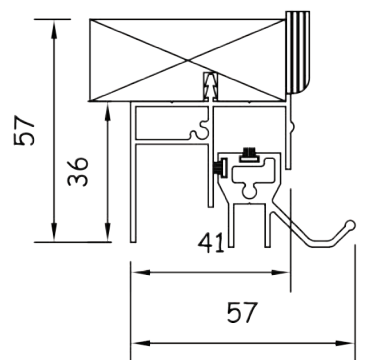
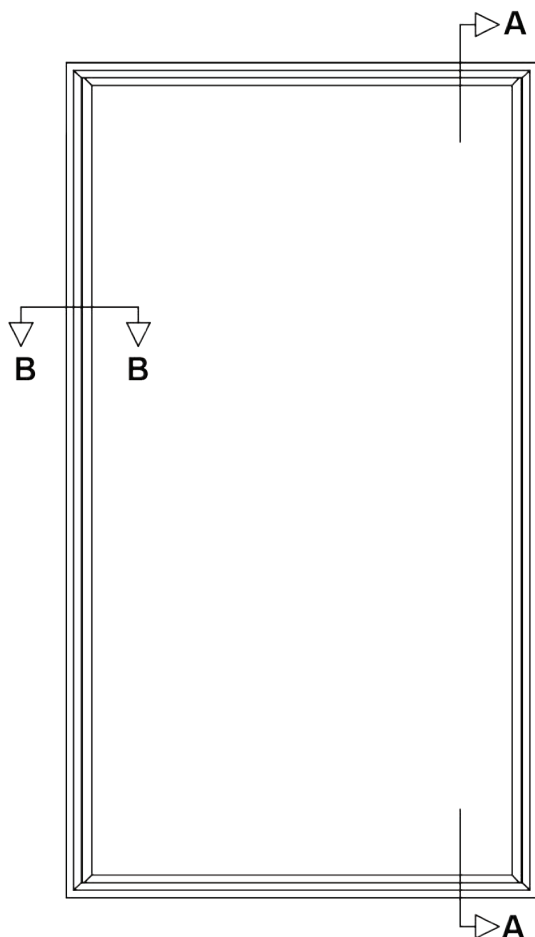
Rev:

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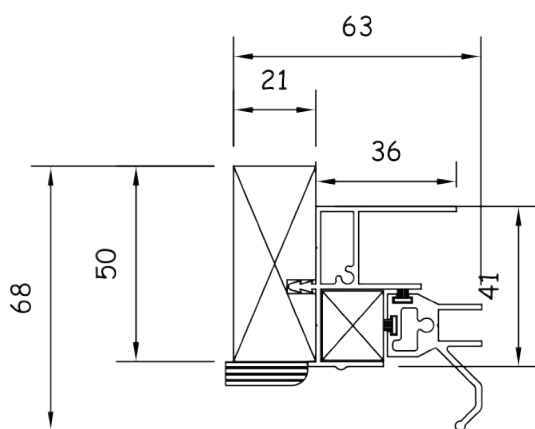
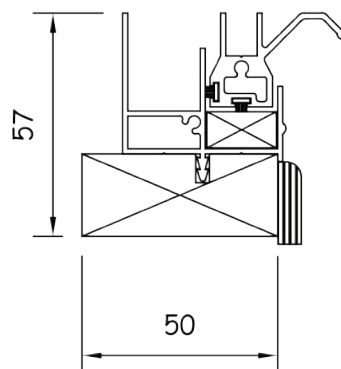
**GRANADA**  
secondary glazing

Campbell Way  
Dinnington  
Sheffield  
S25 3QD

Tel: 01909 499 899  
W: [www.granadaglazing.com](http://www.granadaglazing.com)



Section A-A



Section B-B

#### Specification:

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

Stock finishes: White - Interpon SA 098E high gloss, brown - van dyke and silver anodised. The sub-frame is manufactured from primed high quality, environmentally certified (MTCS) engineered timber. Standard sizes 45mm x 21mm & 62mm x 21mm.

All frames are factory glazed.

Standard gasket colour is black.

All frames include pvc-u trim as standard - Painted MDF or PEFC timber available upon request.

In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

#### Maximum size -

4mm glazing 1200mm diameter

6mm glazing 2000mm diameter

#### Optional Extras

White gasket

RAL colour

Flyscreen

Timber sizes other than standard

Type: Lift Out Circular Face Fix

Drg. No. LO Circular FF

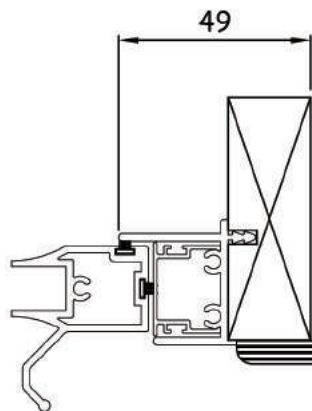
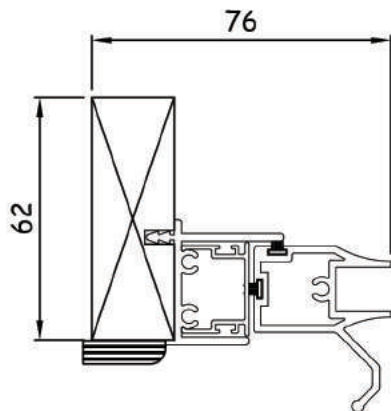
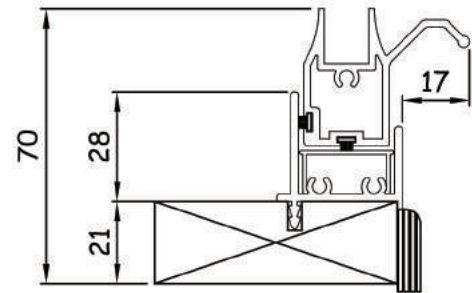
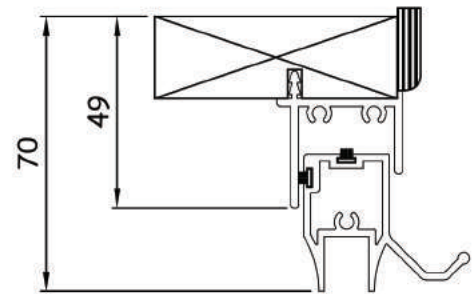
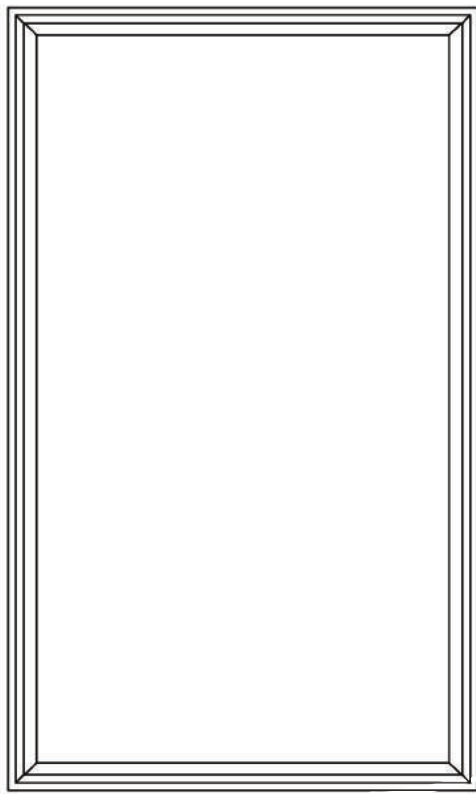
Rev:

Scale: 1:20 & 1:2 (at A4)

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#### Standard Product Specification:

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

Stock finish: White - Interpon SA 098E high gloss. The sub-frame is manufactured from primed high quality, environmentally certified (MTCS) engineered timber. Standard sizes: Reveal Fix: 62mm x 21mm & Face Fix: 45mm x 21mm\*.

All frames are factory glazed.

Standard gasket colour is black.

All frames include pvc-u trim as standard - Painted MDF or PEFC timber available upon request.

In line with our company policy of continuous product development and improvement, Granada reserves the right to make minor alterations to specification without notice.

\* When coupling or stacking other heritage units timber size required: Reveal Fix: 70mm x 21mm & Face Fix: 62mm x 21mm.

#### Optional Extras

- White gasket
- Chubb lock
- Where stacking over 800mm, bespoke design required
- Aluminium coupling mullion
- Stacking interlock transom
- Trickle vents / acoustic trickle vents
- RAL colours
- Flyscreen
- Timber sizes other than standard available on request



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Type: Heritage Lift Out - Reveal Fix

Reference: HLO

Rev: 1