

# System 25 Hi/Hi+ - Lift and Slide / Sliding Door



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# Specification



## System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR

**The Metal Technology System 25Hi+ Sliding / Lift and Slide Door has been designed to offer the specifier a sliding opener with pleasing site lines and all the benefits of weather performance, thermal enhancement and security.**

### Introduction

Metal Technology's high performance System 25 Hi/Hi+ offers a unique thermal solution to sliding doors. By introducing a polyamide thermal barrier across the frame, issues of longitudinal thermal losses, associated with traditional sliding door construction, are addressed. Because the line of the thermal break in the frame changes planes to match the sashes, there is no thermal short circuit. As with all Metal Technology systems, the Sliding / Lift and Slide Door System has been designed and engineered to exacting standards creating a high performance product, offering slim sight lines and low U values that will deliver many years of trouble-free operation.

### Scope

This specification defines materials, construction, finishes and size limits for the Lift and Slide / Sliding Door.

### Materials

Aluminium profiles are extruded from aluminium alloy 6060T6, T5, or T4 complying with the recommendations of BS EN 12020-2 / BS EN 755-Parts 1 to 9. Polyamide thermal breaks are produced from glass reinforced nylon sections designed to withstand temperatures in excess of 200°C, allowing the sections to be powder coated after thermally breaking.

### Finishes

The range of sections can be provided in either of the following range of finishes:

1. Anodised to BS EN 12373-1 or BS 3987
2. Powder organic coated to BS 6496 or BS EN 12206-1

The system 25 Hi/Hi+ Sliding / Lift and Slide Door can accommodate a different colour/finish internally to that used externally.

### Construction

Frame members are mitre cut at 45°, corners are reinforced with corner braces and mechanical cleats. All frame joints are sealed during construction against entry of water.

### Glazing

The system can accommodate 28mm to 32.8mm glazing units. Glass is set against a captive gasket in the sash frame with a co-extruded wedge fitted internally. Special bridging setting / location blocks are provided to fit into the sections.

### Installation

Detailed installation instructions are provided within this manual which should be strictly followed.

### Sliding / Lift and Slide Door Fittings

The sections are designed to suit Sliding / Lift and Slide fittings. Metal Technology is able to supply a full range of fittings and accessories. See the relevant section of this manual for details of gearing options for specific door sizes.

Metal Technology should be contacted for any special operating requirements.

### Size Limits

Sliding Door		
Door sash height	Door sash width	Maximum weight
2800mm maximum	2100mm maximum	160Kg
950mm minimum	500mm minimum	
Lift and Slide Door		
Door sash height	Door sash width	Maximum weight
2800mm maximum	2100mm maximum	200Kg
950mm minimum	770mm minimum	

**For complete details of maximum/minimum sizes and weight restrictions see the size limitation chart in section 3 of this manual.**

### Performance

Metal Technology's lift and slide door provides high levels of air and water resistance by the use of compression gaskets, and an innovative integral drainage system. Air infiltration is minimized by the same components that provide water resistance.

The Lift and Slide system has been designed to achieve:

Air permeability - BS 6375  
test pressure 600 Pa.

Water tightness - BS 6375  
test pressure 600 Pa.

Wind resistance - BS 6375  
test pressure 2400 Pa.

These levels of performance should be sufficient for any location within the UK and Ireland.

Metal Technology's Sliding door offers a competitive alternative for ground floor low exposure applications, while still offering high levels of thermal performance.

Air permeability - BS 6375  
test pressure 600 Pa.

Water tightness - BS 6375  
test pressure 200 Pa.

Wind resistance - BS 6375  
test pressure 1600 Pa.

These levels of performance should be sufficient for low to moderately exposed ground floor residential applications within the UK and Ireland.

Cycle testing to BS EN 1191  
Lift and Slide 50,000 cycles  
Sliding Door 50,000 cycles

### Development

Our policy is to continually research the market for new and improved products. We must therefore retain the right to amend specifications without prior notice. It is recognised at Metal Technology that in some instances special sections may be required for particular projects. When this occurs it may be possible to produce special sections subject to there being sufficient quantity and adequate time.

# Specification



## System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR

### Thermal Performance

Metal Technology's **THERMAL** range, in conjunction with the correct glass specification, is designed to aid compliance with the latest thermal requirements of the current building regulations.

The polyamide thermal break profiles have been specifically designed to minimise heat transfer across the door profiles. This innovative and advanced thermal break technology provides the basis of the 25Hi+ system.

Thermal performance is further improved through the introduction of specially designed foam profiles. These reduce radiation heat loss across the air cavities within the door profiles to provide additional thermal enhancement.

The 25Hi+ system offers significantly improved U-frame values over more traditional thermally broken aluminium door systems.

	U-frame values	
	25Hi	25Hi+
Sliding / Lift and Slide door perimeter	<b>2.86W/m<sup>2</sup>K</b>	<b>2.45W/m<sup>2</sup>K</b>
Sliding / Lift and Slide door interlock	<b>3.68W/m<sup>2</sup>K</b>	<b>2.67W/m<sup>2</sup>K</b>

The following table, based on a standard door in accordance with BS EN 14351 (2000mm x 2180mm) and warm edge spacers, demonstrates how such improved U-frame values then contribute to improving the overall thermal performance of a complete door.

Achievable whole window U-values	Centre pane U-value	
	1.0W/m <sup>2</sup> K	0.5W/m <sup>2</sup> K
25Hi Sliding / Lift and Slide door	<b>1.63W/m<sup>2</sup>K</b>	<b>1.26W/m<sup>2</sup>K</b>
25Hi+ Sliding / Lift and Slide door	<b>1.49W/m<sup>2</sup>K</b>	<b>1.11W/m<sup>2</sup>K</b>

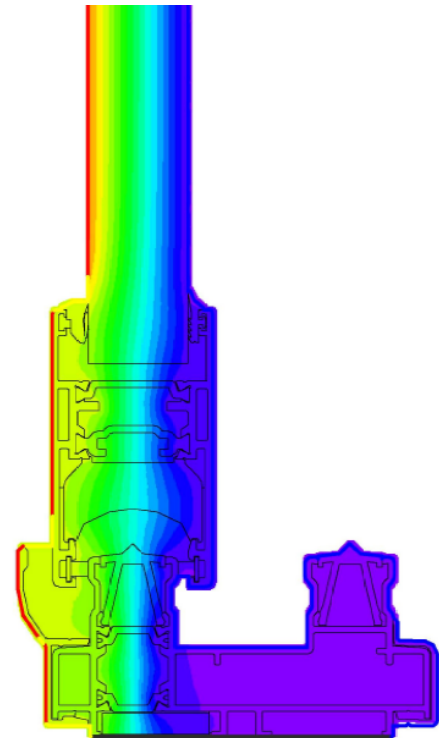
Metal Technology can provide tailored U-value calculations using their dedicated estimating software to calculate overall project average door U-values for their full range of systems.

### Door Energy Rating

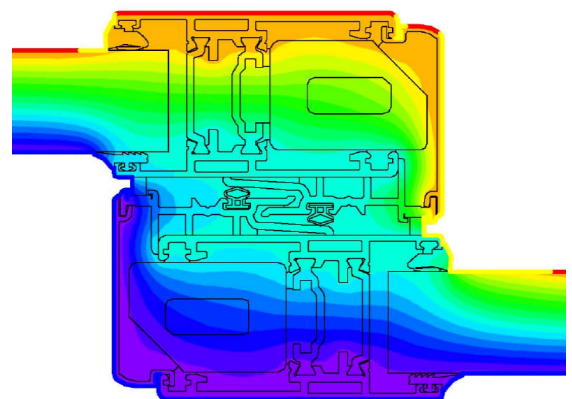
Metal Technology's 25Hi+ System has been assessed by an approved simulator in accordance with the BFRC's guidelines, using their official Door Energy Rating software, and has been proven to be capable of achieving a 'B' rating.

EWER Rating Scale	Door Rating
A+	<b>B</b>
A	
B	
C	
D	
E	
F	

### 25Hi+ Sliding / Lift and Slide Door Perimeter



### 25Hi+ Sliding / Lift and Slide Door Interlock





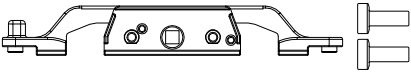
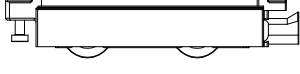
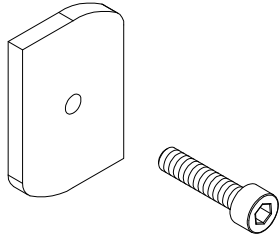
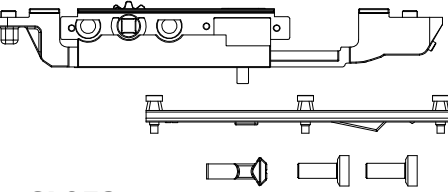
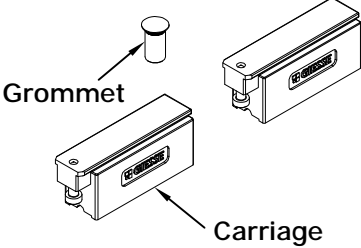
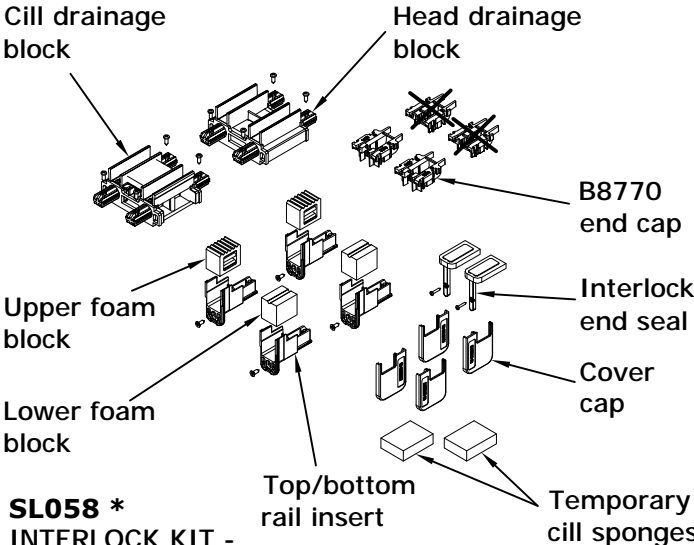
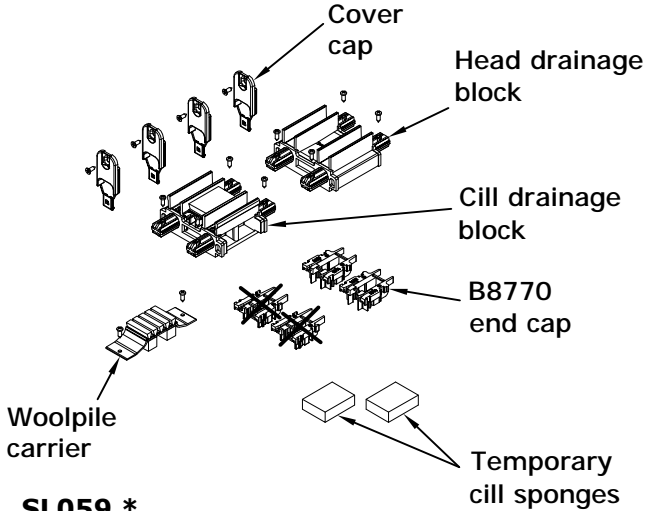
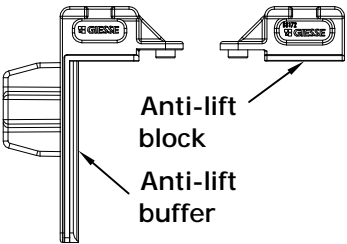
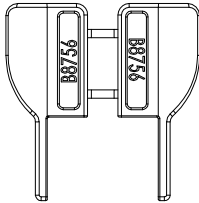
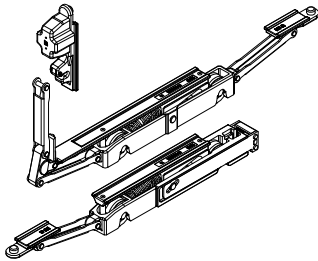
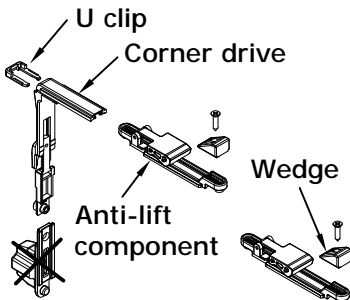


# Component Identification



## System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR

 <p><b>SL054</b> SLAVE LEAF SPINDLE DRIVE KIT</p>	 <p><b>SL052 *</b> SLIDING CARRIAGE</p>	 <p><b>SL056 *</b> CENTRAL PROFILE FIXING PLATE</p>	
 <p><b>SL053</b> SPINDLE DRIVE KIT WITH INTEGRAL CAM AND KEEP</p>	 <p><b>SL065 *</b> FIXED SASH KIT</p>		
 <p><b>SL058 *</b> INTERLOCK KIT - LIFT AND SLIDE</p>		 <p><b>SL059 *</b> INTERLOCK KIT - SLIDING DOOR</p>	
 <p><b>SL067</b> SINGLE SHOCK ABSORBER AND LIFT PROOF KIT</p>	 <p><b>SL069</b> DRAINAGE CHANNEL END CAPS</p>	 <p><b>SL050 *</b> LIFT AND SLIDE MECHANISM</p>	 <p><b>SL060 *</b> ANTI-LIFT KIT</p>

\* Denotes screws included with component

Not to scale

# Component Identification



## System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR

<p><b>SL055 *</b> SASH PLUG KIT</p>	<p><b>SL068</b> DOUBLE SHOCK ABSORBER AND LIFT PROOF KIT</p>	<p><b>SL071 *</b> LOCKING KIT</p>	
<p><b>SL075</b> FIXED SASH ROD DRIVE</p>	<p><b>SL082 *</b> DOOR STOP</p>	<p><b>SL084 *</b> SASH CLEAT</p>	
<p><b>SL085 *</b> FRAME ALIGNMENT CLEAT</p>	<p><b>SL086 *</b> FRAME CLEAT</p>	<p><b>SL087</b> CORNER ALIGNMENT CHEVRON</p>	<p><b>SL088</b> CORNER SASH GUIDE CHEVRON</p>
<p><b>SL101E</b> PULL HANDLE (SATIN FINISH)</p>	<p><b>SL102</b> PULL HANDLE (SILVER CHROME FINISH)</p>	<p><b>SL103</b> PULL HANDLE FIXING PLATE</p>	<p><b>SL051</b> LOCKING HANDLE (SILVER CHROME FINISH)</p>

\* Denotes screws included with component

Not to scale

# Component Identification



## System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR

**SL020**  
HEAD AND  
JAMB CLOSER



**SL021**  
MEETING STILE  
LOCKING PIECE



**SL022**  
CILL CLOSER



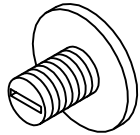
**SL023**  
LINK ROD



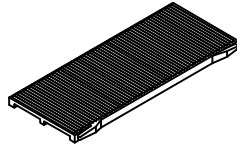
Made to measure link rod kits can be  
supplied under the following codes:

	Lift and slide	Sliding
2-pane	SL041	SL042
3-pane	SL043	SL044
4-pane	SL045	SL046

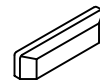
**SL040**  
ADJUSTABLE  
GLASS STOP



**SL094**  
GLAZING SUPPORT  
BLOCK



**775**  
DRAINAGE CAP



**SL099**  
FOAM FILLER



WEDGES

**058**  Blue

**CA27**  White

**CA26**  Orange

**CA29**  Black

CAPTIVE GASKETS

**SL030**  Black

**SL031**  White

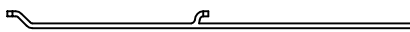
BUBBLE GASKET  
**SL037**



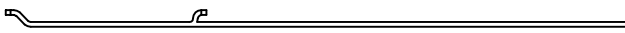
WOOLPILE  
**SL035**



**SL047** STANDARD

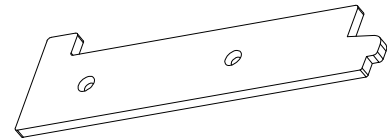


**SL048** EXTENDED



FIXING LUGS (Galvanised steel)

**SL107**  
THERMAL END CAP FOR SL104105106 CILL  
(Black, Unit=Pair)



**MT1803**  
2-PART ADHESIVE  
(grey, white)



**MT60**  
SURFACE CLEANER



**7400**  
SILICONE SPRAY



**HR50328A**  
BLACK GASKET  
ADHESIVE/SEALANT



Not to scale

SHEET 25Hi / 0 / 60

rev 5

17/02/14

# Component Identification



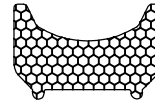
## System 25 Hi+

.....  
SLIDING / LIFT AND  
SLIDE DOOR  
.....

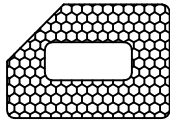
### COMPONENTS REQUIRED FOR 25Hi+ VARIATION ONLY



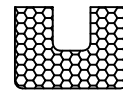
**SL091**  
SELF-ADHESIVE OUTER FRAME FOAM



**SL092**  
SASH THERMAL FOAM



**SL098**  
SASH MEETING RAIL FOAM



**SL097**  
SASH HEAD FOAM



**6729**  
SELF-ADHESIVE COUPLING FOAM

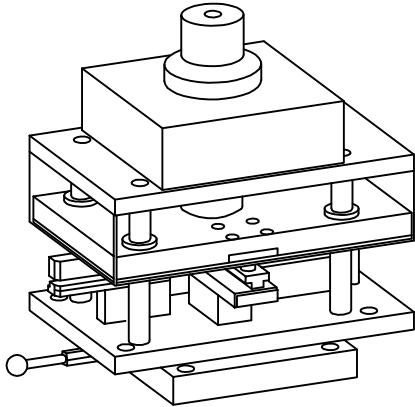
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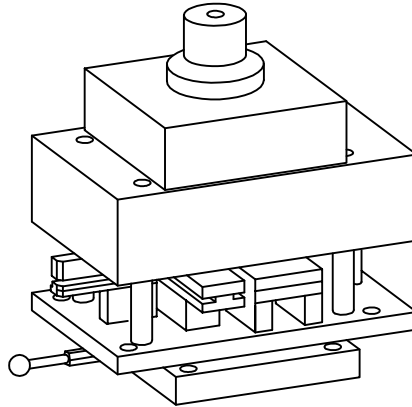


## System 25 Hi/Hi+

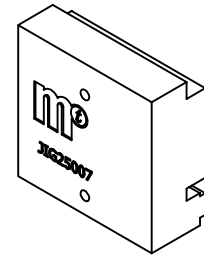
.....  
SLIDING / LIFT AND  
SLIDE DOOR  
.....



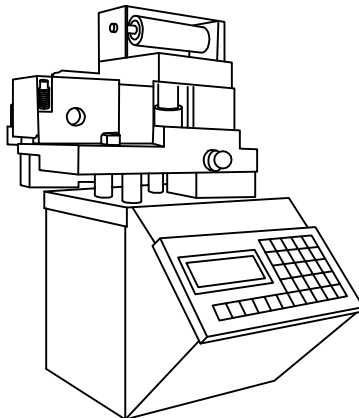
**JIG25001**  
OUTER FRAME AND  
HEAD/CILL COVER  
PUNCH



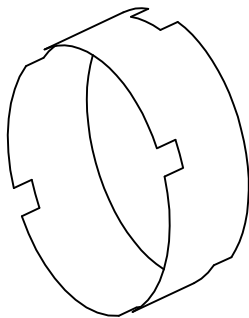
**JIG25002**  
DOOR SASH FRAME AND  
COVER FOR INTERLOCK  
PUNCH



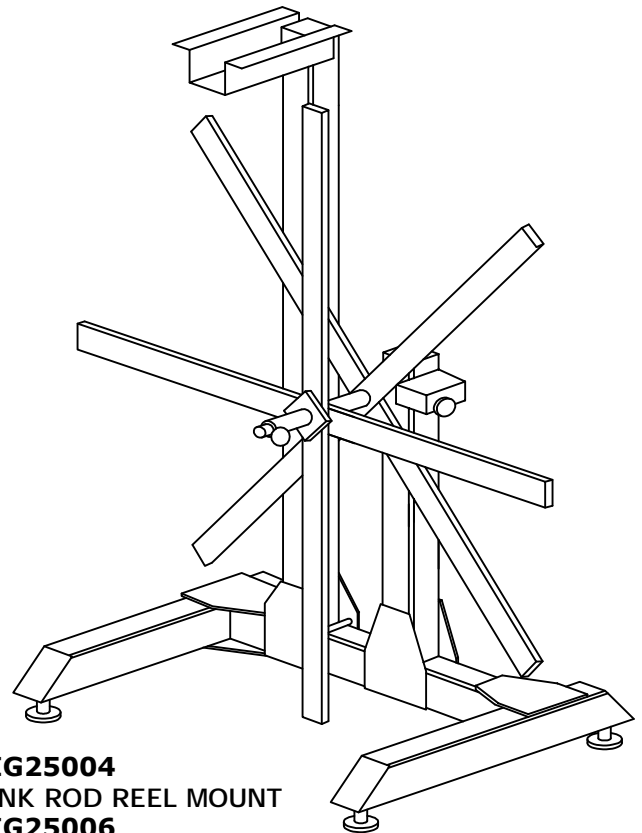
**JIG25007**  
JAMB EXTENSION JIG



**JIG25003**  
LINK ROD PREP AND  
CUTTING MACHINE



**JIG25005**  
LINK ROD REEL ADAPTOR



**JIG25004**  
LINK ROD REEL MOUNT  
**JIG25006**  
SUPPORT MACHINE / STAND

Not to scale

# Component Identification





## System 25 Hi/Hi+

.....  
SLIDING / LIFT AND  
SLIDE DOOR  
.....


  
**7204**  
No 8 x 16mm countersunk self tap screw

  
**7211**  
M5 x 30mm countersunk machine screw

  
**7216**  
No 10 x 13mm socket head self tap screw


  
**7218**  
No 10 x 45mm pan head self tap screw

  
**7231**  
No 8 x 19mm countersunk self tap screw


  
**7235**  
No 8 x 38mm pan head self tap screw


  
**7236**  
No 8 x 19mm pan head self tap screw


  
**7248**  
No 10 x 38mm countersunk self tap screw


  
**7260**  
M6 x 14 x 1.6mm washer

  
**7275**  
No 8 x 32mm countersunk self tap screw


  
**7276**  
No 8 x 45mm countersunk self tap screw


  
**7287**  
No 8 x 60mm countersunk self tap screw


  
**7292**  
No 4 x 9.5mm countersunk head self tap screw

  
**7295**  
M5 x 8mm hex head machine screw

  
**LV038**  
Aluminium pop rivet

  
**SL039**  
No 8 x 3/8" countersunk truncated type B screw

  
**SL109**  
M4 x 25mm grub screw

  
**SL112**  
M6 x 16mm hex head machine screw

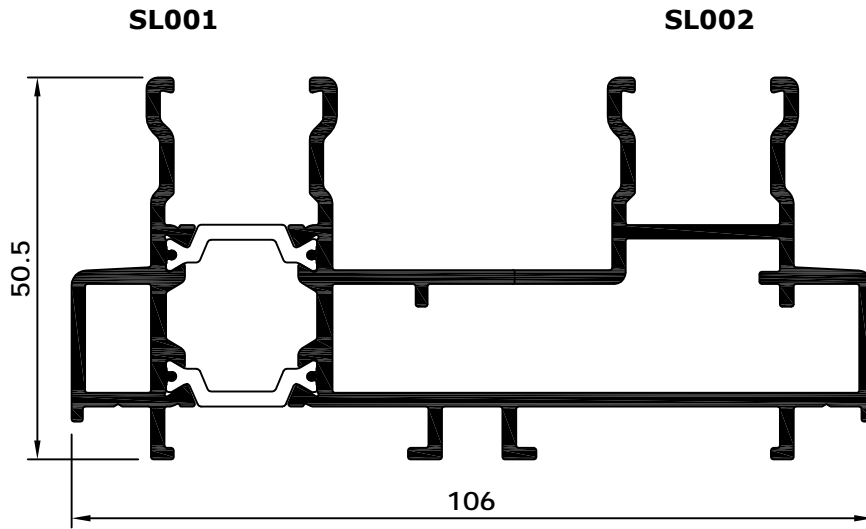
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# Section Drawings

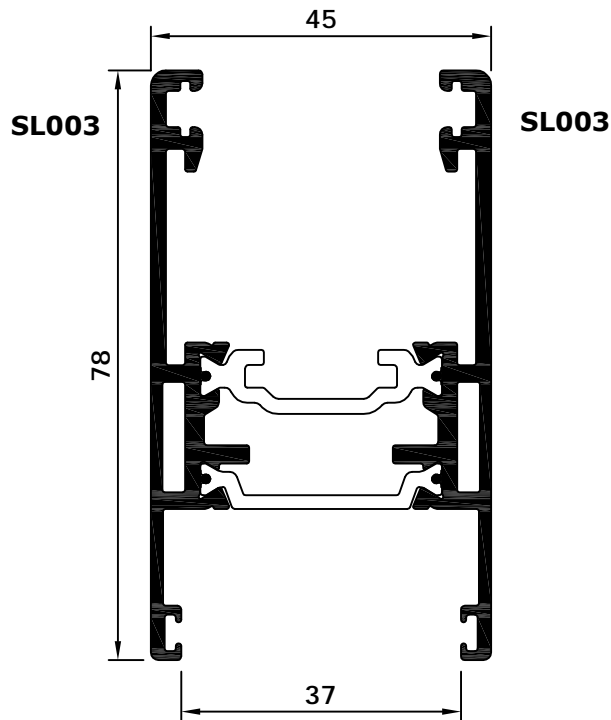


## System 25 Hi/Hi+

.....  
SLIDING / LIFT AND  
SLIDE DOOR  
.....



**SL001002**  
OUTER FRAME



**SL003003**  
DOOR SASH FRAME

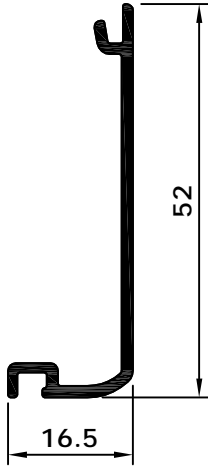
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# Section Drawings

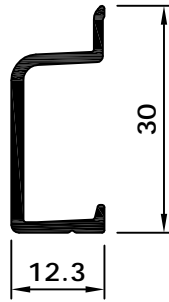


## System 25 Hi/Hi+

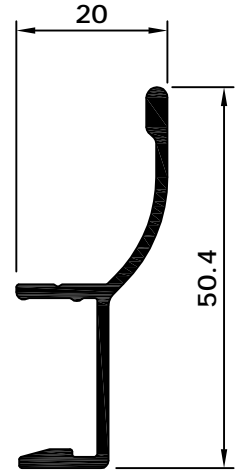
.....  
 SLIDING / LIFT AND  
 SLIDE DOOR  
 .....



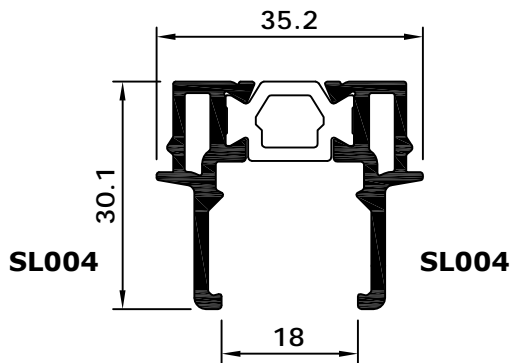
**SL012**  
COVER FOR INTERLOCK



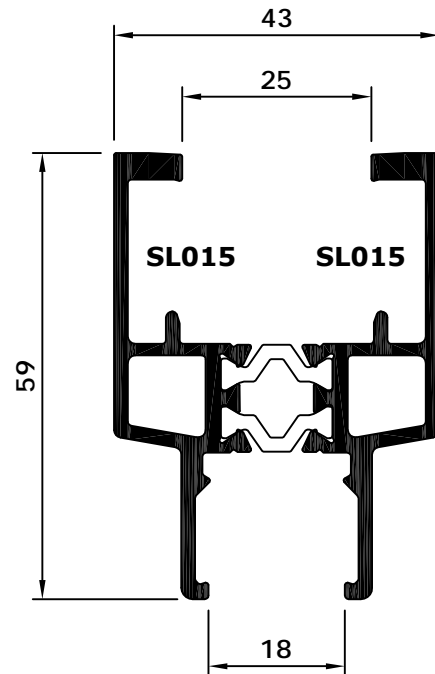
**SL005**  
HEAD/CILL COVER



**SL006**  
HEAD/CILL EXTENDED COVER



**SL004004**  
LOCKING PROFILE  
(FOR 3 AND 4 PANE SLIDER)



**SL015015**  
JAMB EXTENSION

Scale 1:1

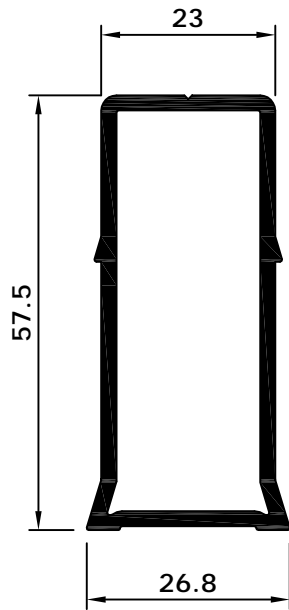


# Section Drawings

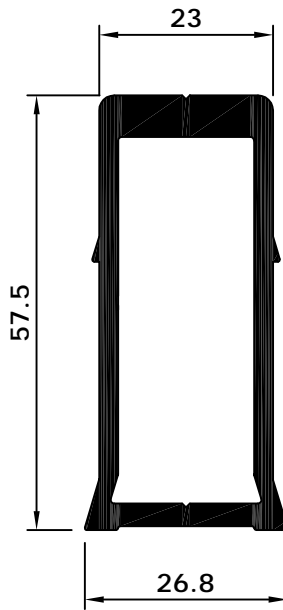


## System 25 Hi/Hi+

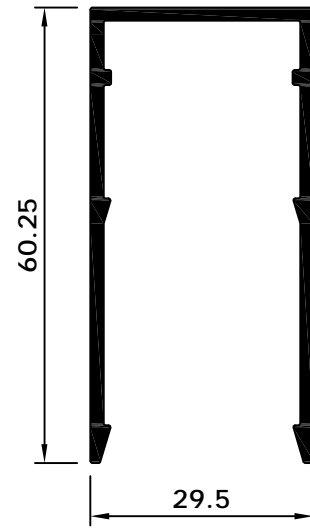
SLIDING / LIFT AND  
SLIDE DOOR



**007**  
SMALL MULLION STIFFENER

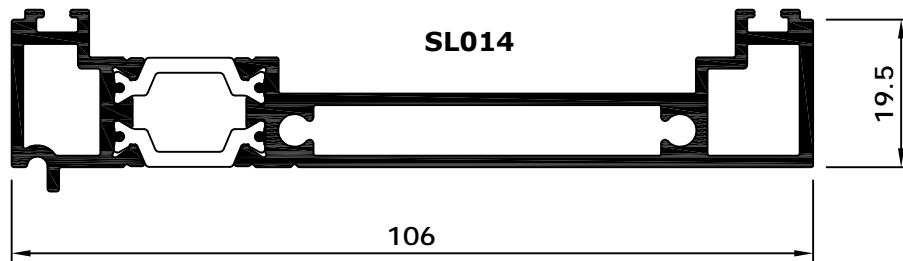


**008**  
LARGE MULLION STIFFENER

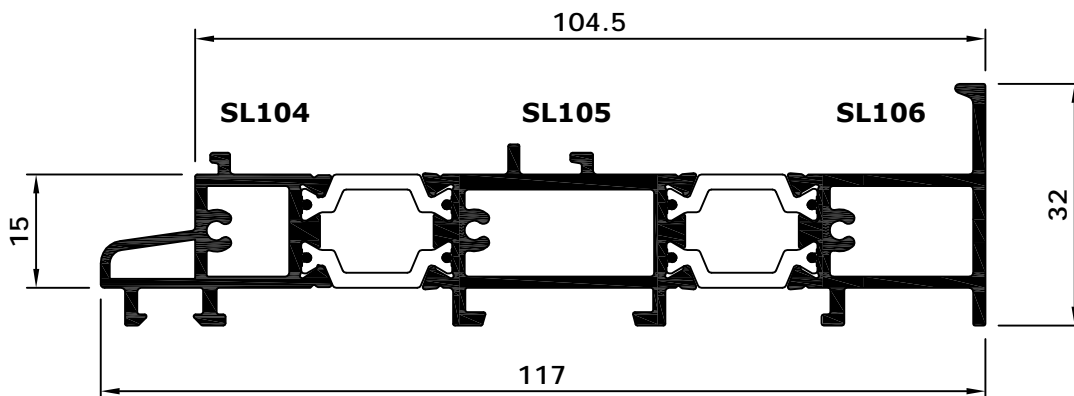


**009**  
MULLION STIFFENER SHEATH

**SL013**



**SL013014**  
COUPLING MULLION/TRANSOM



**SL104105106**  
CILL

Scale 1:1

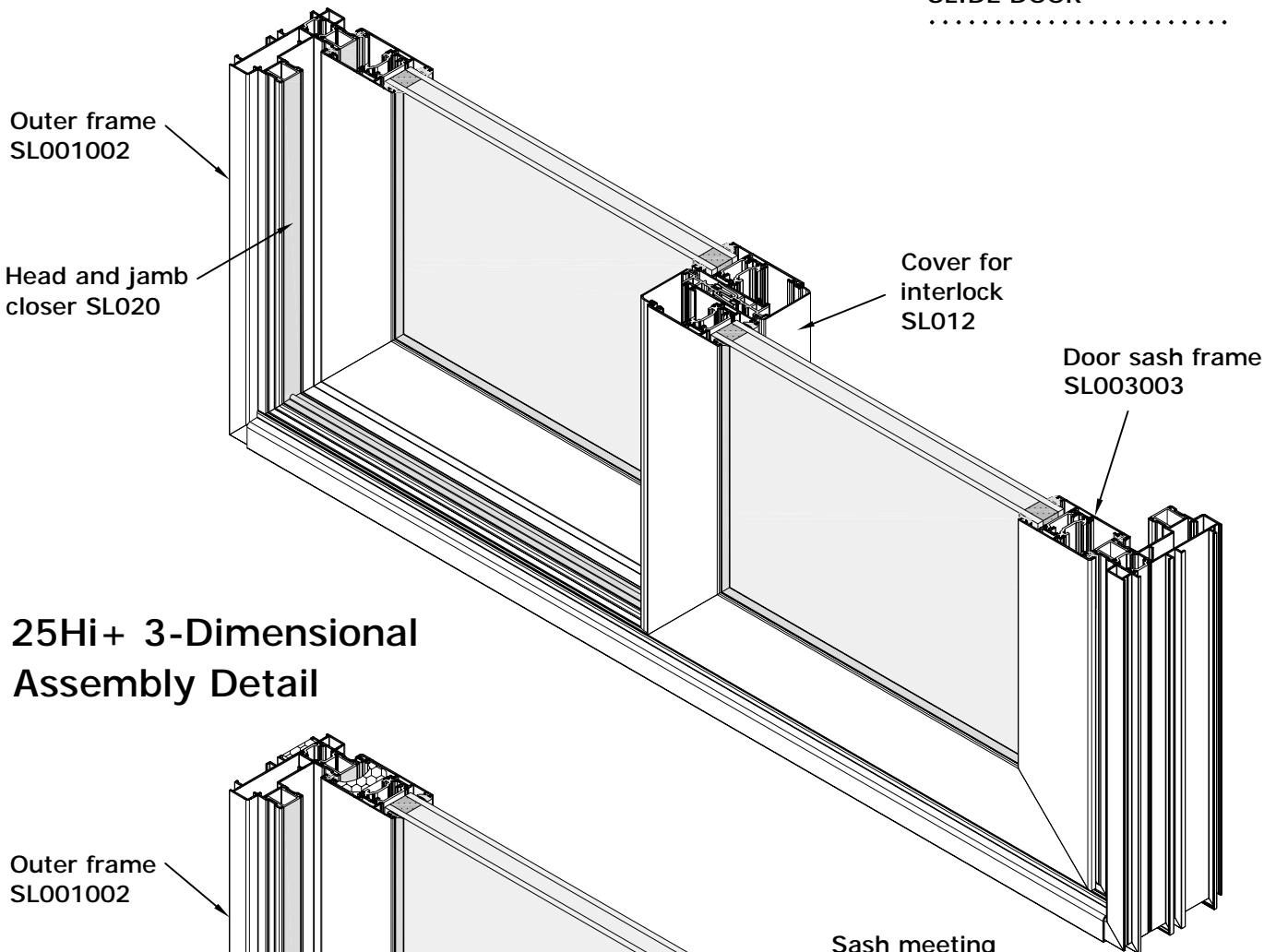
# Component Identification



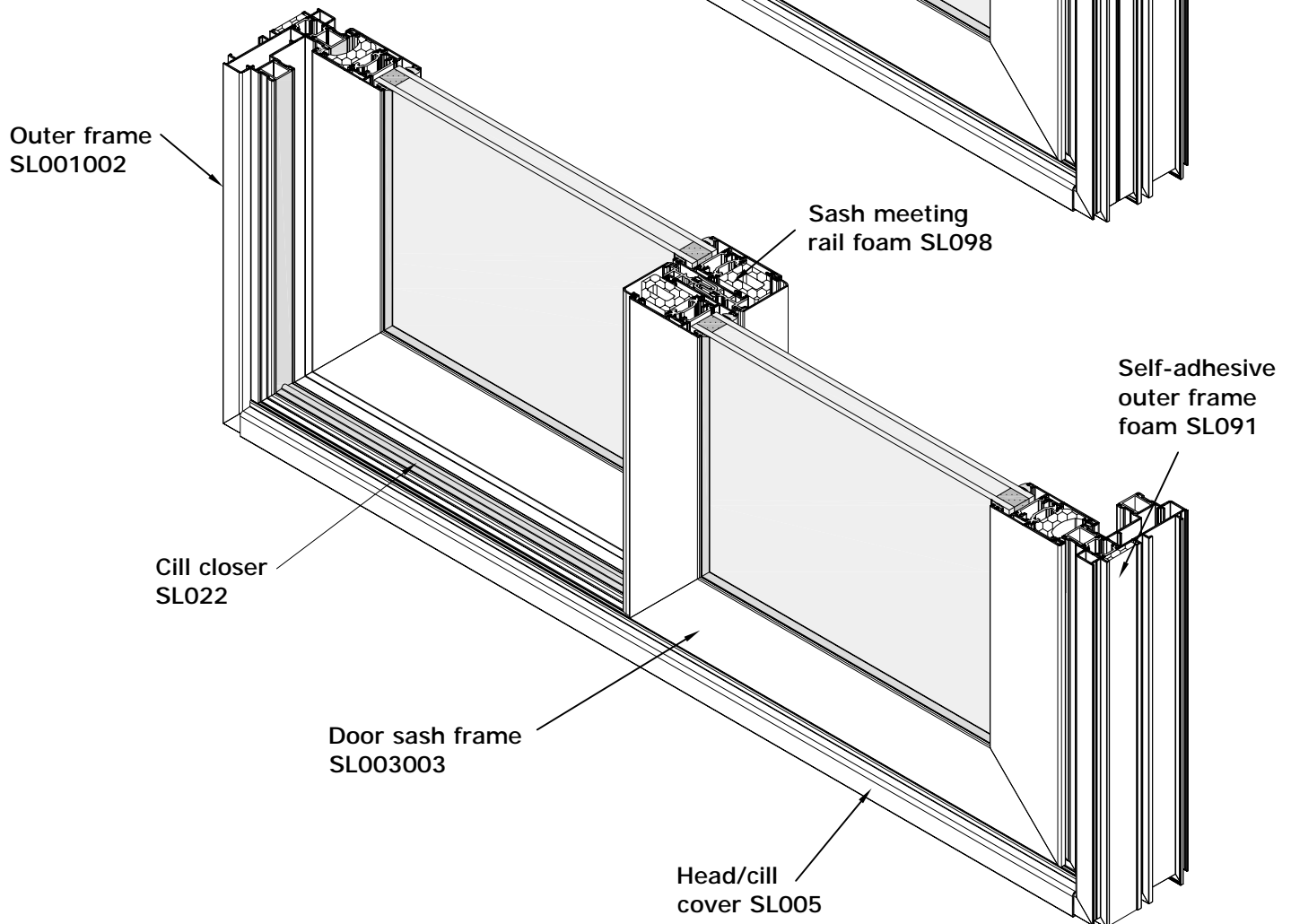
## System 25 Hi/Hi+

.....  
SLIDING / LIFT AND  
SLIDE DOOR  
.....

### 25Hi 3-Dimensional Assembly Detail



### 25Hi+ 3-Dimensional Assembly Detail



Not to scale

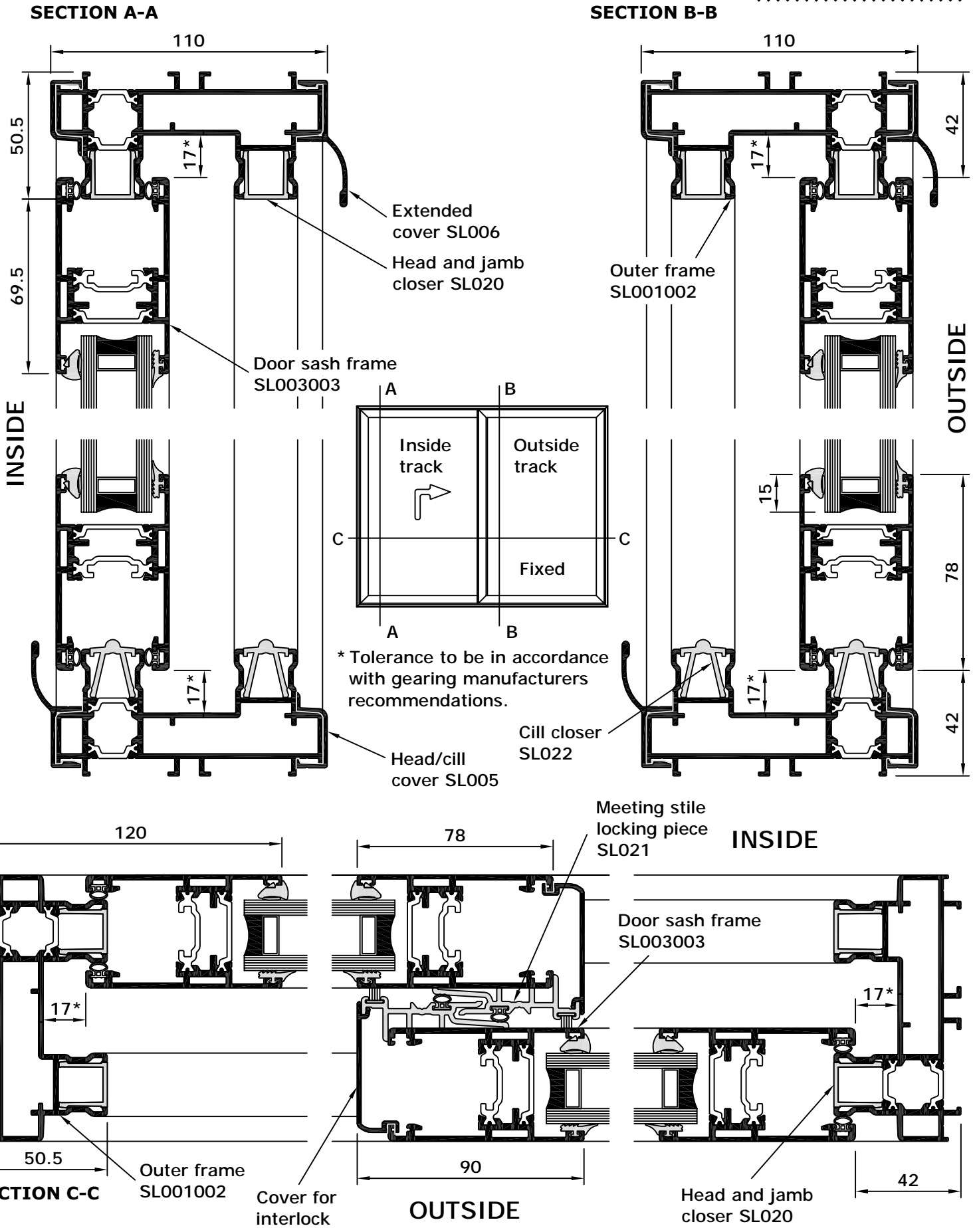
# General Arrangement

1 Pane Lift and Slide / 1 Pane Fixed



**System 25 Hi**

LIFT AND SLIDE DOOR



Scale 1:2

SHEET 25Hi / 2 / 20

rev 13

14/08/13

# General Arrangement

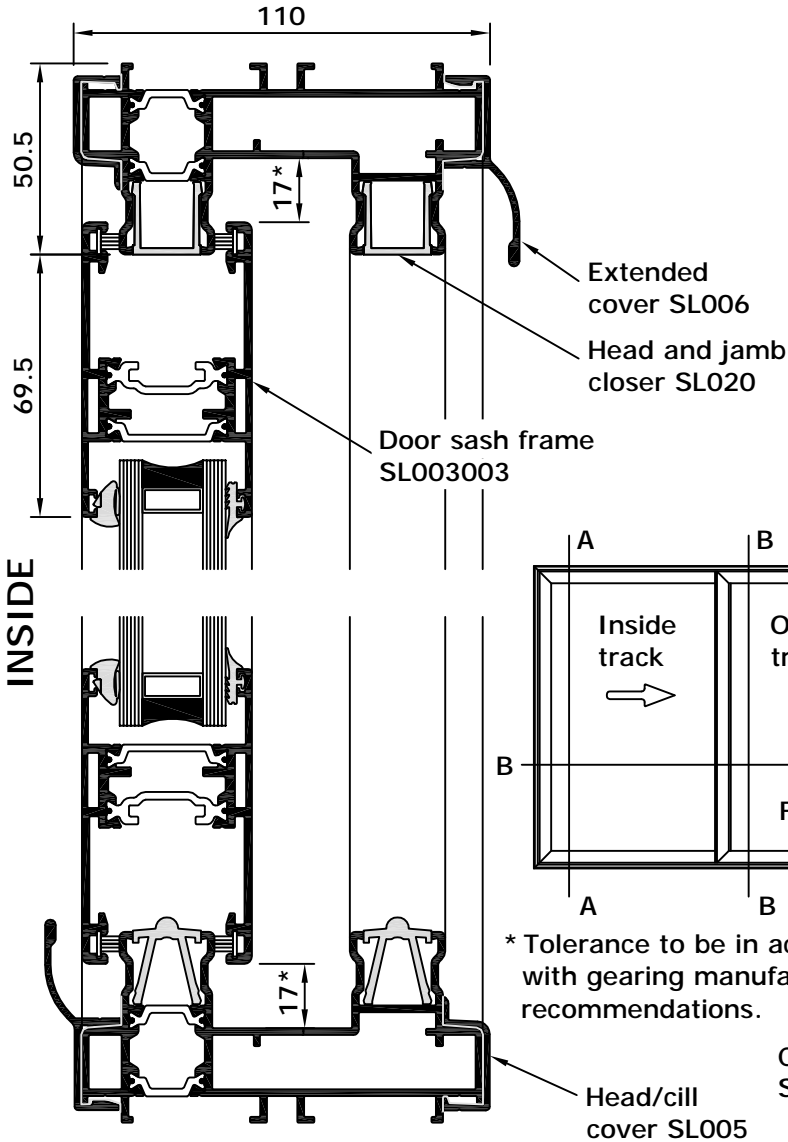
1 Pane Sliding / 1 Pane Fixed



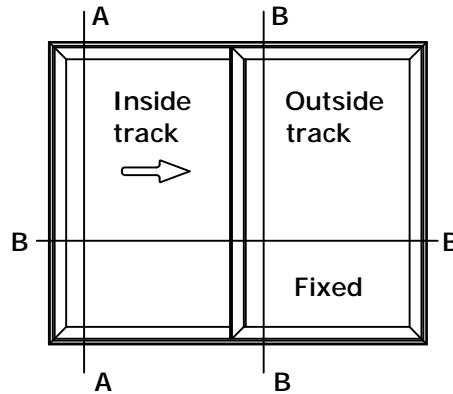
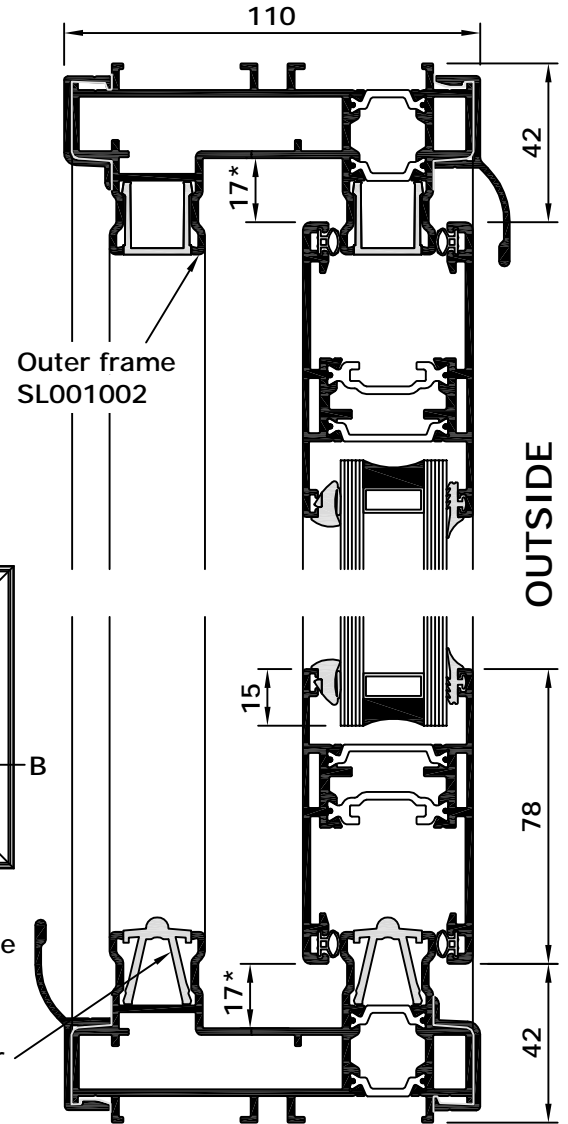
## System 25 Hi

SLIDING DOOR

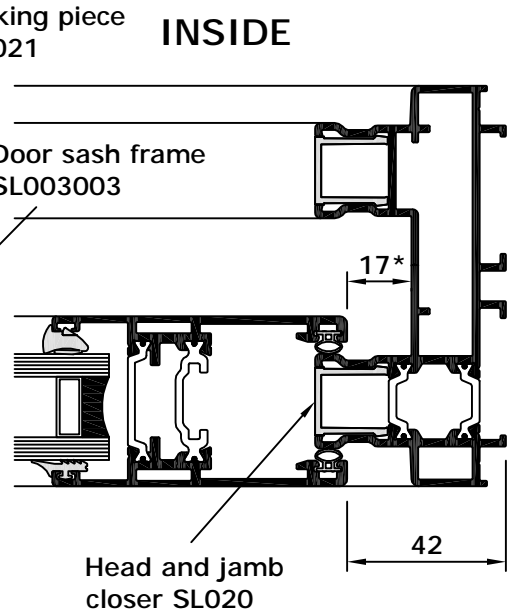
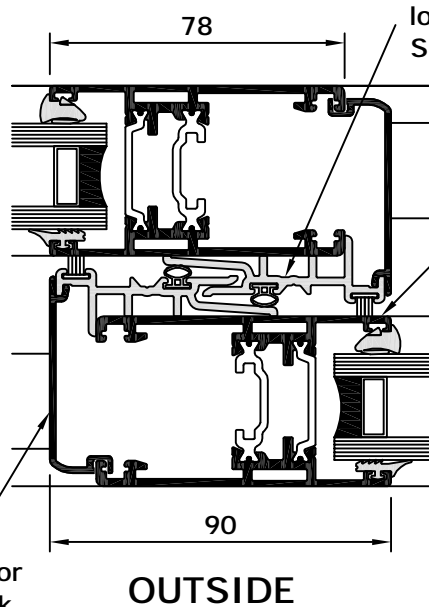
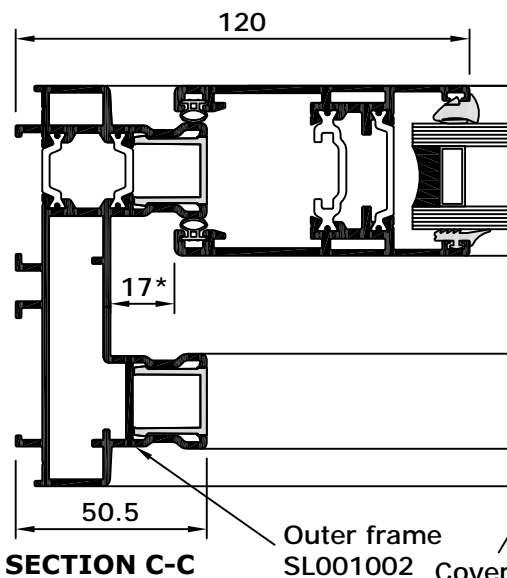
SECTION A-A



SECTION B-B



\* Tolerance to be in accordance with gearing manufacturers recommendations.



Scale 1:2

SHEET 25Hi / 2 / 30

rev 12

14/08/13

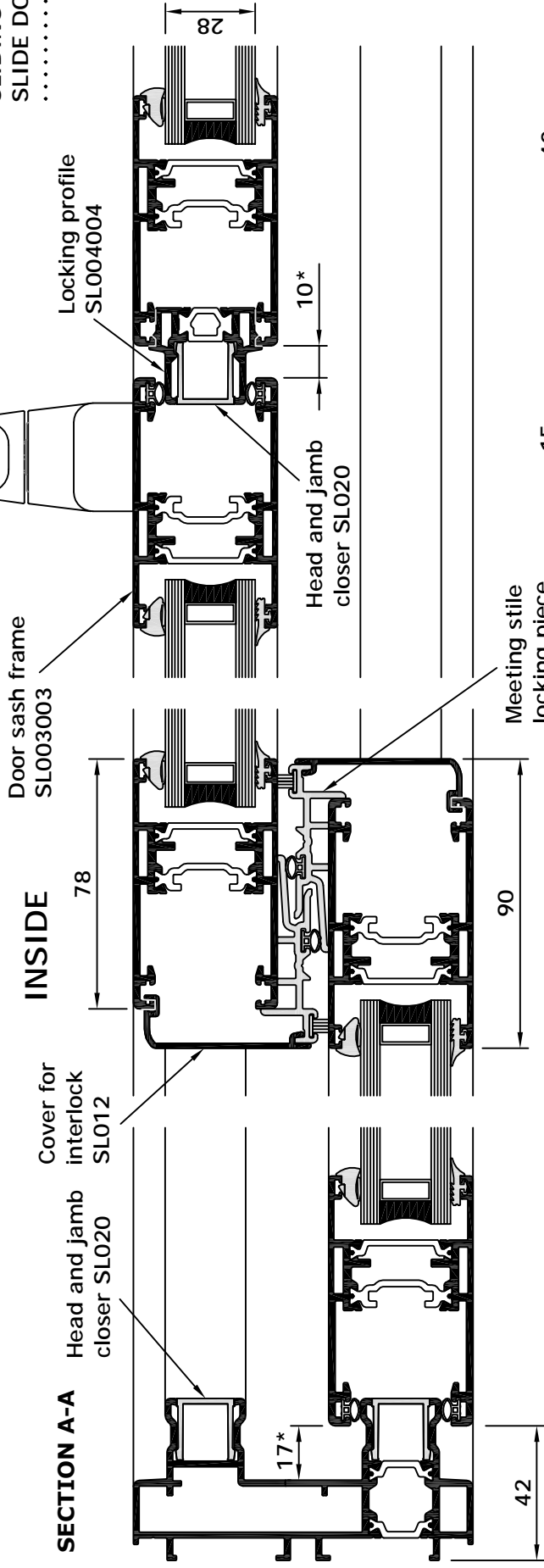
# General Arrangement

1 Pane Lift and Slide or Sliding / 2 Pane Fixed

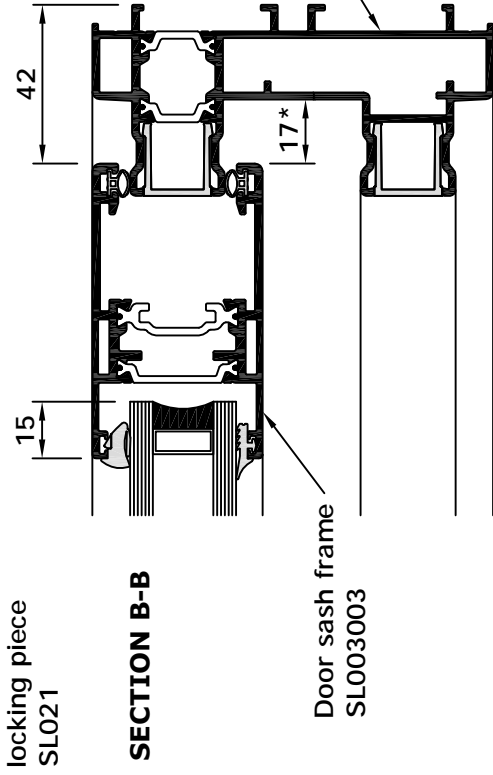
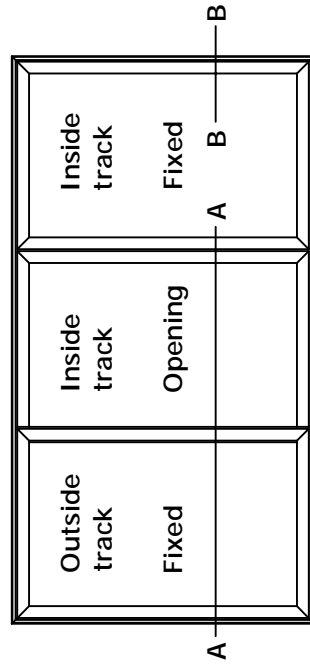


**System 25 Hi**

SLIDING / LIFT AND  
SLIDE DOOR



Meeting stile locking piece SL021



\* Tolerance to be in accordance with gearing manufacturers recommendations.

OUTSIDE

Scale 1:2

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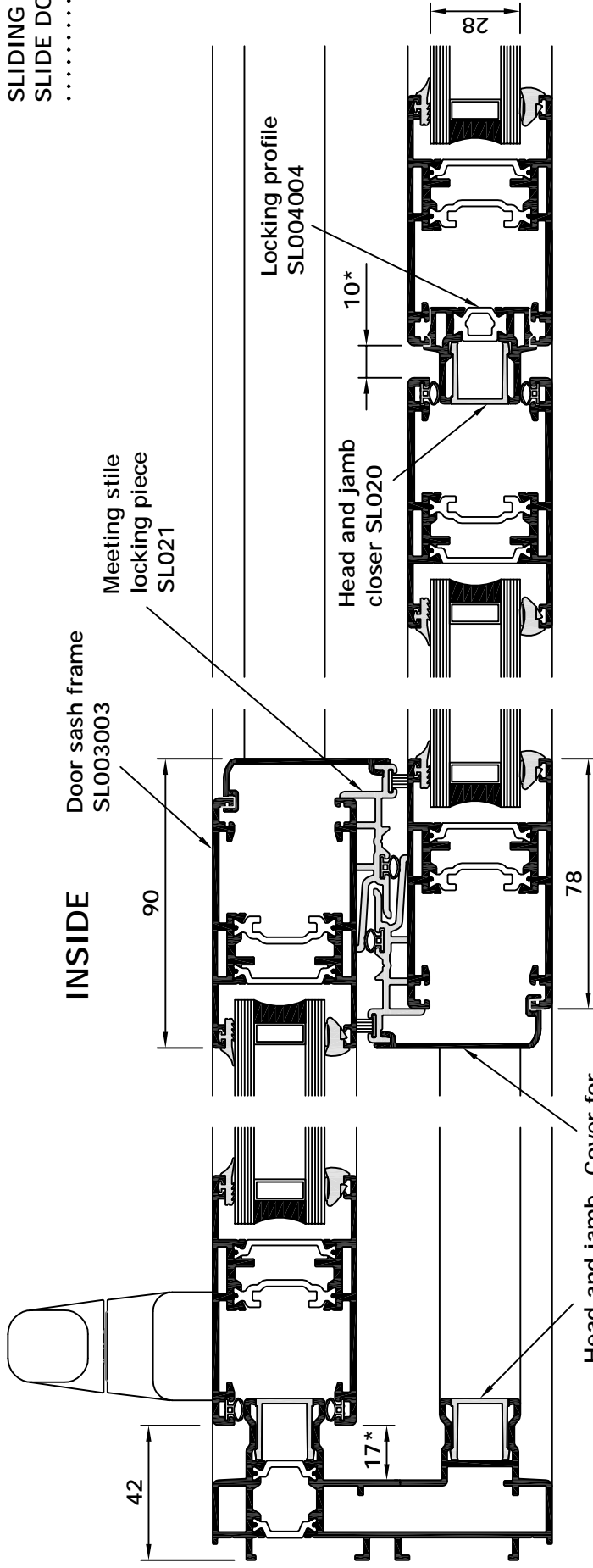
# General Arrangement

1 Pane Lift and Slide or Sliding / 2 Pane Fixed

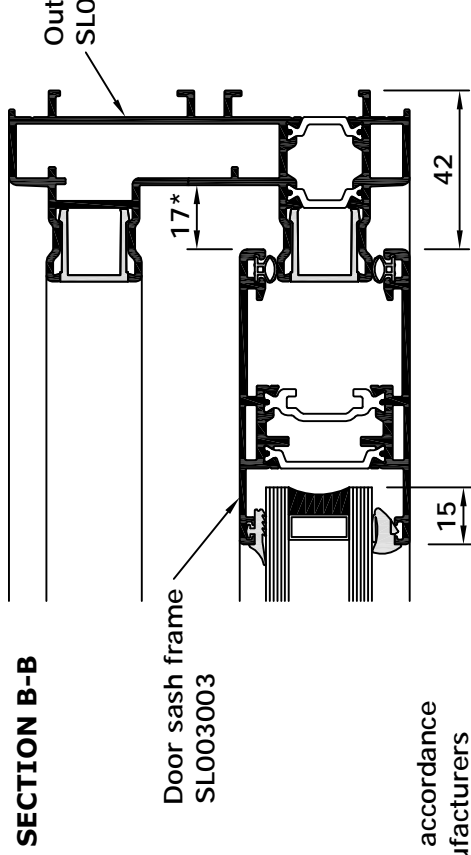


**System 25 Hi**

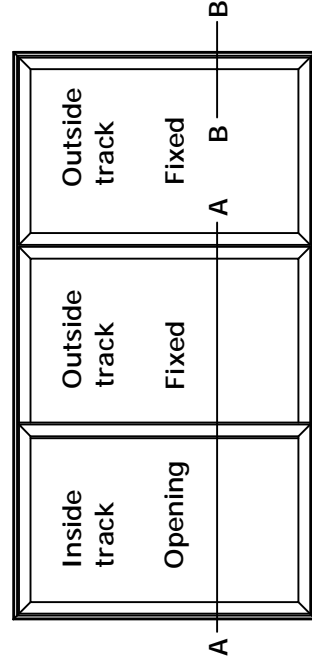
SLIDING / LIFT AND  
SLIDE DOOR



**SECTION A-A** Head and jamb closer SL020 Cover for interlock SL012



**SECTION B-B** Outer frame SL001002 Door sash frame SL003003



\* Tolerance to be in accordance with gearing manufacturers recommendations.

Scale 1:2

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OUTSIDE

SHEET 25Hi / 2 / 50  
rev 12 14/08/13

# General Arrangement

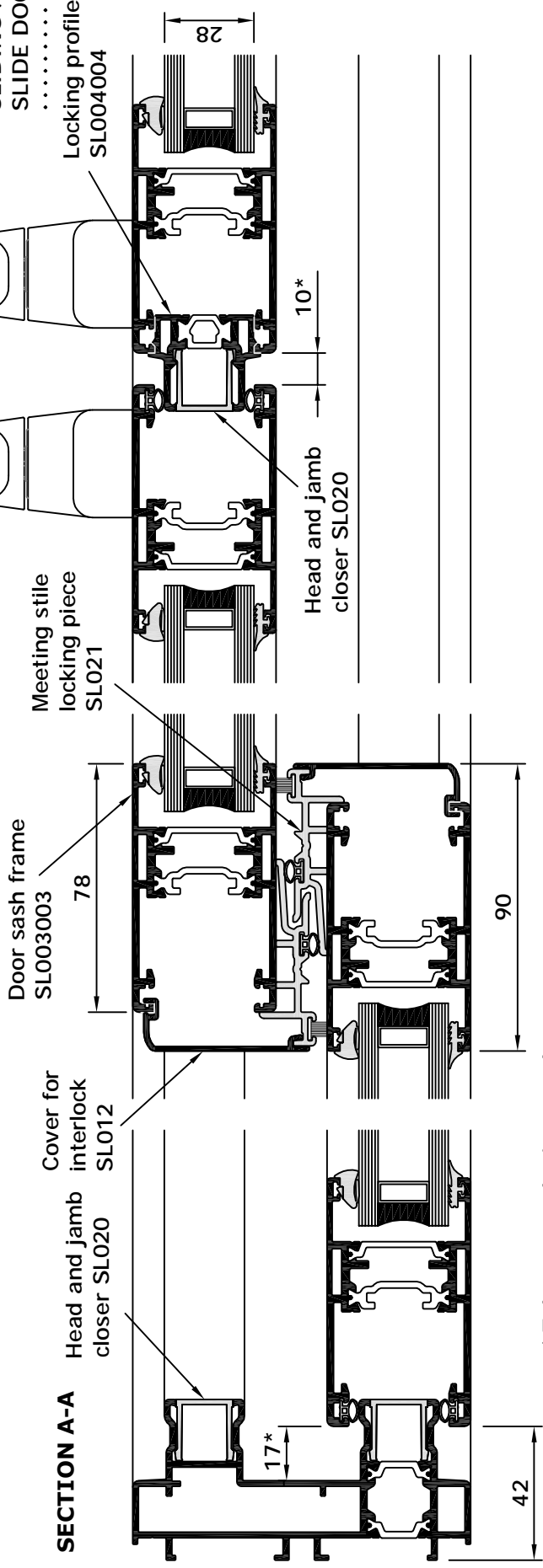
## 2 Pane Lift and Slide or Sliding / 2 Pane Fixed



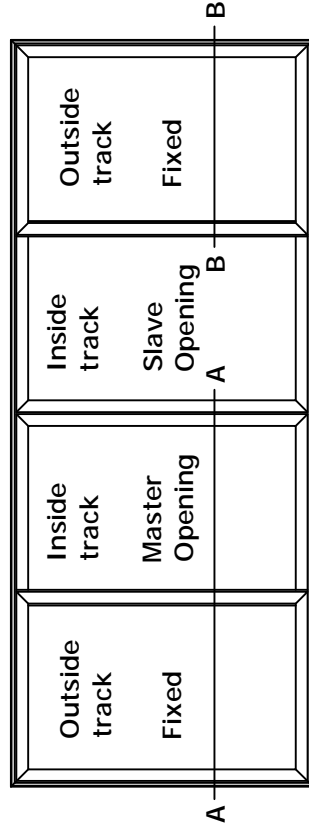
## System 25 Hi

SLIDING / LIFT AND  
SLIDE DOOR

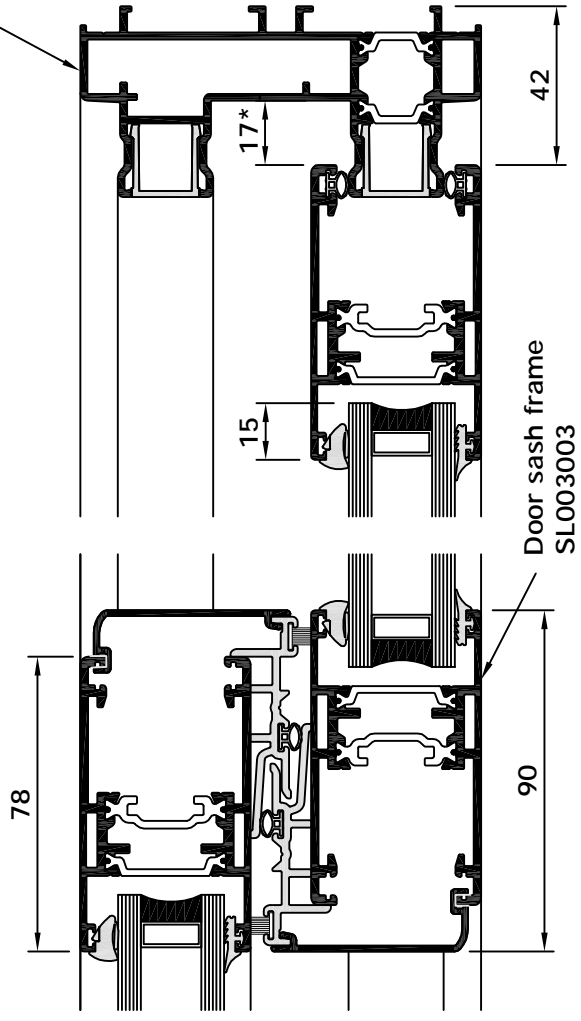
INSIDE



\* Tolerance to be in accordance with gearing manufacturers recommendations.



Outer frame  
SL001002



SECTION B-B

OUTSIDE

SHEET 25Hi / 2 / 60  
rev 9 14/08/13

Scale 1:2

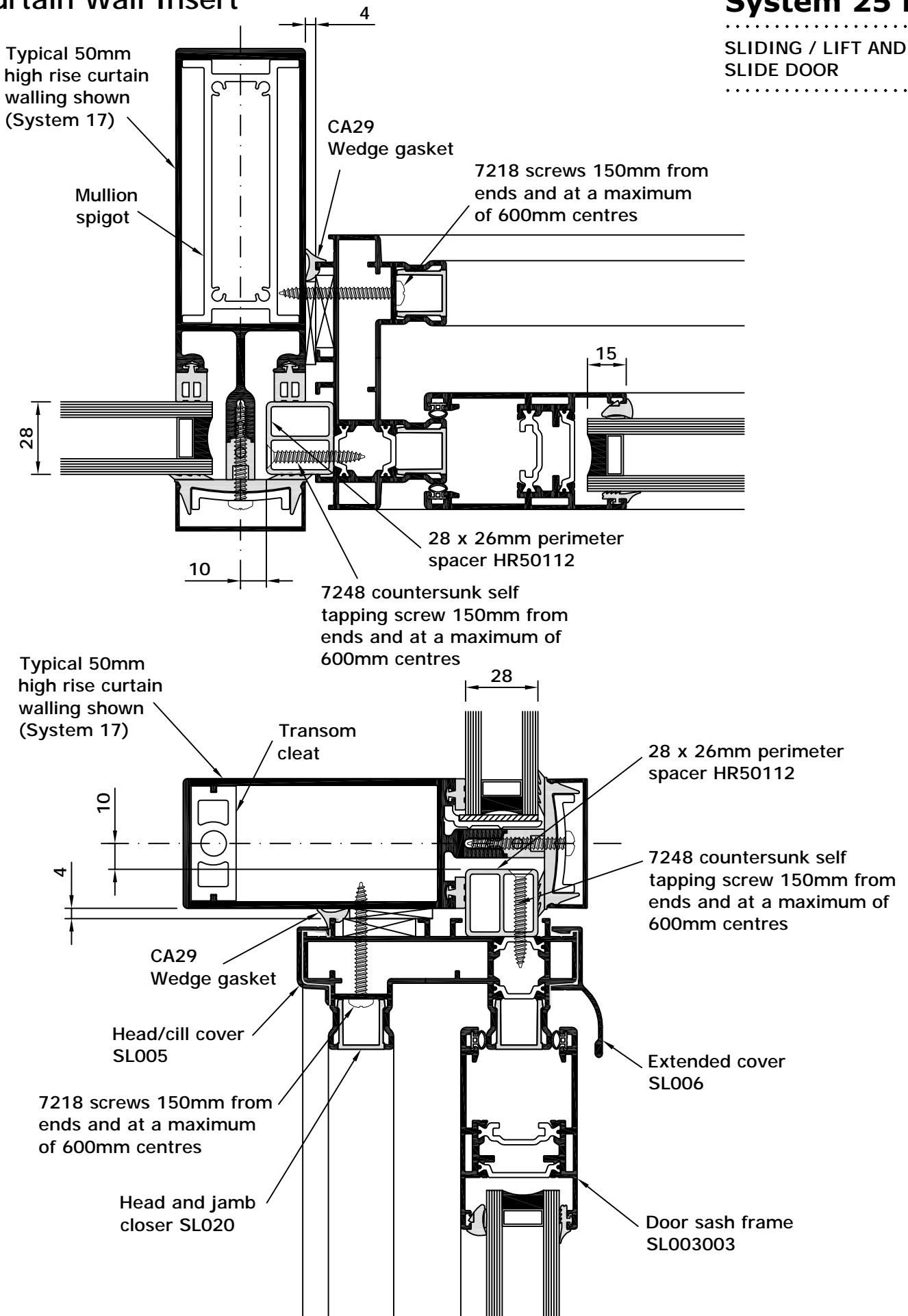
# General Arrangement

## Curtain Wall Insert



## System 25 Hi

.....  
 SLIDING / LIFT AND  
 SLIDE DOOR  
 .....



Scale 1:2

SHEET 25Hi / 2 / 70

rev 10

17/10/13



# General Arrangement

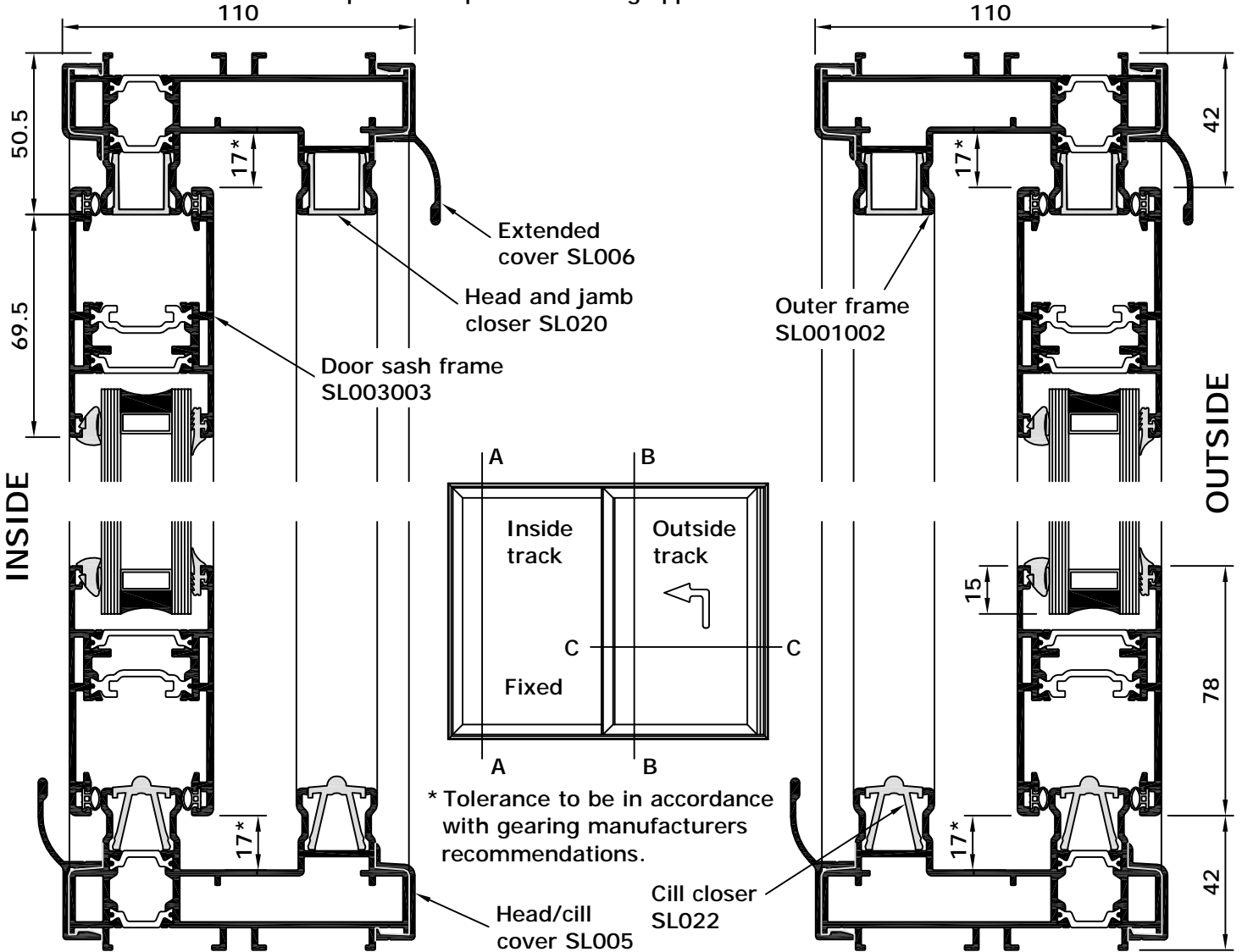
## Jamb Extension for External Opening Sash



## System 25 Hi

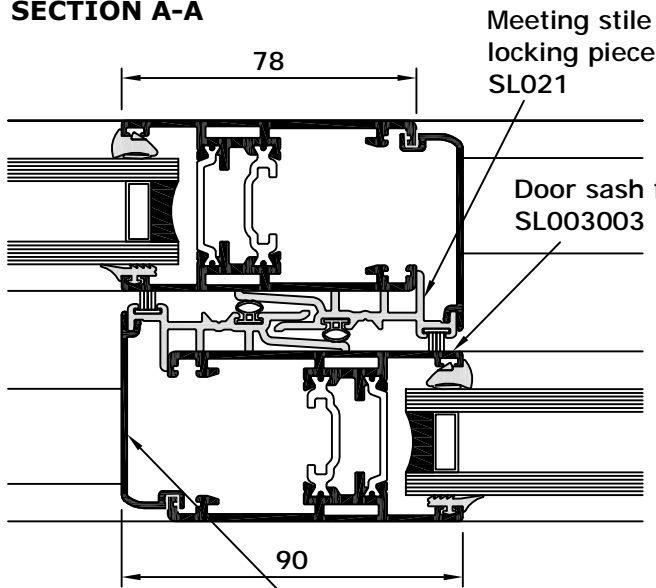
.....  
LIFT AND SLIDE DOOR  
.....

\*\* Jamb extension SL015015 is required to avoid fingertrap between handle of external opening sash and outer frame. Details depicted are for Lift and Slide. Jamb extension is also required in equivalent Sliding applications.

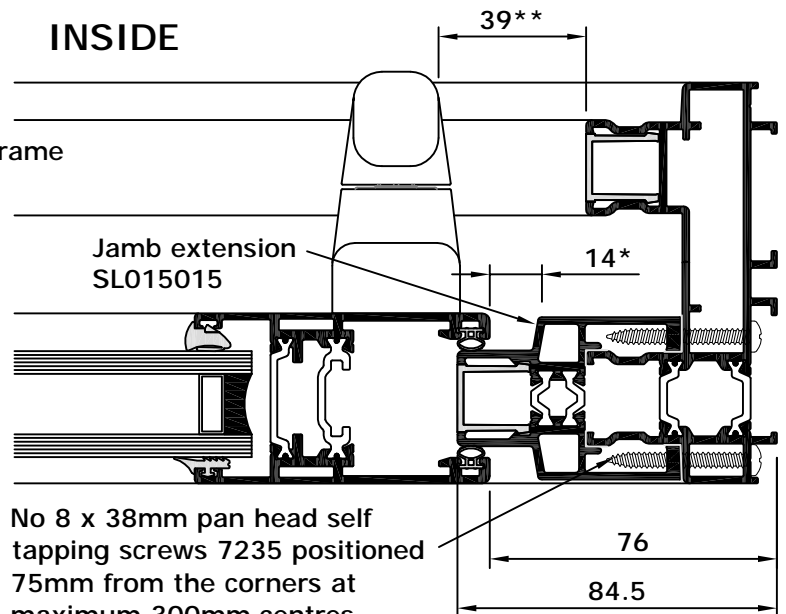


SECTION A-A

SECTION B-B



SECTION C-C



INSIDE

OUTSIDE

Scale 1:2

SHEET 25Hi / 2 / 80

rev 8

14/08/13

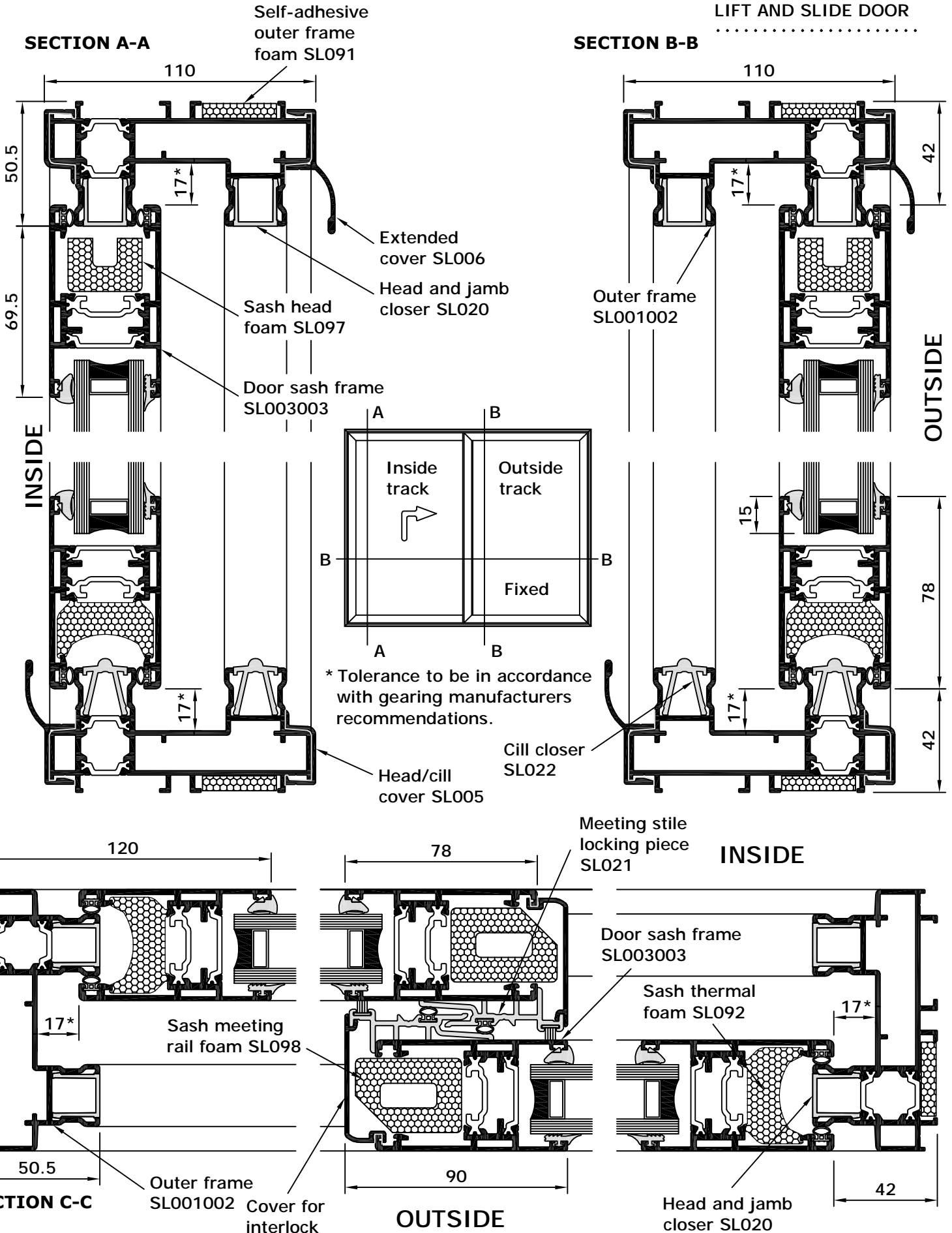
# General Arrangement

1 Pane Lift and Slide / 1 Pane Fixed



**System 25 Hi+**

LIFT AND SLIDE DOOR



Scale 1:2

SHEET 25Hi / 2 / 90

rev 7

15/08/13

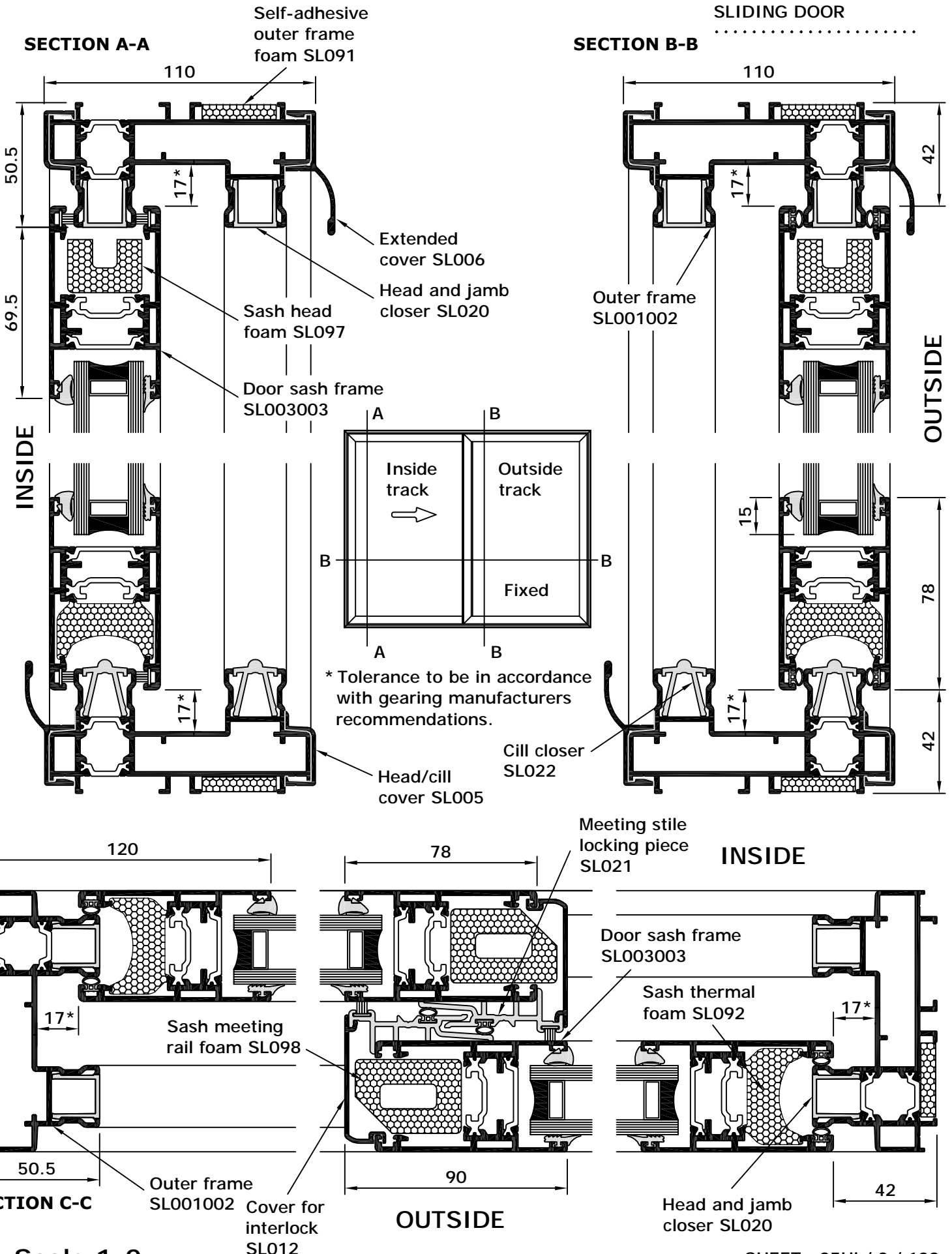
# General Arrangement

1 Pane Sliding / 1 Pane Fixed



**System 25 Hi+**

SLIDING DOOR



Scale 1:2

SHEET 25Hi / 2 / 100

rev 9

15/08/13

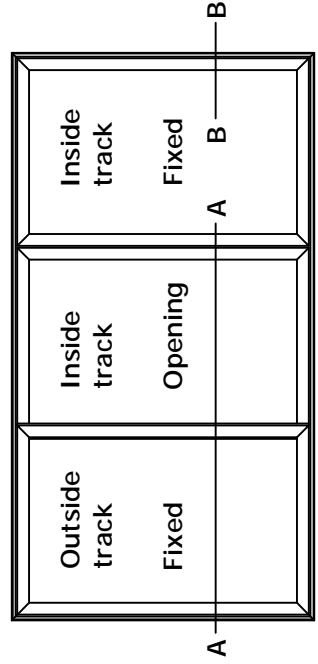
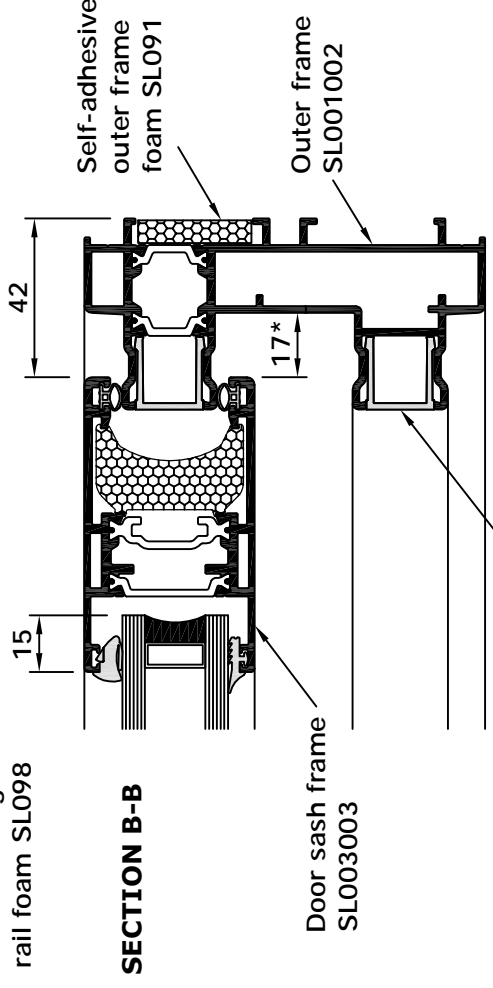
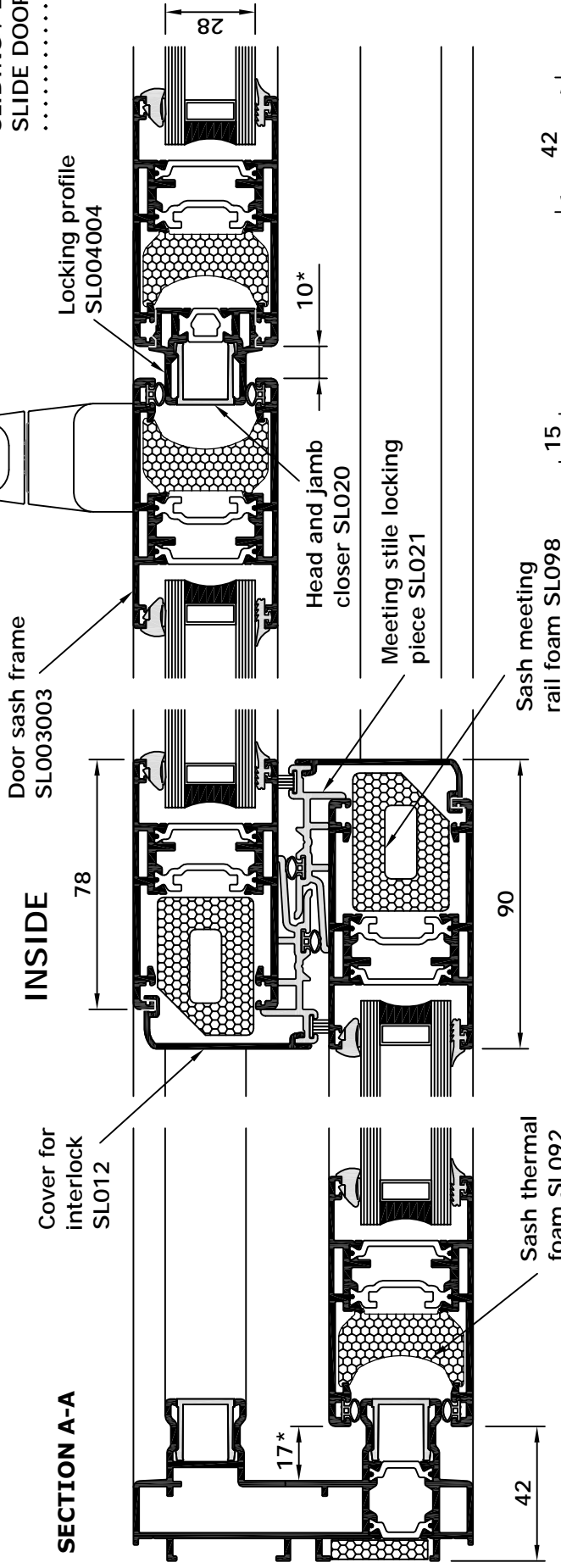
# General Arrangement

## 1 Pane Lift and Slide or Sliding / 2 Pane Fixed



### System 25 Hi+

SLIDING / LIFT AND  
SLIDE DOOR



\* Tolerance to be in accordance with gearing manufacturers recommendations.

Scale 1:2

OUTSIDE

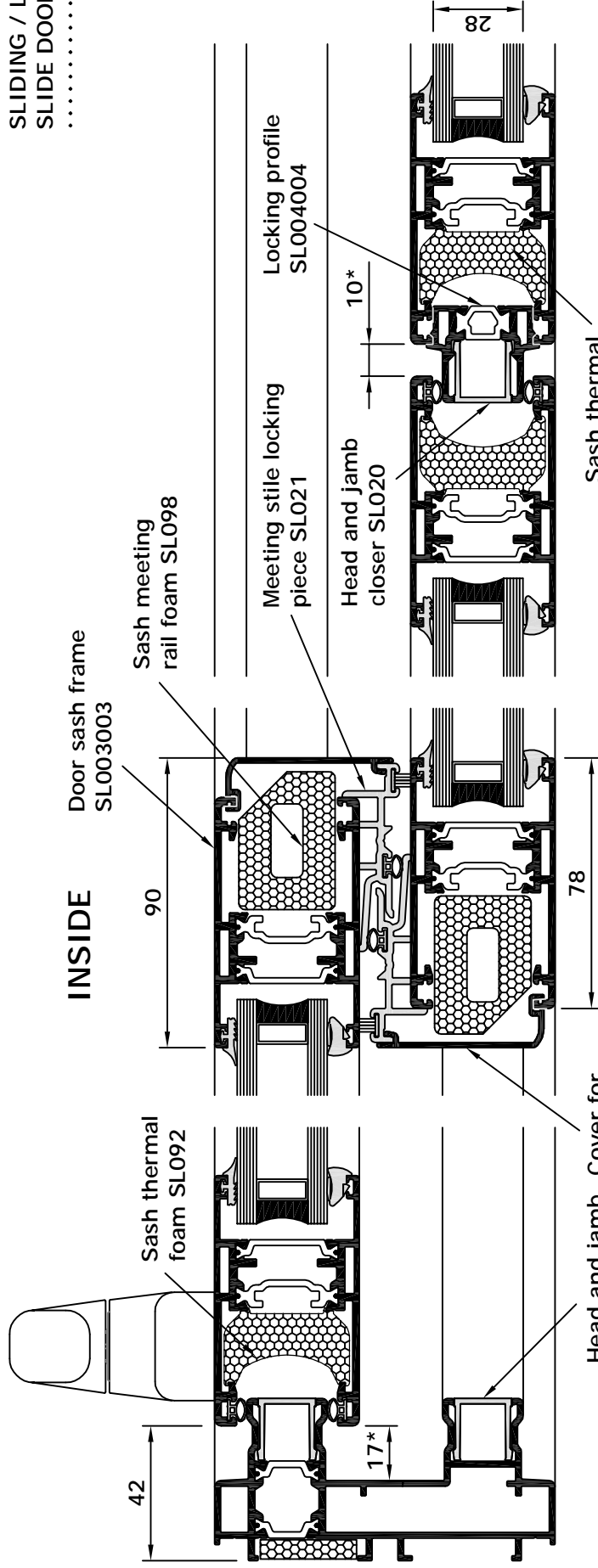
# General Arrangement

## 1 Pane Lift and Slide or Sliding / 2 Pane Fixed



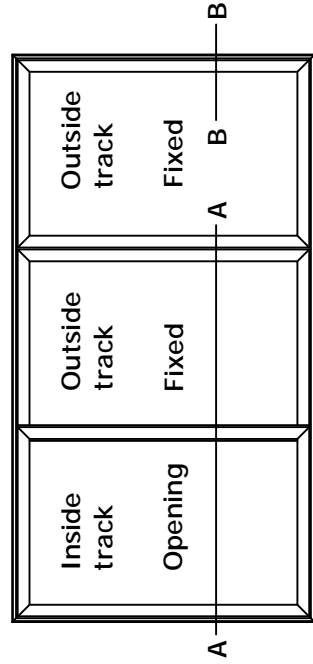
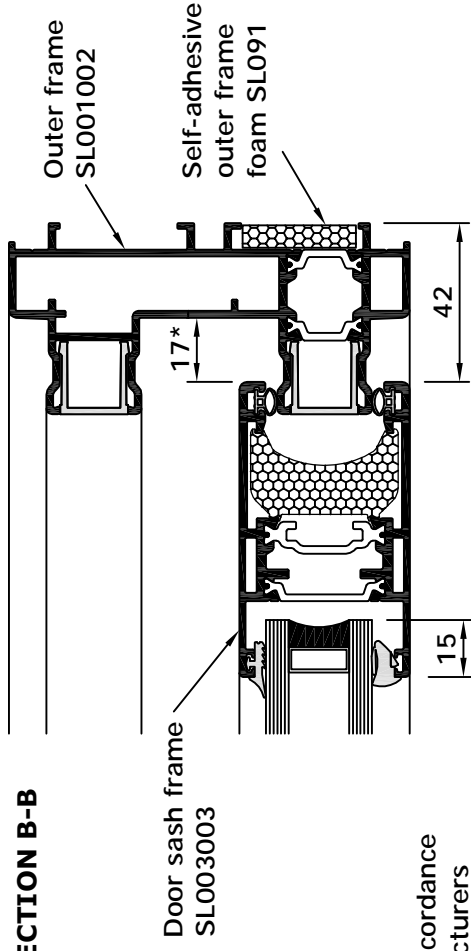
## System 25 Hi+

SLIDING / LIFT AND  
SLIDE DOOR



**SECTION A-A** Head and jamb closer SL020 Cover for interlock SL012

**SECTION B-B**



\* Tolerance to be in accordance with gearing manufacturers recommendations.

Scale 1:2

OUTSIDE

SHEET 25Hi / 2 / 120  
rev 10 15/08/13

# General Arrangement

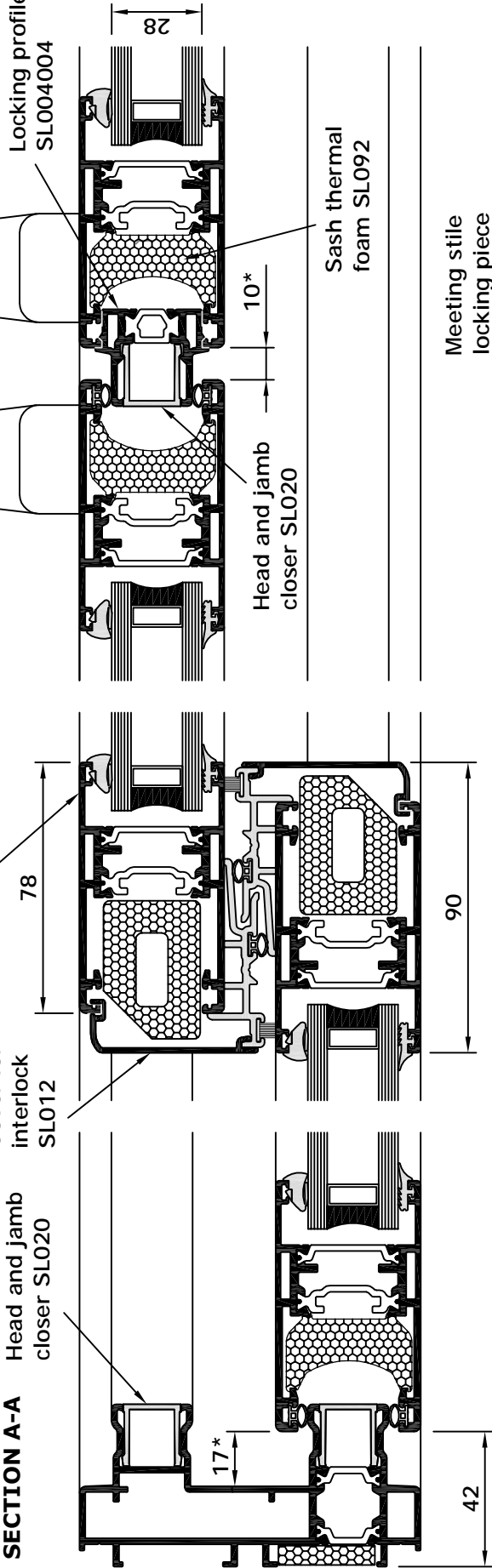
## 2 Pane Lift and Slide or Sliding / 2 Pane Fixed



## System 25 Hi+

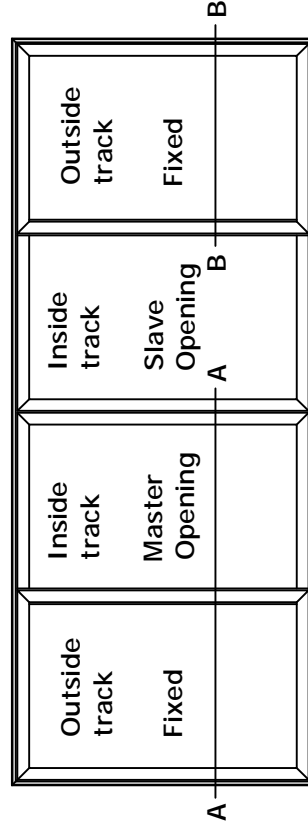
SLIDING / LIFT AND  
SLIDE DOOR

SECTION A-A



INSIDE

\* Tolerance to be in accordance with gearing manufacturers recommendations.



Outer frame SL001002

Meeting stile locking piece SL021

Self-adhesive outer frame foam SL091

Sash meeting rail foam SL098

Door sash frame SL003003

Scale 1:2

SECTION B-B

OUTSIDE

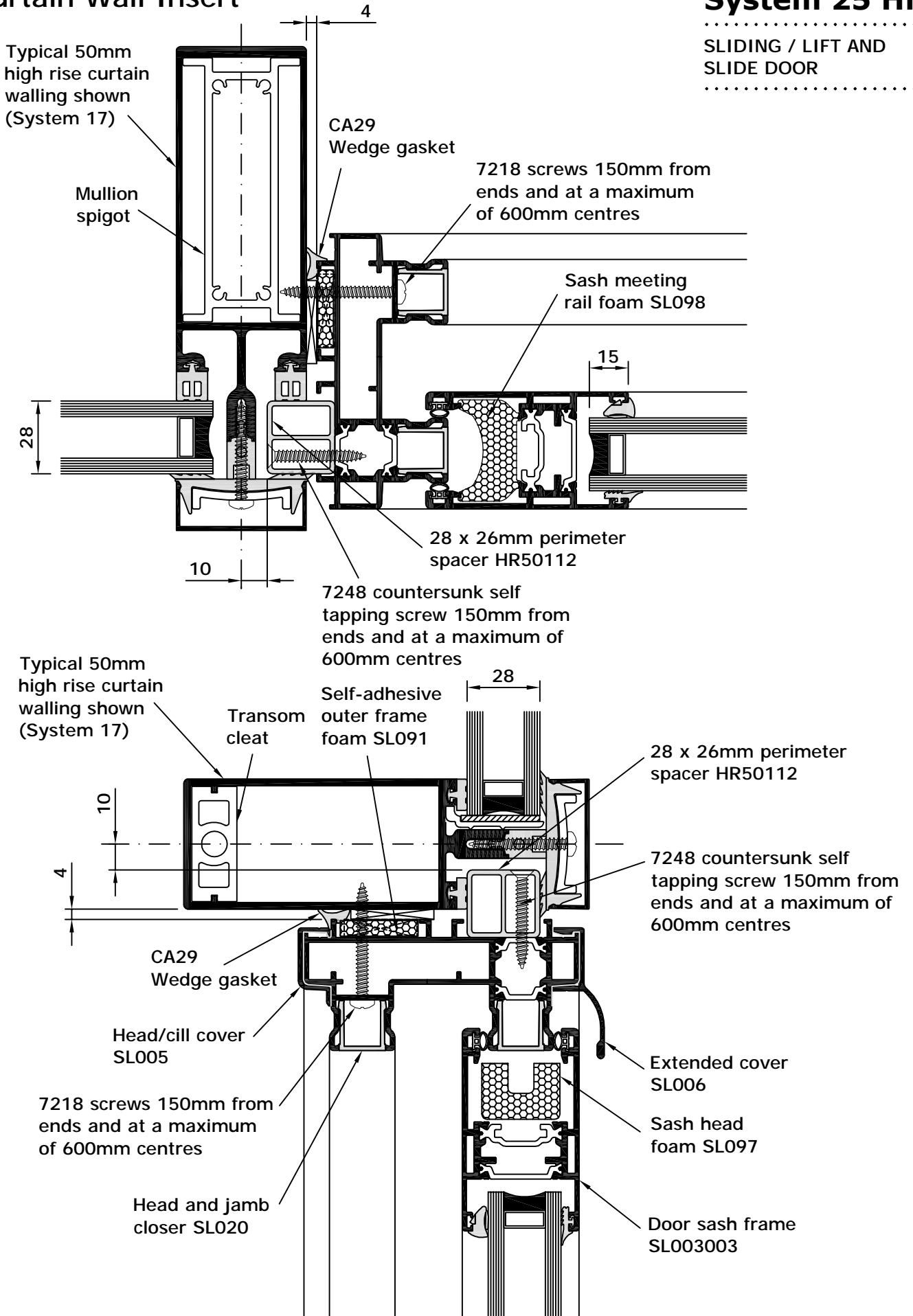
# General Arrangement

## Curtain Wall Insert



## System 25 Hi+

SLIDING / LIFT AND  
SLIDE DOOR



Scale 1:2

SHEET 25Hi / 2 / 140

rev 10

17/10/13

# General Arrangement

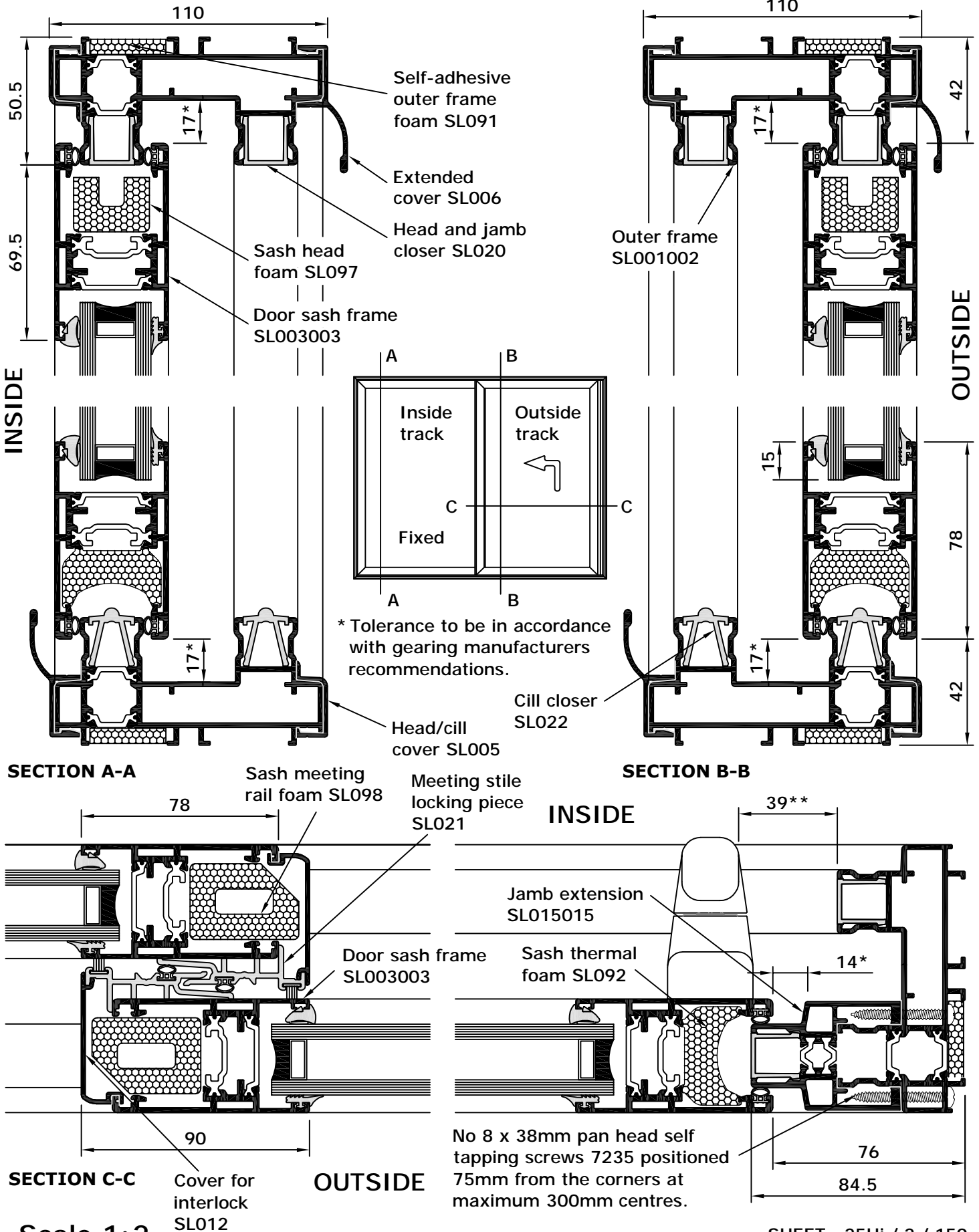
## Jamb Extension for External Opening Sash



## System 25 Hi+

LIFT AND SLIDE DOOR

\*\* Jamb extension SL015015 is required to avoid fingertrap between handle of external opening sash and outer frame. Details depicted are for Lift and Slide. Jamb extension is also required in equivalent Sliding applications.



Scale 1:2

SHEET 25Hi / 2 / 150

rev 5

15/08/13



# Mullion Stiffener

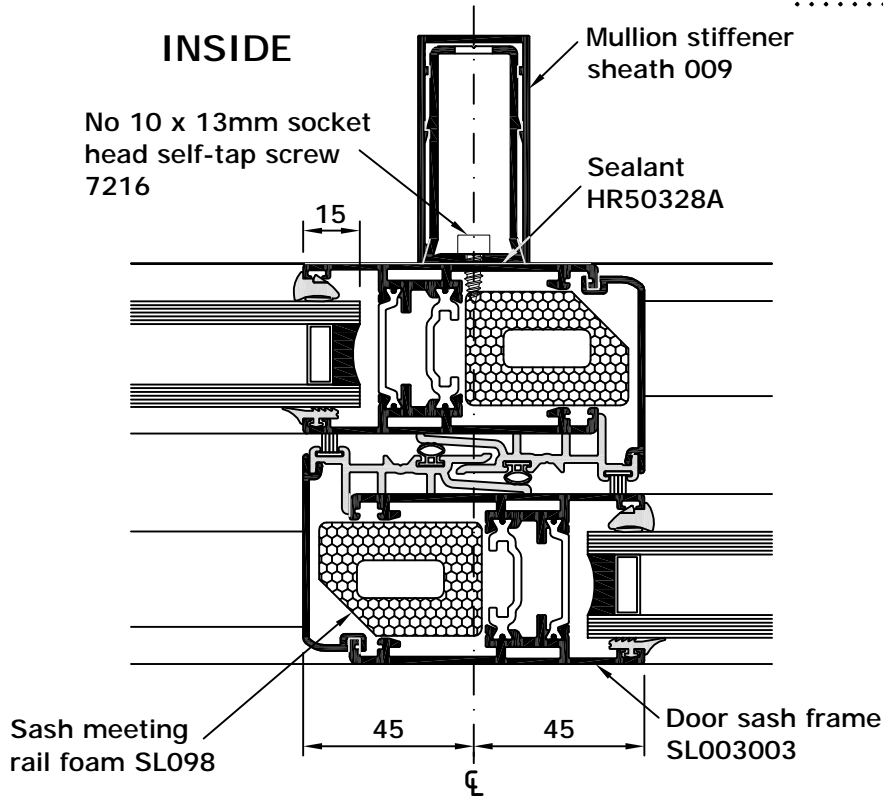
For 2, 3 and 4 Pane Doors



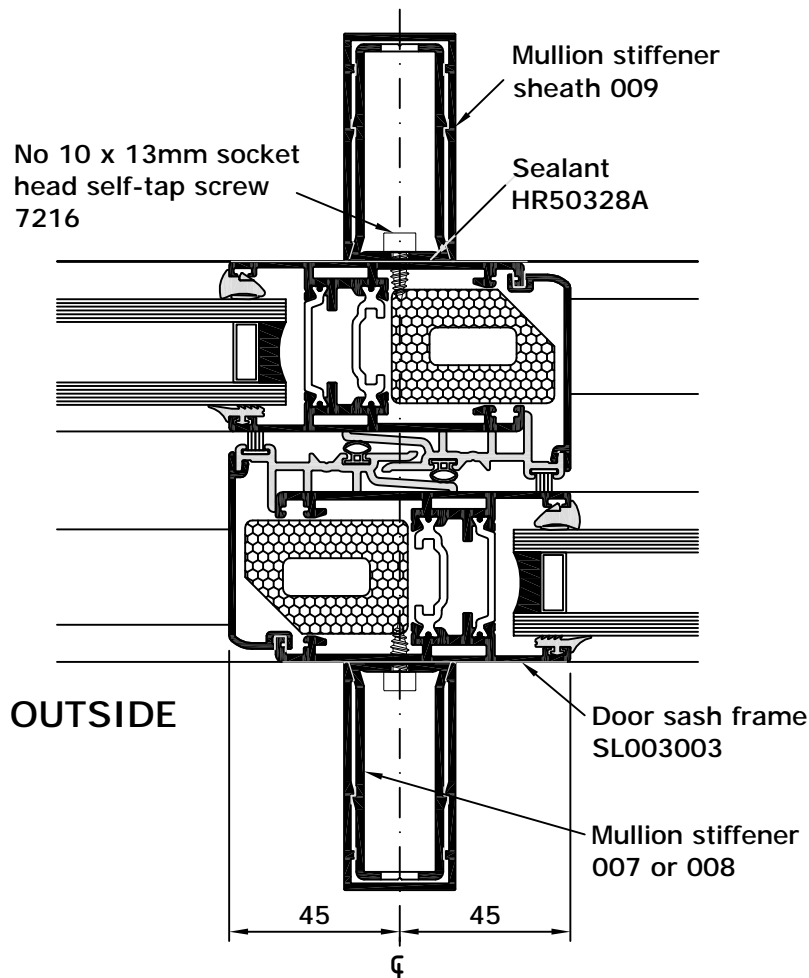
## System 25 Hi/Hi+

.....  
 SLIDING / LIFT AND  
 SLIDE DOOR  
 .....

### MULLION STIFFENER TO INSIDE



### MULLION STIFFENER TO INSIDE AND OUTSIDE



Scale 1:2

# Mullion Stiffener

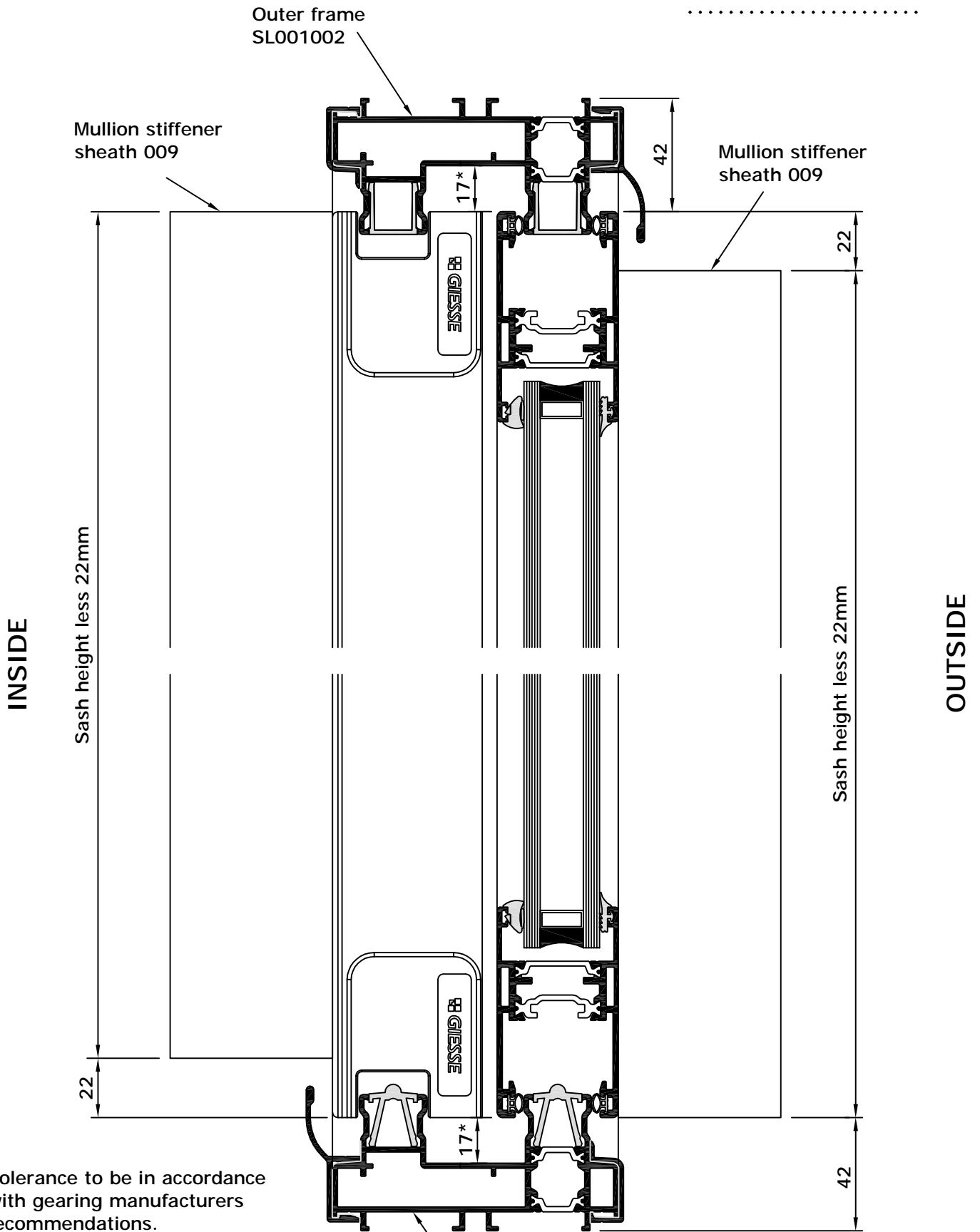
## For 2, 3 and 4 Pane Doors



### System 25 Hi/Hi+

.....  
 SLIDING / LIFT AND  
 SLIDE DOOR  
 .....

To be read in conjunction with previous sheet.



\* Tolerance to be in accordance with gearing manufacturers recommendations.

Scale 1:2

# Mullion Stiffener

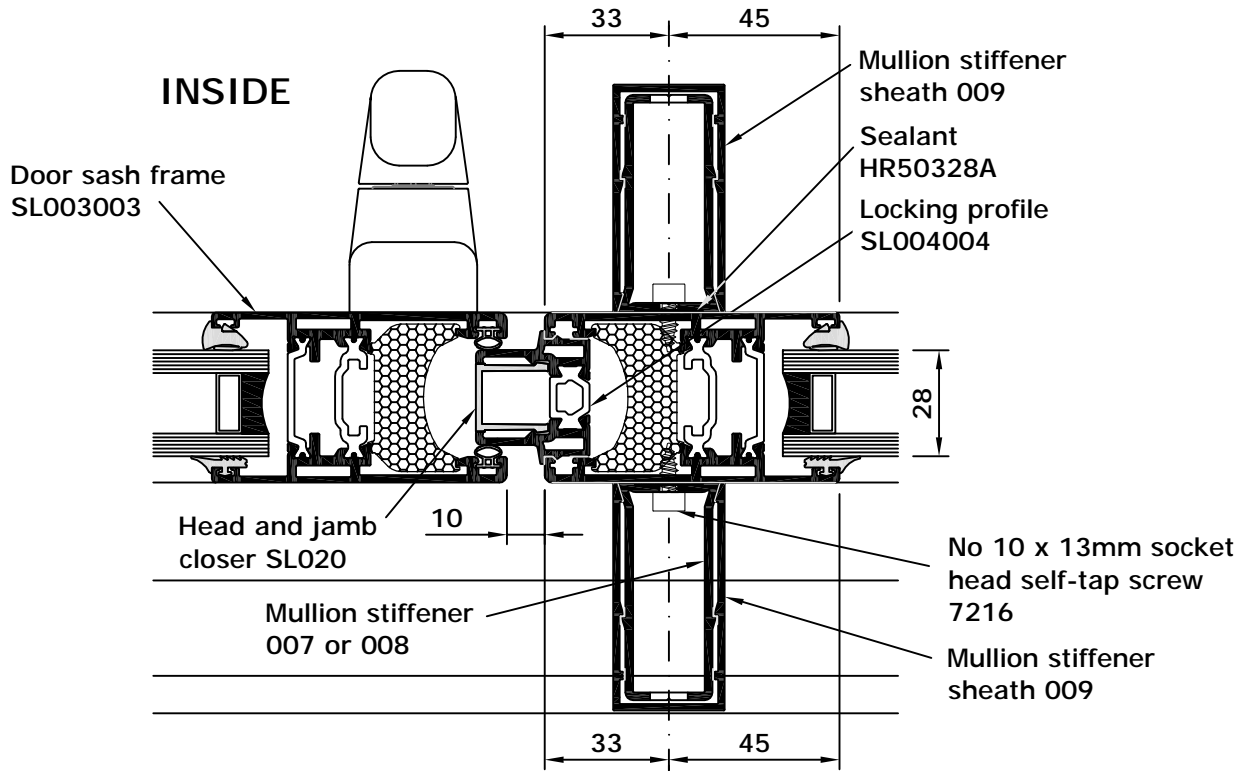
For 3 and 4 Pane Doors



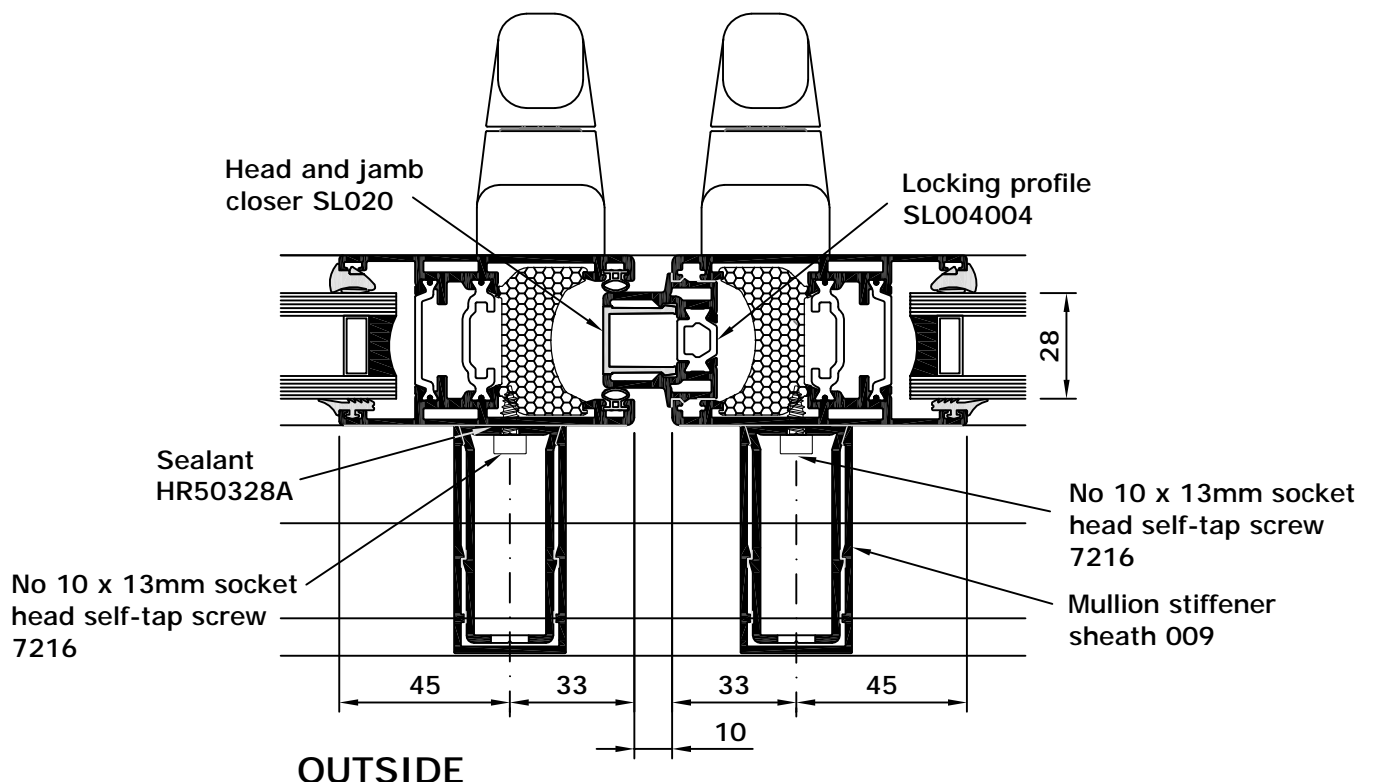
## System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR

### MULLION STIFFENER TO INSIDE AND OUTSIDE FOR 3 PANE DOORS



### MULLION STIFFENER TO OUTSIDE FOR 4 PANE DOORS



Scale 1:2

SHEET 25Hi / 2 / 180

rev 1 17/10/13

# Mullion Stiffener

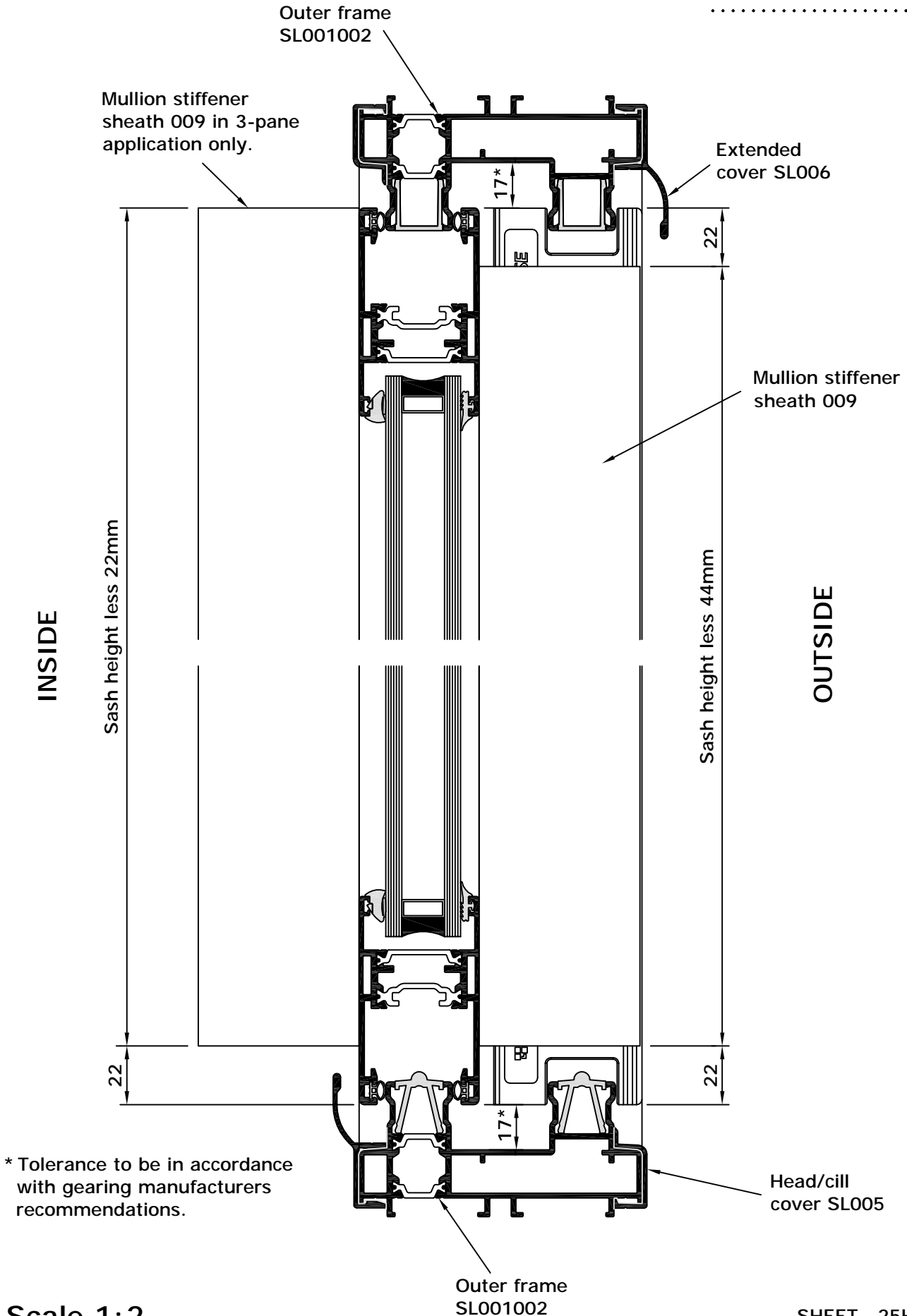
## For 3 and 4 Pane Doors



## System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR

To be read in conjunction with previous sheet.



\* Tolerance to be in accordance with gearing manufacturers recommendations.

Scale 1:2

SHEET 25Hi / 2 / 190

rev 0

15/08/13

# Coupling Detail

SL013014 is designed to couple System 25 to variety of adjacent window configurations, subject to structural capabilities. Therefore the fabricator must ensure that the window design can adequately accommodate the anticipated expansion and contraction. The coupling detail provides a tight butt joint. For further advice please contact Metal Technology's Technical Department.



## System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR

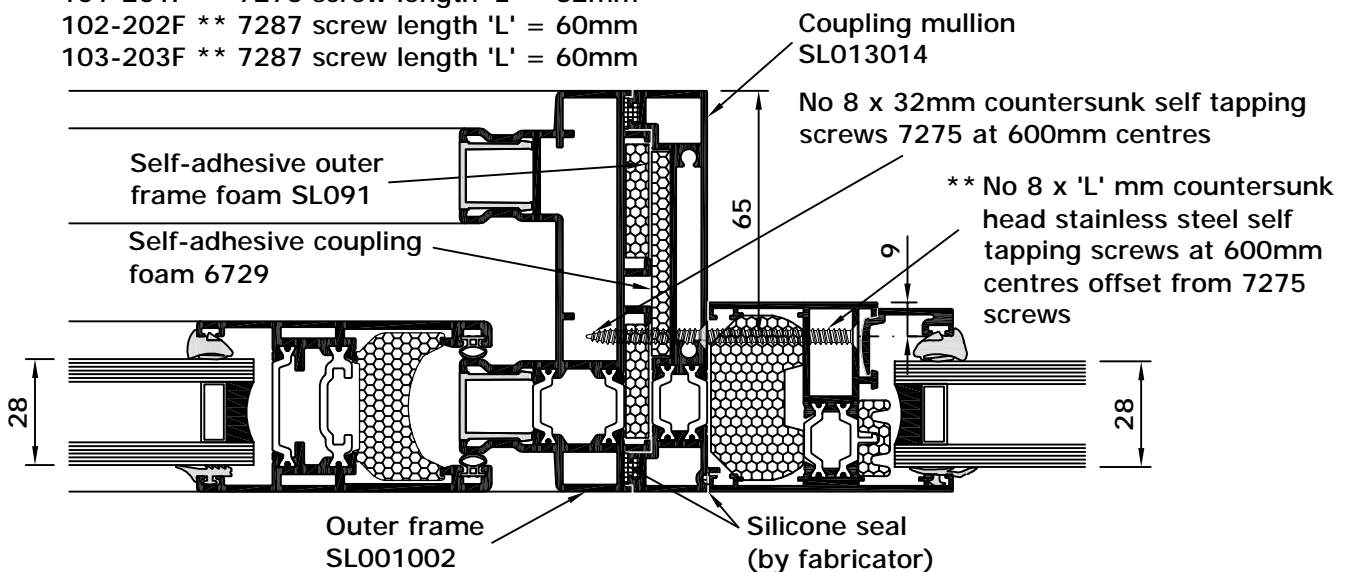
Windows/doors to be screw fixed to coupling mullion at 600mm centres with additional door fixings 25mm above and below hinge positions. Coupling mullion to be lug fixed back to structure at head and cill using plates/straps (by fabricator) fixed to integral screwports within SL013014 profile. Metal Technology recommend that the SL013014 coupling mullion to be sealed and secured to the SL001002 outer frame, as indicated, prior to installation on site.

### OUTER FRAME COUPLED WITH 4-20Hi+/5-20Hi+ OUTER FRAMES

Outer frame

- 100-200F \*\* 7275 screw length 'L' = 32mm
- 101-201F \*\* 7275 screw length 'L' = 32mm
- 102-202F \*\* 7287 screw length 'L' = 60mm
- 103-203F \*\* 7287 screw length 'L' = 60mm

INSIDE



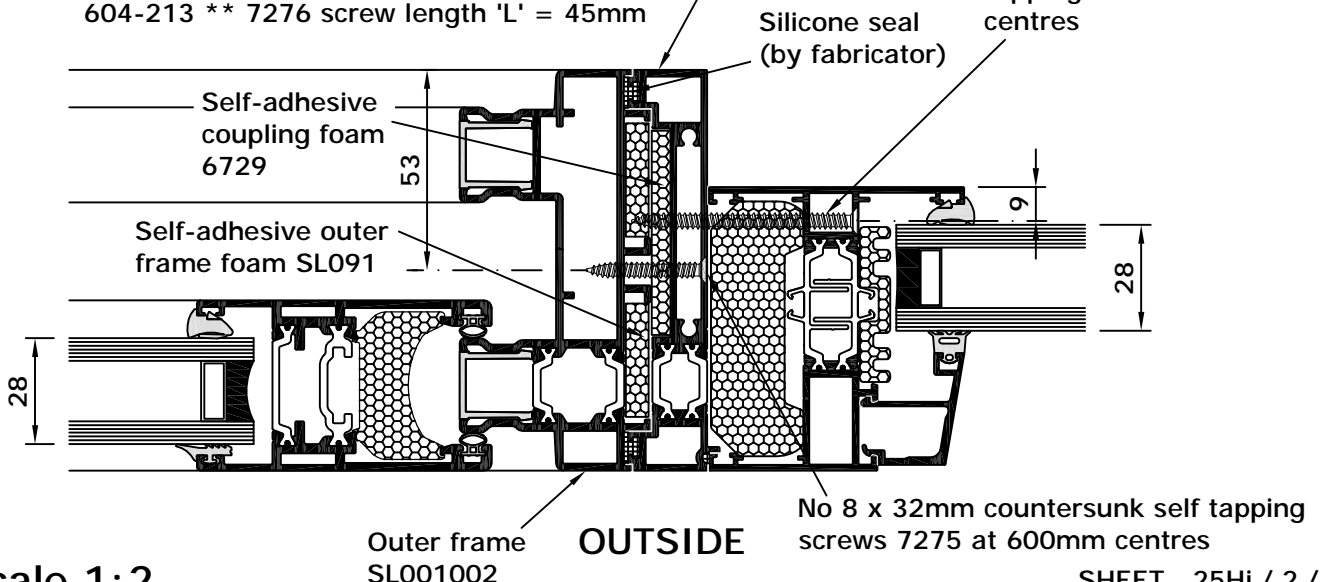
### OUTER FRAME COUPLED WITH 4-35Hi+/5-35Hi+ OUTER FRAMES

Outer frame

- 600-200 \*\* 7275 screw length 'L' = 32mm
- 601-201 \*\* 7275 screw length 'L' = 32mm
- 602-202 \*\* 7287 screw length 'L' = 60mm
- 602-212 \*\* 7287 screw length 'L' = 60mm
- 604-213 \*\* 7276 screw length 'L' = 45mm

Coupling mullion  
SL013014

\*\* No 8 x 'L' mm countersunk head stainless steel self tapping screws at 600mm centres



Scale 1:2

SHEET 25Hi / 2 / 200

rev 0

15/08/13

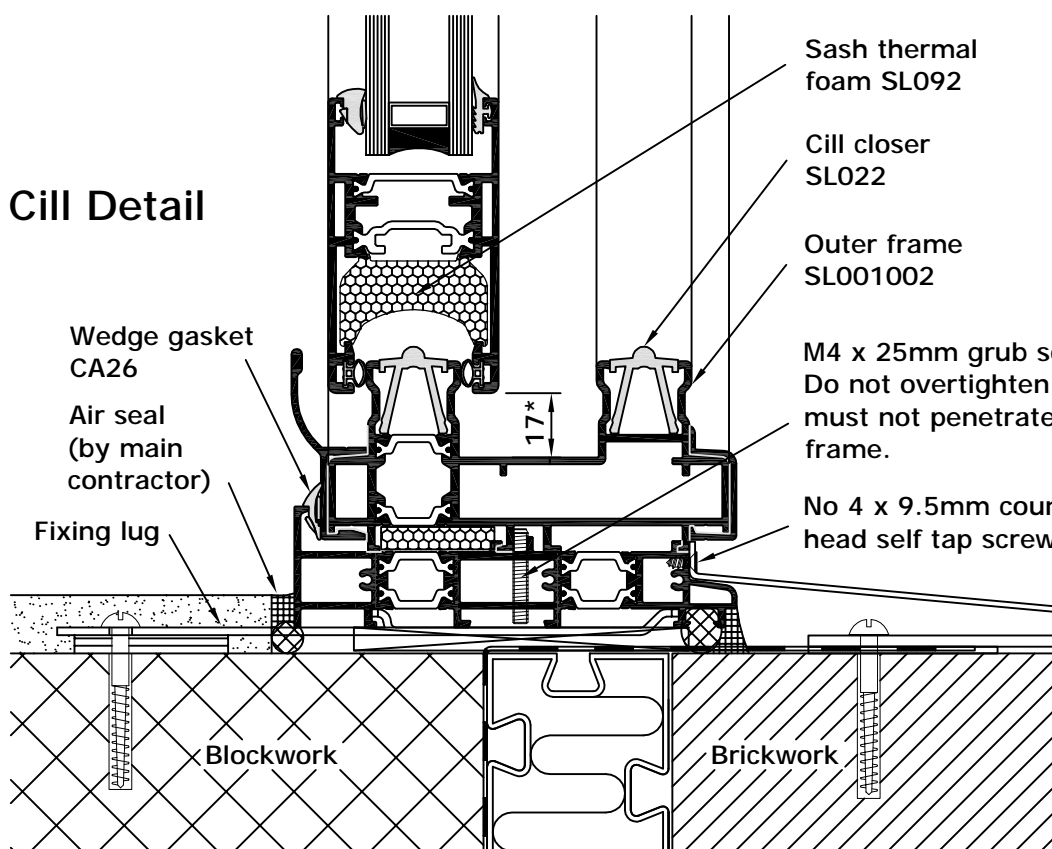
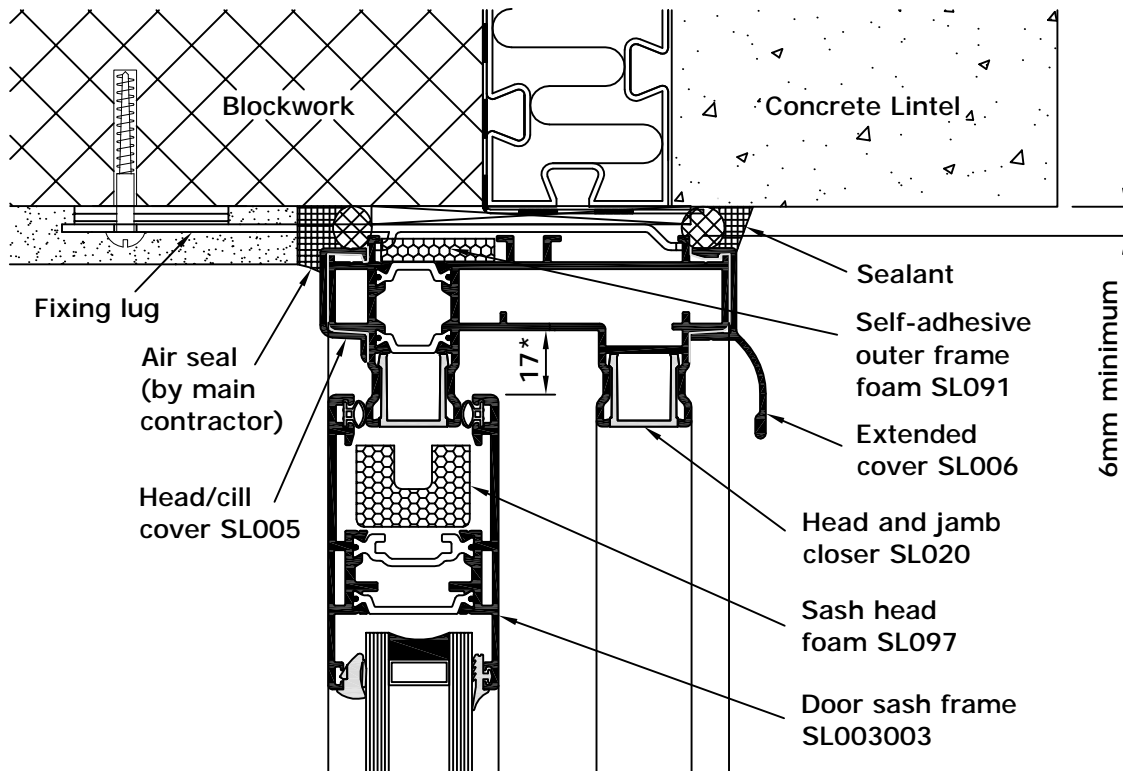
# Cill and Head Options



## System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR

### Head Detail



### Cill Detail

M4 x 25mm grub screw SL109.  
Do not overtighten. Grub screw  
must not penetrate the outer  
frame.

No 4 x 9.5mm countersunk  
head self tap screw 7292

1.5mm or 2mm  
pressed metal  
cill (by others)

Wind clip (by  
others) to suit  
site conditions

\* Tolerance to be in accordance  
with gearing manufacturers  
recommendations.

Scale 1:2

# General Cautionary Notes

Sheets labelled Hi/Hi+ are applicable to both variations of the system. Where fabrication details have no impact on the thermal gaskets/foams, these have been omitted for clarity. Where sheets refer to Hi or Hi+ only, details shown apply accordingly.

The fabricator must ensure all doors, their operation and all other associated ironmongery are in accordance with the size and weight restrictions within this manual and any applicable British and European standards, building regulations, disabled access and Health and Safety requirements.

Fabricators should look at each application in relation to the sections used and the ironmongery required in order to determine compatibility (i.e that there is sufficient depth of section to accommodate the combination of profiles in conjunction with the ironmongery, handles and drainage requirements). Similar consideration should be given to door perimeter structural interface details. Metal Technology recommend that each application is drawn out with all structure, profiles, ironmongery and fixing details applied in order to determine compatibility.

In multi-light applications, when coupling fixed lights to a door, fabricator must take into consideration the loads applied and carry out application-specific structural analysis.

Fabricators should be aware that when working with large doors the maintenance of tight tolerances of  $\pm 1\text{mm}$  is critical to maintenance of the correct gasket cover around the door. The gasket cover around the sash must be centralized. All fixings must be sealed in place using a suitable sealant. All fixings must be compatible with the materials into which they are fastened. i.e. when attaching into aluminum, austenitic A2 or A4 x class 70 stainless steel fixings are recommended. Fabricators must ensure that all adhesives, sealants and lubricants are fully compatible with the glass, materials and finish they are to be in contact with. Metal Technology recommend that fabricators sample all proposed adhesives and sealants to ensure compatibility on a project-by-project basis. Frames should be set aside after gluing to allow glue to harden.

Fabricator should be aware of available finishes for each handle type. When combining internal and external handle options, and/or handles from another system, it may not be possible to match the finishes. In such situations Metal Technology recommend obtaining prior client approval.

For fixed and opening sash configurations not detailed in this manual contact Metal Technology's Technical Department.

# Thermal Foams

Thermal foams should not be exposed to UV light, and must be kept in a clean, dry, and dust-free environment at between 5° and 35°C. Minimum recommended application temperature for adhesive thermal foams is 20°C and therefore these should be applied in clean, dry and dust-free factory conditions. Before applying self-adhesive foams ensure all surfaces are free from grease or dust. Clean all mating surfaces with suitable cleaning agent. Fabricators should minimise the exposure period of the foams to the elements and provide additional on-site protection to prevent depositing of builders debris.

# Vent Size Limitation Chart

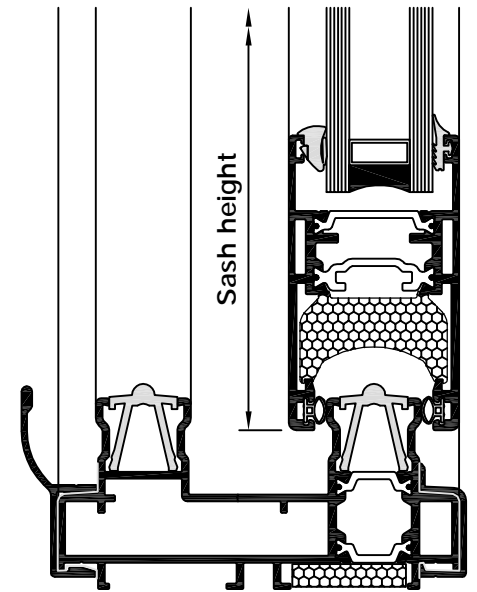
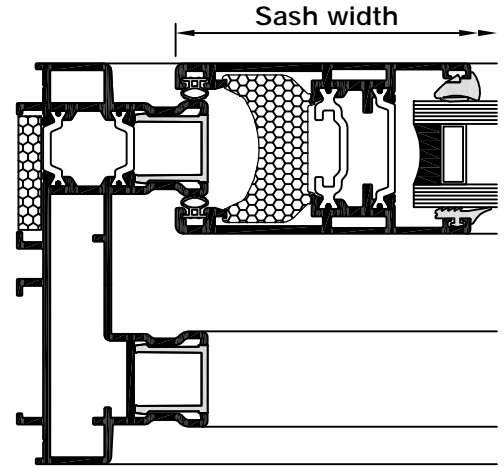
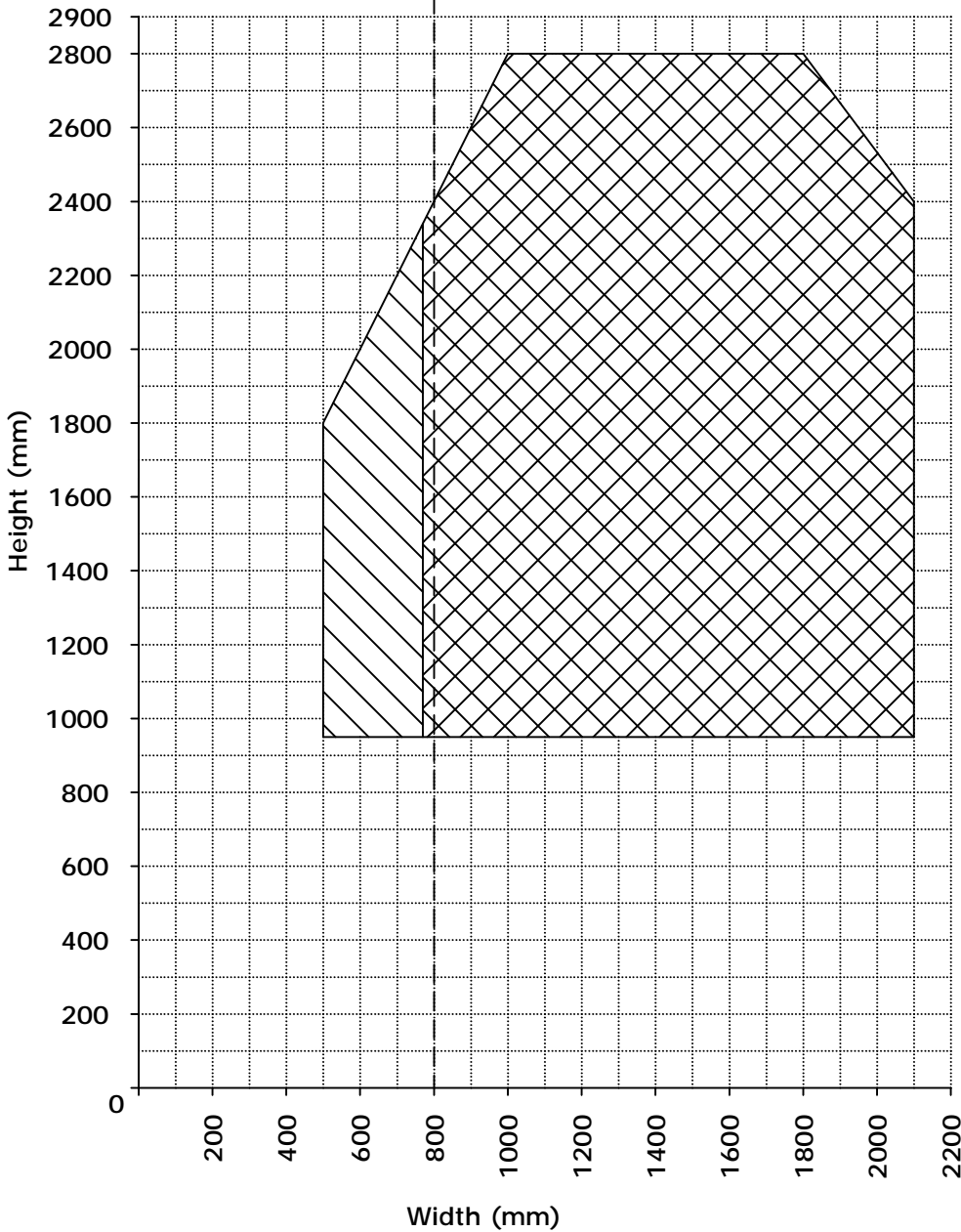
## Sliding / Lift and Slide Door Sash SL003003



## System 25 Hi/Hi+

.....  
 SLIDING / LIFT AND  
 SLIDE DOOR  
 .....

Door widths less than 800mm may prove impractical due to resultant clear opening, dependant on handle combination.



Maximum sash weight for sliding sash = 160Kg  
 Maximum sash weight for lift and slide sash = 200Kg  
 Maximum sash weight for fixed sash = 200Kg



Sliding sash only



Sliding / Lift and Slide opening sash

Width of fixed sash should not be less than the adjacent sliding / lift and slide opening sash.

Minimum sash width for sliding door = 500mm  
 Minimum sash width for lift and slide door = 770mm  
 Minimum sash height = 950mm





# Sliding / Fixed (2 Pane) Kitting List

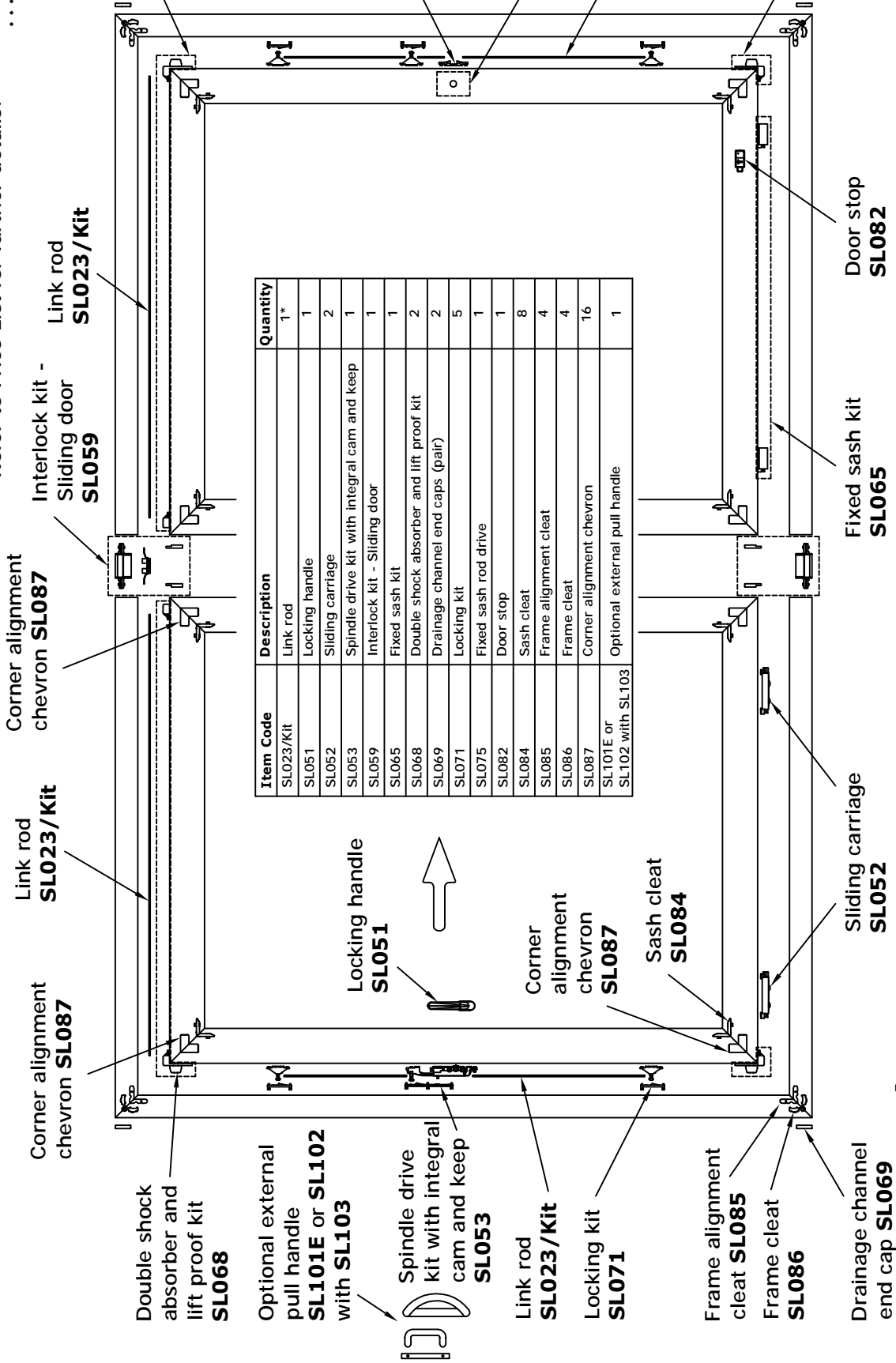
See component ID page for full kit details.

\* Link rod may be purchased as SL023 in rolls of 200 metres. Alternatively, Metal Technology can supply made to measure kits for individual door sizes. Refer to Price List for further details.

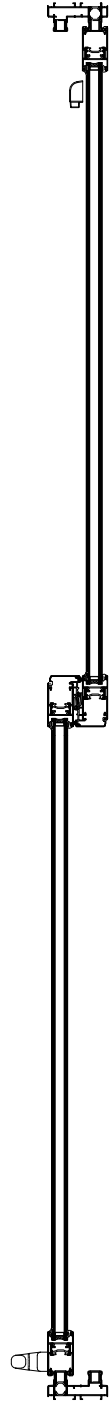


## System 25 Hi/Hi+ SLIDING DOOR

.....



Item Code	Description	Quantity
SL023/Kit	Link rod	1*
SL051	Locking handle	1
SL052	Sliding carriage	2
SL053	Spindle drive kit with integral cam and keep	1
SL059	Interlock kit - Sliding door	1
SL065	Fixed sash kit	1
SL068	Double shock absorber and lift proof kit	2
SL069	Drainage channel end caps (pair)	2
SL071	Locking kit	5
SL075	Fixed sash rod drive	1
SL082	Door stop	1
SL084	Sash cleat	8
SL085	Frame alignment cleat	4
SL086	Frame cleat	4
SL087	Corner alignment chevron	16
SL101E or SL102 with SL103	Optional external pull handle	1



Not to scale

OUTSIDE

# Fixed / Lift and Slide / Fixed (3 Pane)

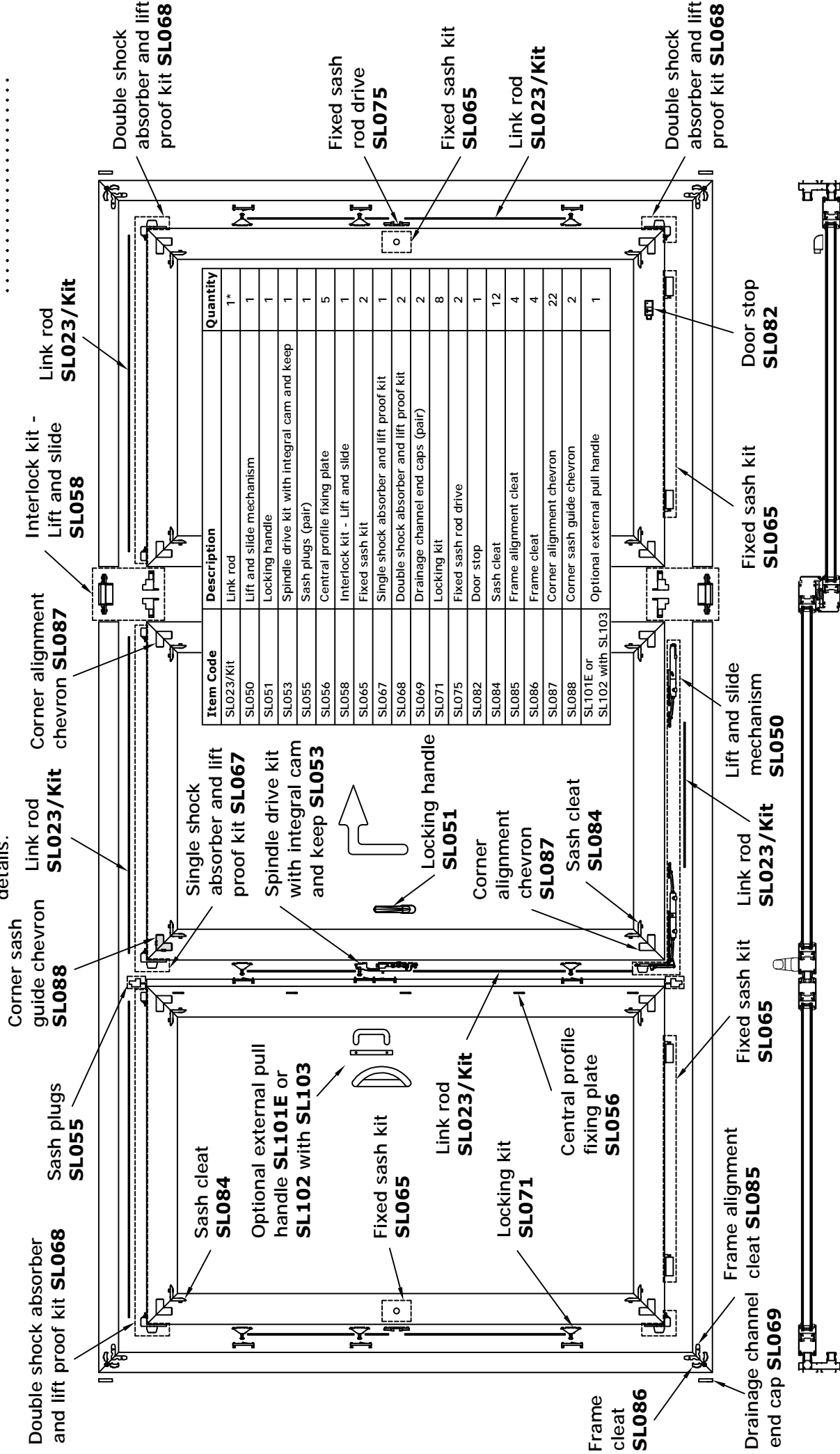


## System 25 Hi/Hi+ LIFT AND SLIDE DOOR

### Kitting List

\* Link rod may be purchased as SL023 in rolls of 200 metres. Alternatively, Metal Technology can supply made to measure kits for individual door sizes. Refer to Price List for further details.

See component ID page for full kit details.



Item Code	Description	Quantity
SL023/Kit	Link rod	1*
SL050	Lift and slide mechanism	1
SL051	Locking handle	1
SL053	Spindle drive kit with integral cam and keep	1
SL055	Sash plugs (pair)	1
SL056	Central profile fixing plate	5
SL058	Interlock kit - Lift and slide	1
SL065	Fixed sash kit	2
SL067	Single shock absorber and lift proof kit	1
SL068	Double shock absorber and lift proof kit	2
SL069	Drainage channel end caps (pair)	2
SL071	Locking kit	8
SL075	Fixed sash rod drive	2
SL082	Door stop	1
SL084	Sash cleat	12
SL085	Frame alignment chevron	4
SL086	Frame cleat	4
SL087	Corner alignment chevron	22
SL088	Corner sash guide chevron	2
SL101E or SL102 with SL103	Optional external pull handle	1

Not to scale

OUTSIDE

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# Fixed / Sliding / Fixed (3 Pane)

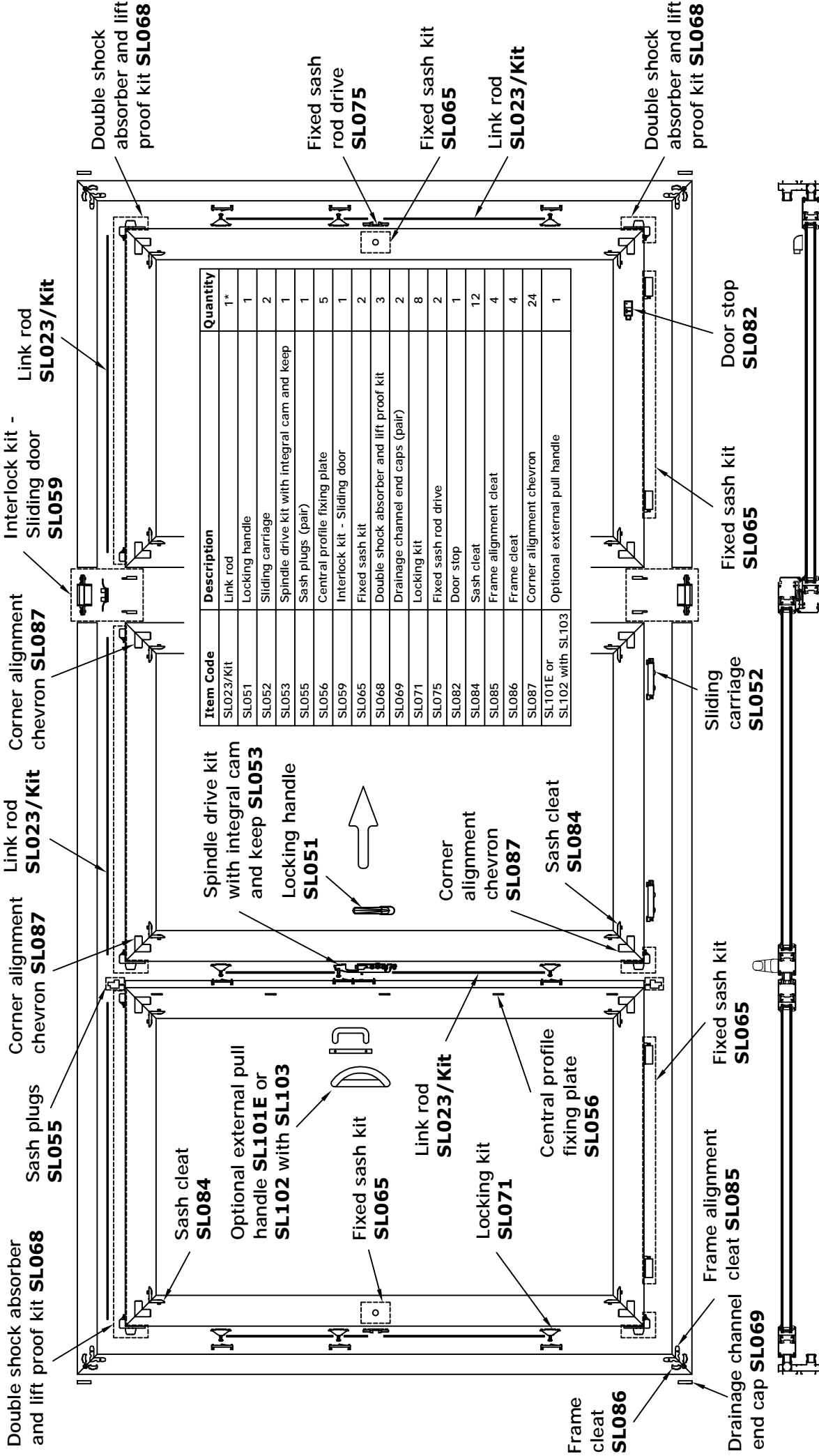
## Kitting List

See component ID page for full kit details.

\* Link rod may be purchased as SL023 in rolls of 200 metres. Alternatively, Metal Technology can supply made to measure kits for individual door sizes. Refer to Price List for further details.



# System 25 Hi/Hi+ SLIDING DOOR



Not to scale

OUTSIDE

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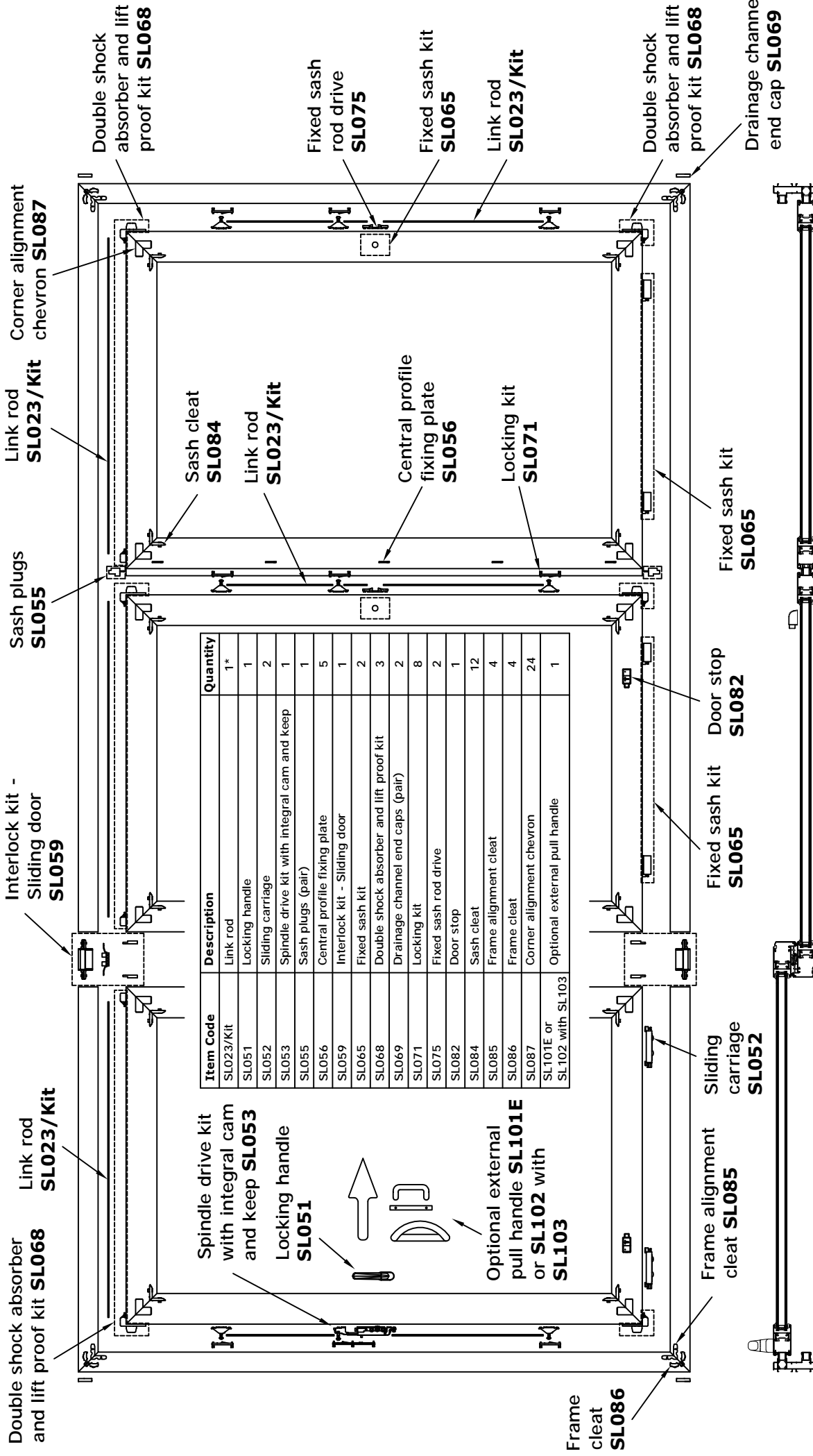
# Sliding / Fixed / Fixed (3 Pane)

## Kitting List

See component ID page for full kit details.

\* Link rod may be purchased as SL023 in rolls of 200 metres. Alternatively, Metal Technology can supply made to measure kits for individual door sizes. Refer to Price List for further details.

# System 25 Hi/Hi+ SLIDING DOOR



Item Code	Description	Quantity
SL023/Kit	Link rod	1*
SL051	Locking handle	1
SL052	Sliding carriage	2
SL053	Spindle drive kit with integral cam and keep	1
SL055	Sash plugs (pair)	1
SL056	Central profile fixing plate	5
SL059	Interlock kit - Sliding door	1
SL065	Fixed sash kit	2
SL068	Double shock absorber and lift proof kit	3
SL069	Drainage channel end caps (pair)	2
SL071	Locking kit	8
SL075	Fixed sash rod drive	2
SL082	Door stop	1
SL084	Sash cleat	12
SL085	Frame alignment cleat	4
SL086	Frame cleat	4
SL087	Corner alignment chevron	24
SL101E or SL102 with SL103	Optional external pull handle	1

Not to scale

OUTSIDE

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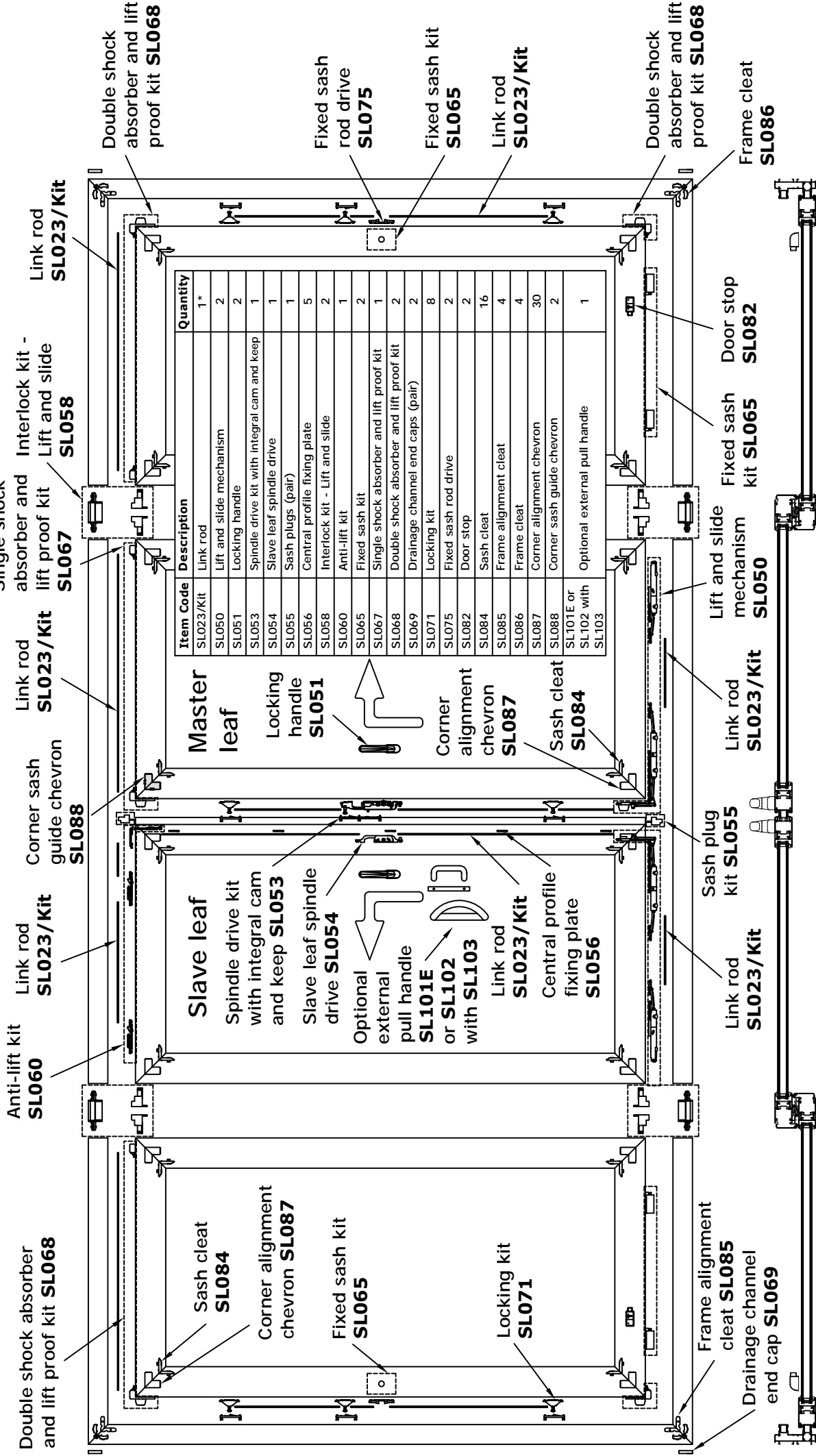
# Fixed / Lift and Slide / Lift and Slide / Fixed (4 Pane)

## Kitting List

See component ID page for full kit details.  
 \* Link rod may be purchased as SL023 in rolls of 200 metres. Alternatively, Metal Technology can supply made to measure kits for individual door sizes. Refer to Price List for further details.

# System 25 Hi/Hi+

LIFT AND SLIDE DOOR



OUTSIDE

Not to scale

# Fixed / Sliding / Sliding / Fixed (4 Pane)

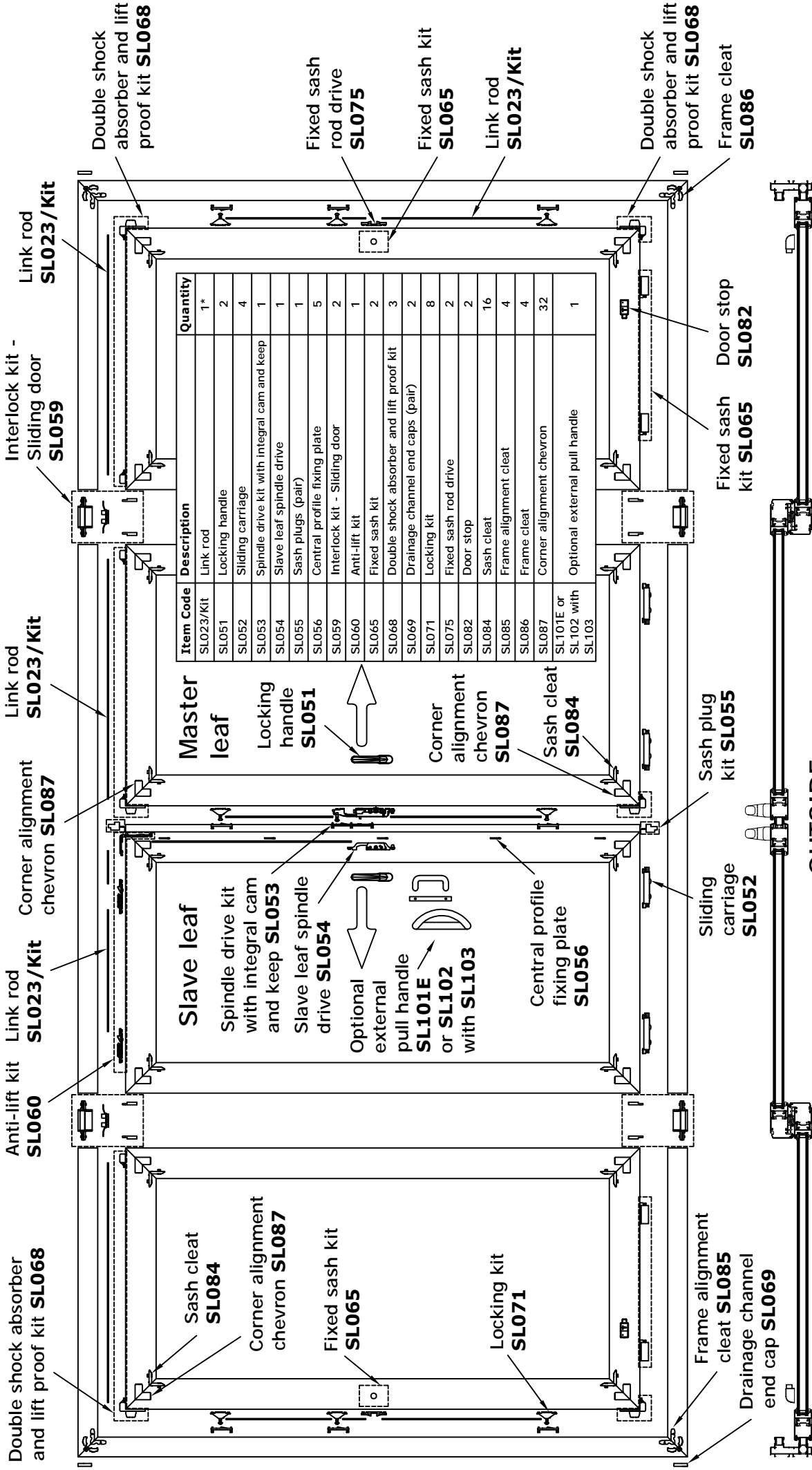
## Kitting List

See component ID page for full kit details.

\* Link rod may be purchased as SL023 in rolls of 200 metres. Alternatively, Metal Technology can supply made to measure kits for individual door sizes. Refer to Price List for further details.



# System 25 Hi/Hi+ SLIDING DOOR



Not to scale

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OUTSIDE

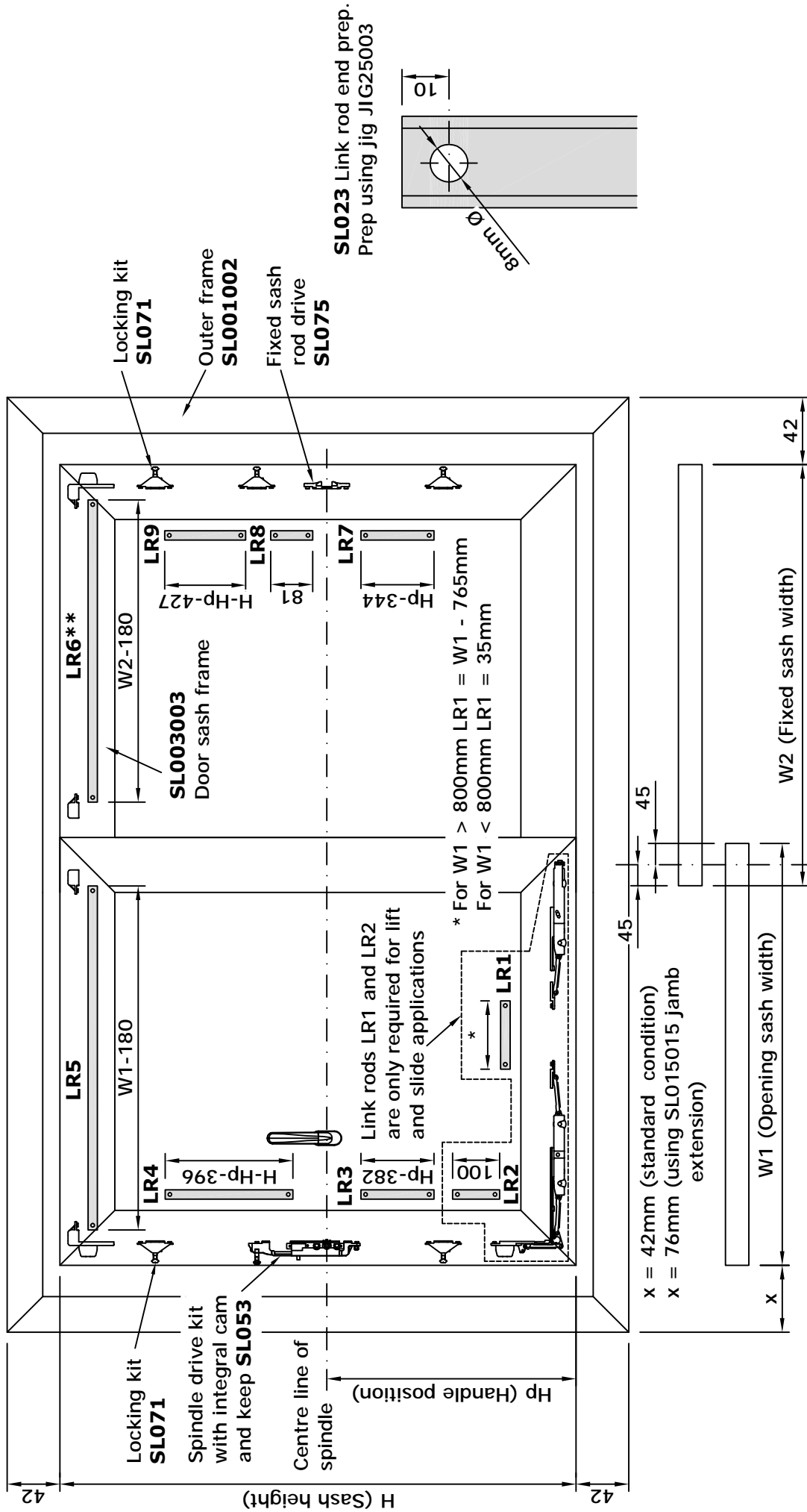


# SL023 Link Rod Details - For 2 and 3 Pane Applications

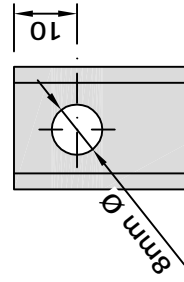
In 3 pane applications, (whether fixed/opening/fixed or opening/fixed/fixed), the second fixed sash requirements are calculated as an additional fixed sash, using the method shown. \*\*For identification purposes the second LR6 becomes LR14. If link rod SL023 is purchased in rolls the following cutting dimensions should be used. Tooling is available for automated cutting and prepping of link rods (JIG25003, JIG25004, JIG25005, JIG25006). Alternatively Metal Technology can supply made to measure kits for individual door sizes. Refer to Vent Size Limitation Chart.

For doors with overall outer frame height of greater than 1900mm, link rod dimensions are based on handle height from bottom of outer frame. For overall outer frame height of less than 1900mm link rod dimensions are based on handle fitted centrally.


**System 25 Hi/Hi+**  
SLIDING / LIFT AND  
SLIDE DOOR



**SL023** Link rod end prep.  
Prep using jig JIG25003



**Not to scale**

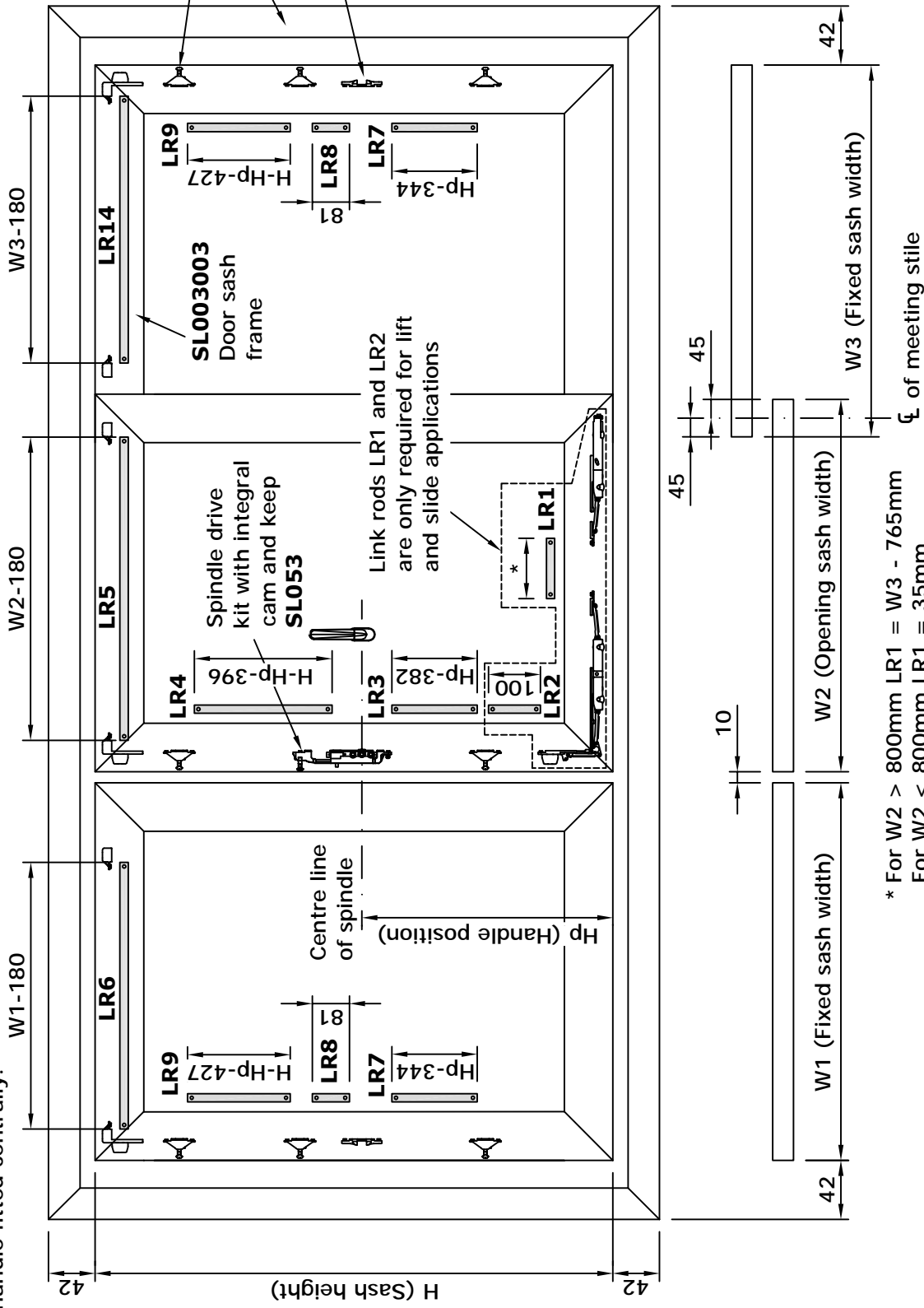
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# SL023 Link Rod Details - For 3 Pane Application



If link rod SL023 is purchased in rolls the following cutting dimensions should be used. Tooling is available for automated cutting and prepping of link rods (JIG25003, JIG25004, JIG25005, JIG25006). Alternatively Metal Technology can supply made to measure kits for individual door sizes. Refer to Vent Size Limitation Chart.

For doors with overall outer frame height of greater than 1900mm, link rod dimensions are based on handle height of 1 metre from bottom of outer frame. For overall outer frame height of less than 1900mm link rod dimensions are based on handle fitted centrally.



**System 25 Hi/Hi+**  
SLIDING / LIFT AND  
SLIDE DOOR

**Not to Scale**

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SHEET 25Hi / 3 / 120  
rev 6  
18/02/14



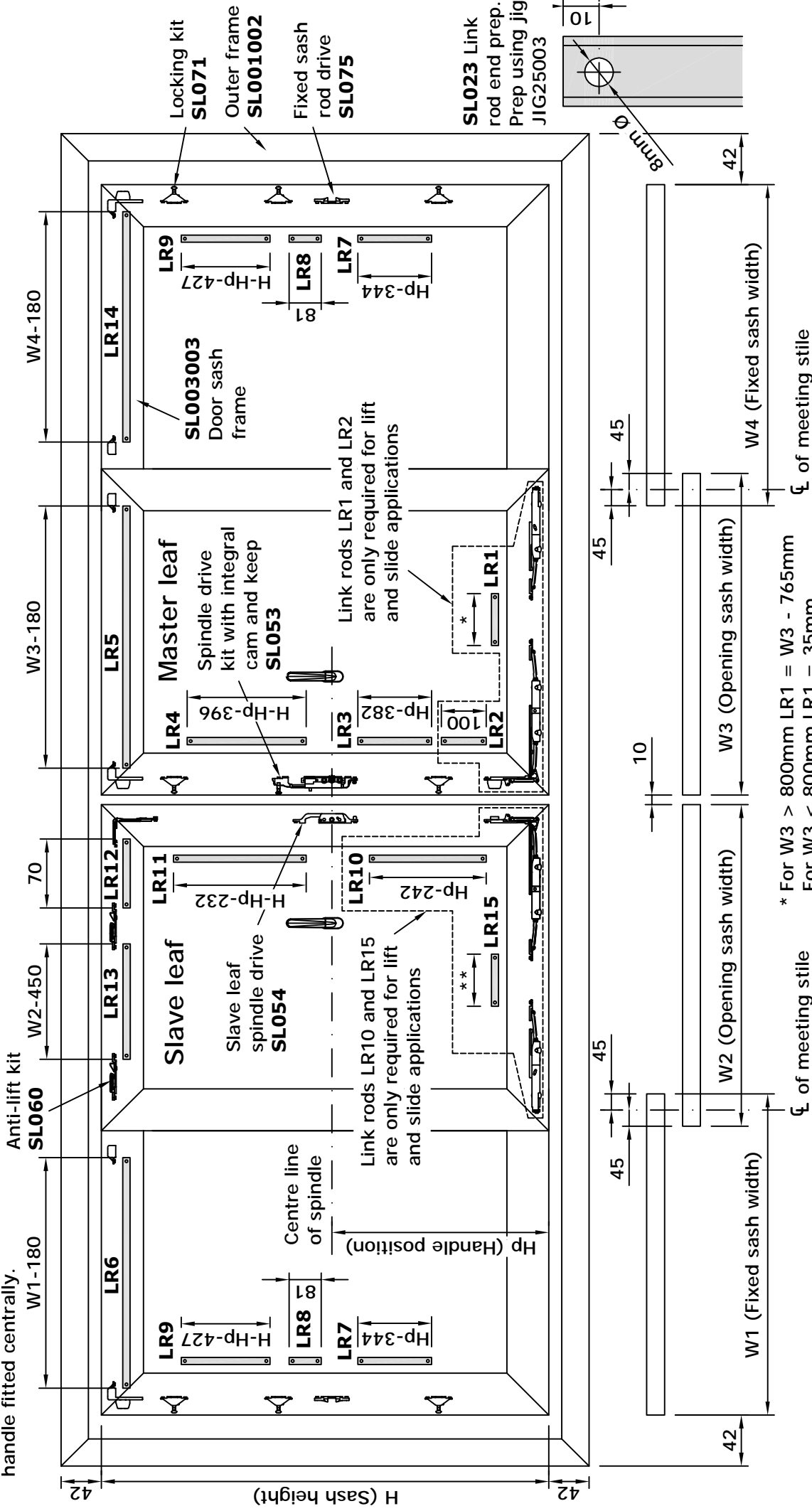
# SL023 Link Rod Details - For 4 Pane Application



If link rod SL023 is purchased in rolls the following cutting dimensions should be used. Tooling is available for automated cutting and prepping of link rods (JIG25003, JIG25004, JIG25005, JIG25006). Alternatively Metal Technology can supply made to measure kits for individual door sizes. Refer to Vent Size Limitation Chart.

For doors with overall outer frame height of greater than 1900mm, link rod dimensions are based on handle height of 1 metre from bottom of outer frame. For overall outer frame height of less than 1900mm link rod dimensions are based on handle fitted centrally.

**System 25 Hi/Hi+**  
SLIDING / LIFT AND  
SLIDE DOOR



\* For W3 > 800mm LR1 = W3 - 765mm  
For W3 < 800mm LR1 = 35mm

\*\* For W2 > 800mm LR15 = W3 - 765mm  
For W2 < 800mm LR15 = 35mm

**Not to Scale**

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SHEET 25Hi / 3 / 140  
rev 3  
18/02/14

# Cill, Head and Jamb Closer Sizes



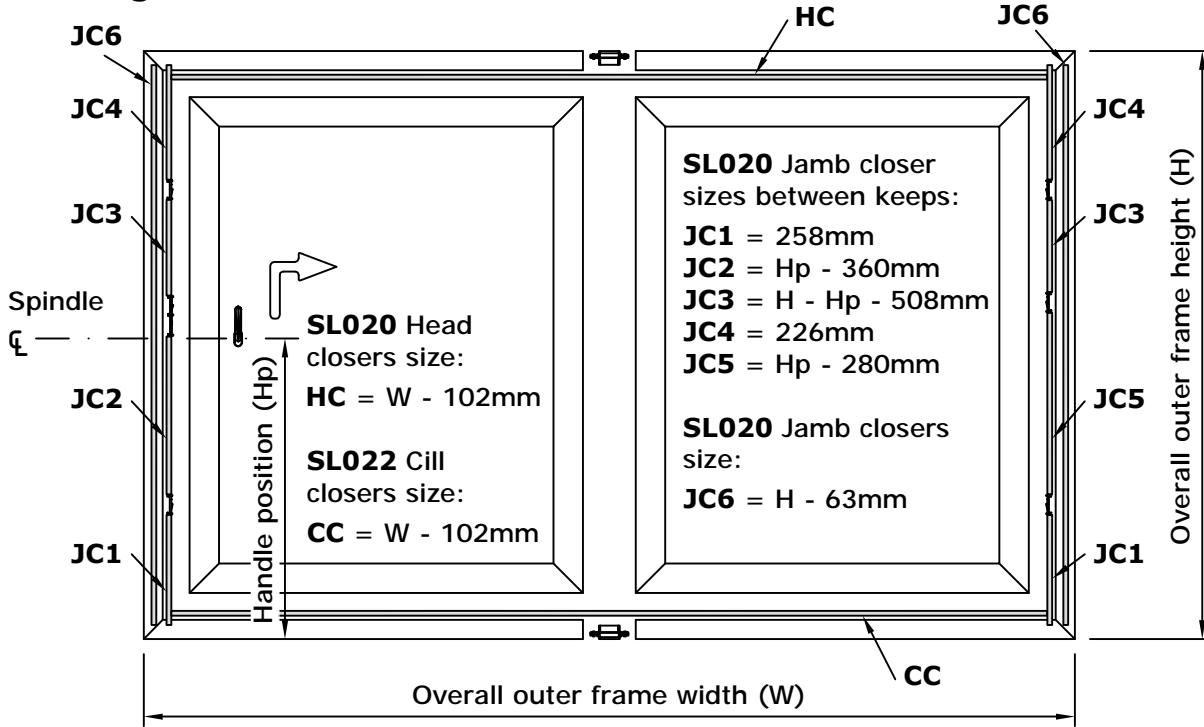
## System 25 Hi/Hi+

.....  
 SLIDING / LIFT AND  
 SLIDE DOOR  
 .....

For doors with overall outer frame height of greater than 1900mm, jamb closer dimensions are based on handle height of 1 metre from bottom of outer frame. For overall outer frame height of less than 1900mm jamb closer dimensions are based on handle fitted centrally.

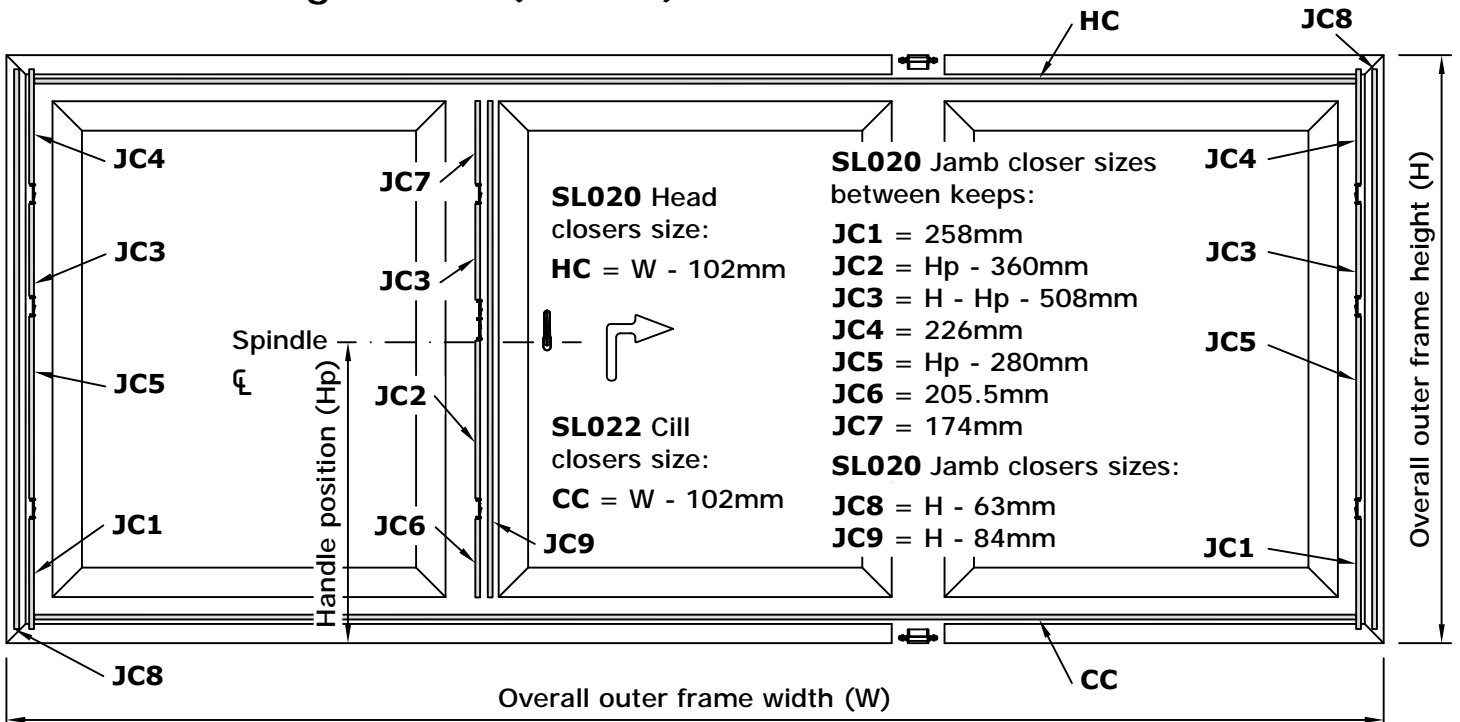
### Lift and Slide / Fixed (2 Pane)

### Sliding / Fixed (2 Pane)



### Fixed / Lift and Slide / Fixed (3 Pane)

### Fixed / Sliding / Fixed (3 Pane)



Not to Scale

# Cill, Head and Jamb Closer Sizes

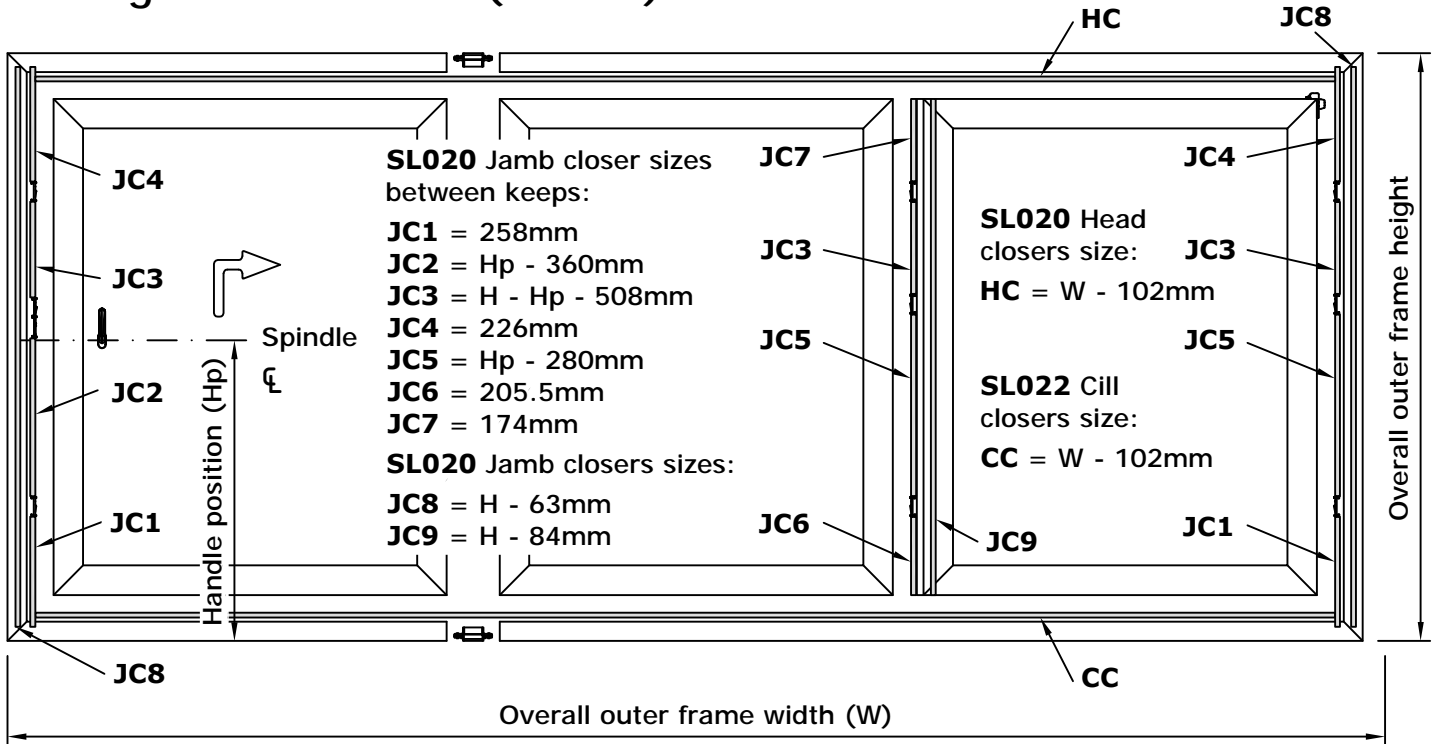


## System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR

For doors with overall outer frame height of greater than 1900mm, jamb closer dimensions are based on handle height of 1 metre from bottom of outer frame. For overall outer frame height of less than 1900mm jamb closer dimensions are based on handle fitted centrally.

Lift and Slide / Fixed / Fixed (3 Pane)  
Sliding / Fixed / Fixed (3 Pane)



Not to Scale

SHEET 25Hi / 3 / 160

# Cill, Head and Jamb Closer Sizes

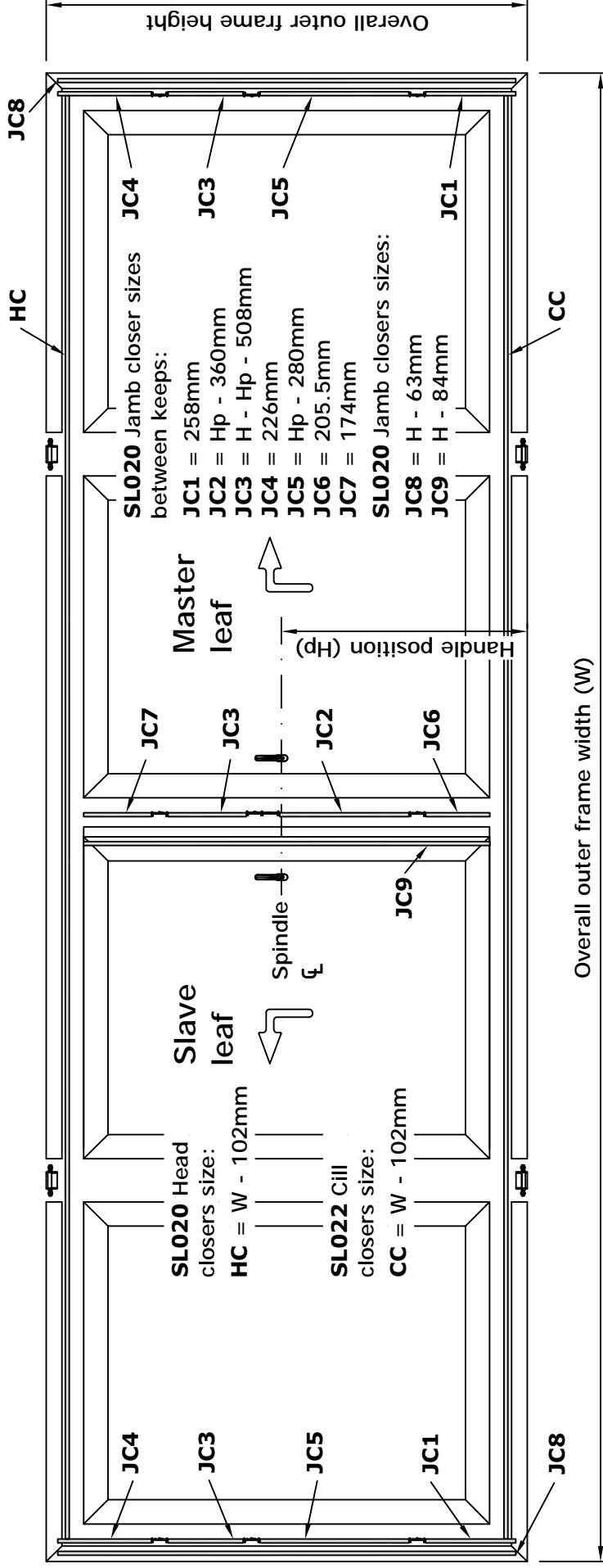


## System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR

For doors with overall outer frame height of greater than 1900mm, jamb closer dimensions are based on handle height of 1 metre from bottom of outer frame. For overall outer frame height of less than 1900mm jamb closer dimensions are based on handle fitted centrally.

### Fixed / Lift and Slide / Lift and Slide / Fixed (4 Pane) Fixed / Sliding / Sliding / Fixed (4 Pane)



Not to Scale

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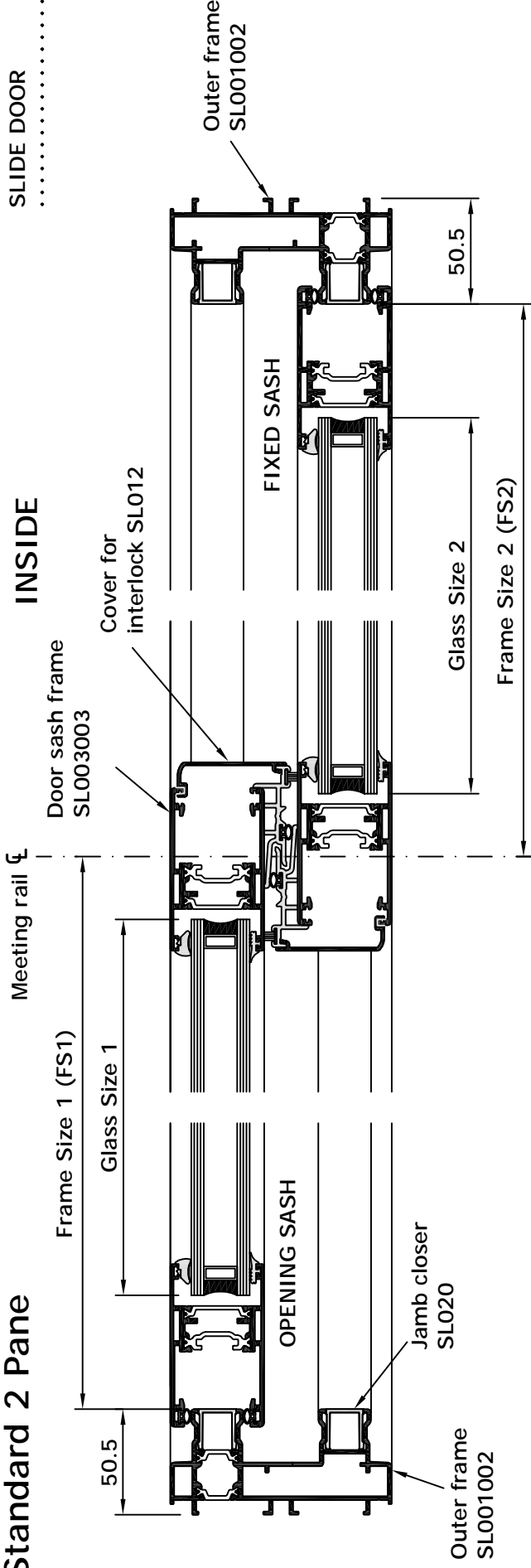
# Bar Cutting Sizes



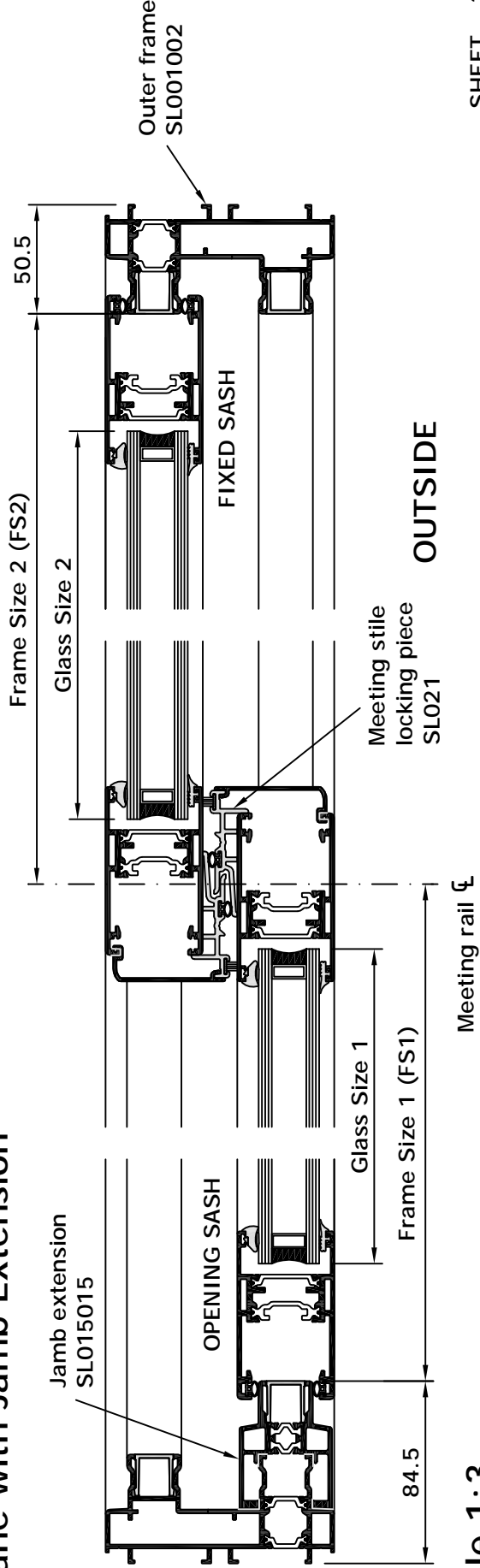
## System 25 Hi/Hi+ SLIDING / LIFT AND SLIDE DOOR

All cutting sizes in this range are calculated from the Frame Sizes (FS) as illustrated below.

### Standard 2 Pane



### 2 Pane with Jamb Extension



Scale 1:3



# Bar Cutting Sizes

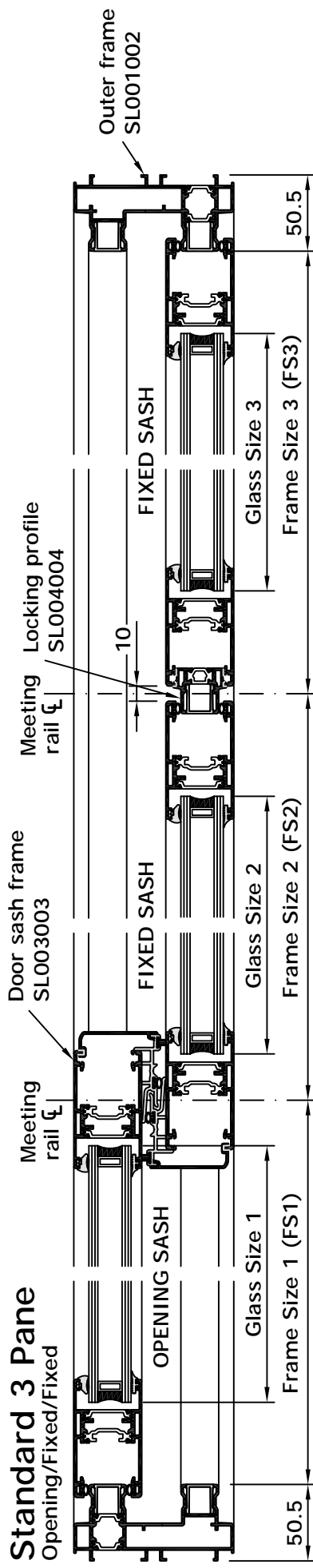
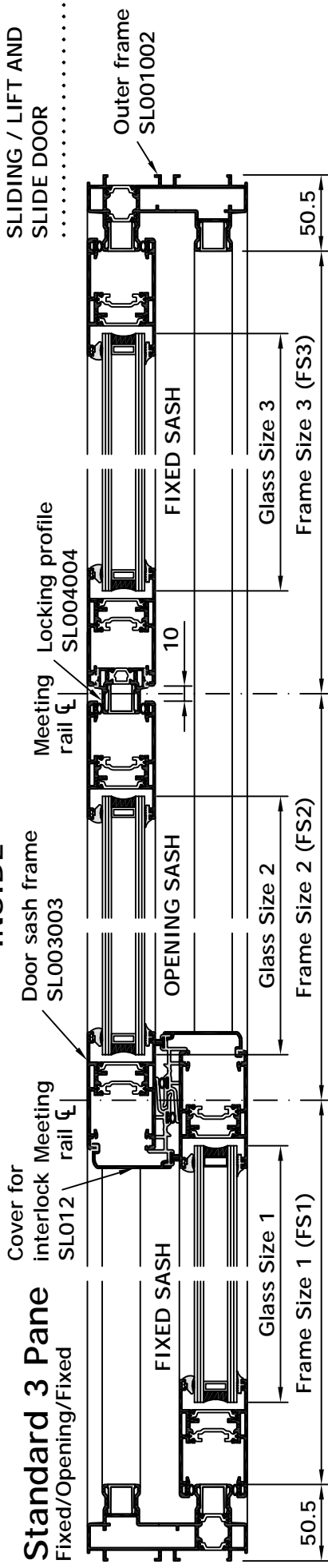
All cutting sizes in this range are calculated from the Frame Sizes (FS) as illustrated below.



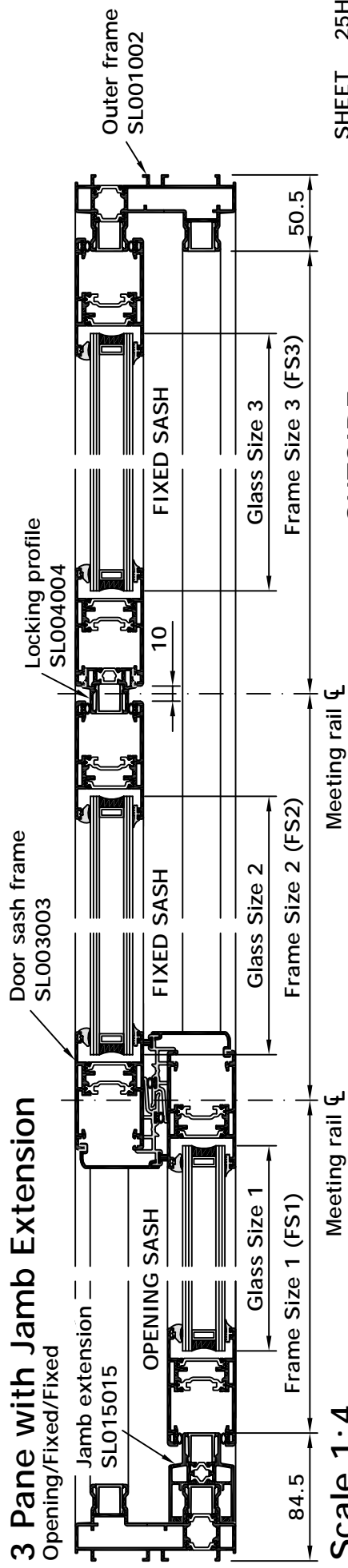
## System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR

### INSIDE



### 3 Pane with Jamb Extension Opening/Fixed/Fixed



### Scale 1:4

Meeting rail ϕ

Meeting rail ϕ

OUTSIDE

# Bar Cutting Sizes



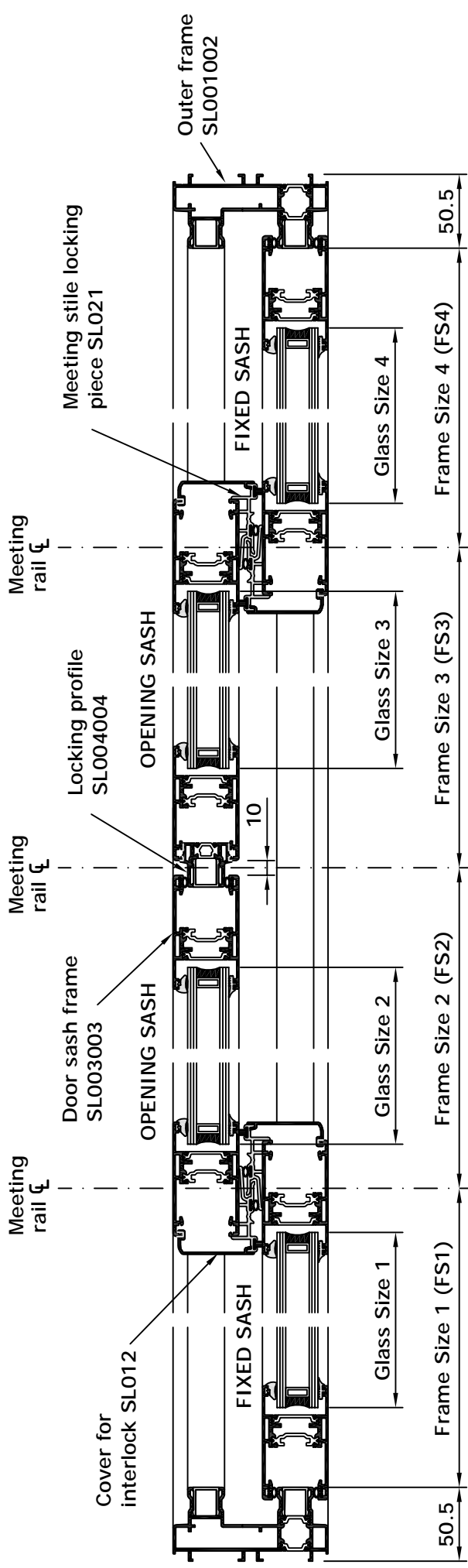
## System 25 Hi/Hi+

.....  
 SLIDING / LIFT AND  
 SLIDE DOOR  
 .....

All cutting sizes in this range are calculated from the Frame Sizes (FS) as illustrated below.

### 4 Pane

INSIDE



OUTSIDE

Scale 1:4

# Fabrication and Cutting Sizes (2 Pane)

1 Pane Lift and Slide / 1 Pane Fixed

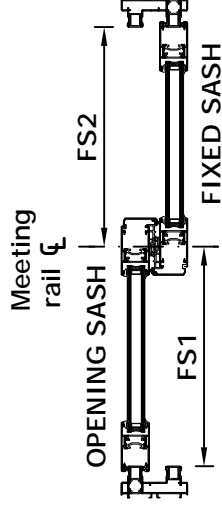
1 Pane Sliding / 1 Pane Fixed



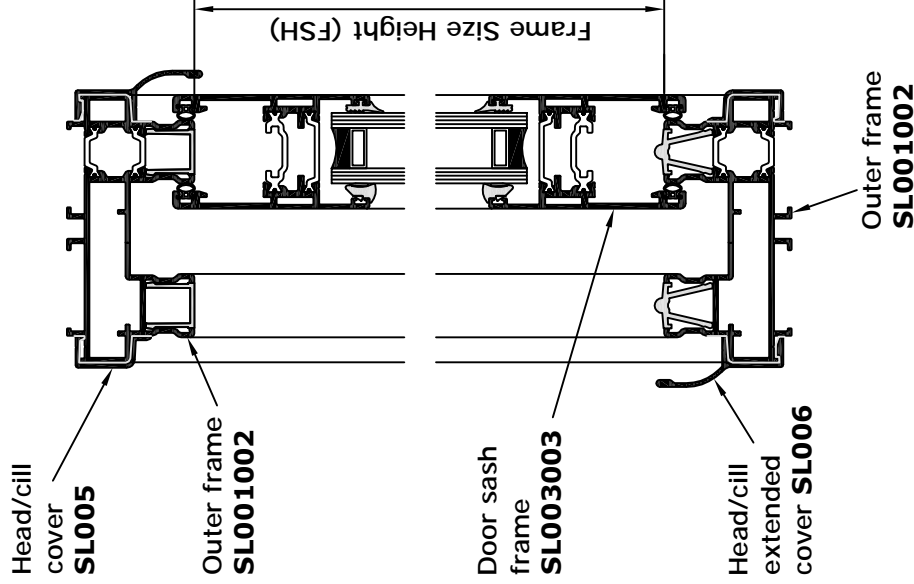
## System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR

INSIDE



OUTSIDE



DESCRIPTION	QUANTITY	LENGTH	SECTION	PREPARATION
OUTER FRAME 1 (HEAD)	ONE	FS1 PLUS 13.5mm	SL001002	SQUARE / 45° MITRE
OUTER FRAME 1 (CILL)	ONE	FS1 PLUS 13.5mm	SL001002	45° MITRE / SQUARE
OUTER FRAME 2 (HEAD)	ONE	FS2 PLUS 13.5mm	SL001002	SQUARE / 45° MITRE
OUTER FRAME 2 (CILL)	ONE	FS2 PLUS 13.5mm	SL001002	45° MITRE / SQUARE
OUTER FRAME (JAMB)	TWO	FSH PLUS 101mm	SL001002	45° MITRE BOTH ENDS
DOOR SASH FRAME 1 (HEAD/CILL)	TWO	FS1 PLUS 41.5mm	SL003003	45° MITRE BOTH ENDS
DOOR SASH FRAME 2 (HEAD/CILL)	TWO	FS1 PLUS 41.5mm	SL003003	45° MITRE BOTH ENDS
DOOR SASH FRAME (JAMB)	FOUR	FSH PLUS 17mm	SL003003	45° MITRE BOTH ENDS
COVER FOR INTERLOCK	TWO	FSH PLUS 17mm	SL012	ENDS CUT SQUARE - SEE DETAIL
HEAD/CILL EXTENDED COVER	TWO	FS1 PLUS FS2 PLUS 44mm	SL006	ENDS CUT SQUARE
HEAD/CILL COVER	TWO	FS1 PLUS FS2 PLUS 49mm	SL005	ENDS CUT SQUARE
MEETING STILE LOCKING PIECE	TWO	FSH PLUS 1mm	SL021	ENDS CUT SQUARE
GLASS SIZE - SASH 1	ONE	FSH LESS 109mm		
		FS1 LESS 84.5mm		
GLASS SIZE - SASH 2	ONE	FSH LESS 109mm		
		FS2 LESS 84.5mm		

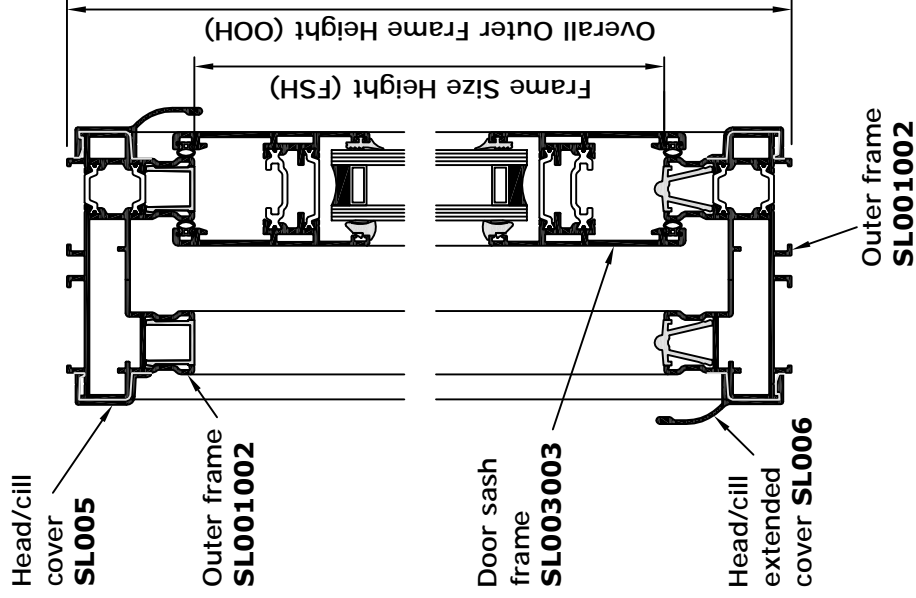
Attention should be paid to the orientation of the thermal break in relation to the straight and mitred corner cuts. Refer to "Handing of Outer Frame Profiles" sheet.

Not to Scale

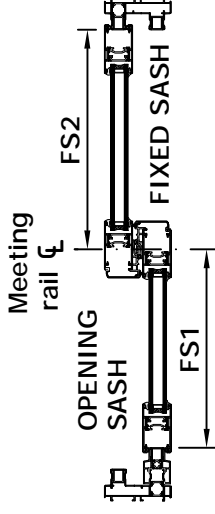
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# Fabrication and Cutting Sizes (2 Pane with Jamb Extension)

- 1 Pane Lift and Slide / 1 Pane Fixed
- 1 Pane Sliding / 1 Pane Fixed



INSIDE



OUTSIDE

DESCRIPTION	QUANTITY	LENGTH	SECTION	PREPARATION
JAMB EXTENSION	ONE	OOH LESS 52mm	SL015015	ENDS CUT SQUARE - SEE DETAIL
OUTER FRAME AT EXTENSION SIDE (HEAD)	ONE	FS1 PLUS 47.5mm	SL001002	SQUARE / 45° MITRE
OUTER FRAME AT EXTENSION SIDE (CILL)	ONE	FS1 PLUS 47.5mm	SL001002	45° MITRE / SQUARE
OUTER FRAME 2 (HEAD)	ONE	FS2 PLUS 13.5mm	SL001002	SQUARE / 45° MITRE
OUTER FRAME 2 (CILL)	ONE	FS2 PLUS 13.5mm	SL001002	45° MITRE / SQUARE
OUTER FRAME (JAMB)	TWO	FSH PLUS 101mm	SL001002	45° MITRE BOTH ENDS
DOOR SASH FRAME 1 (HEAD/CILL)	TWO	FS1 PLUS 41.5mm	SL003003	45° MITRE BOTH ENDS
DOOR SASH FRAME 2 (HEAD/CILL)	TWO	FS1 PLUS 41.5mm	SL003003	45° MITRE BOTH ENDS
DOOR SASH FRAME (JAMB)	FOUR	FSH PLUS 17mm	SL003003	45° MITRE BOTH ENDS
COVER FOR INTERLOCK	TWO	FSH PLUS 17mm	SL012	ENDS CUT SQUARE - SEE DETAIL
HEAD EXTENDED COVER TO EXTENSION TRACK	ONE	FS1 PLUS FS2 PLUS 39mm	SL006	ENDS CUT SQUARE
CILL COVER TO EXTENSION TRACK	ONE	FS1 PLUS FS2 PLUS 44mm	SL005	ENDS CUT SQUARE
CILL EXTENDED COVER	ONE	FS1 PLUS FS2 PLUS 78mm	SL006	ENDS CUT SQUARE
HEAD COVER	ONE	FS1 PLUS FS2 PLUS 83mm	SL005	ENDS CUT SQUARE
MEETING STILE LOCKING PIECE	TWO	FSH PLUS 1mm	SL021	ENDS CUT SQUARE
GLASS SIZE - SASH 1	ONE	FSH LESS 109mm		
		FS1 LESS 84.5mm		
GLASS SIZE - SASH 2	ONE	FSH LESS 109mm		
		FS2 LESS 84.5mm		

Attention should be paid to the orientation of the thermal break in relation to the straight and mitred corner cuts. Refer to "Handing of Outer Frame Profiles" sheet.

Not to Scale

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**System 25 Hi/Hi+**

SLIDING / LIFT AND  
SLIDE DOOR

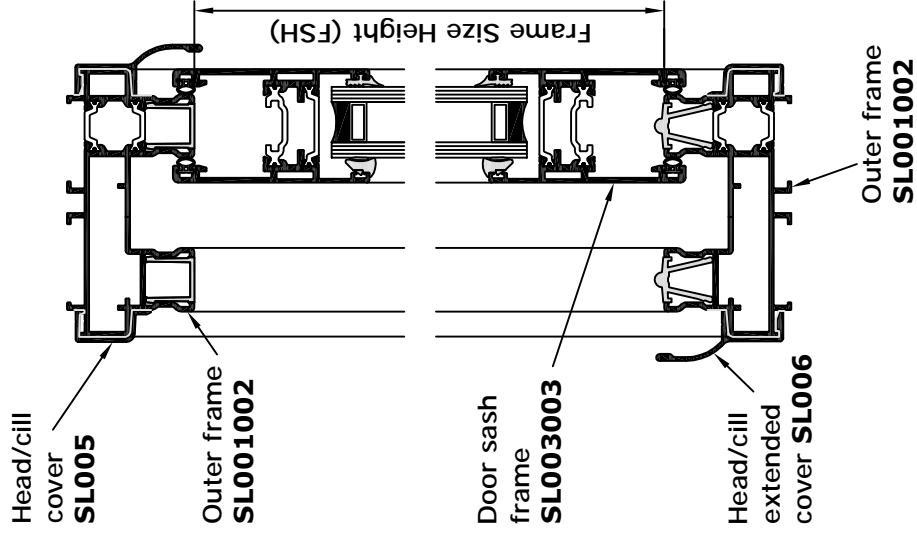
SHEET 25Hi / 4 / 50  
rev 10 18/10/13

# Fabrication and Cutting Sizes (3 Pane)

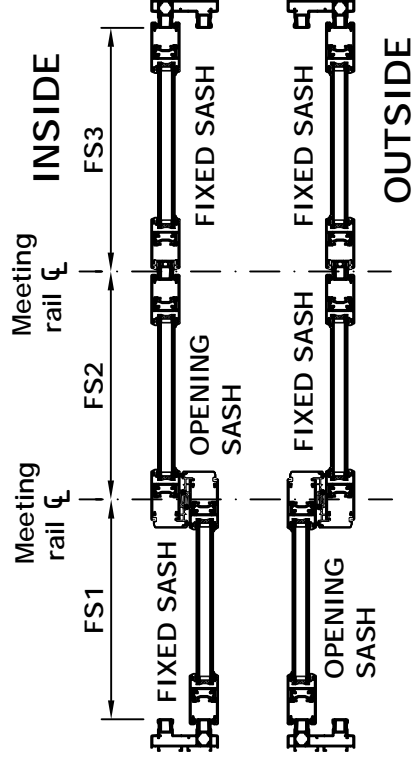
1 Pane Lift and Slide / 2 Pane Fixed

1 Pane Sliding / 2 Pane Fixed

These calculations may be used for fixed/opening/fixed or opening/fixed/fixed combinations.



**m<sup>2</sup>**  
**System 25 Hi/Hi+**  
 SLIDING / LIFT AND  
 SLIDE DOOR



DESCRIPTION	QUANTITY	LENGTH	SECTION	PREPARATION
OUTER FRAME 1 (HEAD)	ONE	FS1 PLUS 13.5mm	SL001002	SQUARE / 45° MITRE
OUTER FRAME 1 (CILL)	ONE	FS1 PLUS 13.5mm	SL001002	45° MITRE / SQUARE
OUTER FRAME 2 (HEAD)	ONE	FS2 PLUS FS3 PLUS 13.5mm	SL001002	SQUARE / 45° MITRE
OUTER FRAME 2 (CILL)	ONE	FS2 PLUS FS3 PLUS 13.5mm	SL001002	45° MITRE / SQUARE
OUTER FRAME (JAMB)	TWO	FSH PLUS 101mm	SL001002	45° MITRE BOTH ENDS
SASH FRAME 1 (HEAD/CILL)	TWO	FS1 PLUS 41.5mm	SL003003	45° MITRE BOTH ENDS
SASH FRAME 2 (HEAD/CILL)	TWO	FS2 PLUS 28mm	SL003003	45° MITRE BOTH ENDS
SASH FRAME 3 (HEAD/CILL)	TWO	FS3 PLUS 3.5mm	SL003003	45° MITRE BOTH ENDS
DOOR SASH FRAME (JAMB)	SIX	FSH PLUS 17mm	SL003003	45° MITRE BOTH ENDS
COVER FOR INTERLOCK	TWO	FSH PLUS 17mm	SL012	ENDS CUT SQUARE - SEE DETAIL
HEAD/CILL EXTENDED COVER	TWO	FS1 PLUS FS2 PLUS FS3 PLUS 44mm	SL006	ENDS CUT SQUARE
HEAD/CILL COVER	TWO	FS1 PLUS FS2 PLUS FS3 PLUS 49mm	SL005	ENDS CUT SQUARE
MEETING STILE LOCKING PIECE	TWO	FSH PLUS 1mm	SL021	ENDS CUT SQUARE
LOCKING PROFILE	ONE	FSH LESS 67mm	SL004004	ENDS CUT SQUARE
JAMB CLOSER FOR LOCKING PROFILE	ONE	FSH PLUS 17mm	SL020	ENDS CUT SQUARE
GLASS SIZE - FIXED SASH 1	TWO	FSH LESS 109mm		
GLASS SIZE - FIXED SASH 2	TWO	FS1 LESS 84.5mm		
GLASS SIZE - OPENING SASH	ONE	FSH LESS 109mm		
		FS3 LESS 122.5mm		
		FSH LESS 109mm		
		FS2 LESS 98mm		

The above cutting dimensions allow the fabricator to determine unequal sash widths.

For equal widths:

$$\text{Sash} = \frac{\text{Overall width} - 28\text{mm}}{3}$$

$$\text{Glass} = \text{Sash width} - 126\text{mm}$$

Attention should be paid to the orientation of the thermal break in relation to the straight and mitred corner cuts. Refer to "Handing of Outer Frame Profiles" sheet.

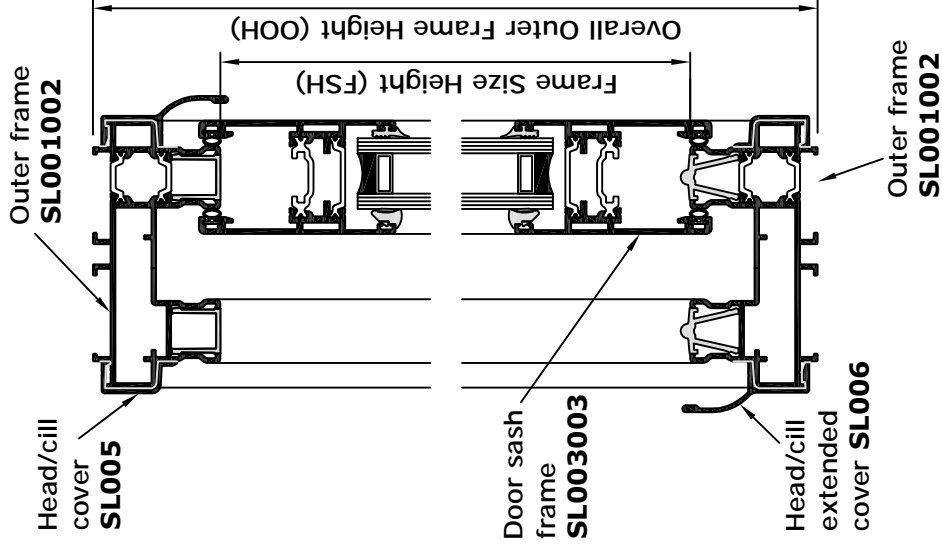
**Not to Scale**

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# Fabrication and Cutting Sizes (3 Pane with Jamb Extension)

1 Pane Lift and Slide / 2 Pane Fixed

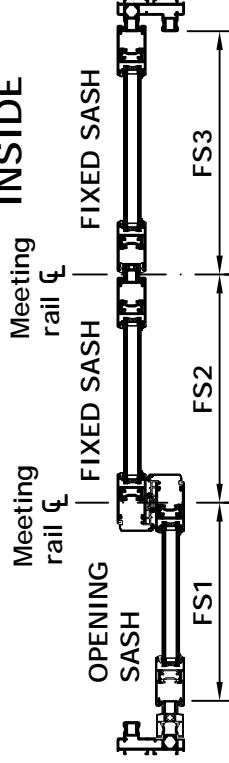
1 Pane Sliding / 2 Pane Fixed



# m<sup>2</sup> System 25 Hi/Hi+

SLIDING / LIFT AND SLIDE DOOR

INSIDE



OUTSIDE

DESCRIPTION	QUANTITY	LENGTH	SECTION	PREPARATION
JAMB EXTENSION	ONE	OOH LESS 52mm	SL015015	ENDS CUT SQUARE - SEE DETAIL
OUTER FRAME AT EXTENSION SIDE (HEAD)	ONE	FS1 PLUS 13.5mm	SL001002	SQUARE / 45° MITRE
OUTER FRAME AT EXTENSION SIDE (CILL)	ONE	FS1 PLUS 13.5mm	SL001002	45° MITRE / SQUARE
OUTER FRAME 2 (HEAD)	ONE	FS2 PLUS FS3 PLUS 13.5mm	SL001002	SQUARE / 45° MITRE
OUTER FRAME 2 (CILL)	ONE	FS2 PLUS FS3 PLUS 13.5mm	SL001002	45° MITRE / SQUARE
OUTER FRAME (JAMB)	TWO	FSH PLUS 101mm	SL001002	45° MITRE BOTH ENDS
OPENING SASH FRAME (HEAD/CILL)	TWO	FS1 PLUS 41.5mm	SL003003	45° MITRE BOTH ENDS
FIXED SASH FRAME 1 (HEAD/CILL)	TWO	FS2 PLUS 28mm	SL003003	45° MITRE BOTH ENDS
FIXED SASH FRAME 2 (HEAD/CILL)	TWO	FS3 PLUS 3.5mm	SL003003	45° MITRE BOTH ENDS
DOOR SASH FRAME (JAMB)	SIX	FSH PLUS 17mm	SL003003	45° MITRE BOTH ENDS
COVER FOR INTERLOCK	TWO	FSH PLUS 17mm	SL012	ENDS CUT SQUARE - SEE DETAIL
HEAD EXTENDED COVER TO EXTENSION TRACK	ONE	FS1 PLUS FS2 PLUS FS3 PLUS 39mm	SL006	ENDS CUT SQUARE
CILL COVER TO EXTENSION TRACK	ONE	FS1 PLUS FS2 PLUS FS3 PLUS 44mm	SL005	ENDS CUT SQUARE
CILL EXTENDED COVER	ONE	FS1 PLUS FS2 PLUS FS3 PLUS 78mm	SL006	ENDS CUT SQUARE
HEAD COVER	ONE	FS1 PLUS FS2 PLUS FS3 PLUS 83mm	SL005	ENDS CUT SQUARE
MEETING STILE LOCKING PIECE	TWO	FSH PLUS 1mm	SL021	ENDS CUT SQUARE
LOCKING PROFILE	ONE	FSH LESS 67mm	SL004004	ENDS CUT SQUARE
JAMB CLOSER FOR LOCKING PROFILE	ONE	FSH PLUS 17mm	SL020	ENDS CUT SQUARE
GLASS SIZE - FIXED SASH 1	TWO	FSH LESS 109mm		
GLASS SIZE - FIXED SASH 2	TWO	FSH LESS 109mm		
GLASS SIZE - OPENING SASH	ONE	FSH LESS 109mm		
		FS2 LESS 98mm		

The above cutting dimensions allow the fabricator to determine unequal sash widths. For equal widths:

$$\text{Sash} = \frac{\text{Overall width} - 62\text{mm}}{3}$$

$$\text{Glass} = \text{Sash width} - 126\text{mm}$$

Attention should be paid to the orientation of the thermal break in relation to the straight and mitred corner cuts. Refer to "Handing of Outer Frame Profiles" sheet.

Not to Scale

# Fabrication and Cutting Sizes (4 Pane)

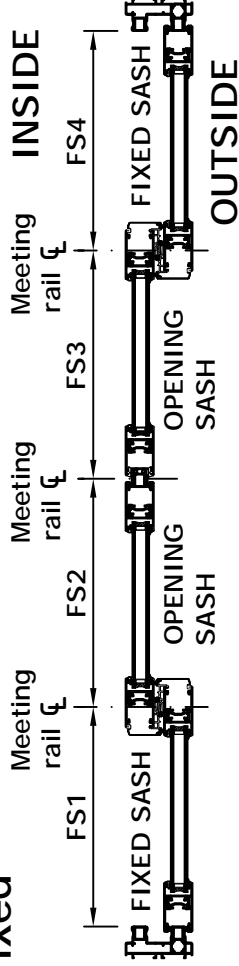
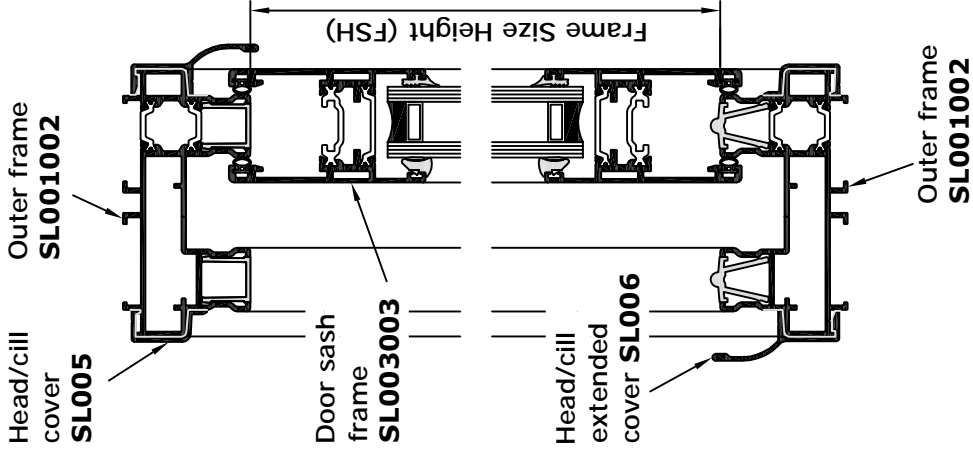
2 Pane Lift and Slide / 2 Pane Fixed

2 Pane Sliding / 2 Pane Fixed



## System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR



DESCRIPTION	QUANTITY	LENGTH	SECTION	PREPARATION
OUTER FRAME 1 (HEAD)	ONE	FS1 PLUS 13.5mm	SL001002	SQUARE / 45° MITRE
OUTER FRAME 1 (CILL)	ONE	FS1 PLUS 13.5mm	SL001002	45° MITRE / SQUARE
OUTER FRAME 2 (HEAD)	ONE	FS2 PLUS FS3 LESS 74mm	SL001002	SQUARE / 45° MITRE
OUTER FRAME 2 (CILL)	ONE	FS2 PLUS FS3 LESS 74mm	SL001002	45° MITRE / SQUARE
OUTER FRAME 3 (HEAD)	ONE	FS4 PLUS 13.5mm	SL001002	SQUARE / 45° MITRE
OUTER FRAME 3 (CILL)	ONE	FS4 PLUS 13.5mm	SL001002	45° MITRE / SQUARE
OUTER FRAME (JAMB)	TWO	FSH PLUS 101mm	SL001002	45° MITRE BOTH ENDS
FIXED SASH FRAME 1 (HEAD/CILL)	TWO	FS1 PLUS 41.5mm	SL003003	45° MITRE BOTH ENDS
FIXED SASH FRAME 2 (HEAD/CILL)	TWO	FS4 PLUS 41.5mm	SL003003	45° MITRE BOTH ENDS
OPENING SASH FRAME 1 (HEAD/CILL)	TWO	FS2 PLUS 28mm	SL003003	45° MITRE BOTH ENDS
OPENING SASH FRAME 2 (HEAD/CILL)	TWO	FS3 PLUS 28mm	SL003003	45° MITRE BOTH ENDS
DOOR SASH FRAME (JAMB)	EIGHT	FSH PLUS 17mm	SL003003	45° MITRE BOTH ENDS
COVER FOR INTERLOCK	FOUR	FSH PLUS 17mm	SL012	ENDS CUT SQUARE - SEE DETAIL
HEAD/CILL EXTENDED COVER	TWO	FS1 PLUS FS2 PLUS FS3 PLUS FS4 PLUS 44mm	SL006	ENDS CUT SQUARE
HEAD/CILL COVER	TWO	FS1 PLUS FS2 PLUS FS3 PLUS FS4 PLUS 49mm	SL005	ENDS CUT SQUARE
MEETING STILE LOCKING PIECE	FOUR	FSH PLUS 1mm	SL021	ENDS CUT SQUARE
LOCKING PROFILE	ONE	FSH LESS 67mm	SL004004	ENDS CUT SQUARE
JAMB CLOSER FOR LOCKING PROFILE	ONE	FSH PLUS 17mm	SL020	ENDS CUT SQUARE
GLASS SIZE - FIXED SASH 1	TWO	FSH LESS 109mm		
GLASS SIZE - FIXED SASH 2	TWO	FS4 LESS 84.5mm		
GLASS SIZE - OPENING SASH 1	ONE	FSH LESS 109mm		
GLASS SIZE - OPENING SASH 2	ONE	FS2 LESS 98mm		
GLASS SIZE - OPENING SASH 2	ONE	FSH LESS 109mm		
GLASS SIZE - OPENING SASH 2	ONE	FS3 LESS 98mm		

The above cutting dimensions allow the fabricator to determine unequal sash widths.

For equal widths:

$$\text{Sash} = \frac{\text{Overall width} + 38\text{mm}}{4}$$

$$\text{Glass} = \text{Sash width} - 126\text{mm}$$

Attention should be paid to the orientation of the thermal break in relation to the straight and mitred corner cuts. Refer to "Handing of Outer Frame Profiles" sheet.

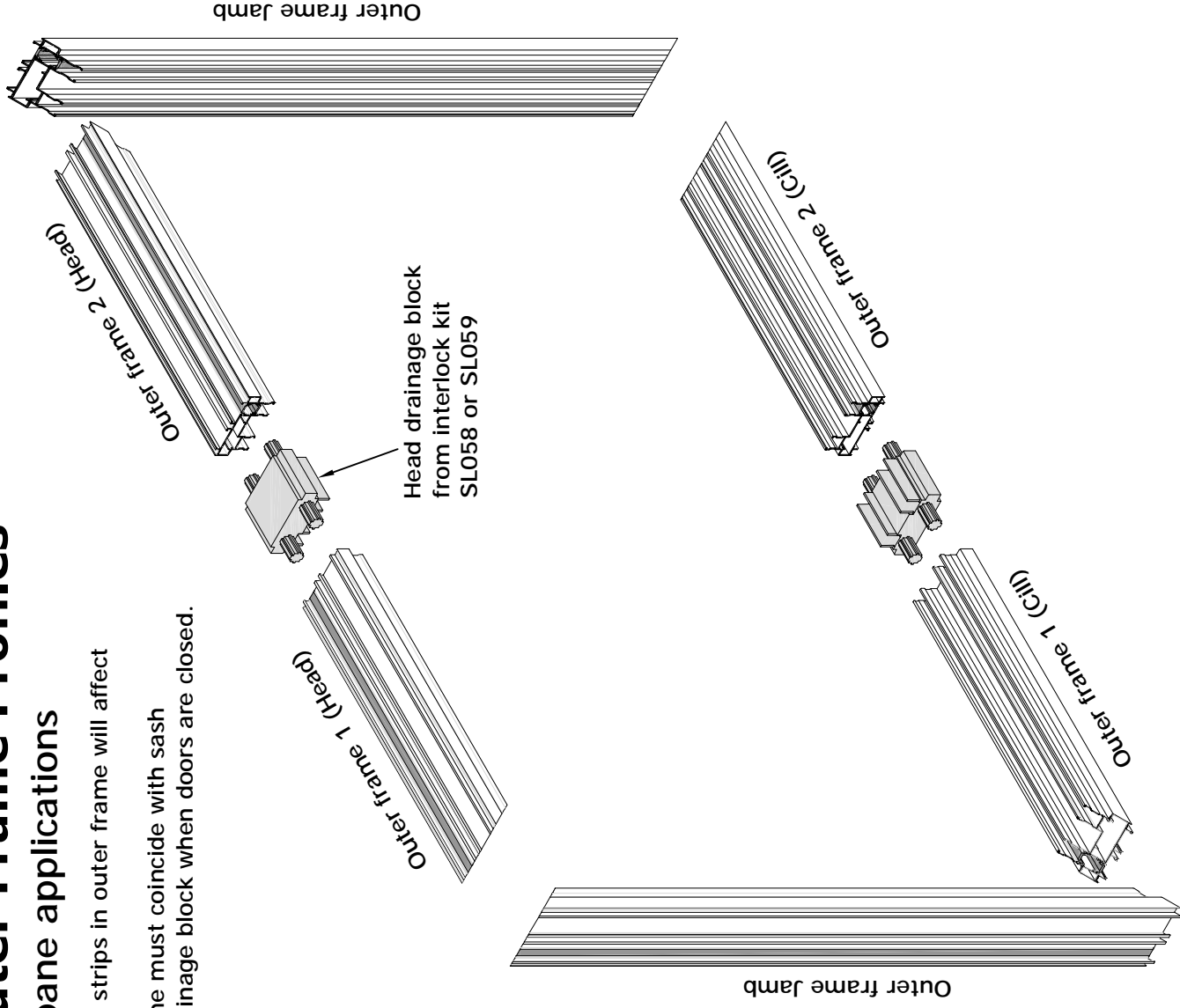
Not to Scale

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# Handing of Outer Frame Profiles

## For 2 pane and 3 pane applications

Note orientation of polyamide strips in outer frame will affect mitre cuts at head and cill.  
 Polyamide strips in outer frame must coincide with sash positions on either side of drainage block when doors are closed.



**Not to Scale**

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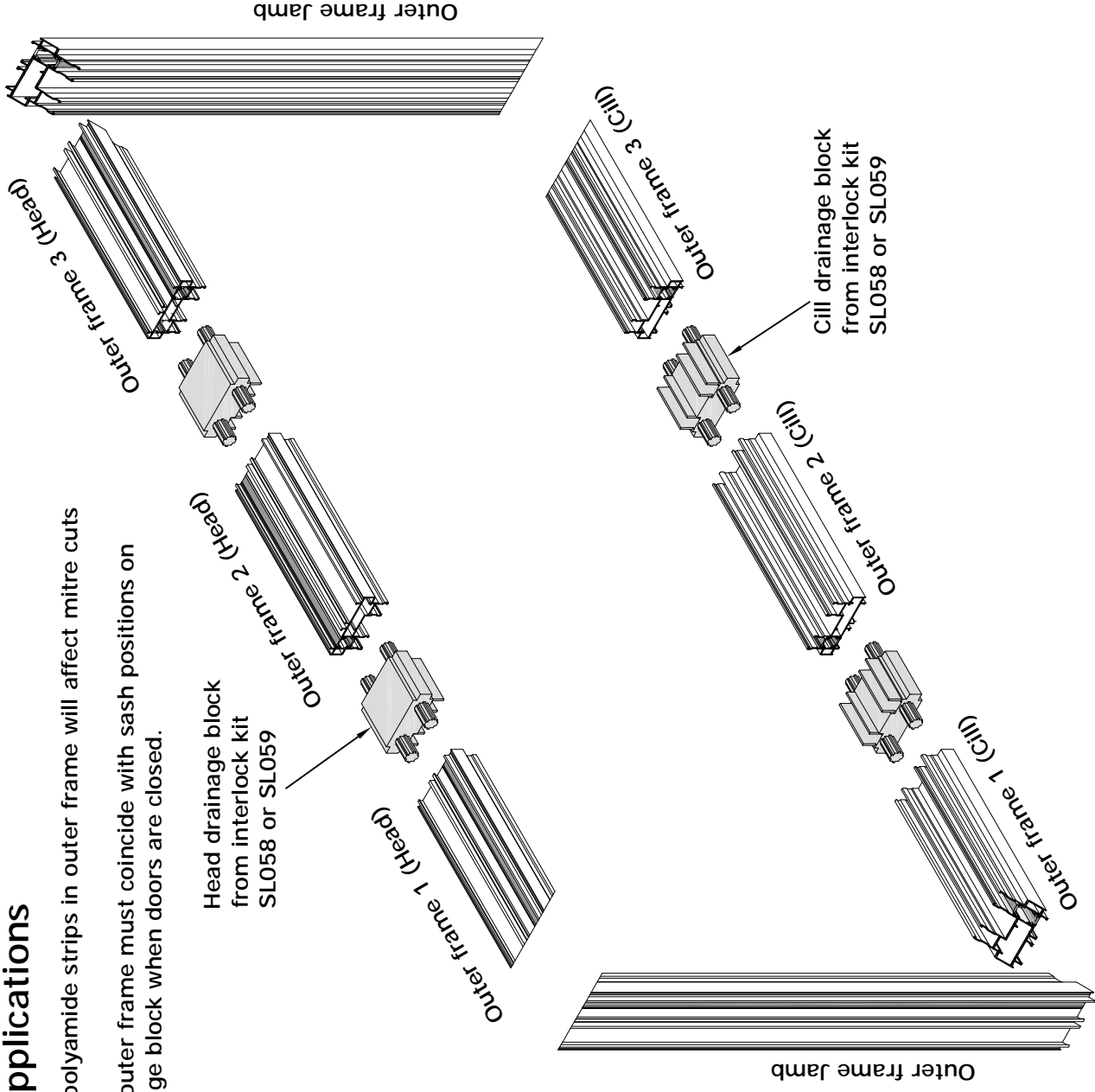


# Handing of Outer Frame Profiles

## For 4 pane applications

Note orientation of polyamide strips in outer frame will affect mitre cuts at head and cill.

Polyamide strips in outer frame must coincide with sash positions on either side of drainage block when doors are closed.



# Outer Frame Prep Details

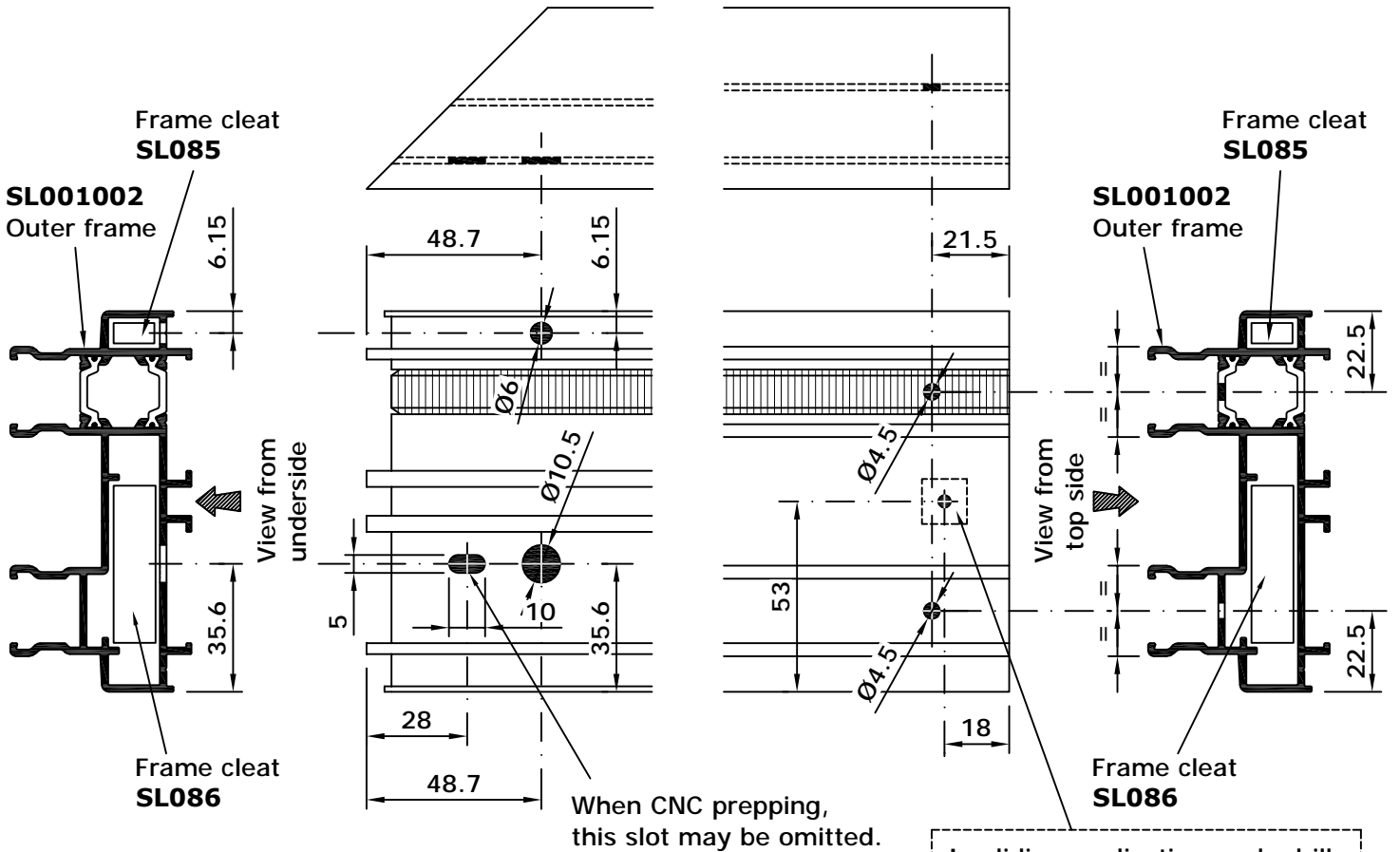


## System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR

### Head and Cill Profiles

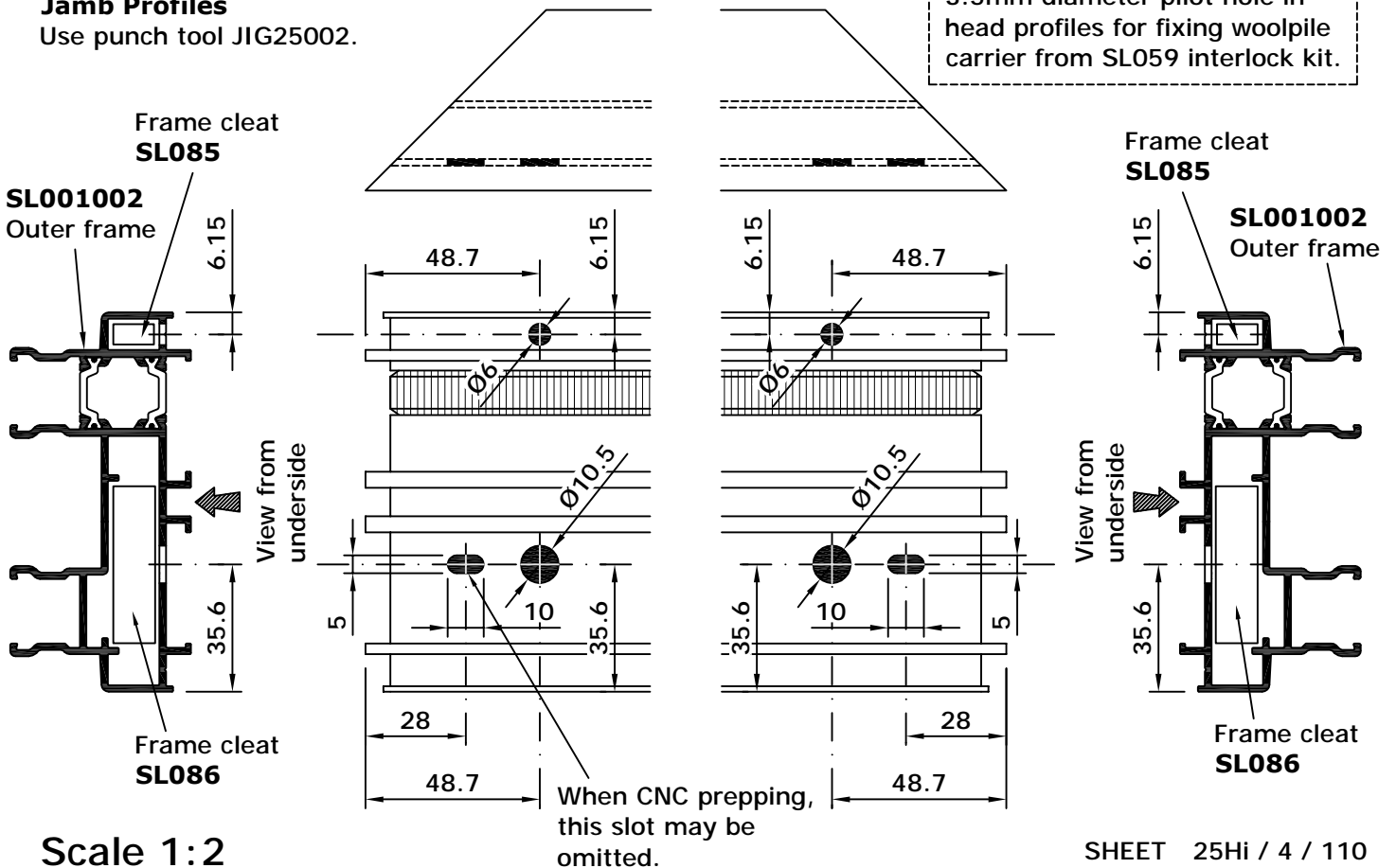
Fabricator to be aware that head and cill profiles are handed and to prep accordingly, relative to opening sash. Use punch tool JIG25002.



In sliding applications only drill 3.5mm diameter pilot hole in head profiles for fixing woolpile carrier from SL059 interlock kit.

### Jamb Profiles

Use punch tool JIG25002.



Scale 1:2

SHEET 25Hi / 4 / 110

rev 3

18/10/13

# Sash Prep Details

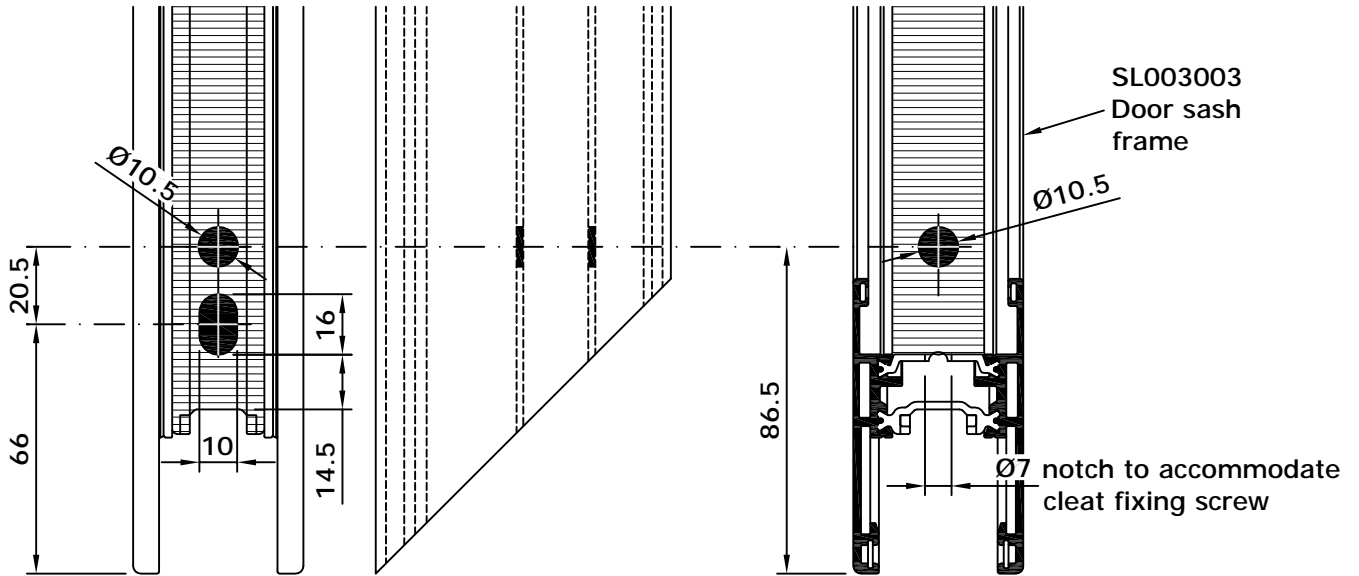
Metal Technology recommends that all four corners of all opening and fixed sashes are prepped as shown.



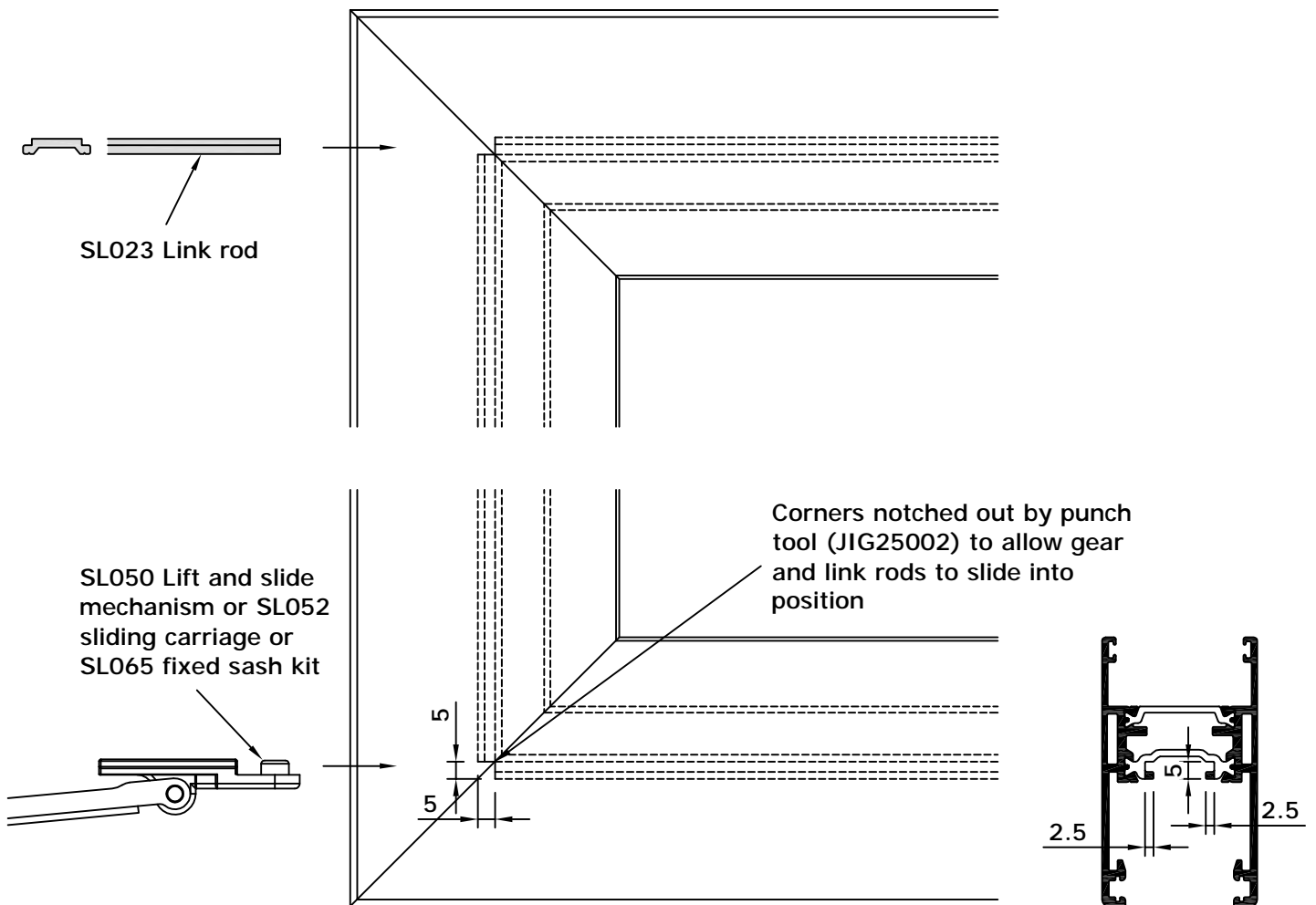
## System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR

### Slots for SL084 mechanical cleat (Punch tool ref JIG25002)



### Slots for link rod / gearing



Door sash frame  
**SL003003**

Scale 1:2

SHEET 25Hi / 4 / 120  
rev 3 18/10/13

# Sash Prep Details

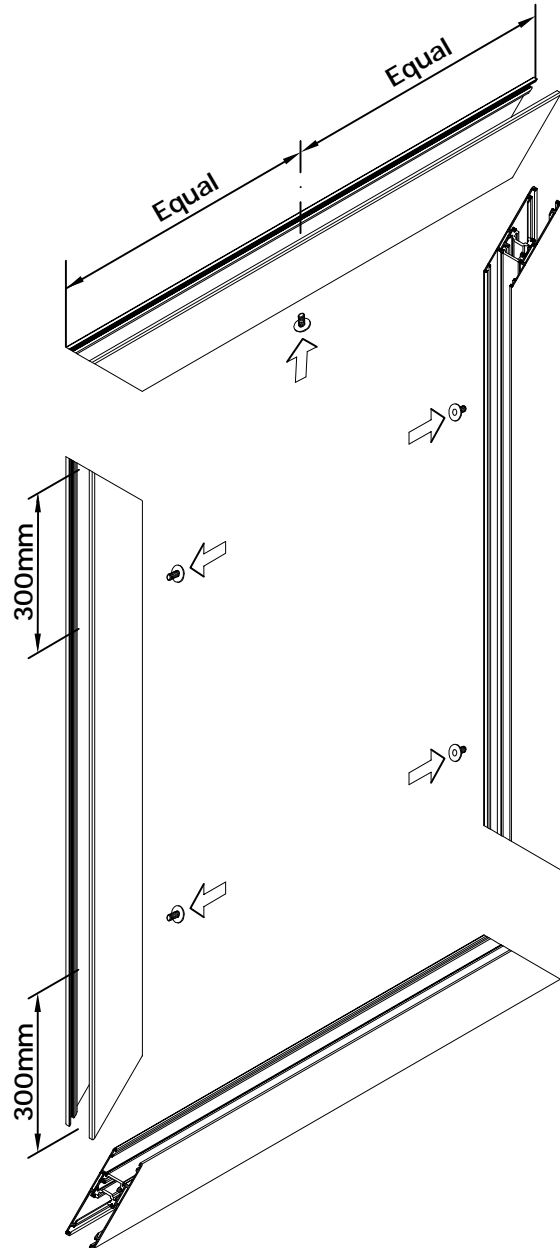
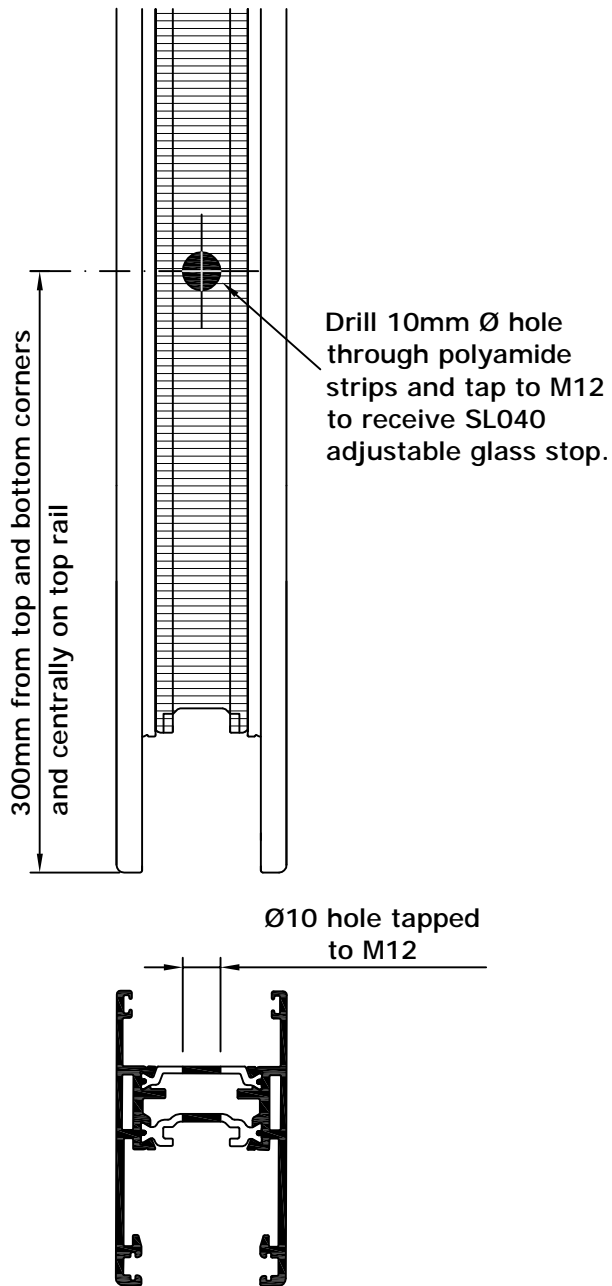
## Adjustable Glass Stop SL040

Adjustable glass stops to be fitted to both fixed and sliding leaves of door.



### System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR



Not to Scale

# Sash Prep Details

## SL051 Locking Handle

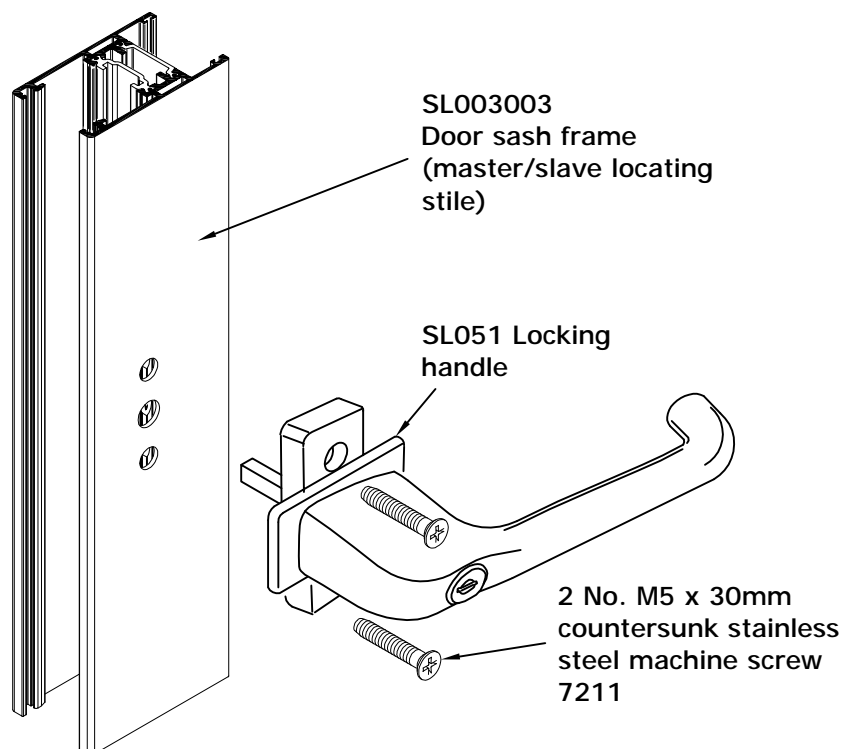
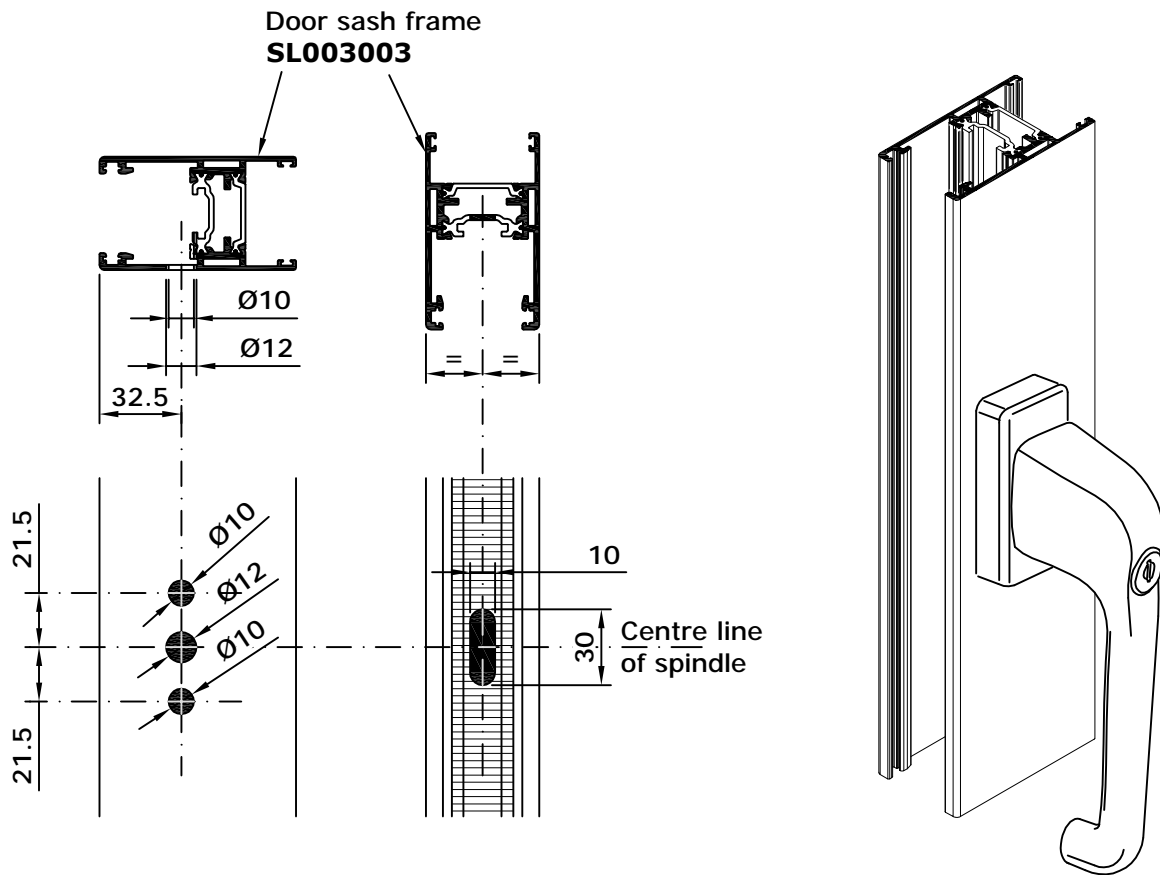
SL051 locking handle must be used when internal locking only is required.

Refer to "SL023 Link Rod Details" sheets in Section 3 of this manual for handle position.



## System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR



Scale 1:3

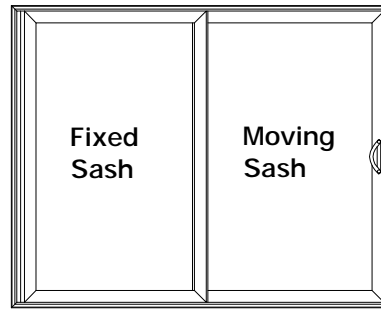
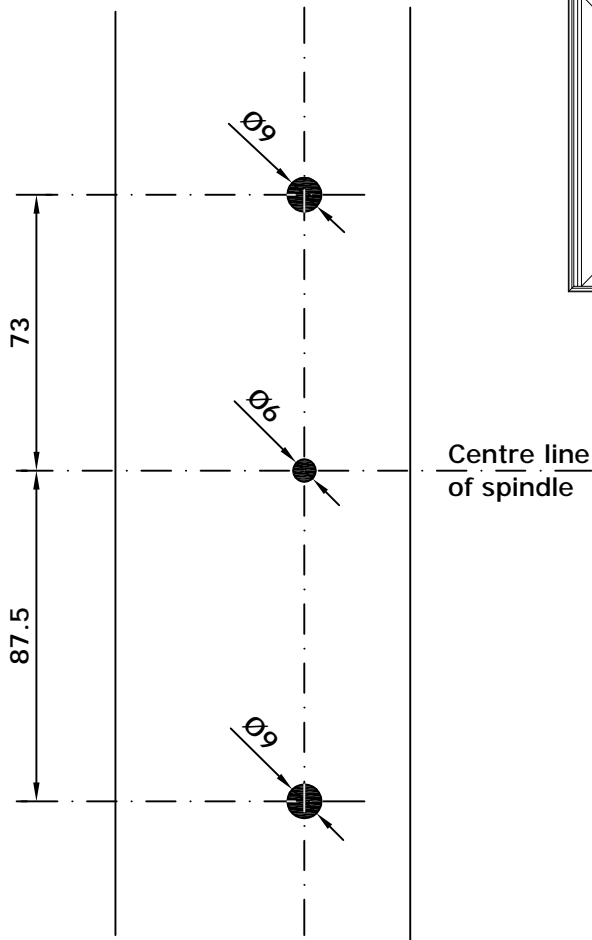
# Sash Prep Details

## SL101E External Pull Handle



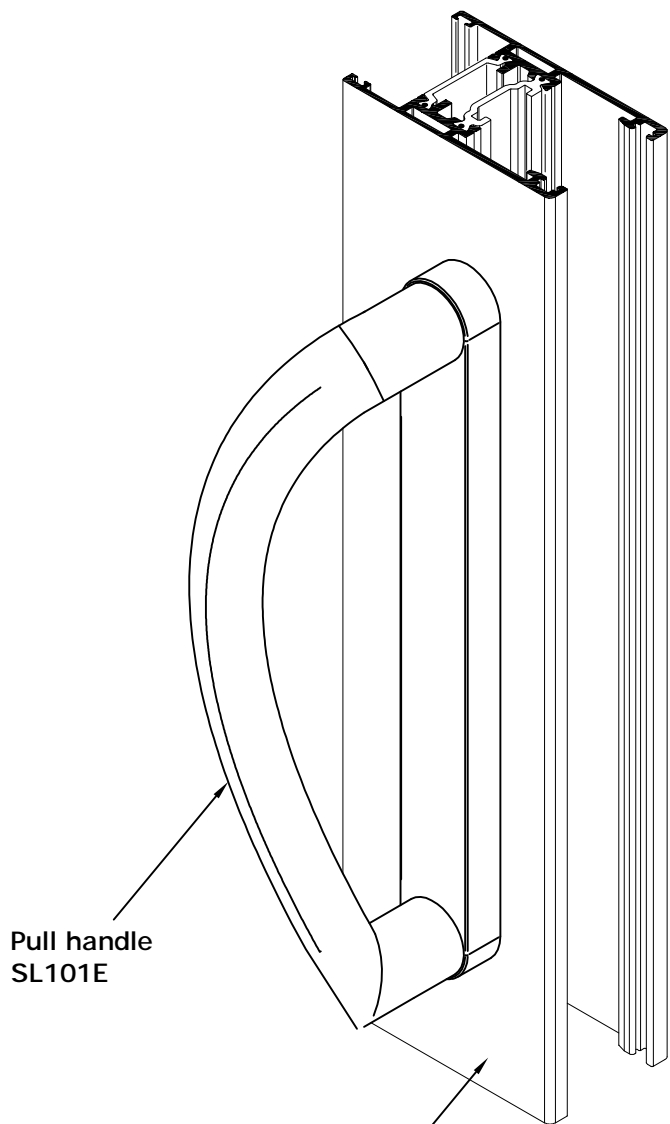
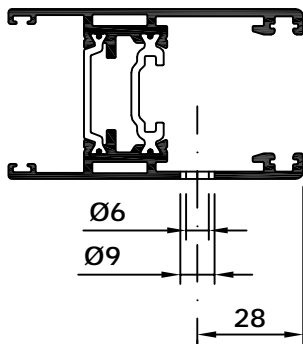
### System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR



Viewed from outside

Determine handing of external pull handle. This sheet depicts a left hand handle.



Pull handle  
SL101E

SL003003  
Door sash frame  
(master/slave locking stile)

Scale 1:2

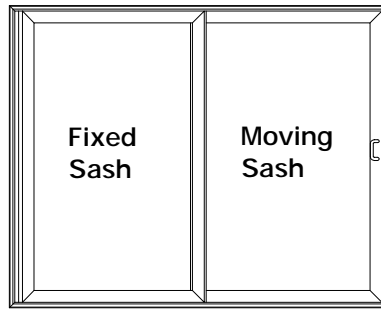
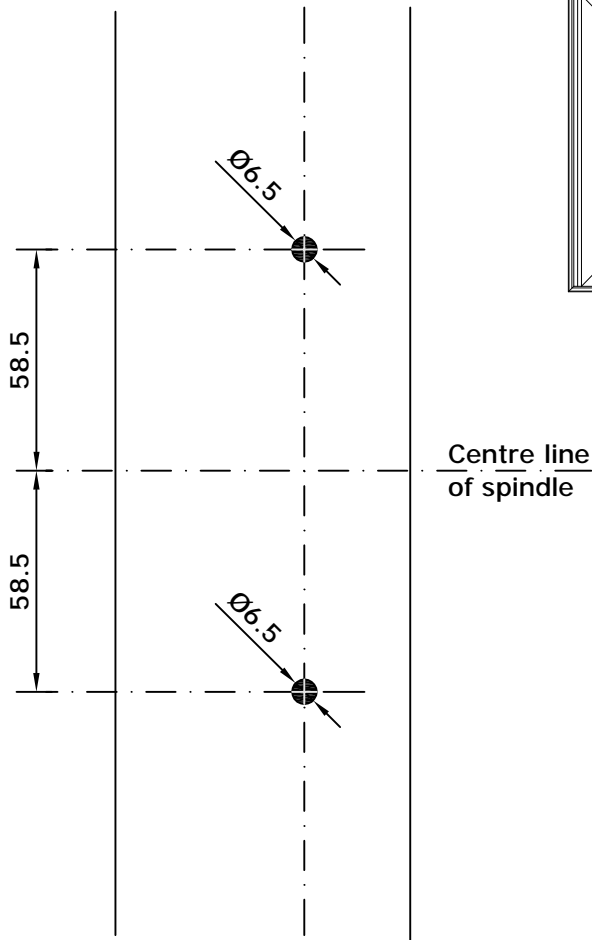
# Sash Prep Details

## SL102 External Pull Handle

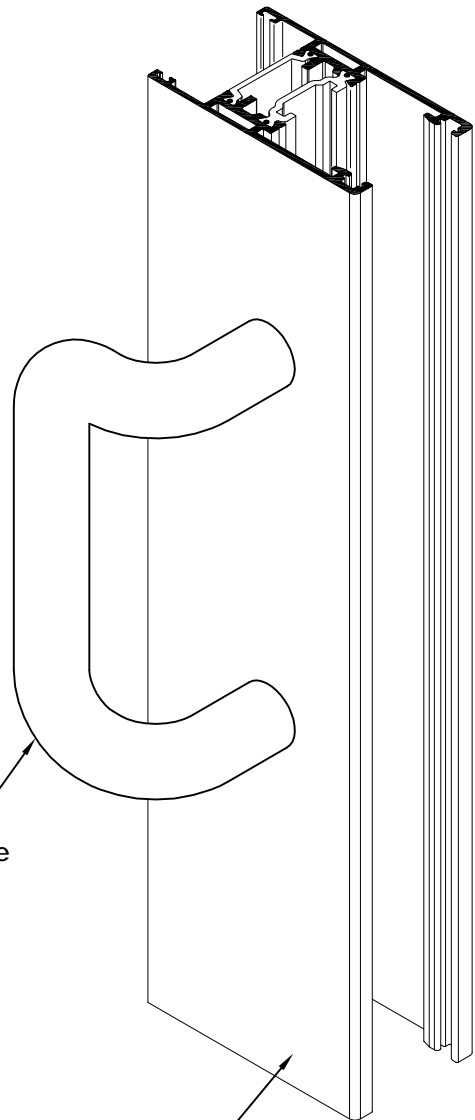
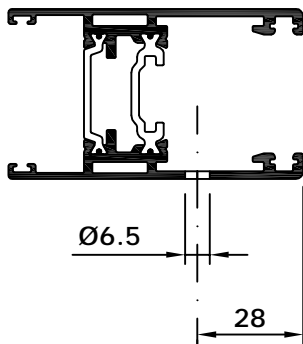


### System 25 Hi/Hi+

.....  
 SLIDING / LIFT AND  
 SLIDE DOOR  
 .....



Viewed from outside



Pull handle  
SL102

SL003003  
Door sash frame  
(master/slave locking stile)

Scale 1:2

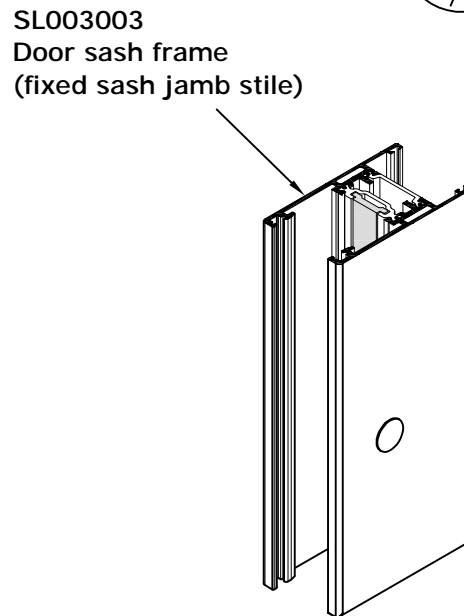
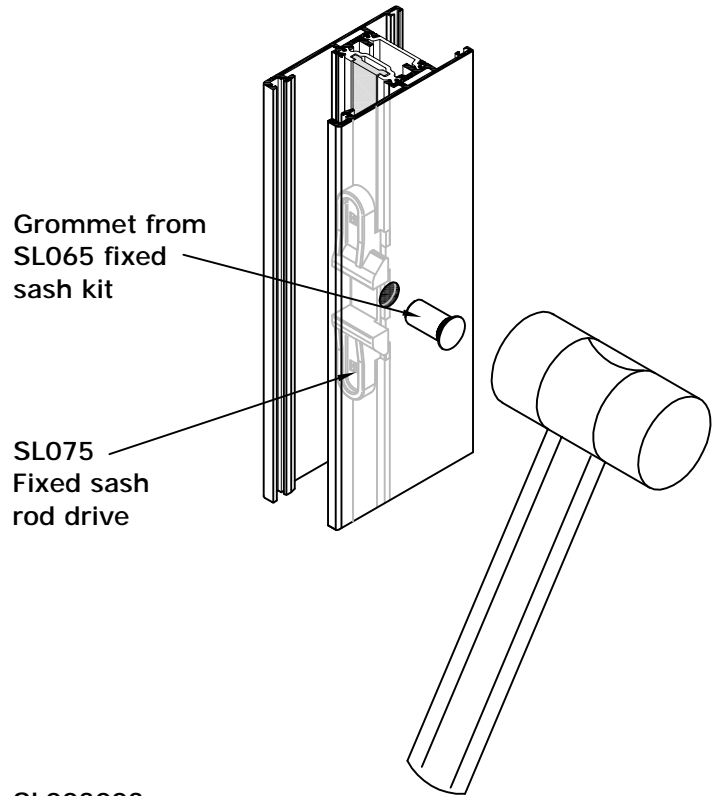
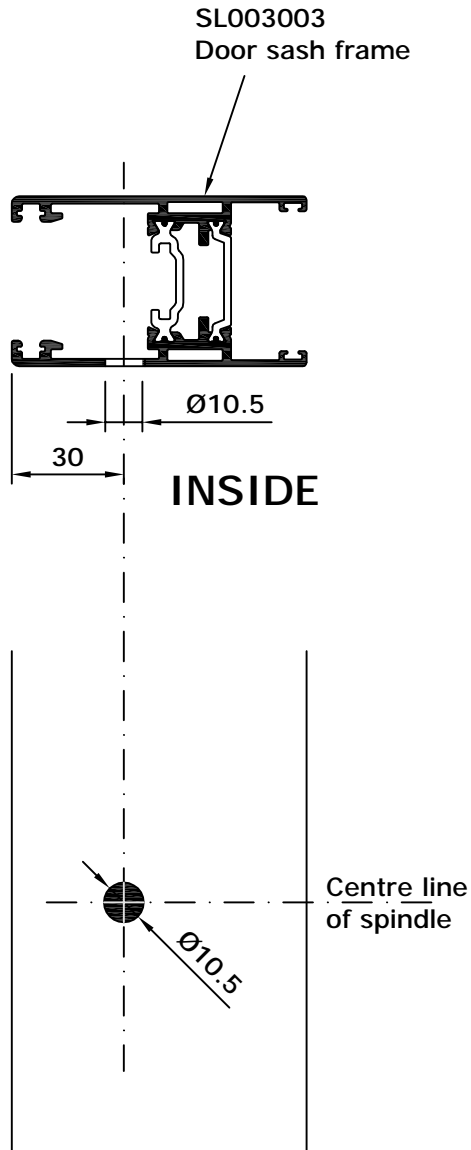
# Sash Prep Details

## SL075 Fixed Sash Rod Drive



### System 25 Hi/Hi+

.....  
 SLIDING / LIFT AND  
 SLIDE DOOR  
 .....



Scale 1:2



# Sash Prep Details

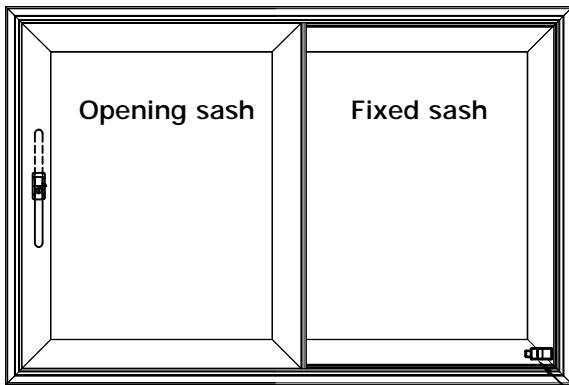
## SL082 Door Stop

To suit 2, 3, and 4 pane applications.



## System 25 Hi/Hi+

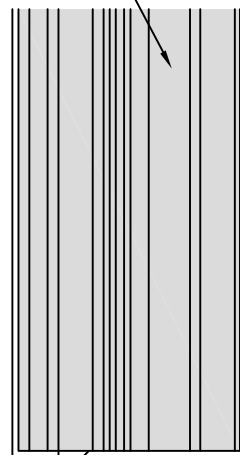
.....  
SLIDING / LIFT AND  
SLIDE DOOR  
.....



Viewed from inside

Door stop  
SL082

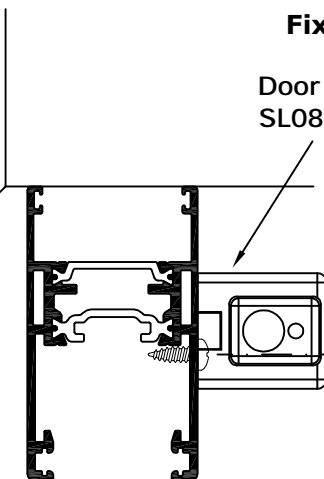
Meeting stile  
locking piece  
SL021



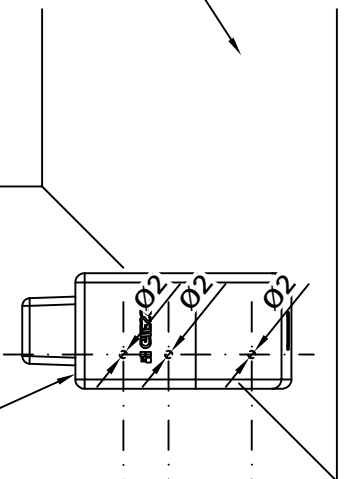
Cover for  
interlock  
SL012

Fixed sash

Door stop  
SL082



SL003003  
Door sash frame



Door stop  
SL082

44.5

12 22

Door stop fixing  
dimension x

Clear opening = Opening sash width - y

Handle	x (mm)	y (mm)
SL051	22.5	177
SL101E	52	207
SL102	40	195

Door stop position is based on equal sash widths.  
Handing of door stop dependant on handing of opening sash.

Where opening sash is > or < fixed sash width, door stop fixing dimension will need to be determined to suit.

Scale 1:2

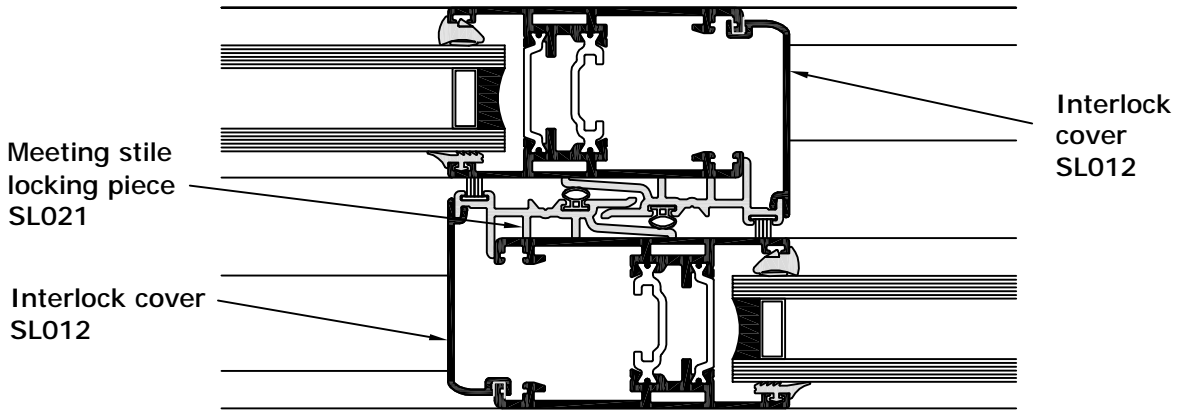
SHEET 25Hi / 4 / 180

# Interlock Cover SL012 Prep Details

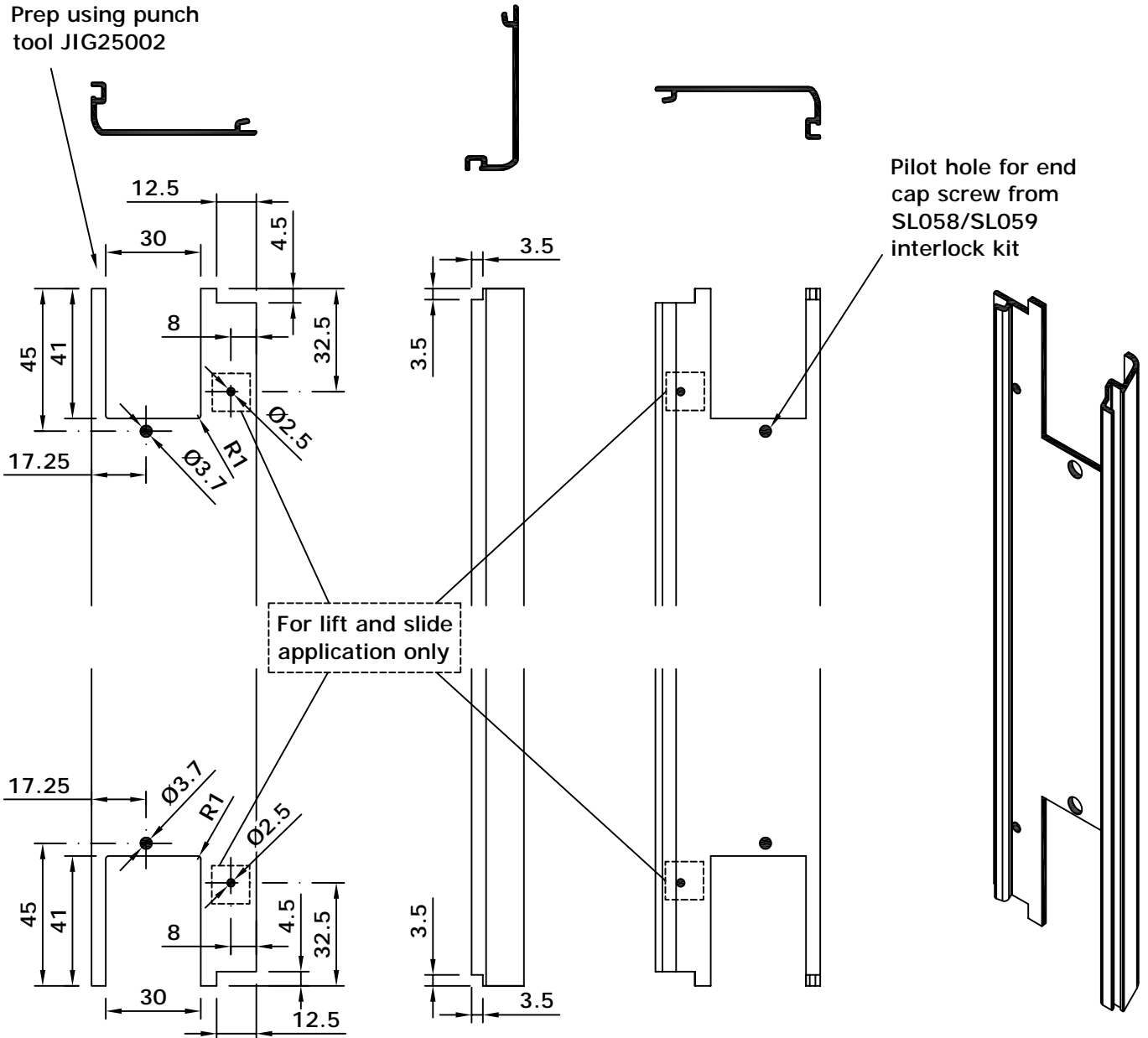


**System 25 Hi/Hi+**

SLIDING / LIFT AND SLIDE DOOR



Prep using punch tool JIG25002



Scale 1:2

SHEET 25Hi / 4 / 190

rev 1

18/10/13

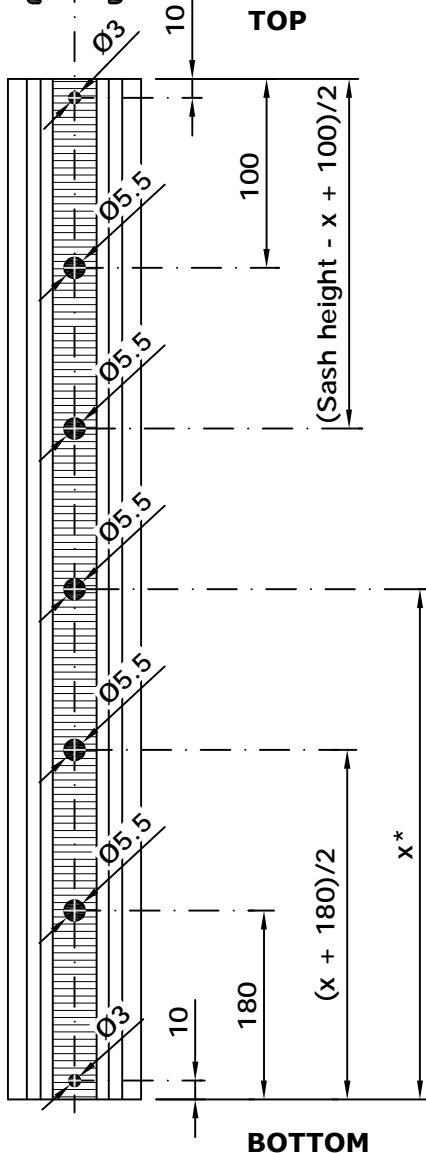
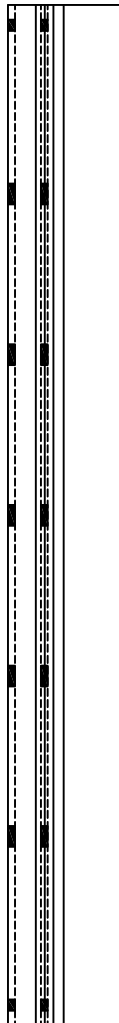
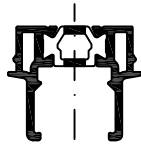
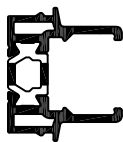
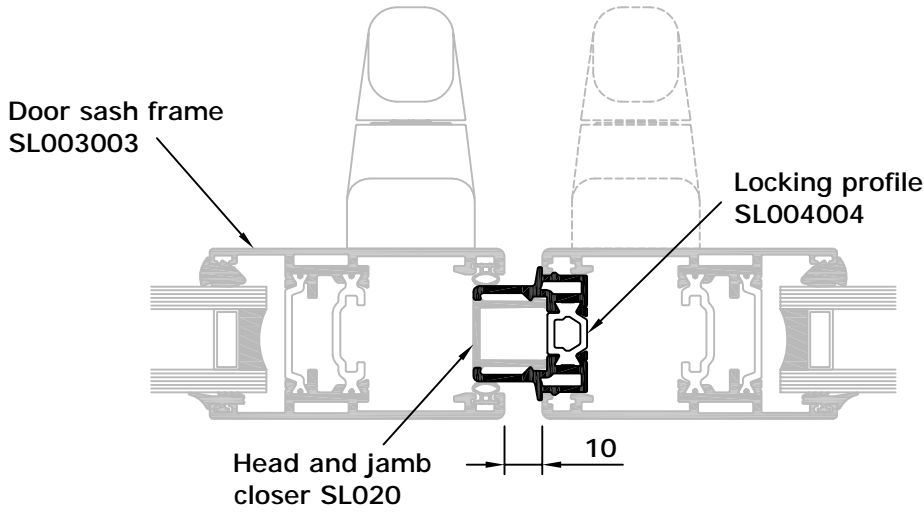
# Locking Profile SL004004 Prep Details



## System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR

Prep details are based on the centre line of the spindle positioned at 958mm from bottom of door sash. When sash height is below 1816mm refer to Metal Technology's Technical Department.



\* For sash height  $\leq 2316$   
 $x = 1158$

For sash height  $> 2316$   
 $x = \text{Sash height} / 2$

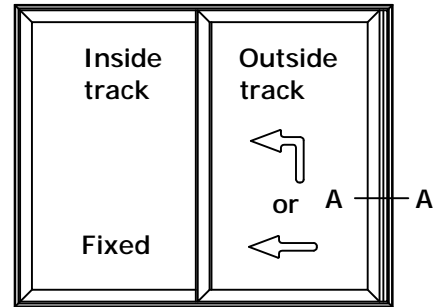
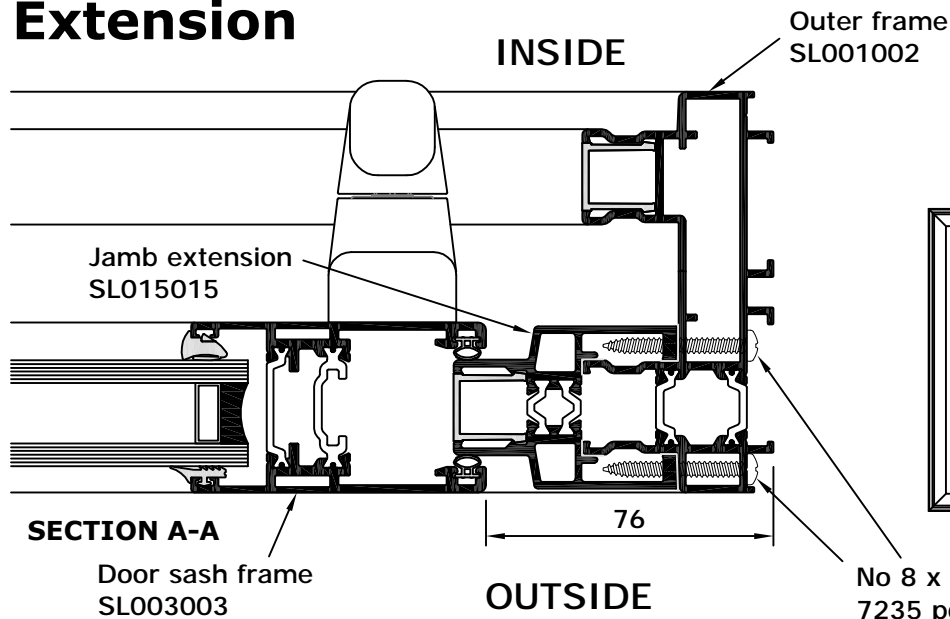
Not to Scale

# End Prep for SL015015 Jamb Extension

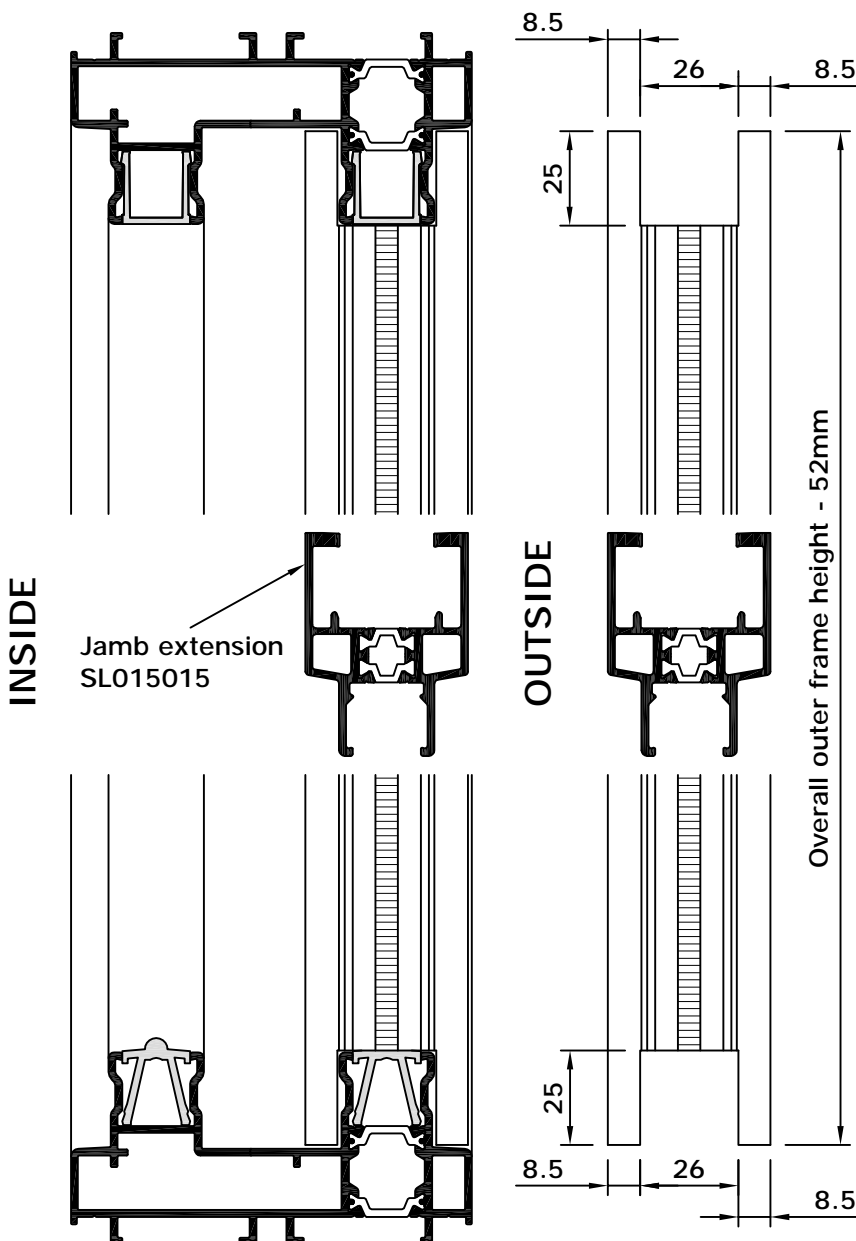


## System 25 Hi/Hi+

.....  
SLIDING / LIFT AND  
SLIDE DOOR  
.....

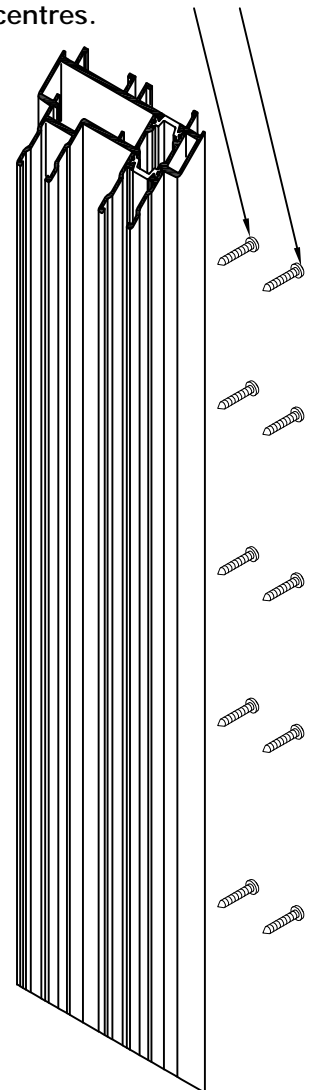


No 8 x 38mm pan head self tapping screws 7235 positioned 75mm from the corners at maximum 300mm centres.



**TOP PREP**

**BOTTOM PREP**



Jamb extension must be fitted before corner assembly

Not to Scale

SHEET 25Hi / 4 / 210

rev 1

18/10/13

# Mullion Stiffener

## 007, 008 and 009 Prep Detail

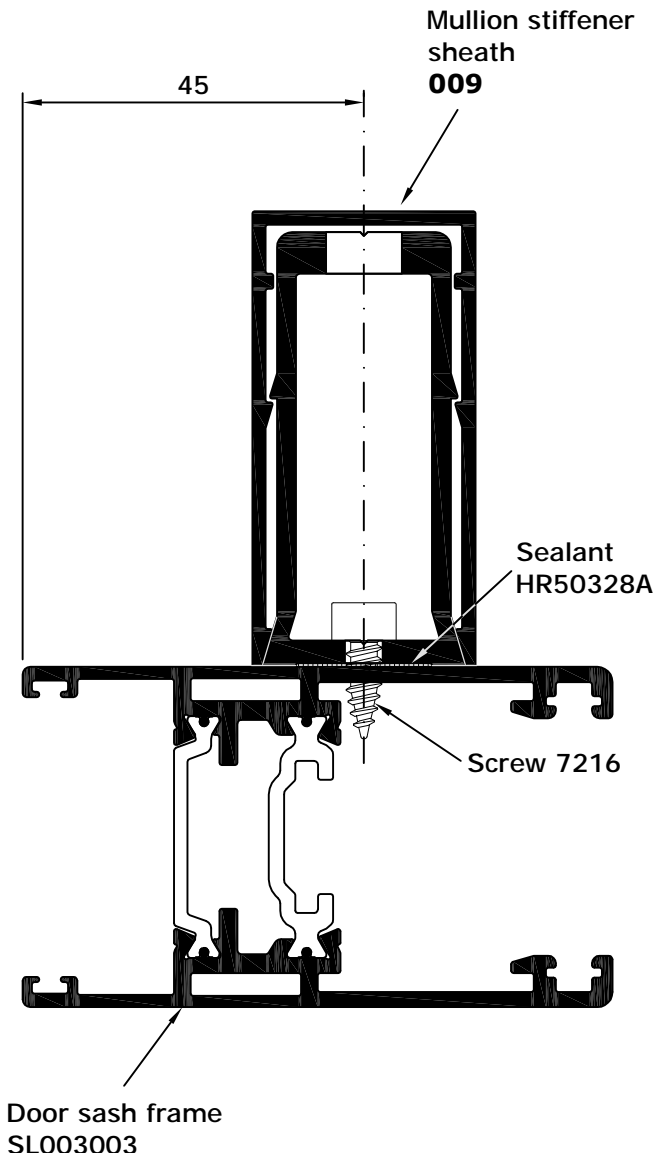
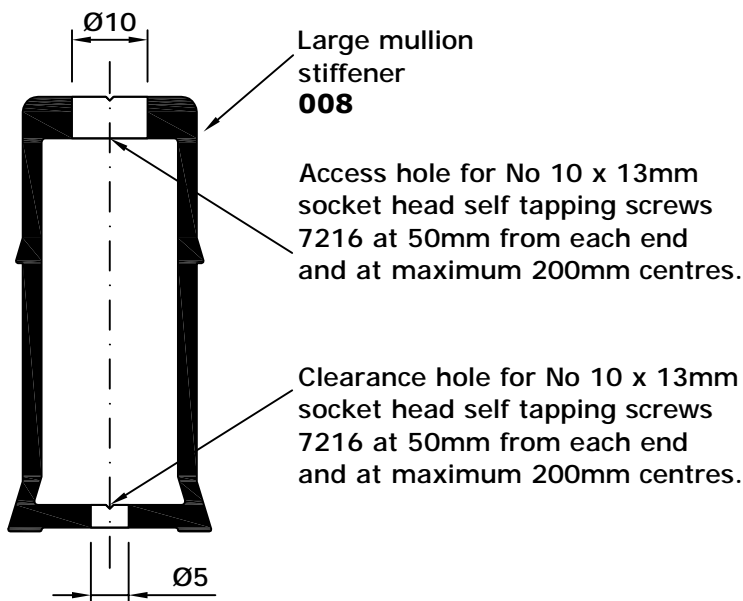
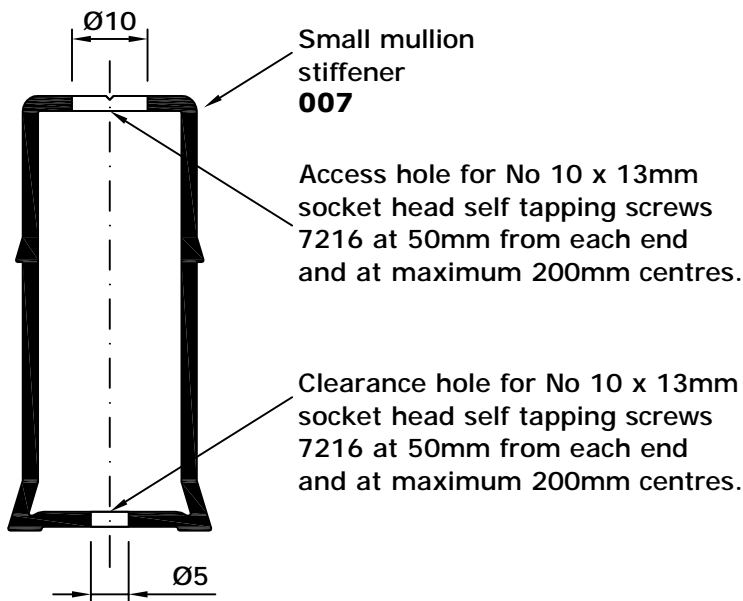


### System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR

Metal Technology recommend that the No 10 x 13mm socket head self tapping screws 7216 are fixed at 200mm centres and sealed in position using HR50328A sealant. Variation from these centres will affect the structural performance of the combined mullion and must be checked and confirmed by a structural engineer.

Cutting sizes to be calculated based on sash height less 22mm, or sash height less 44mm when mullion stiffener is fitted to external surface of inner pane or internal surface of outer pane. Refer to "Mullion Stiffener" general arrangement drawings in Section 2 for further clarification.



Scale 1:1

# Drainage Detail

## Lift and Slide Door Frame

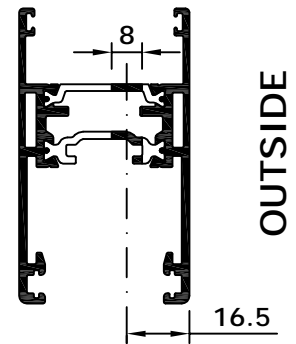
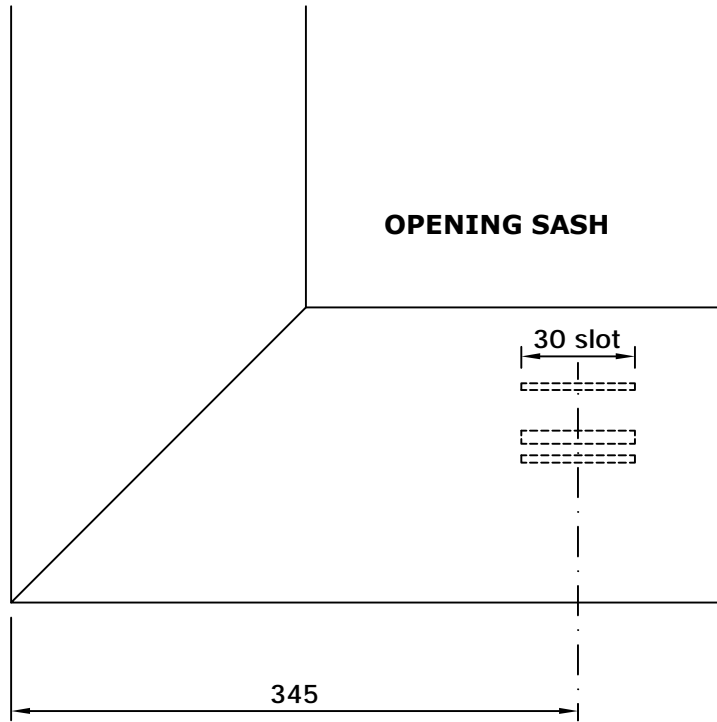
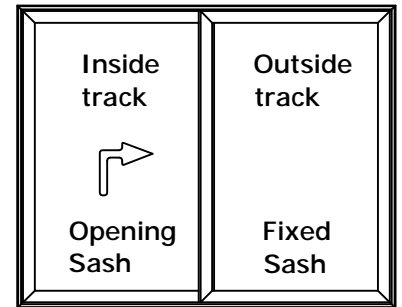
Positions of drainage slots are set to avoid interference with gearing. These details apply to all lift and slide opening sashes in 2, 3 and 4-pane configurations.



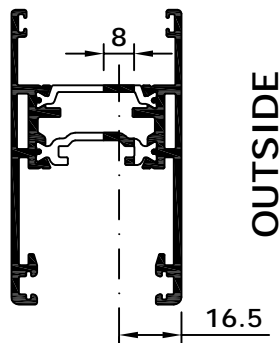
## System 25 Hi/Hi+

.....  
LIFT AND SLIDE DOOR

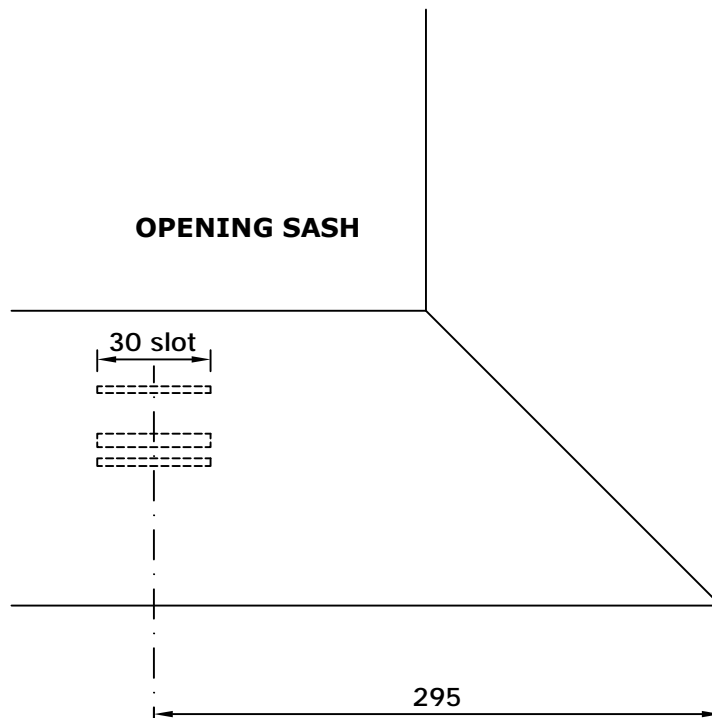
.....



Door sash frame  
**SL003003**



Door sash frame  
**SL003003**



Scale 1:2

SHEET 25Hi / 5 / 10

rev 11 16/08/13

# Drainage Detail

## Sliding Door Frame

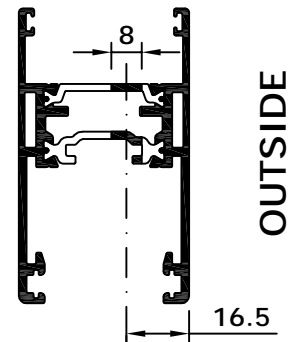
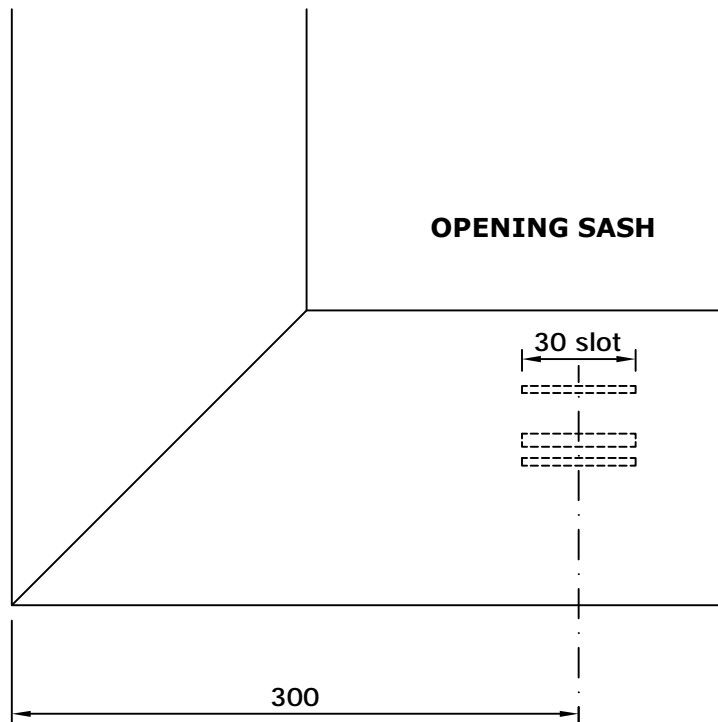
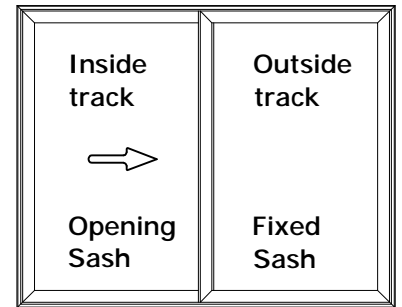
Positions of drainage slots are set to avoid interference with gearing. These details apply to all sliding door opening sashes in 2, 3 and 4-pane configurations.



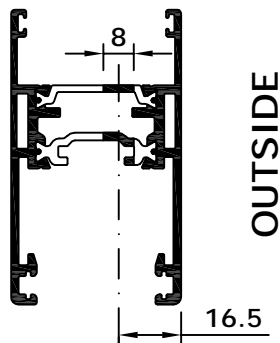
## System 25 Hi/Hi+

.....  
SLIDING DOOR

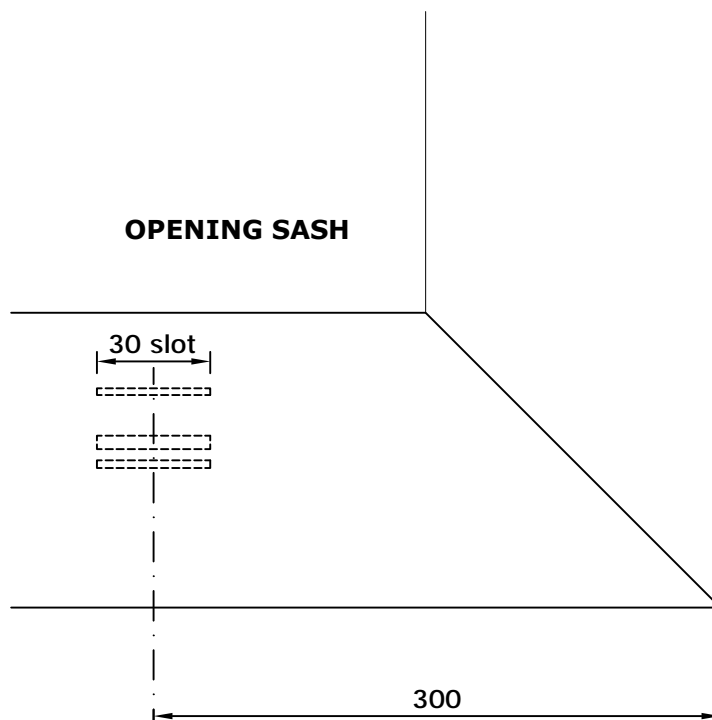
.....



Door sash frame  
**SL003003**



Door sash frame  
**SL003003**



Scale 1:2

SHEET 25Hi / 5 / 20

rev 10

16/08/13

# Drainage Detail

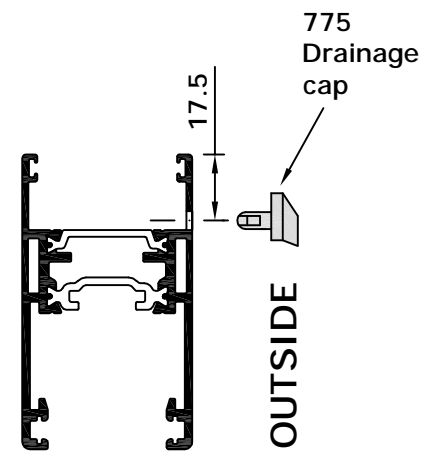
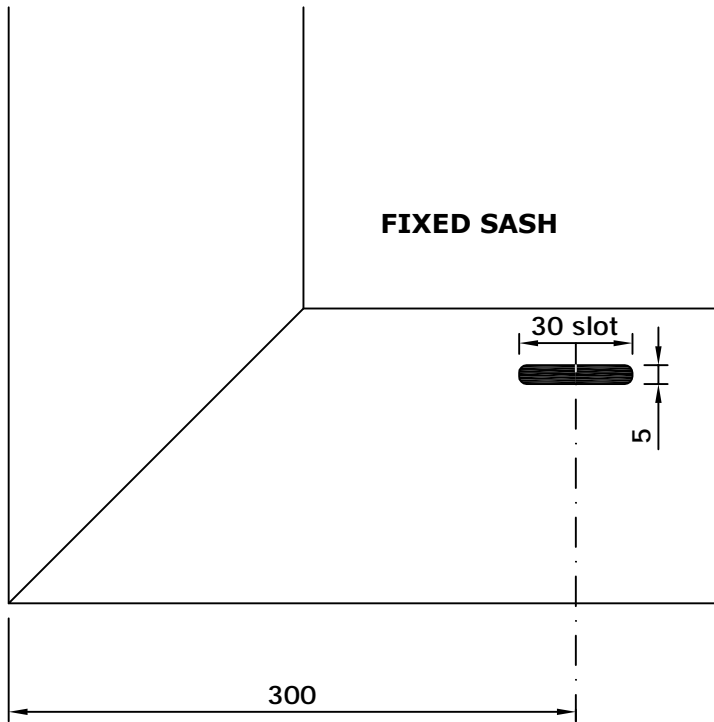
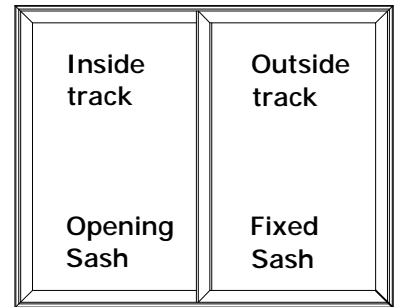
## Fixed Sash for Lift and Slide and Sliding Door



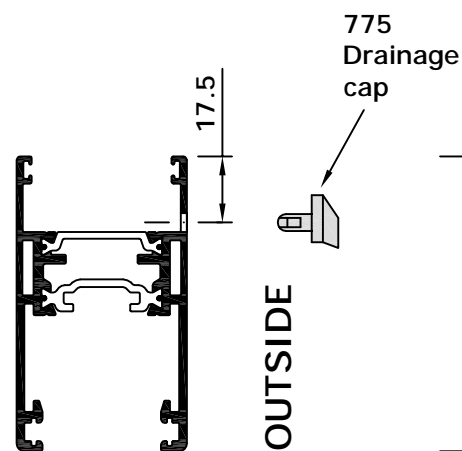
## System 25 Hi/Hi+

.....  
 SLIDING / LIFT AND  
 SLIDE DOOR  
 .....

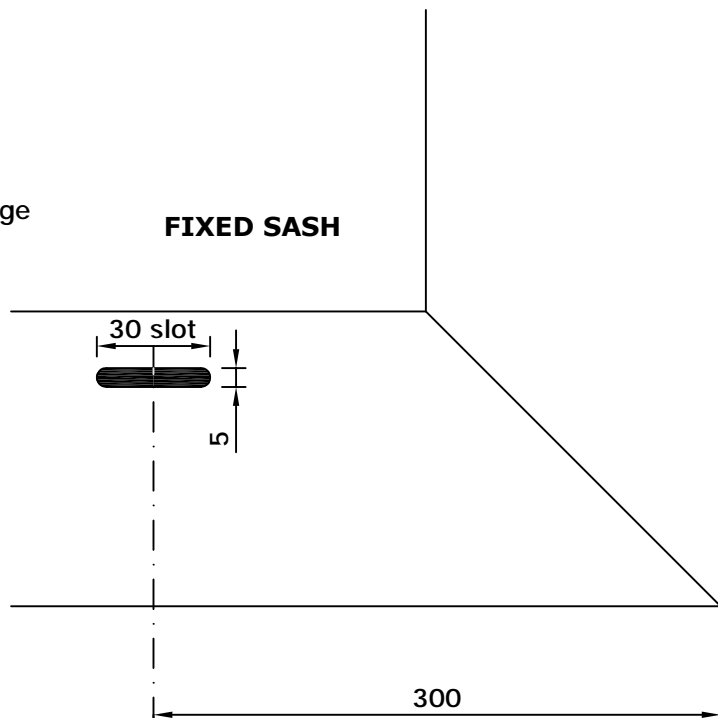
These details apply to all fixed sashes in 2, 3 and 4-pane configurations.



Door sash frame  
**SL003003**



Door sash frame  
**SL003003**



Scale 1:2

SHEET 25Hi / 5 / 30  
 rev 6 16/08/13



# SL099 Outer Frame Drainage End Seal



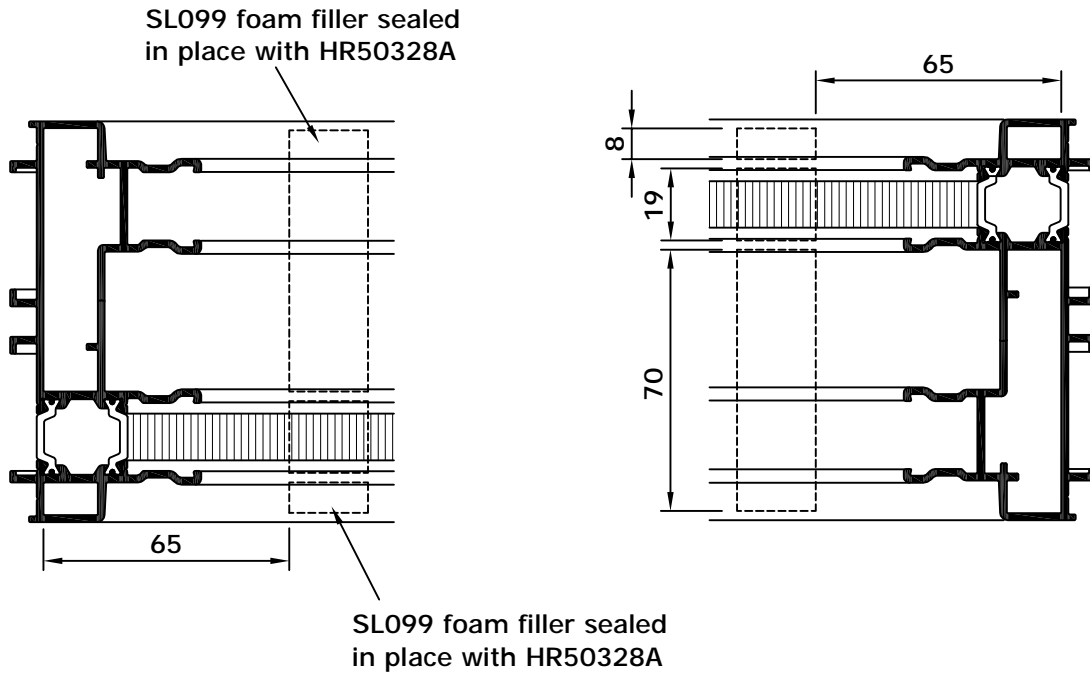
## System 25 Hi/Hi+

SLIDING / LIFT AND SLIDE DOOR

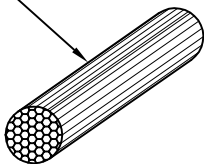
SL099 foam filler is sold per metre. To be cut to size as shown below.

Drainage end seals, cut by fabricator from SL099 foam filler, should be fitted to outer frame cill member at mitred corners.

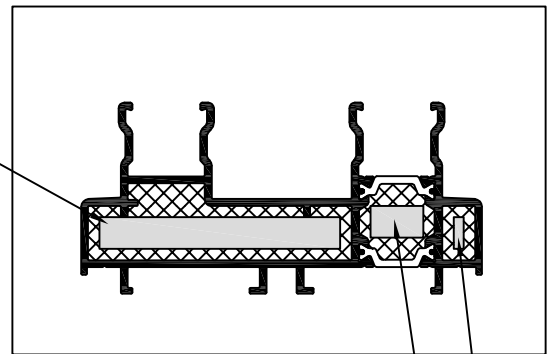
Upon completion, check seal by looking through profile against a light source.



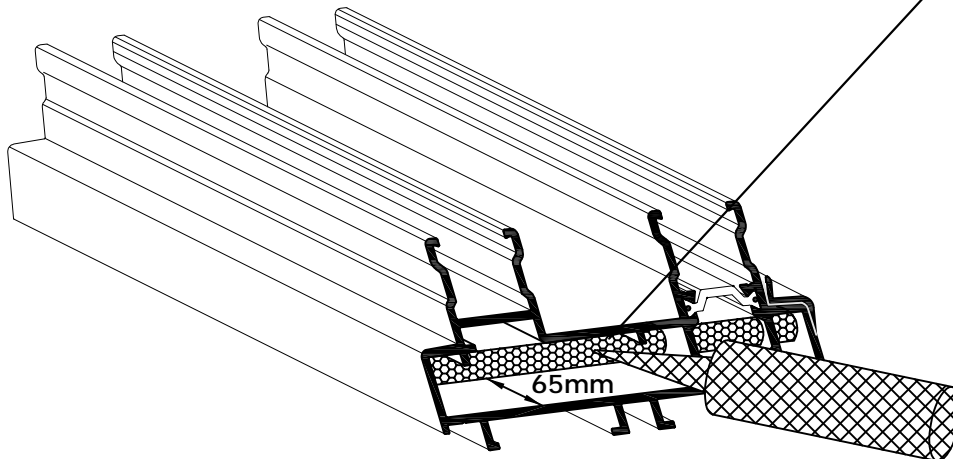
SL099 foam filler



SL099 end seal to be sealed to cleat chamber of cill outer frame at mitred corners using HR50328A



SL099 end seal to be sealed to cleat chamber of cill outer frame at mitred corners using HR50328A



Not to scale

SHEET 25Hi / 5 / 40

rev 5

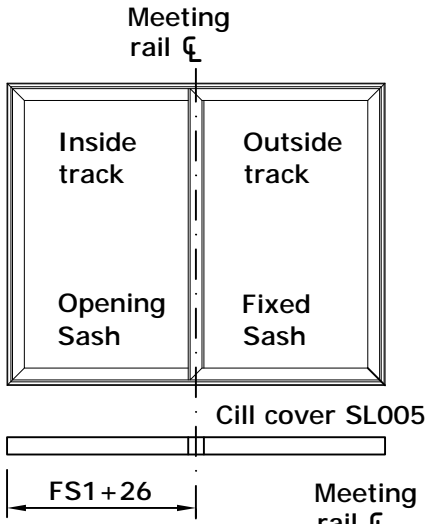
18/02/14

# SL005 Drainage Detail

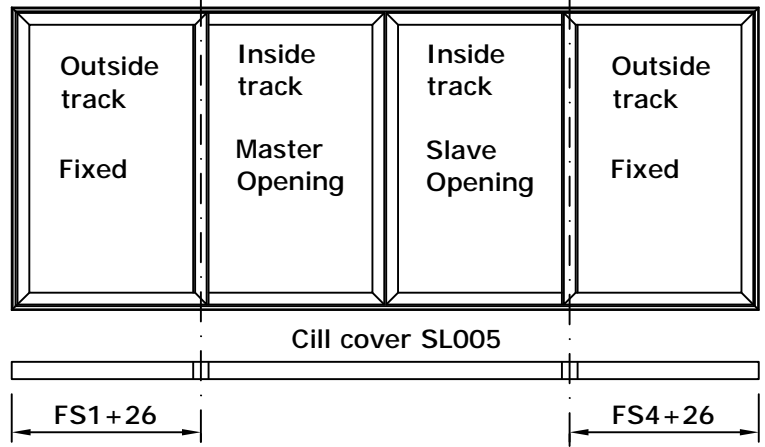
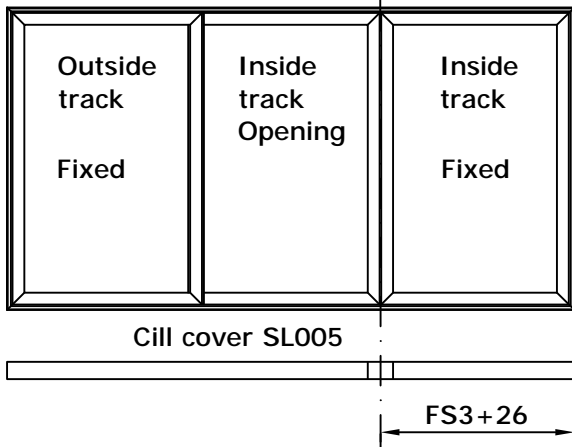
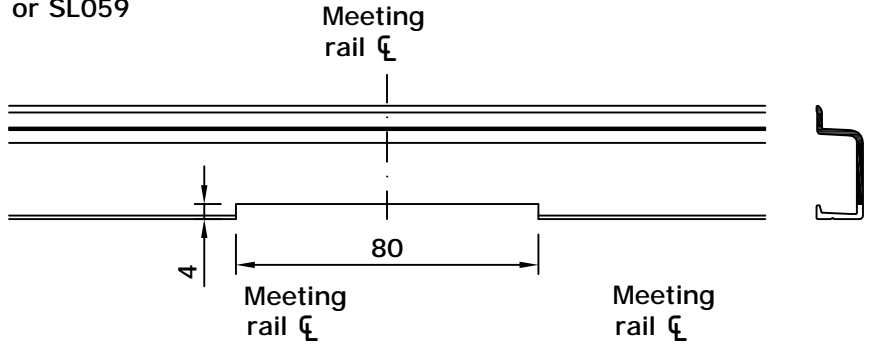


## System 25 Hi/Hi+

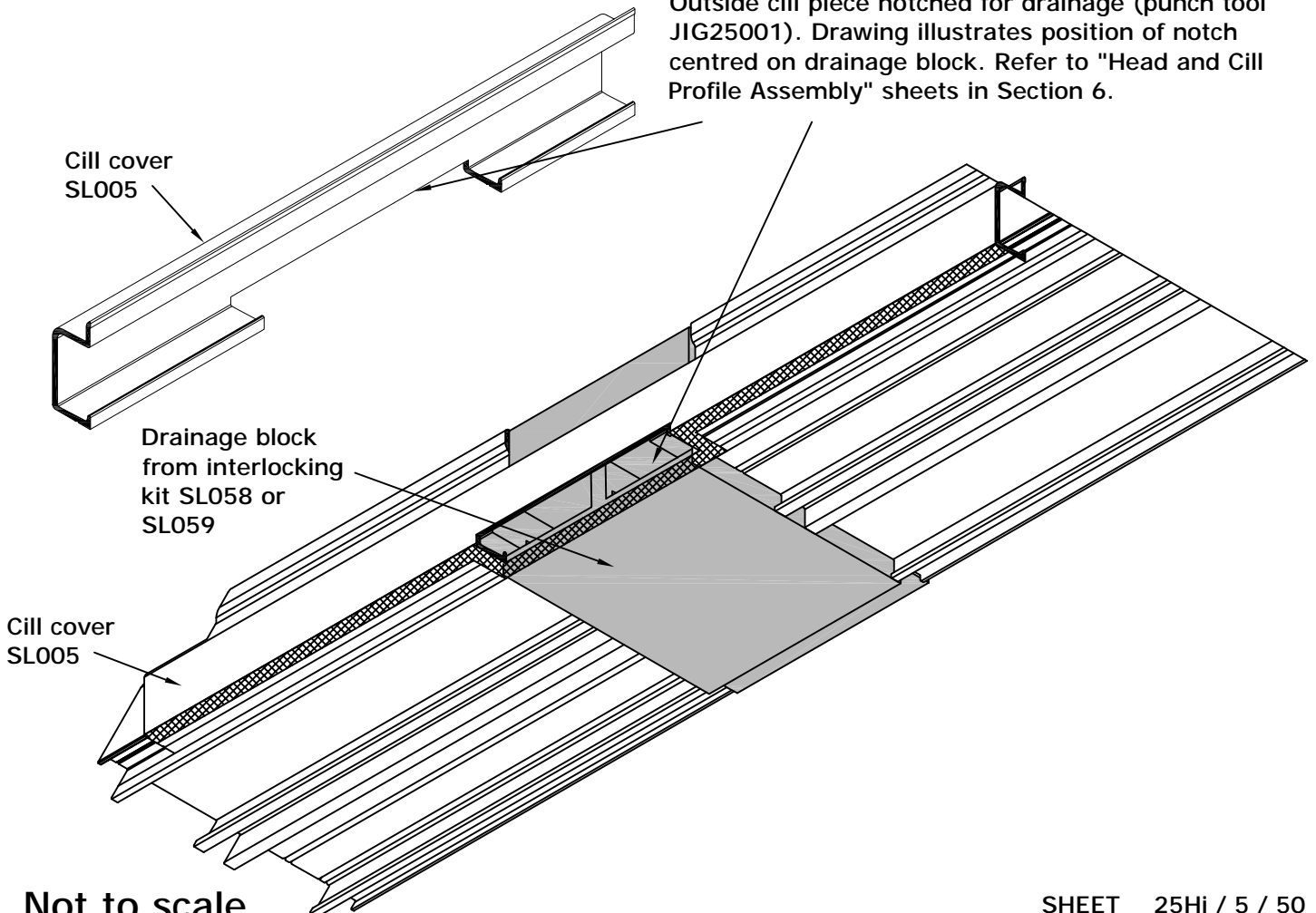
.....  
SLIDING / LIFT AND  
SLIDE DOOR  
.....



Centre line of notch to be centred on drainage block from interlock kit SL058 or SL059



Outside cill piece notched for drainage (punch tool JIG25001). Drawing illustrates position of notch centred on drainage block. Refer to "Head and Cill Profile Assembly" sheets in Section 6.



Not to scale

SHEET 25Hi / 5 / 50

rev 2

04/03/14

# Head and Cill Profile Assembly

## Drainage Block from SL058 or SL059

### Interlock Kit

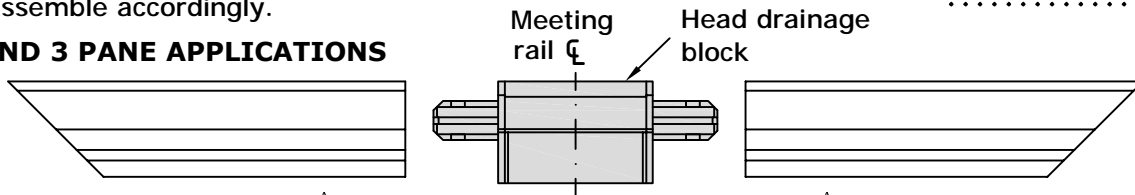
Fabricator to note position of polyamide strip relative to opening sash and to assemble accordingly.



## System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR

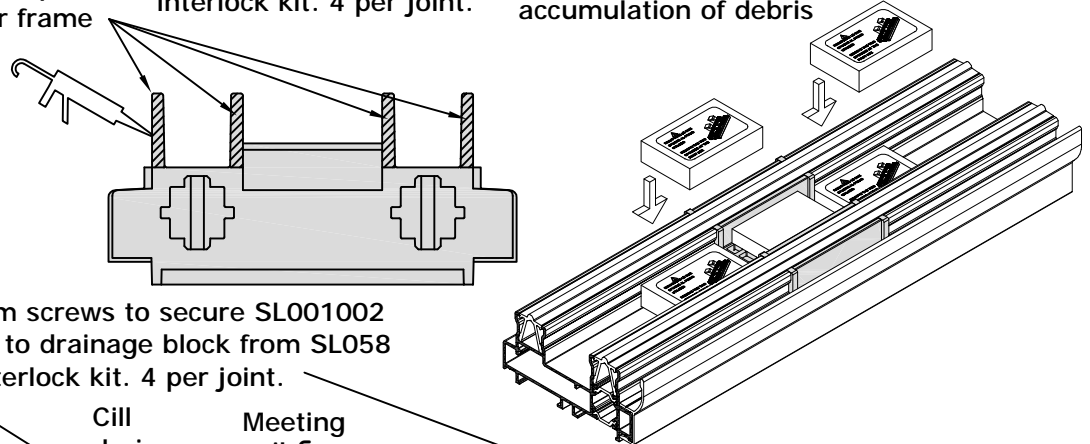
### 2 AND 3 PANE APPLICATIONS



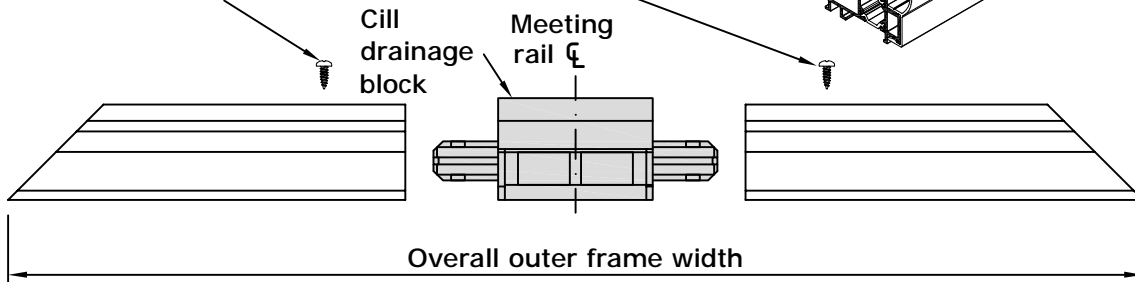
Silicone upper legs of drainage block from SL058 or SL059 interlock kit prior to securing to outer frame

No 8 x 12mm screws to secure SL001002 outer frame to drainage block from SL058 or SL059 interlock kit. 4 per joint.

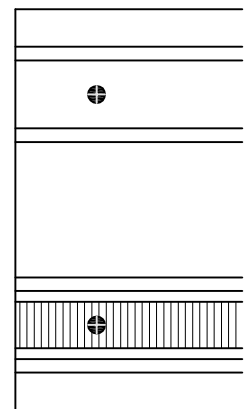
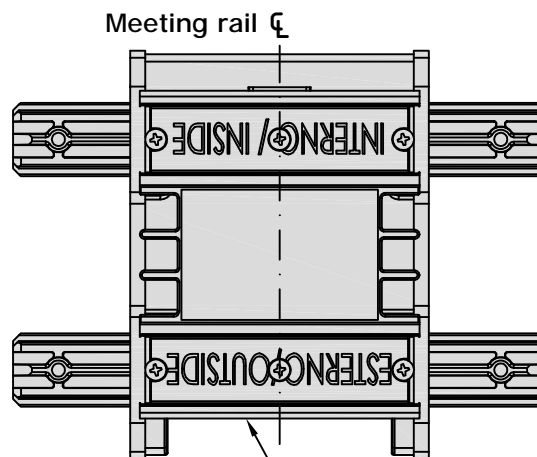
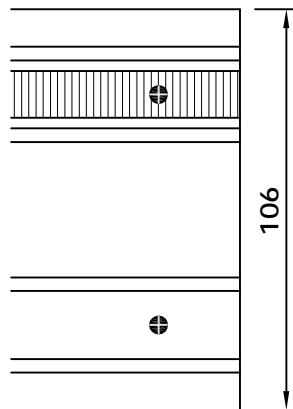
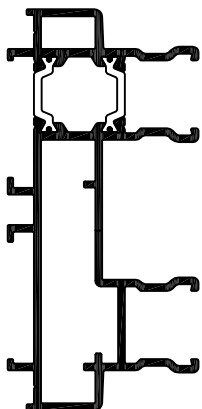
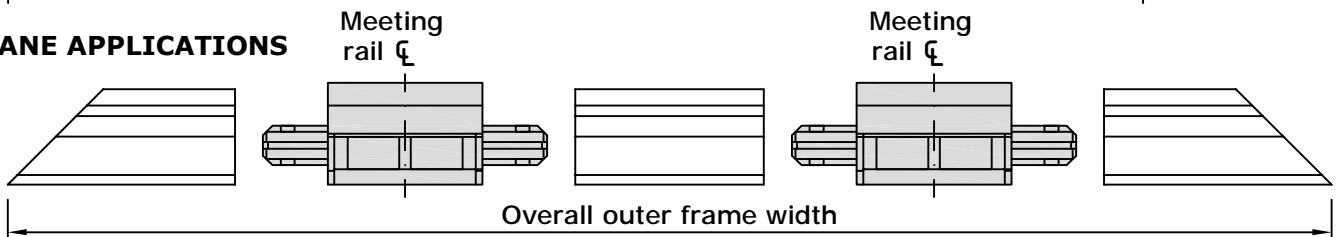
Temporarily fit "sponge" blocks as indicated to help protect cill drainage block from the accumulation of debris



No 8 x 12mm screws to secure SL001002 outer frame to drainage block from SL058 or SL059 interlock kit. 4 per joint.



### 4 PANE APPLICATIONS



Not to Scale

# Head and Cill Profile Assembly

## SL005 and SL006 Application Details

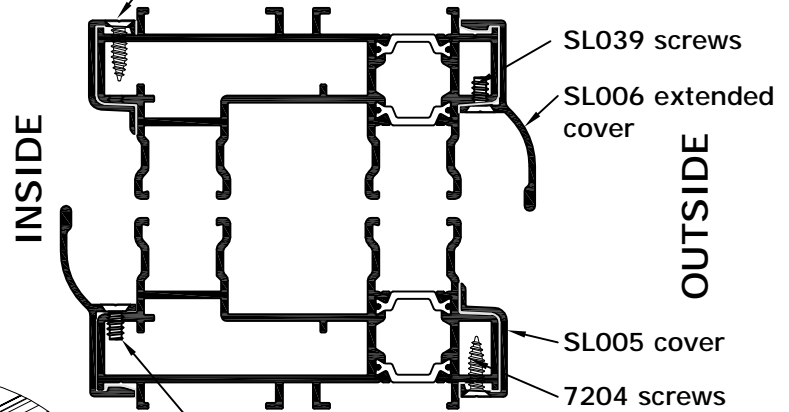


## System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR

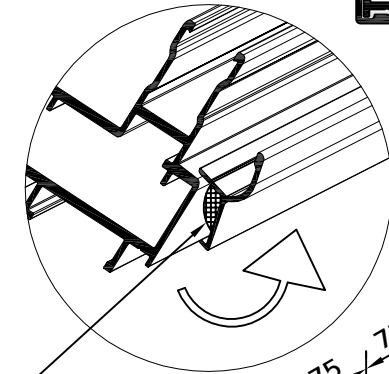
1. Apply sealant to full length of SL006 extended cover at cill only as shown.
2. Temporarily locate SL005 and SL006 covers centrally\* on assembled outer frame head and cill profiles, orientated as shown.
3. Drill and countersink 3.5mm Ø pilot holes from directions shown, 75mm from each end and 75mm either side of the centre line of drainage blocks from SL058 or SL059 interlock kits, and at not greater than 300mm centres.
4. Secure covers in place using screws as shown. Special care to be taken to seal SL039 screws at cill to ensure watertight fixing.

7204 No 8 x 16mm  
countersunk self tap  
screws



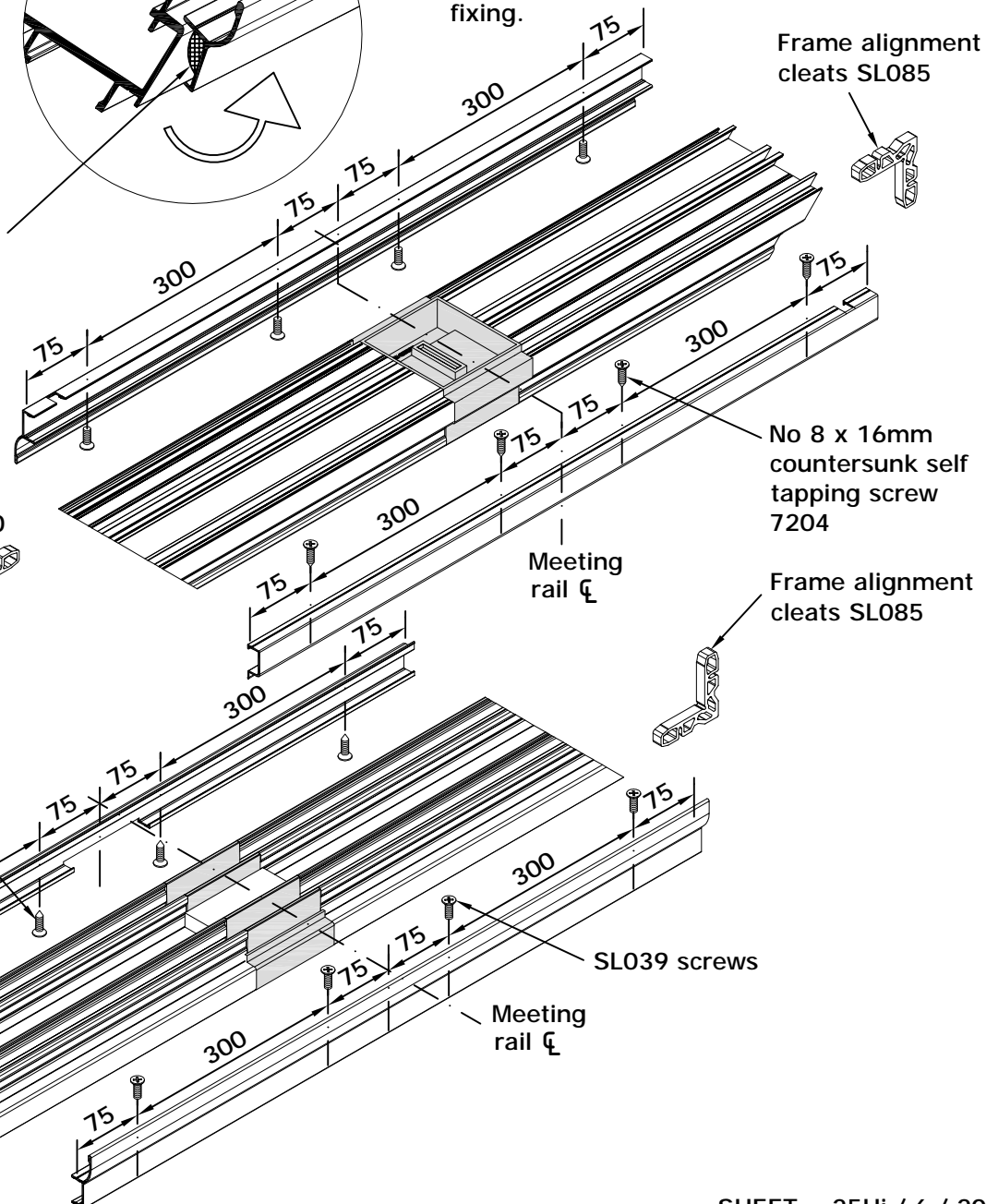
SL039 No 8 x 3/8" countersunk truncated  
type B screws to be countersunk and  
silicone sealed at cill to ensure watertight  
fixing.

\* If using SL015015 jamb extension, shorter lengths of SL005 and SL006 (used at jamb extension track) to be off-set away from the jamb extension by 40mm and 42.5mm respectively from the outer frame centre line.



Apply sealant prior to locating SL006 cill cover, and rotate into place.

Prior to fitting SL005 and SL006 cover, screw fix frame alignment cleats SL085 into small cleat chambers in assembled head and cill outer frame through pre-punched 6mm Ø holes using No 10 x 12mm countersunk screws.



Not to Scale

# Corner Assembly Detail

## Outer Frame

IMPORTANT: PLEASE READ THESE NOTES BEFORE CORNER ASSEMBLY.

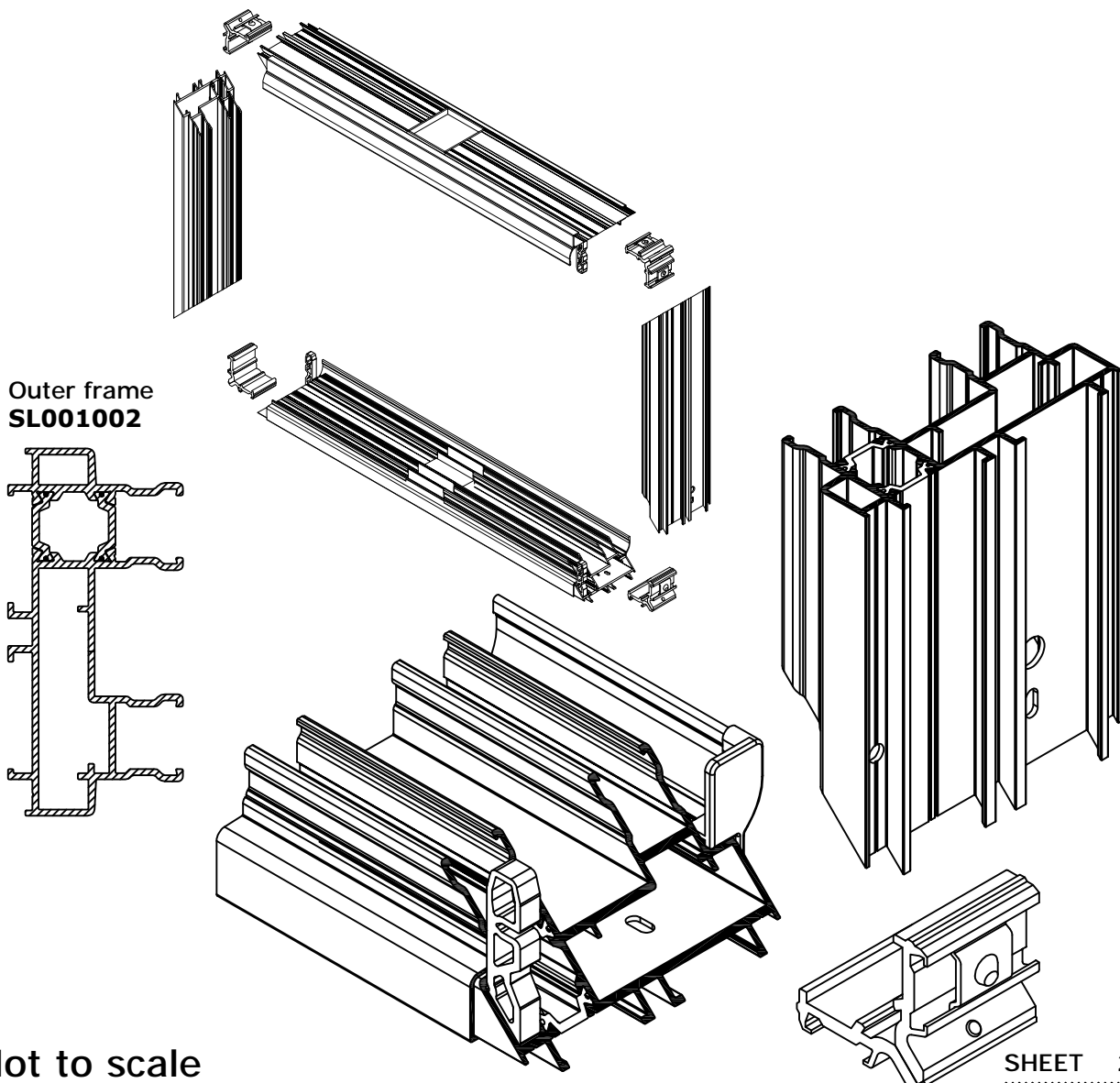
METAL TECHNOLOGY RECOMMEND THE USE OF SILICONE TO ENSURE THE SEALING OF CORNER JOINTS. PARTICULAR ATTENTION SHOULD BE PAID TO THE SEALING OF THE CORNER CLEATS TO THE PROFILE.

1. Prior to joining outer frame corners fabricator must assemble head and cill outer frame profiles using drainage block from SL058 or SL059 interlock kits. Ensure ends of cill outer frame profile are sealed using SL099 foam filler, frame alignment cleats SL085 are fixed to head and cill, and SL005/SL006 covers are fitted.
2. Before applying silicone, ensure all surfaces to be sealed are free from grease or dust. Clean all aluminium mating surfaces with MT60 surface cleaner. Fabricator must ensure MT60 surface cleaner is fully compatible with surface finish on a project-by-project basis.
3. Locate and silicone seal SL069 drainage channel end caps onto SL006 extended cover at head and cill.
4. Apply silicone to the mating surfaces of the mitre cut aluminium and thermal break profiles. Silicone need only be applied to one side of the mitred joint.
5. Insert SL086 mechanical cleats and push sections together. Ensure mitred joint is aligned and true.
6. Secure corners by tightening machine screw in mechanical cleat SL086 using 4mm allen key.
7. Secure SL085 alignment cleat to jambs using No 10 x 12mm countersunk screws through uncountersunk 6mm Ø hole in small cleat chamber.
8. Wipe away any excess silicone from the mitred joint using MT60 surface cleaner. Ensure surfaces are clear of silicone.
9. Seal access holes and slots for cleats with silicone sealant.
10. Check the mitre is tight on both sides and that there is no movement.
11. For larger doors fabricators may wish to assemble outer frame on site for ease of transport.



## System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR



Not to scale

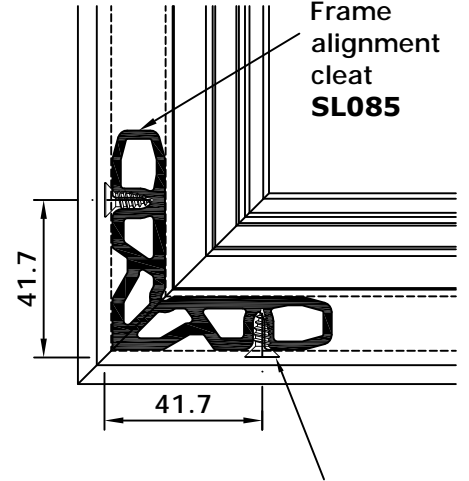
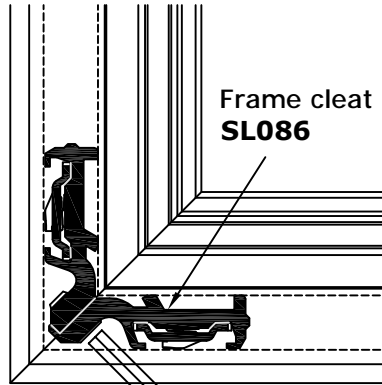
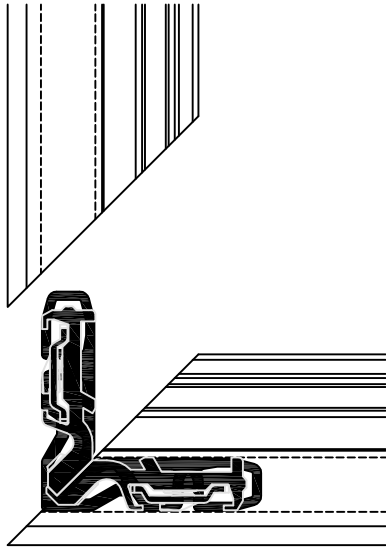
# Corner Assembly Detail

## Outer Frame



## System 25 Hi/Hi+

.....  
 SLIDING / LIFT AND  
 SLIDE DOOR  
 .....

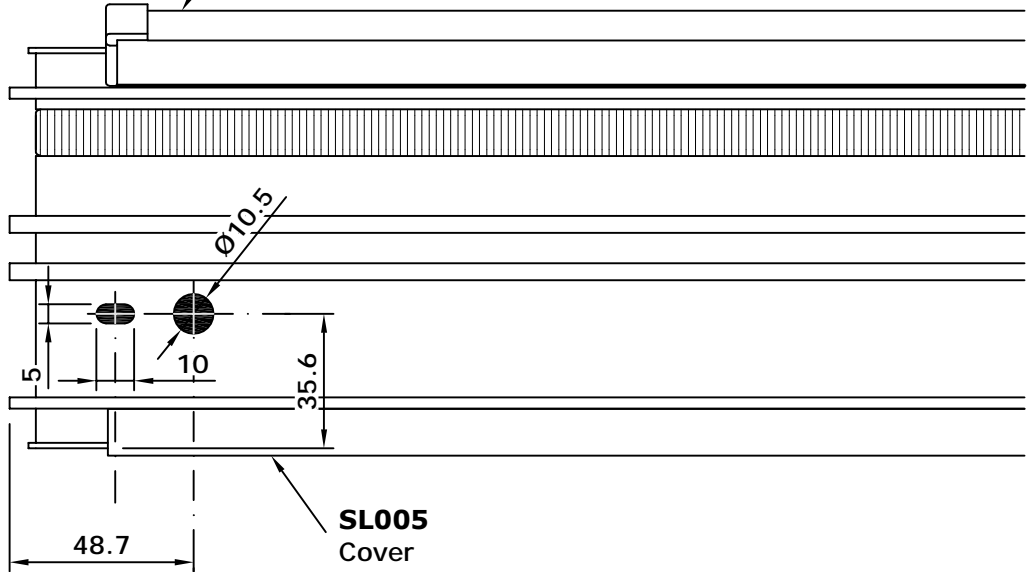
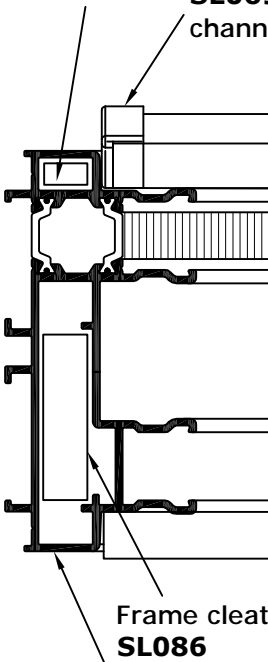


Frame alignment cleat  
**SL085**

**SL069** Drainage  
 channel end cap

**SL006**  
 Extended cover

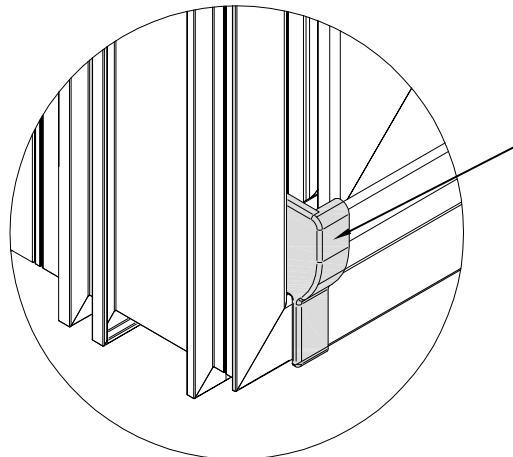
2 No 10 x 12mm  
 countersunk screws  
 per corner



**SL001002**  
 Outer frame

Frame cleat  
**SL086**

**SL005**  
 Cover



Drainage channel  
 end caps **SL069**  
 must be fitted  
 before rail is  
 located on outer  
 frame

Not to scale

# SL015015 Jamb Extension Assembly



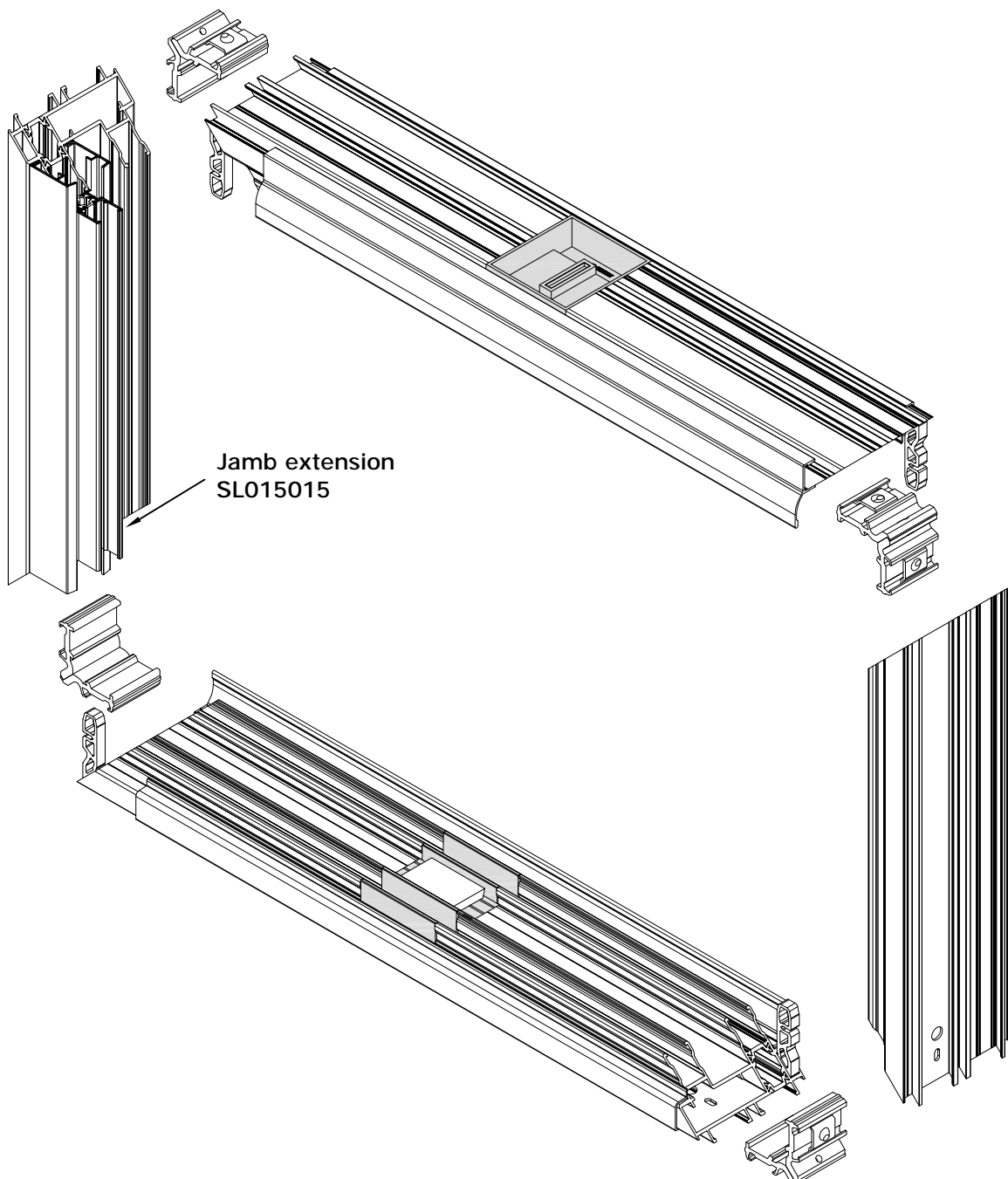
## System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR

IMPORTANT: PLEASE READ THESE NOTES BEFORE CORNER ASSEMBLY.

METAL TECHNOLOGY RECOMMEND THE USE OF SILICONE TO ENSURE THE SEALING OF CORNER JOINTS.

1. Prior to joining corners run bead of sealant along perimeter interface of outer frame with SL015015 jamb extension, as indicated on "Outer Frame Prep Details for SL015015 Jamb Extension" sheet.
2. Locate SL015015 jamb extension centrally onto jamb track.
3. Assemble and join outer frame corners in accordance with "Corner Assembly Detail" sheets.
4. Using JIG25007 drill 3.2mm Ø pilot holes through outer frame into SL015015 jamb extension, as indicated on "Outer Frame Prep Details for SL015015 Jamb Extension" sheet.
5. Remove jig and drill outer holes in outer frame to 4.5mm Ø clearance hole.
6. Secure SL015015 jamb extension to outer frame using No 8 x 38mm pan head self tapping screws 7235.



Not to Scale

SHEET 25Hi / 6 / 50

rev 12

21/10/13

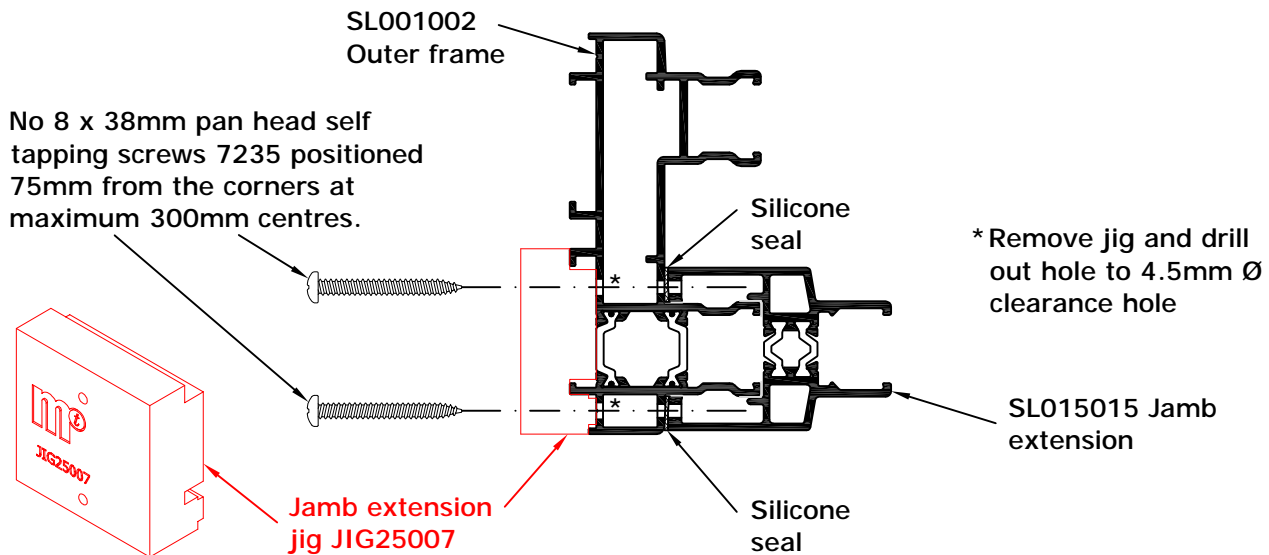
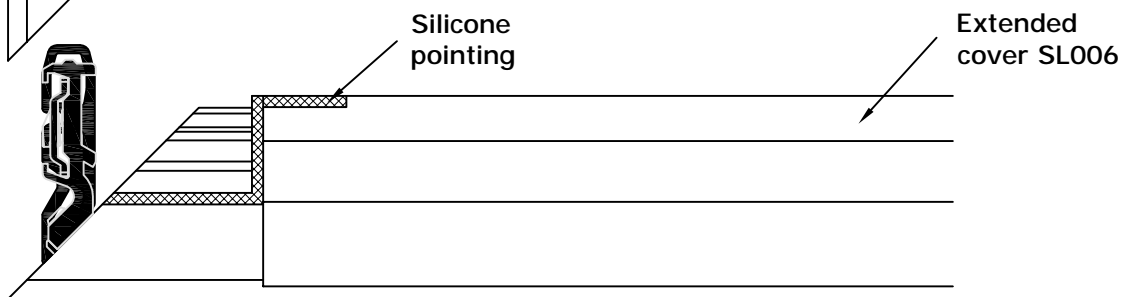
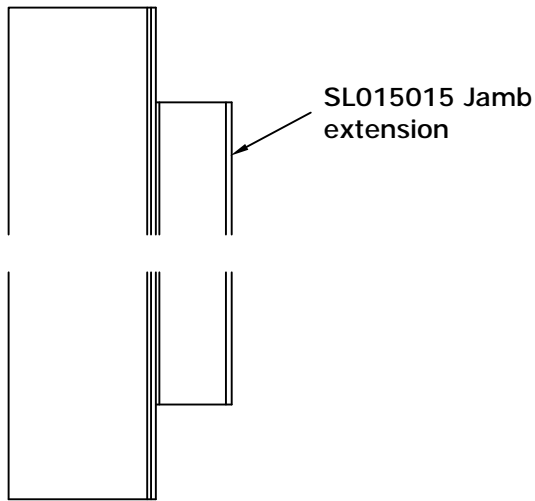
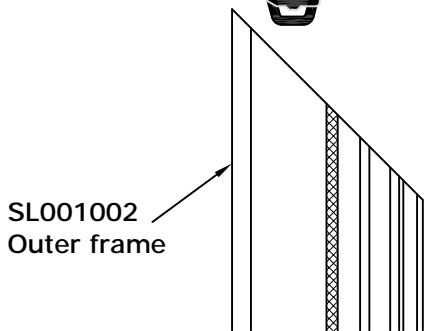
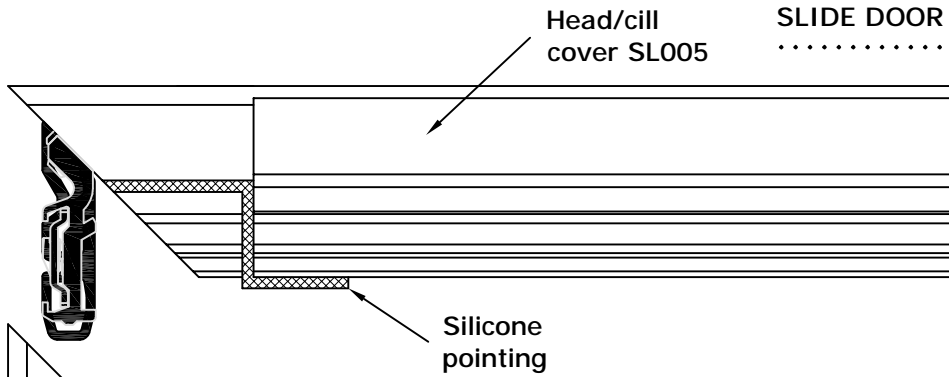
# Outer Frame Prep Details for SL015015 Jamb Extension



**System 25 Hi/Hi+**

SLIDING / LIFT AND SLIDE DOOR

.....



Scale 1:2

SHEET 25Hi / 6 / 60

rev 9 21/10/13

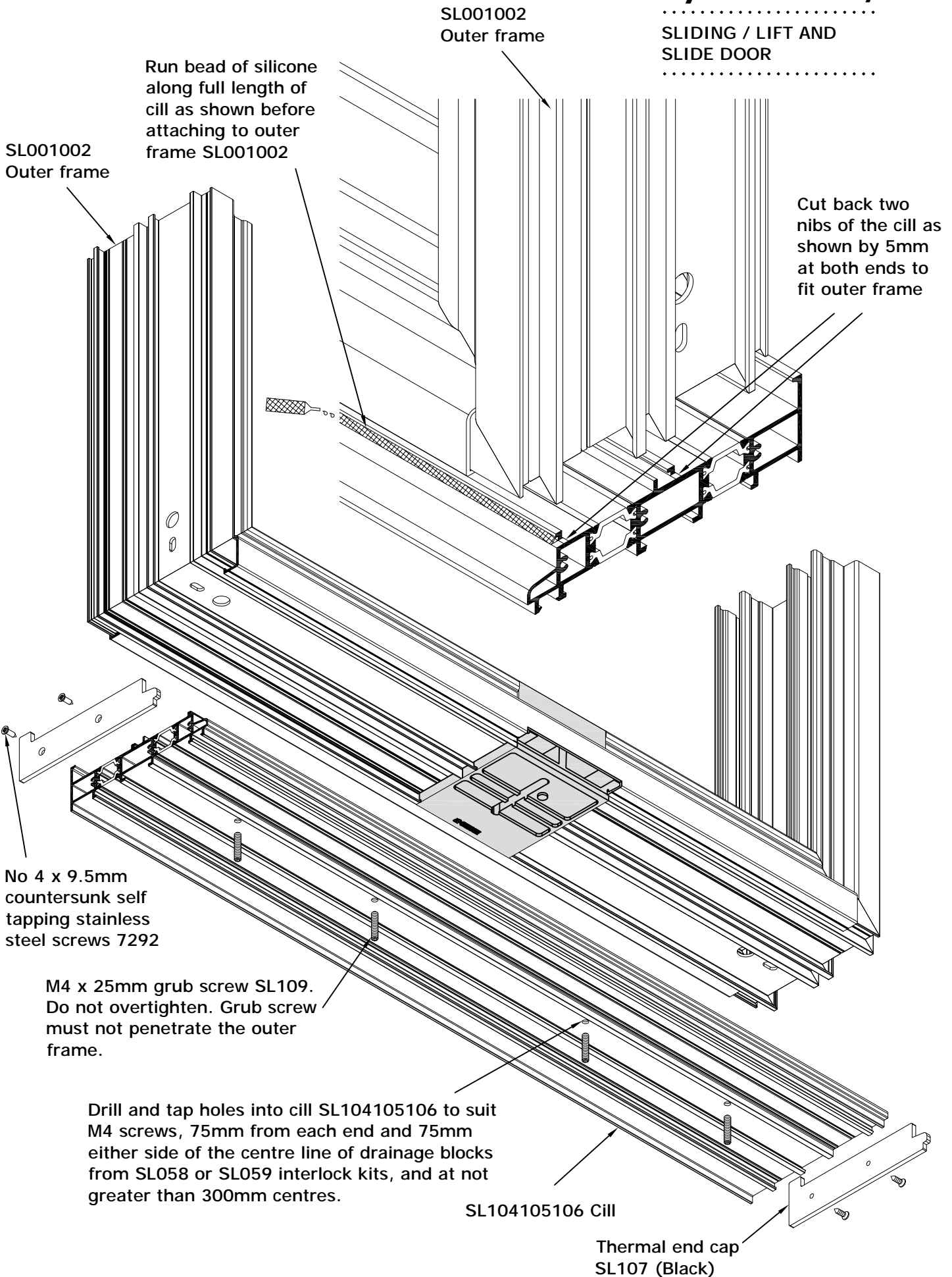


# SL104105106 Sub-Cill Assembly



## System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR



**Not to Scale**

SHEET 25Hi / 6 / 70  
rev 10 18/02/14

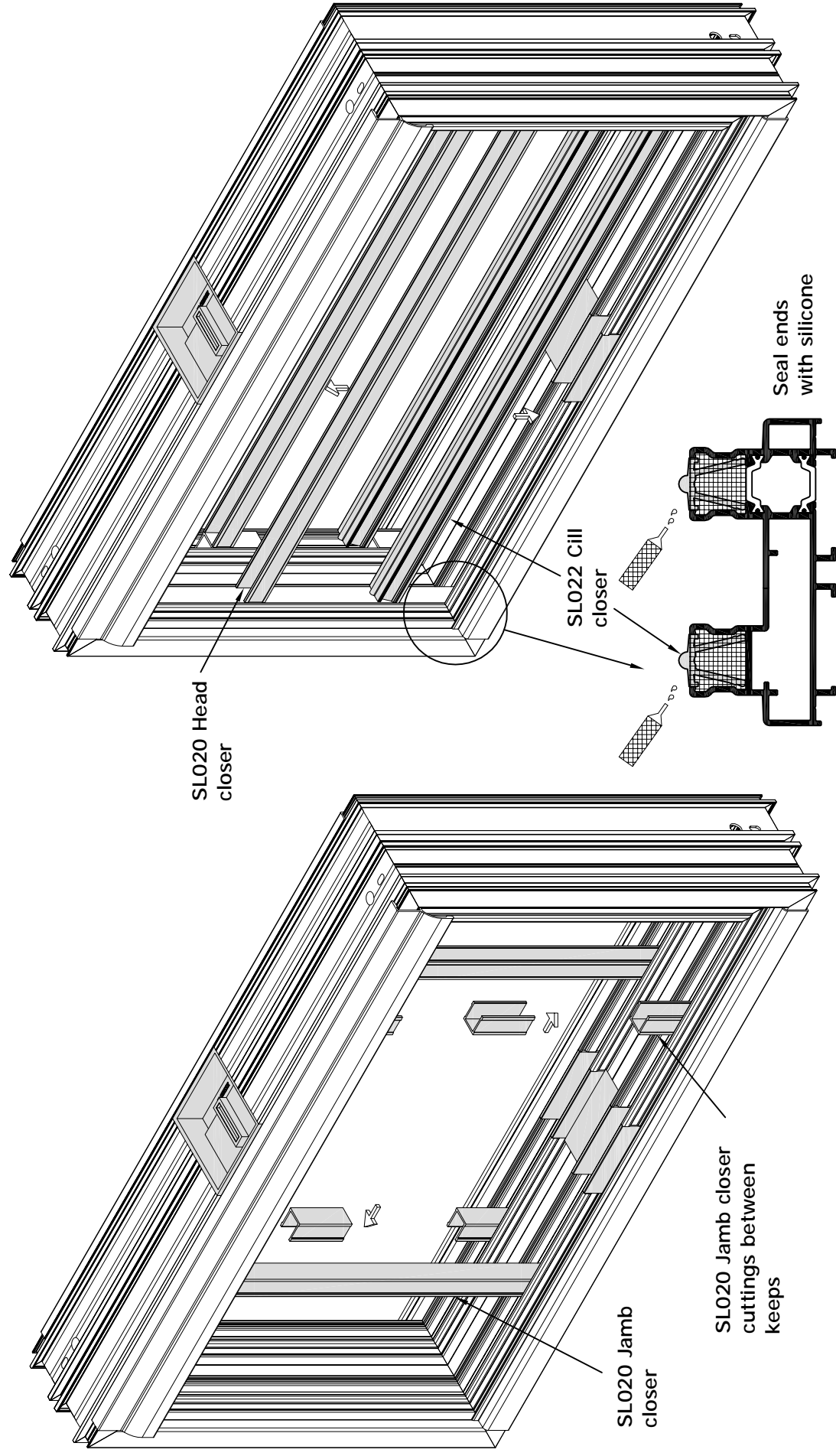
# Head / Jamb and Cill Closer Application



## System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR

1. Fit jamb closer cuttings as per sheet "Cill, Head and Jamb Closer Sizes" to locking jambs of outer frame. Positioning of jamb closers should also correctly locate keep positions.
2. Fit jamb closers SL020 into remaining tracks within outer frame.
3. Fit full length SL020 closers to head as shown.
4. Apply silicone sealant at mitred corners of cill and fit full length SL022 cill closers to lower tracks, as shown.



**Not to Scale**

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# Sash Assembly



## System 25 Hi/Hi+

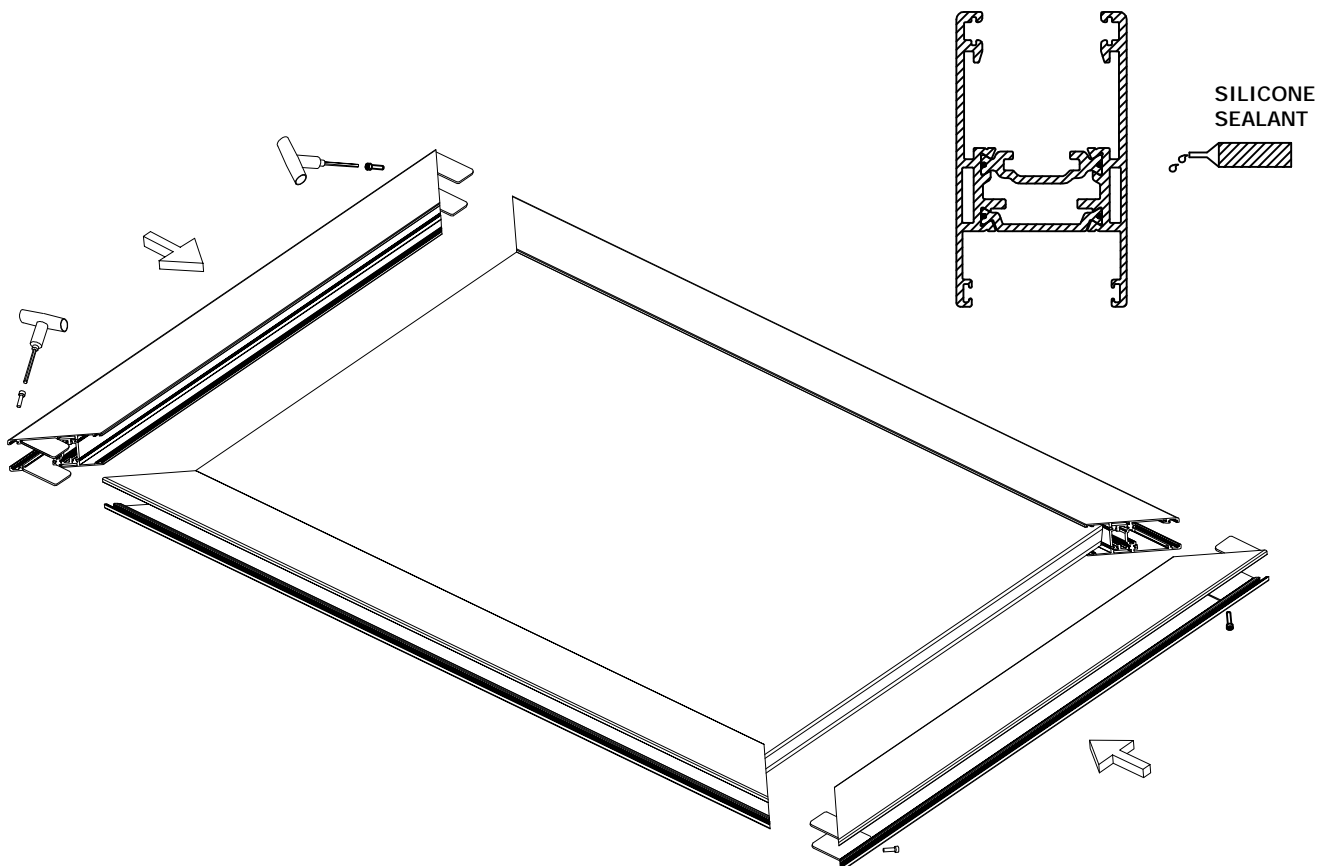
SLIDING / LIFT AND  
SLIDE DOOR

Fabricator to be aware that the fixed and moving sashes must be assembled around the glass unit. Before commencing assembly fabricator must determine:

1. System required - Lift and Slide or Sliding.
2. Moving sash or fixed sash.
3. Locking side, head, cill, locking/fixed stiles, meeting stile detail, head and cill profiles.

Once the above has been established the following steps must be undertaken in the following order:

1. Insert gaskets/woolpile. Refer to "Sash Assembly - Woolpile/Gasket Application" sheets.
2. Insert SL040 adjustable glass stops. Refer to "Sash Assembly - Adjustable Glass Stop SL040" sheet.
3. Insert SL094 glazing supports. Refer to "Sash Assembly - Glazing/Support Block SL094" sheet.
4. Insert SL087/SL088 corner braces. Refer to "Sash Assembly - SL087 and SL088 Corner Chevrons" sheet.
5. Insert and secure corner cleat components into profile. See "Sash Assembly - SL084 Corner Cleat" sheet.
6. Before applying sealant to mating surfaces of mitre joint, ensure all surfaces are free from grease or dust. Clean all aluminium mating surfaces with MT60 surface cleaner. Fabricator must ensure MT60 surface cleaner is fully compatible with surface finish on a project-by-project basis.
7. Position assembled sash profiles around double glazed units and secure mechanical cleats, using allen key into socket head machine screw supplied with cleat.
8. Wipe away any excess sealant from the mitred joint using MT60 surface cleaner.
9. Check the mitre is tight on both sides and that there is no movement.
10. Tighten SL040 glass stops into position. Refer to "Sash Assembly - Adjustable Glass Stop SL040" sheet for final adjustment details.
11. Insert wedge gasket to retain double glaze unit. Refer to "Glazing Requirements" sheet for gasket options.
12. After wedge gasket has been inserted doors should only be stored or transported in their upright position. Failure to do so could result in cracked or damaged units.



Not to Scale

SHEET 25Hi / 6 / 90  
rev 11 21/10/13

# Sash Assembly - Woolpile/Gasket

## Application

**System 25 Hi/Hi+**

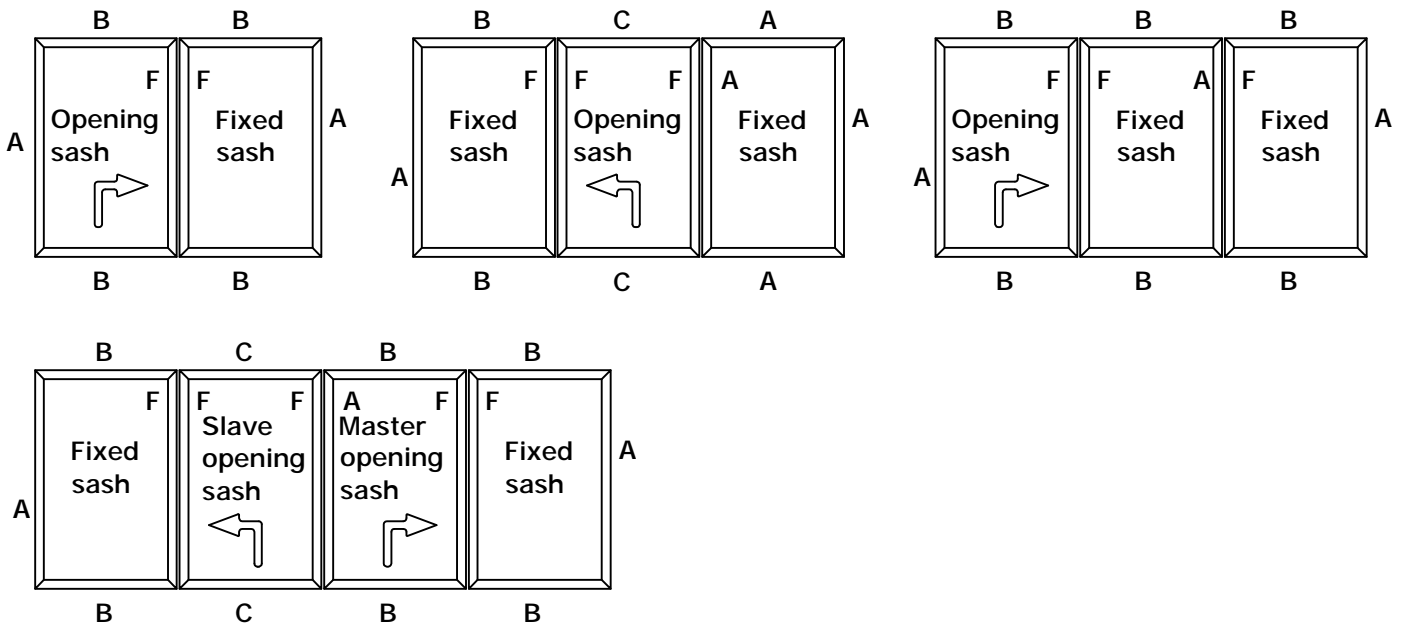
SLIDING / LIFT AND  
SLIDE DOOR

This sheet must be read in conjunction with the following sheet.

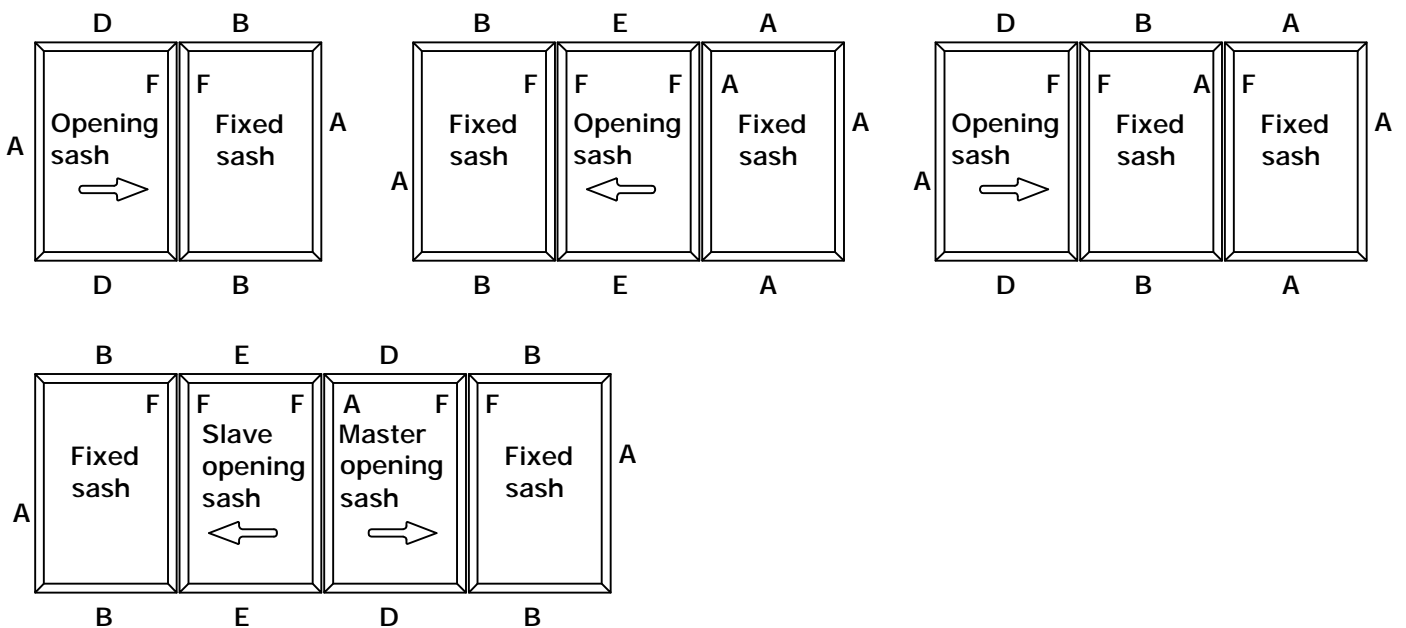
Prior to assembling door sash woolpile/bubble seals to be cut and inserted into SL003003 sash profile as indicated below.

Gaskets must not be stretched and should be cut 1-3% oversize as required to accommodate shrinkage. When oversizing the gasket to accommodate any anticipated potential shrinkage, fabricators should ensure gasket is not installed so that it remains wrinkled. While it is preferable that gaskets be installed too long, rather than too short, excessive wrinkles or distortion should be avoided once the gasket has had an opportunity to settle into its natural state within its final intended environment.

### LIFT AND SLIDE



### SLIDING



Not to Scale

SHEET 25Hi / 6 / 100

rev 7

21/10/13

# Sash Assembly - Woolpile/Gasket


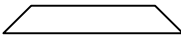

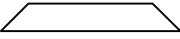

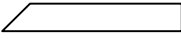

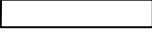




## Application

**System 25 Hi/Hi+**

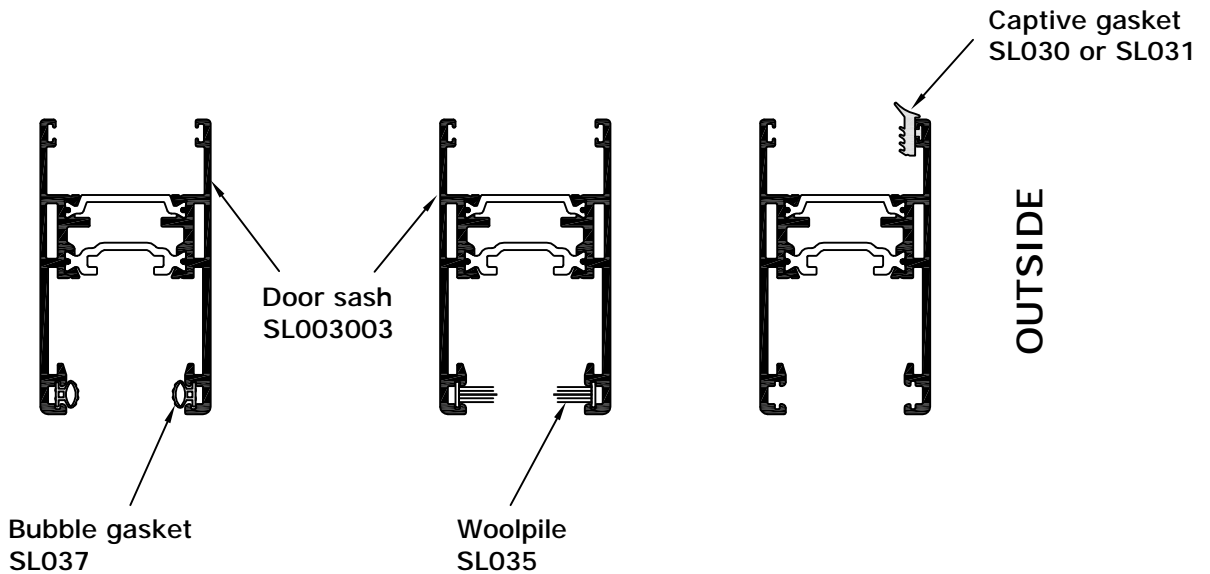
.....  
 SLIDING / LIFT AND  
 SLIDE DOOR  
 .....

cont...

For selection of captive gasket refer to "Glazing Requirements" sheet:

	SL030 or SL031 captive gasket  mitre/mitre  applied to external side of all fixed and opening sashes
A	SL037 bubble gasket  mitre/mitre 
B	SL037 bubble gasket  mitre/square  rebated meeting stile end
C	SL037 bubble gasket  square/square 
D	SL035 woolpile  mitre/square  rebated meeting stile end
E	SL035 woolpile  square/square 
F	No woolpile or bubble seal into SL003003 sash profile*

\* Refer to "Sash Assembly - SL012 and SL021 Meeting Stile Fixing Details" sheets for details of SL035 and SL037 into SL021 meeting stile locking piece



Not to Scale

SHEET 25Hi / 6 / 110

rev 11 19/02/14

# Sash Assembly - Adjustable Glass Stop SL040

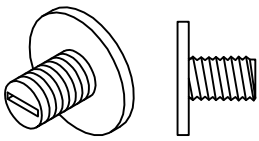
**System 25 Hi/Hi+**

.....  
SLIDING / LIFT AND  
SLIDE DOOR  
.....

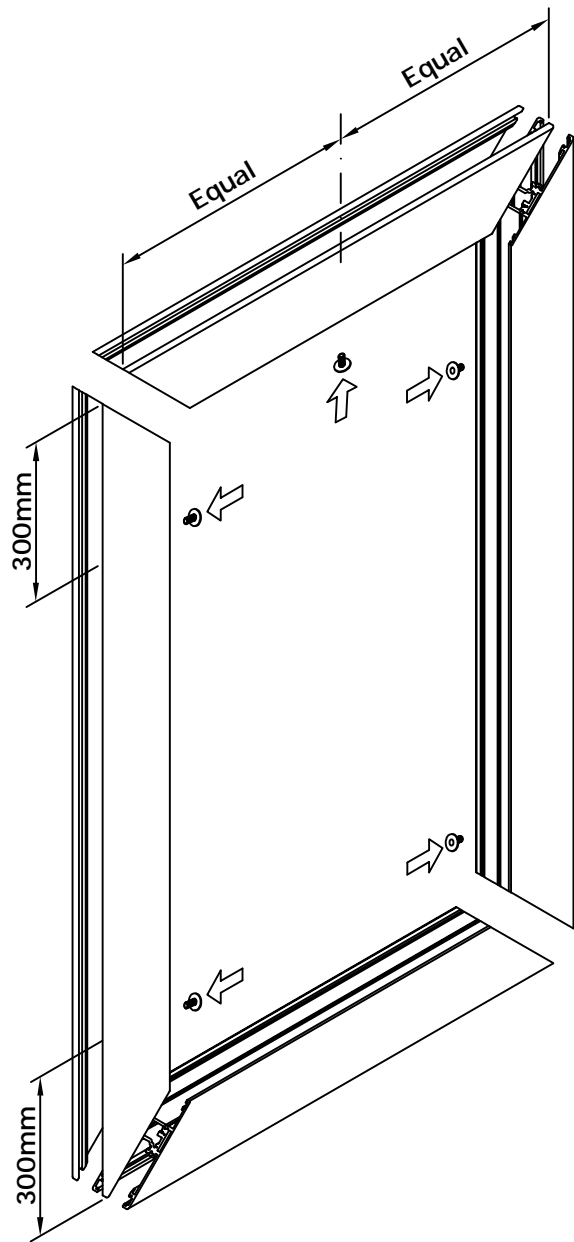
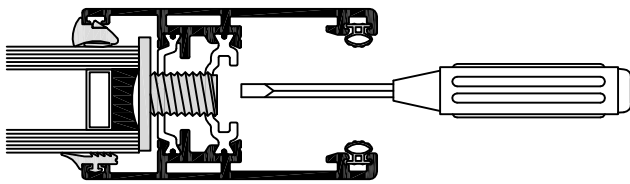
Adjustable glass stops to be fitted to both fixed and opening sashes.

Adjustable glass stop SL040 to be screwed into position before sash is assembled around glazing unit. Glass stops to be inserted as shown and screwed back until disk touches polyamide strip. When sash has been assembled and corners secured, tighten glass stop until touching glazing unit, ensuring unit is centralised. Threaded ends of glass stop must not protrude beyond the outer polyamide strips, as this may interfere with the operation of the link rods/gearing.

The SL040 adjustable glass stop is not designed to take the full weight of a glazed sash. The top glass stop is fitted to provide additional support when sashes are being transported. Doors should be stored and transported in their upright position. Toughened glass is recommended for use in System 25 doors.



Adjustable glass stop SL040  
(5 no glass stops per sash).



**Not to Scale**

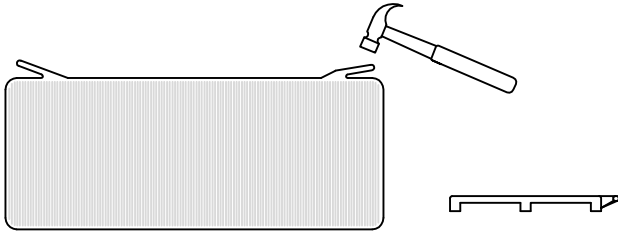
# Sash Assembly - Glazing Support Block SL094



**System 25 Hi/Hi+**

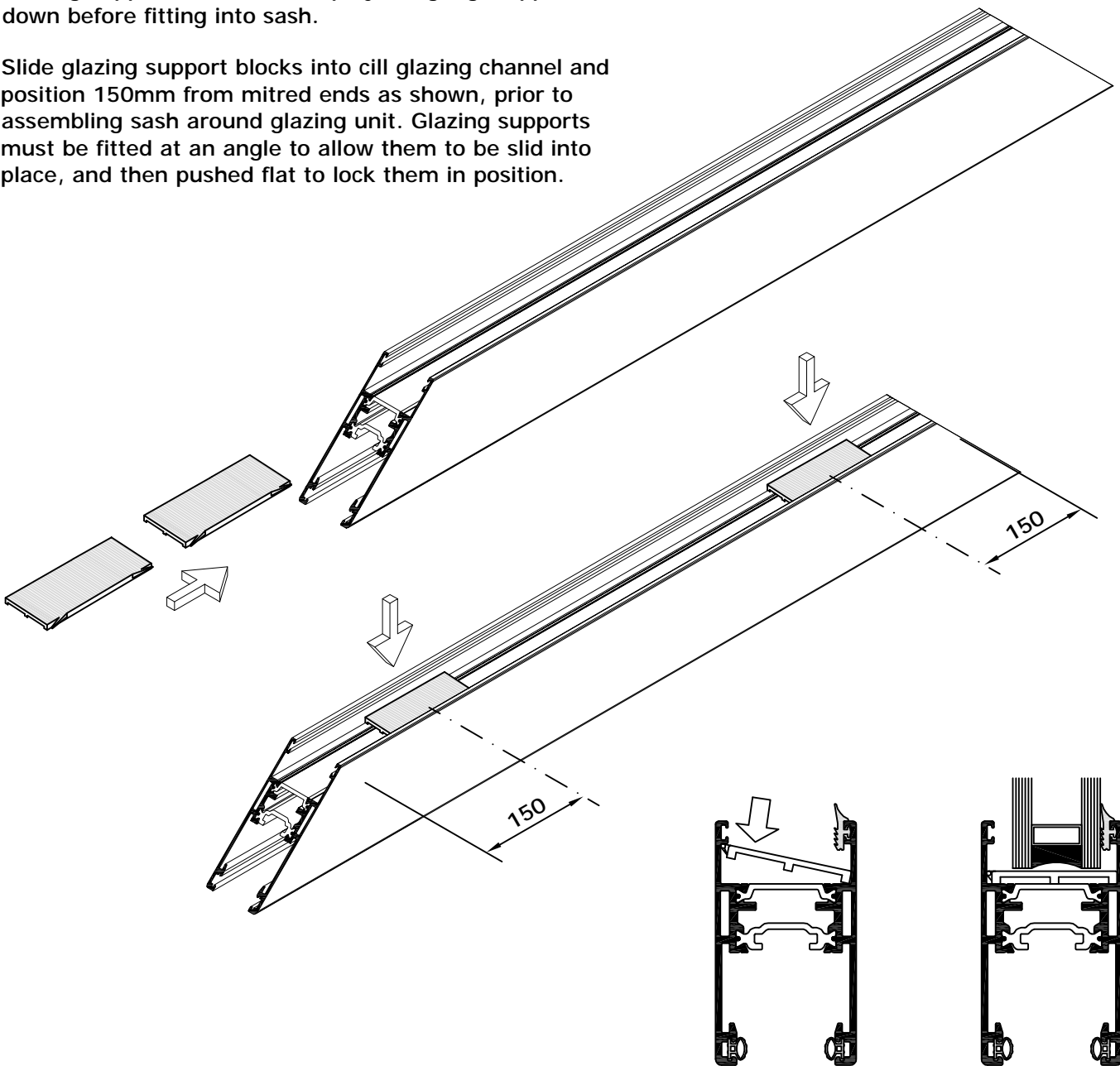
.....  
SLIDING / LIFT AND  
SLIDE DOOR  
.....

SL094 Glazing support blocks to be fitted to both fixed and opening sashes.



Glazing support block to have projecting legs tapped down before fitting into sash.

Slide glazing support blocks into cill glazing channel and position 150mm from mitred ends as shown, prior to assembling sash around glazing unit. Glazing supports must be fitted at an angle to allow them to be slid into place, and then pushed flat to lock them in position.



**Not to Scale**

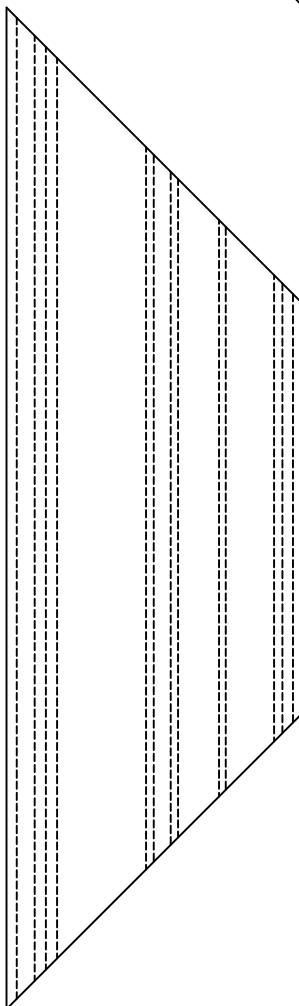
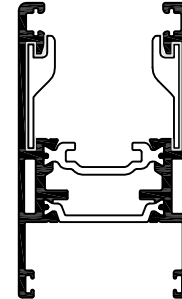
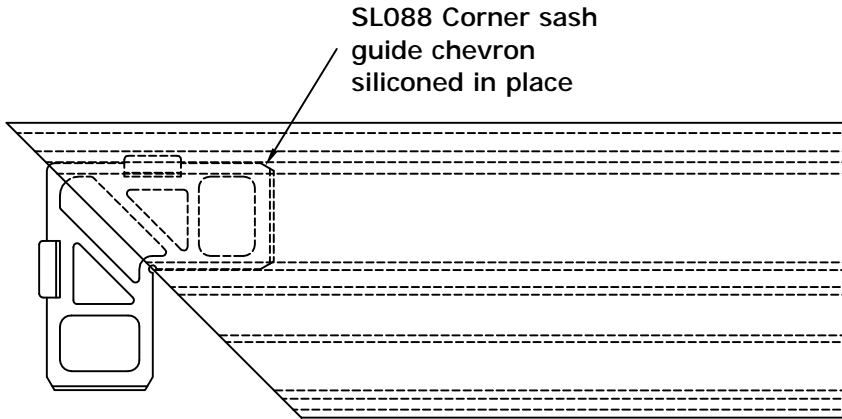
# Sash Assembly - SL087 and SL088 Corner Chevrons



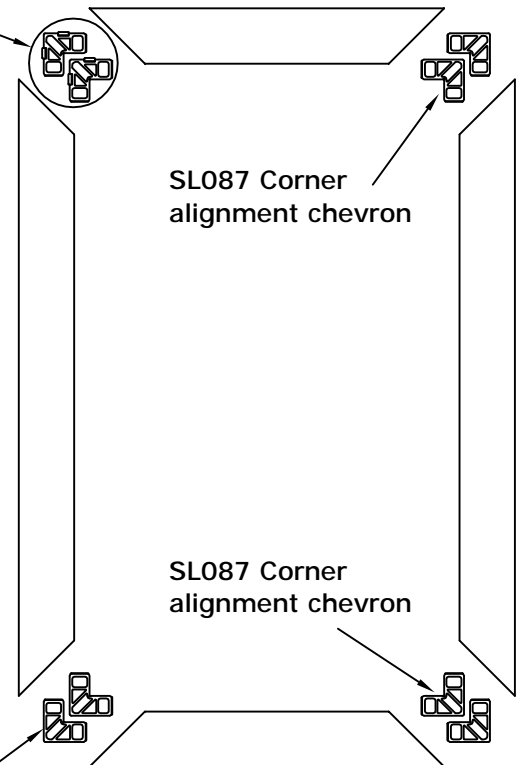
## System 25 Hi/Hi+

SLIDING / LIFT AND SLIDE DOOR

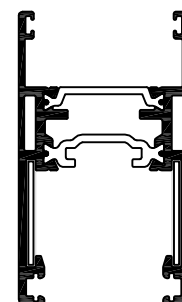
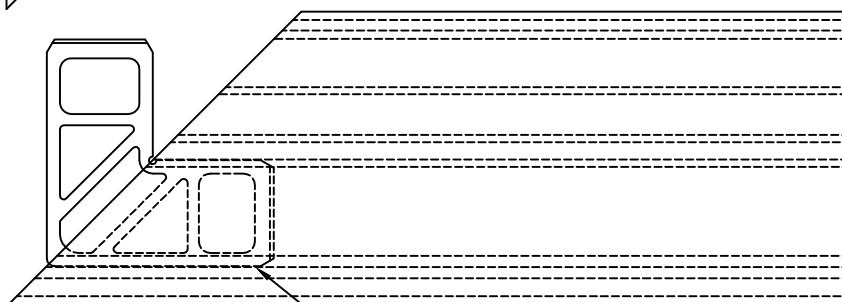
Apply silicone to recessed surface of chevrons. Insert chevrons into head and cill sash profiles so that silicone seals/bonds against wall of sash.



In lift and slide applications only, use 2 x SL088 corner sash guide chevrons to the top corner of the master leaf locking jamb. In all other fixed and sliding sash applications us 2 x SL087 corner alignment chevrons.



SL087 Corner alignment chevron



Not to Scale



# Sash Assembly - SL084 Corner Cleat



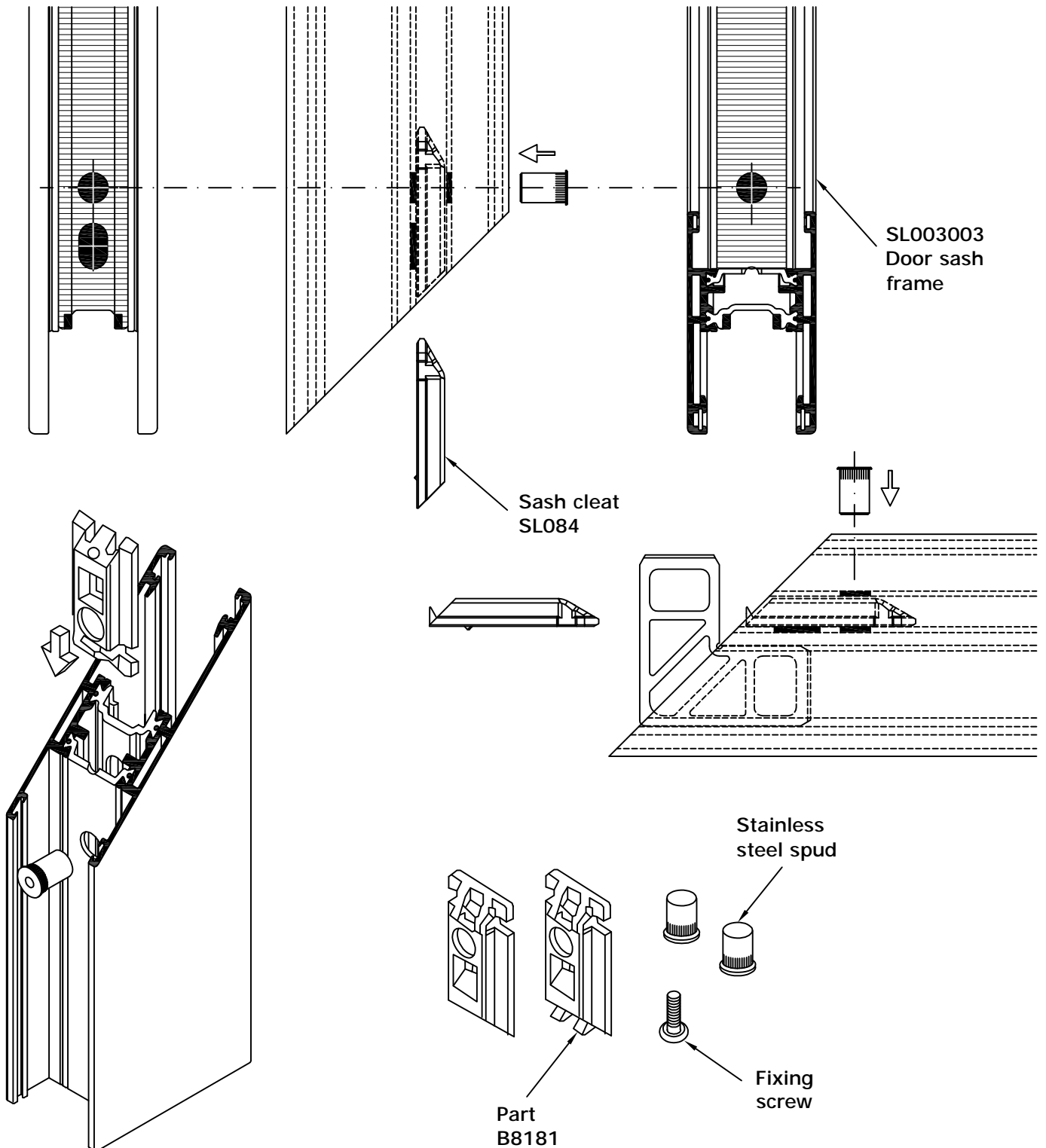
## System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR

Refer also to "Sash Prep Details" sheet for details of sash prep to receive mechanical cleat.

Push cast component of mechanical cleat into ends of profiles, making sure that part B8181 (which receives the head of the fixing screw) is inserted into the head /cill profile.

Secure cast components into profile by driving stainless steel spuds into hole in castings through polyamide strip. Ensure serrations on spud penetrate polyamide strip, and underside of spud head is hard against thermal break.



Not to Scale

# Glazing Requirements



## System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR

Cut CA26 or CA27 gasket into four individual lengths with mitred corners and fit into section grooves. Seal mitred gasket corners using HR50328A.

Gaskets must not be stretched and should be cut 1-3% oversize as required to accommodate shrinkage. When oversizing the gasket to accommodate any anticipated potential shrinkage, fabricators should ensure gasket is not installed so that it remains wrinkled. While it is preferable that gaskets be installed too long, rather than too short, excessive wrinkles or distortion should be avoided once the gasket has had an opportunity to settle into its natural state within its final intended environment.

Where gaskets are supplied in a bag, the bag should be resealed to prevent drying out. Should gaskets become dry and difficult to apply, they can be re-lubricated using 7400 silicone spray as they are inserted into the window frames.

Wedge gasket CA26 or CA27 (Inside)

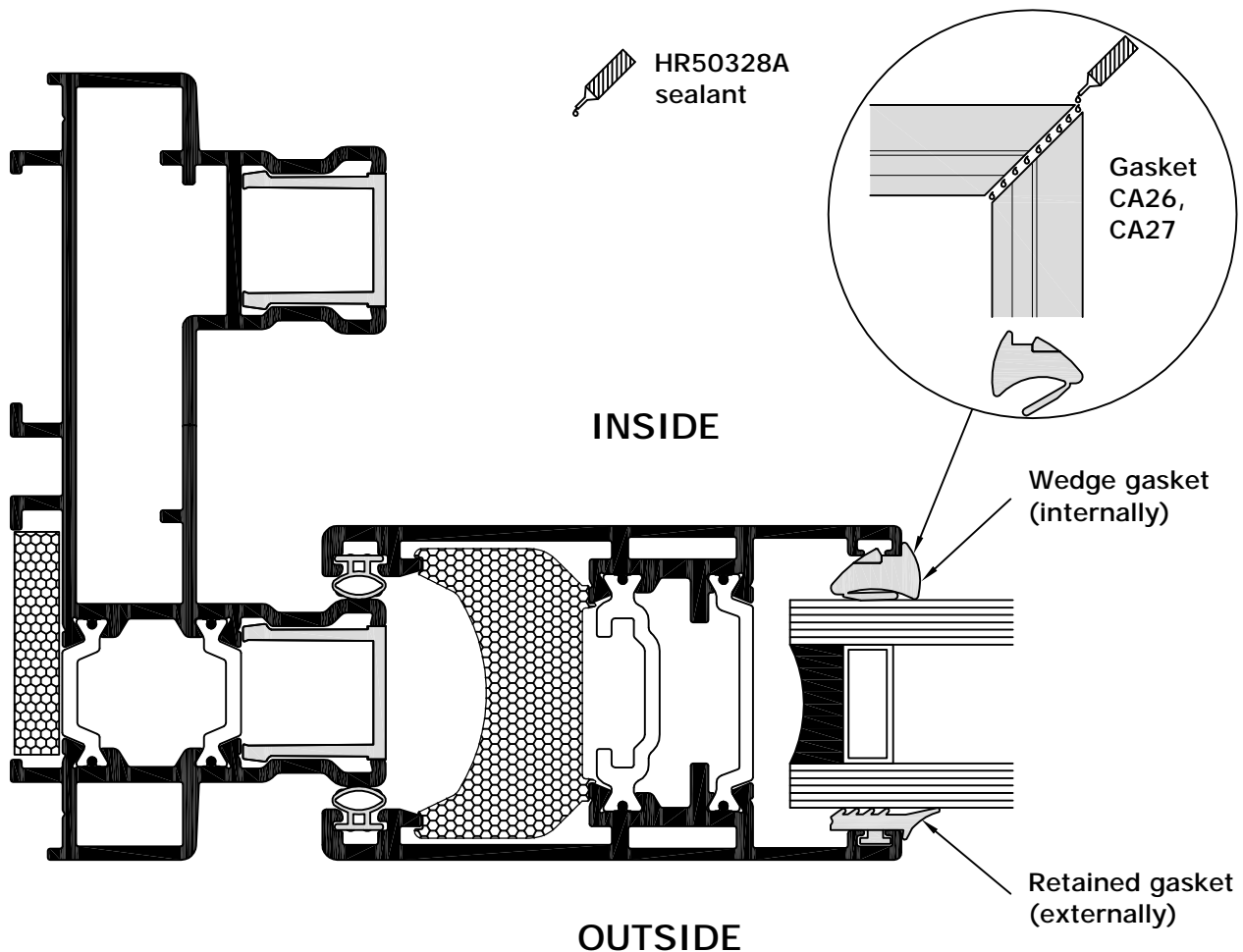


Gasket CA26

Gasket CA27

GLAZING OPTIONS		
Thickness	Internal wedge gasket	External retained gasket
28mm	CA27	SL030
30mm	CA26	SL030
32mm	CA26	SL031

These unit sizes are based on nominal sizes. Where glazing unit tolerance is at its extreme ( $\pm 0.5\text{mm}$ ) or where alternative glass thicknesses are being considered the gasket combination should be physically checked on a sample sash.



Scale 1:1

SHEET 25Hi / 6 / 160

rev 3

19/02/14

# Sash Assembly - SL012 and SL021 Meeting Stile Fixing Details



## System 25 Hi/Hi+

.....  
SLIDING / LIFT AND  
SLIDE DOOR  
.....

This method statement must be read in conjunction with the following sheet.

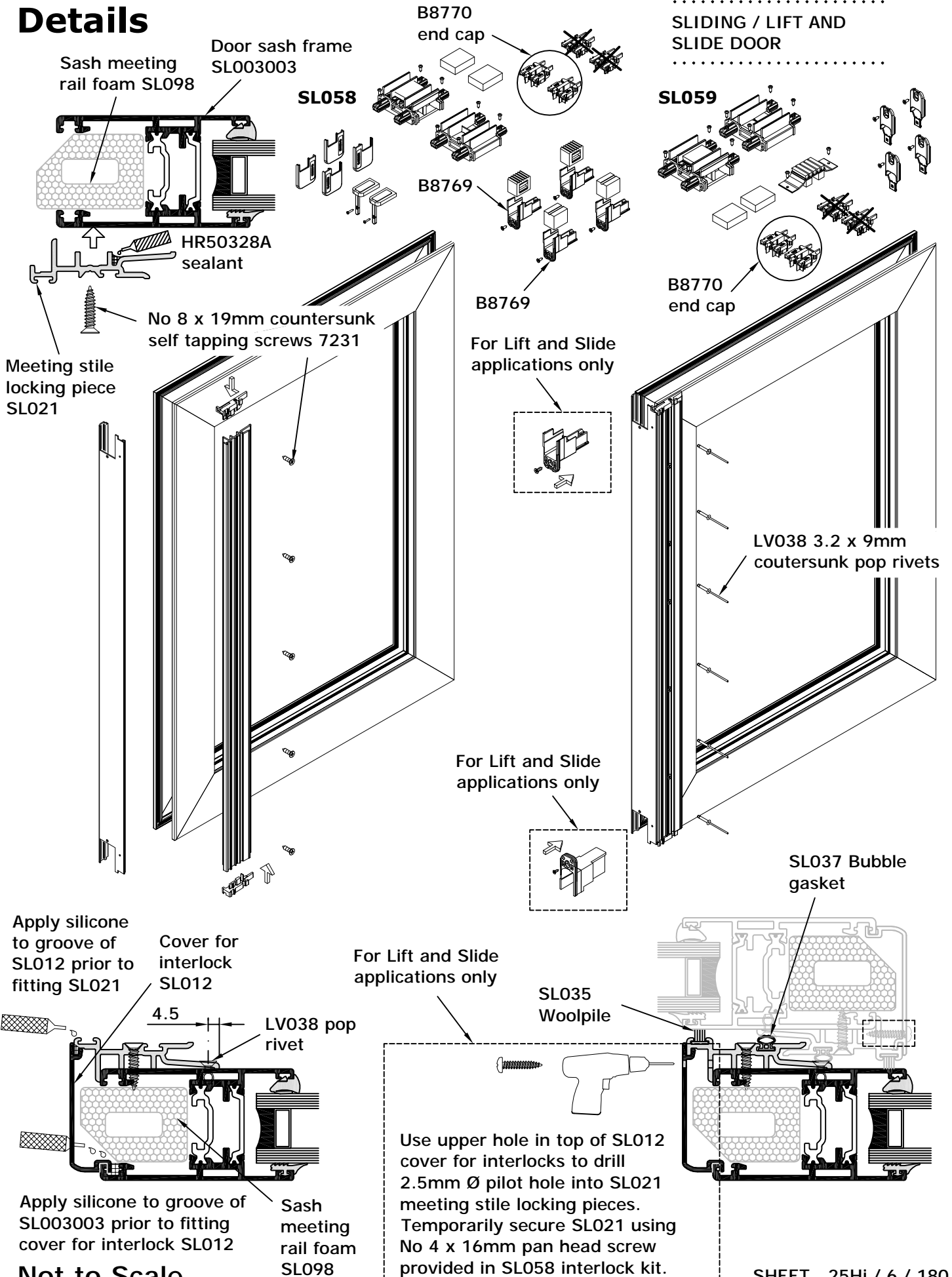
1. Identify meeting rail stiles of sashes, and moving / fixed sashes. SL021 meeting stile locking piece fixes to external surface of sliding sash and internal surface of fixed sash at jamb meeting rails.
2. If using SL098 sash meeting rail foam (for Hi+ applications only) position foam within the sash profile as indicated. Refer to "Interlock Thermal Foam" sheet for further details.
3. Apply HR50328A sealant along full length of SL021 as indicated.
4. Position SL021 meeting stile locking piece onto sash stile, orientated as indicated. Temporarily locate items B8770 A and B from SL058 interlock kit into top and bottom of SL021 meeting stile locking piece, and align with top and bottom edges of door sash.
5. Clamp SL021 meeting stile locking piece in place, and drill 3.5mm Ø pilot holes through SL021 and into SL003003 door sash 50mm from top and bottom of profile, and at not greater than 300mm centres. Use v groove in countersunk screw groove in SL021 to position screws from edge of profile.
6. Secure in place using No 8 x 19mm countersunk self-tap screws 7231.
7. Remove B8770 A and B end caps from SL021 before sealant bonds them in place.
8. Slide SL012 interlock cover into position as shown.
9. Apply HR50328A sealant to mating surfaces of B8770 A and B and re-apply end caps to ends of SL021 meeting stile locking piece.
10. Drill second set of 3.5mm Ø pilot holes to leading edge of SL021 meeting stile locking piece to facilitate fixing using LV038 pop rivets. Position fixings 4.5mm in from edge as indicated, and at intermediate centres between original fixings.
11. Slide SL035 woolpile and SL037 bubble gasket into full height of SL021 meeting stile locking piece as indicated. Bond in place using superglue.
12. In Lift and Slide applications only secure component B8769 from interlock kit SL058 onto SL012 interlock cover at top and bottom, using screw provided.

# Sash Assembly - SL012 and SL021 Meeting Stile Fixing Details



## System 25 Hi/Hi+

SLIDING / LIFT AND SLIDE DOOR



**Not to Scale**

# Sash Assembly - SL004004

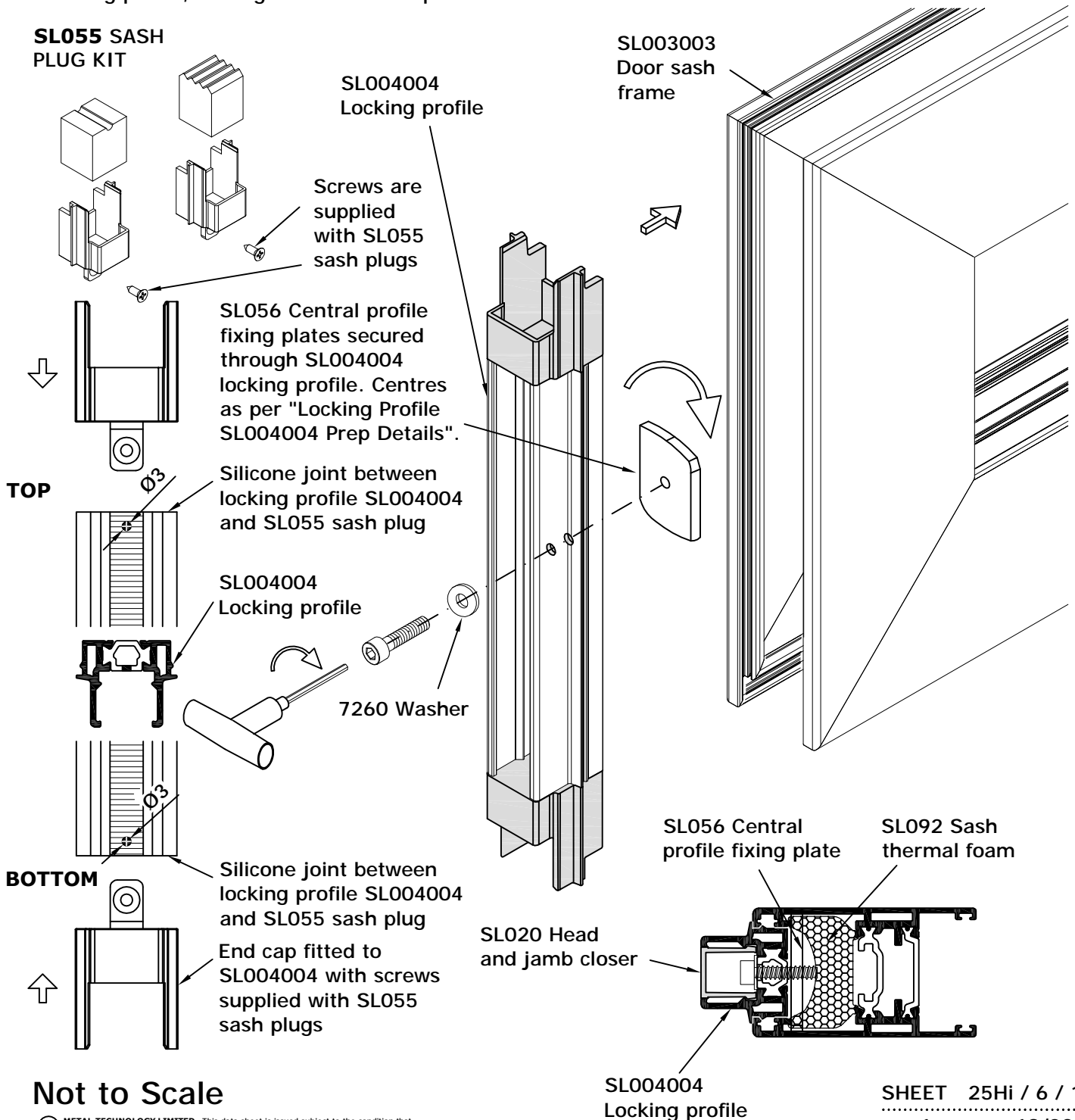
## Locking Profile Fixing Details



### System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR

1. SL004004 locking profile is secured to the stile adjacent to the master locking stile in 3 and 4 pane applications. In 4-pane applications it must be applied after the carriages, vertical locking assembly, and anti-lift kit have been installed.
2. Using screws provided, fix plastic mouldings from SL055 sash plug kits to top and bottom of SL004004 locking profile, sealing mating surfaces with silicone.
3. Loosely connect all 5 x SL056 central profile fixing plates to SL004004 locking profile, orientated as shown using the machine screws supplied, and 7260 washers as indicated.
4. Align SL056 central profile fixing plates parallel to SL004004 locking profile so that edges of washers do not project beyond edges of SL004004 locking profile.
5. If using SL092 sash thermal foam (for Hi+ applications only) insert foam for the full length of the sash profile as indicated. Refer also to relevant "Thermal Foam" sheet.
6. Offer SL004004 locking profiles into SL003003 door sash frame, centering vertically.
7. Secure in place by tightening machine screws using allen key. This rotates the SL056 central profile fixing plates, locking SL004004 into place.



Not to Scale

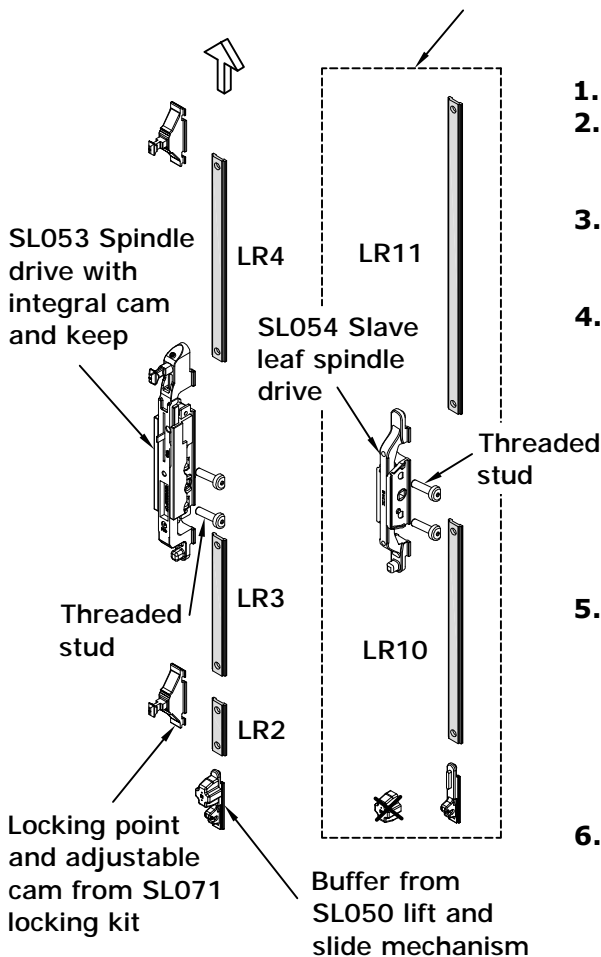
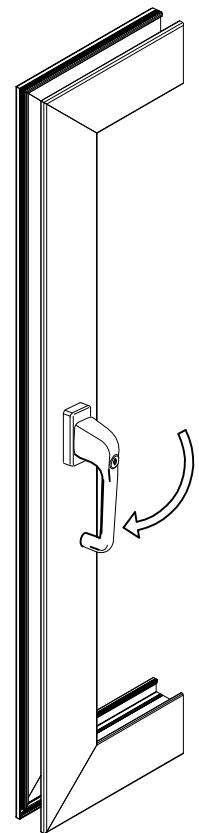
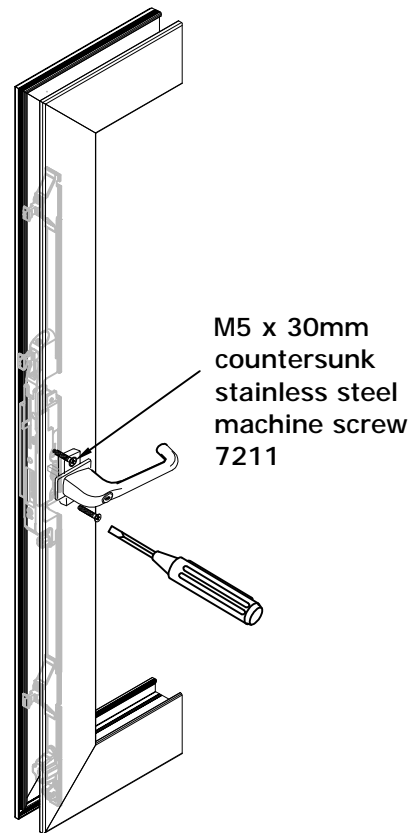
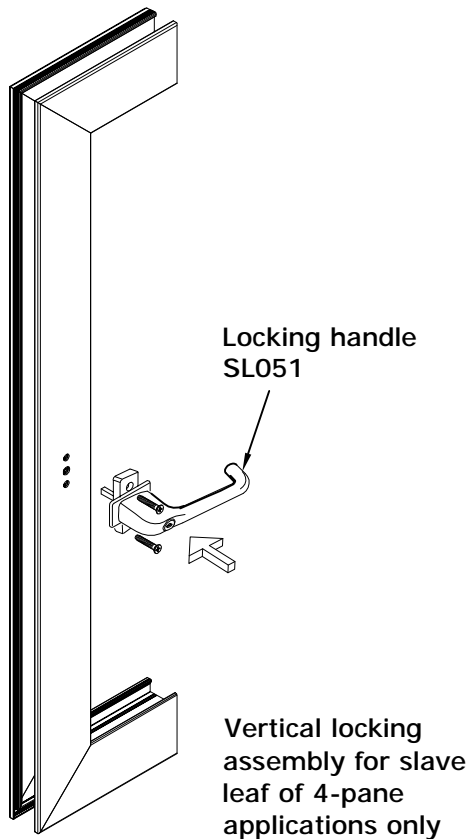
# Locking Gear Assembly to Lift and Slide Sash



**System 25 Hi/Hi+**

.....  
LIFT AND SLIDE DOOR

.....



1. Identify locking stile of moving sash.
2. Ensure sash corners have been notched 5mm x 2.5mm as shown on "Sash Prep Details" sheet, using punch tool JIG25002.
3. If using SL101E external pull handle, this must be fitted prior to fitting vertical locking assembly to ensure access to its fixings.
4. For gear assembly to lift and slide sash, the following components will be required:
  - SL050 Lift and Slide mechanism
  - SL051 Locking handle
  - SL053 Spindle drive with integral cam and keep (or SL054 spindle drive for slave leaf of 4-pane)
  - SL067 Single shock absorber and lift proof kit
  - SL071 Locking kits
  - SL023 Link rod
5. Set spindle drive to neutral position (no spindle drive cogs protruding at rear). Ensure threaded studs are located within spindle drive prior to inserting into sash profile. Head of studs to be located on same side of spindle drive as handle. Connect spindle drive, locking kits, buffer, and link rods and insert into groove in polyamide strip, from below, as indicated, to create vertical locking assembly.
6. Using 2 No M5 x 30mm countersunk stainless steel machine screws 7211, connect locking handle SL051 to threaded studs in spindle drive, ensuring lever is in horizontal position, as indicated. Secure machine screws and pull handle down into vertical position.

**Not to Scale**

SHEET 25Hi / 7 / 10

rev 7

20/08/13

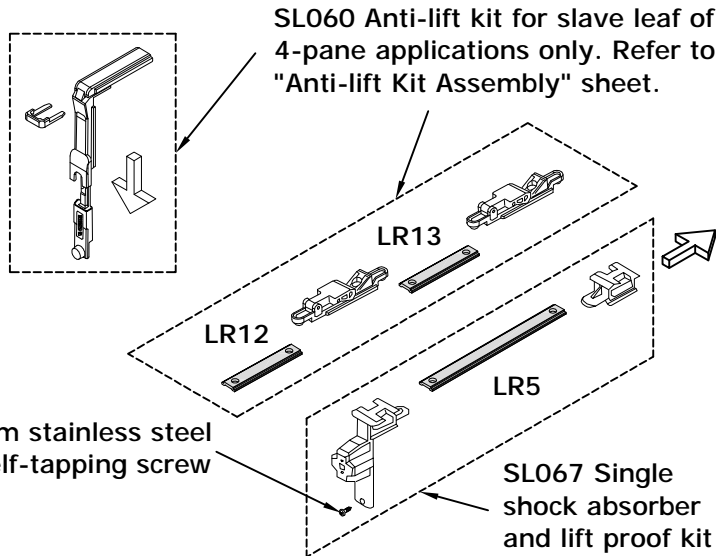
# Carriage Assembly to Lift and Slide Sash



## System 25 Hi/Hi+

.....  
LIFT AND SLIDE DOOR  
.....

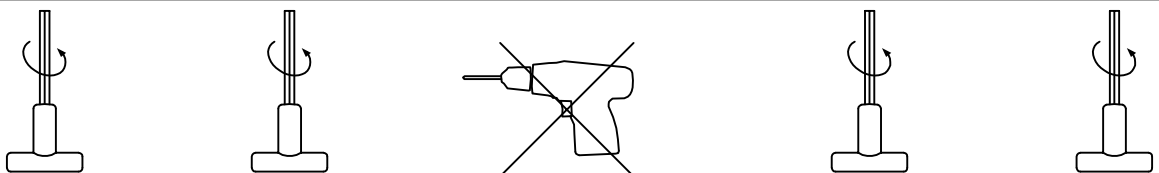
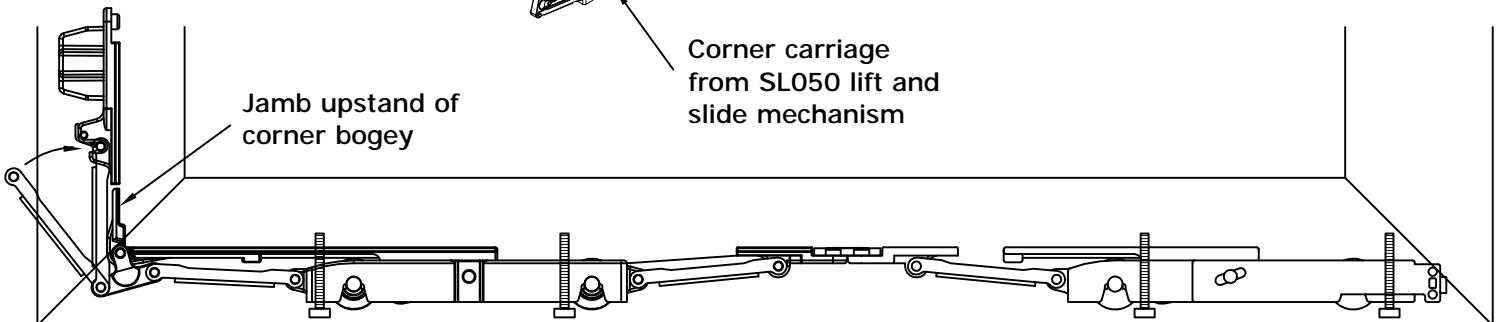
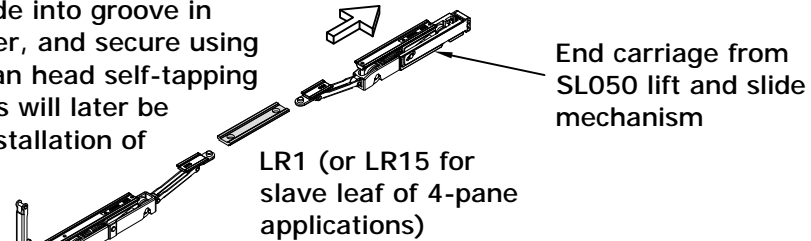
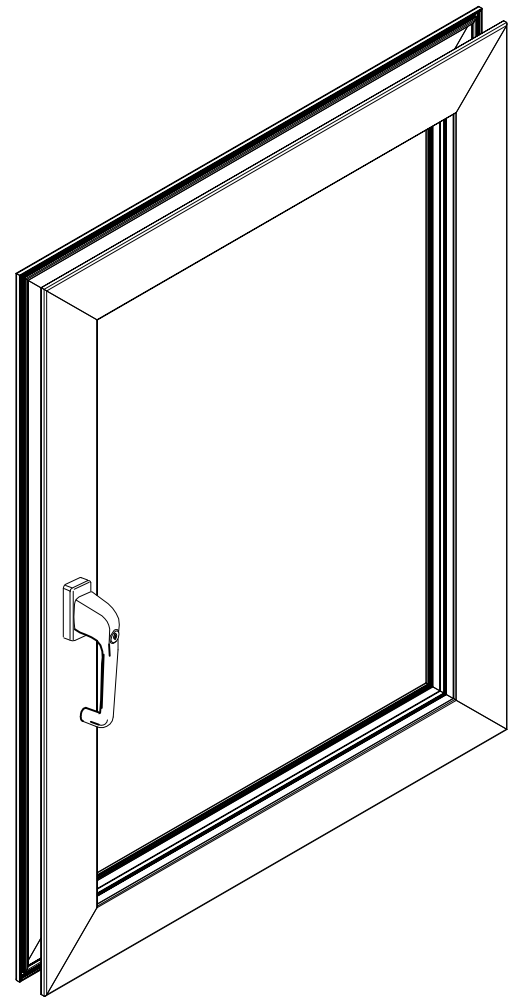
1. Connect SL050 lift and slide bogeys to link rod and slide into groove in polyamide strip in sash cill member.
2. Push corner carriage into profile so that jamb upstand sits tight against polyamide strip.



3. Secure carriages to cill profile by hand-tightening machine screws as indicated. Ensure threads of machine screws penetrate polyamide strip and underside of screw heads bottom out on castings. If not driven fully home, the head of the screw will clash with the moving part of the carriage assembly, when the handle is operated, which may cause the bogey to break.

4. Connect hinged arm of corner carriage to buffer from SL050 lift and slide mechanism.

5. Connect SL067 single shock absorber and lift proof components to link rod and slide into groove in polyamide strip in head member, and secure using No 8 x 19mm stainless steel pan head self-tapping screw 7236. These components will later be removed on site to facilitate installation of the sash.



**Not to Scale**

**DO NOT TIGHTEN WITH BATTERY DRILL**

SHEET 25Hi / 7 / 20  
rev 14 04/03/14

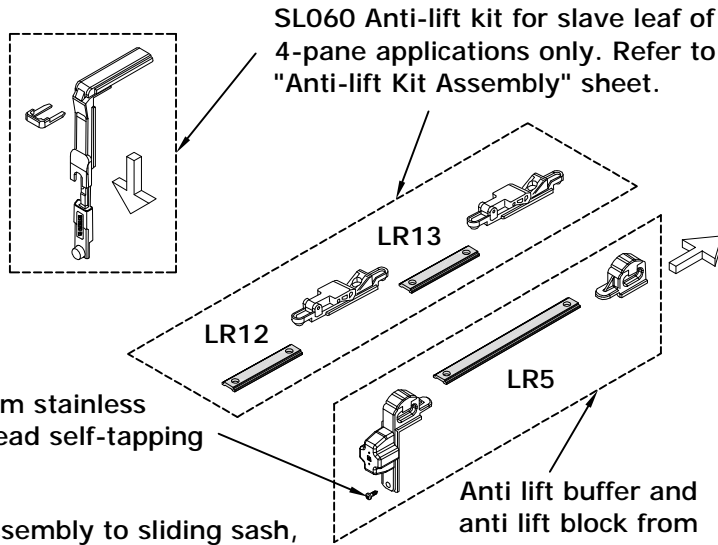
# Carriage Assembly to Sliding Sash



## System 25 Hi/Hi+

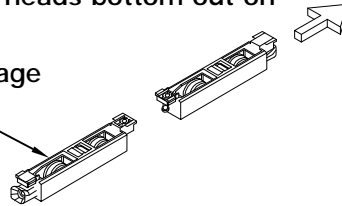
SLIDING DOOR

1. Identify locking stile of moving sash.
2. Ensure sash corners have been notched 5mm x 2.5mm as shown on "Sash Prep Details" sheet, using punch tool JIG25002.

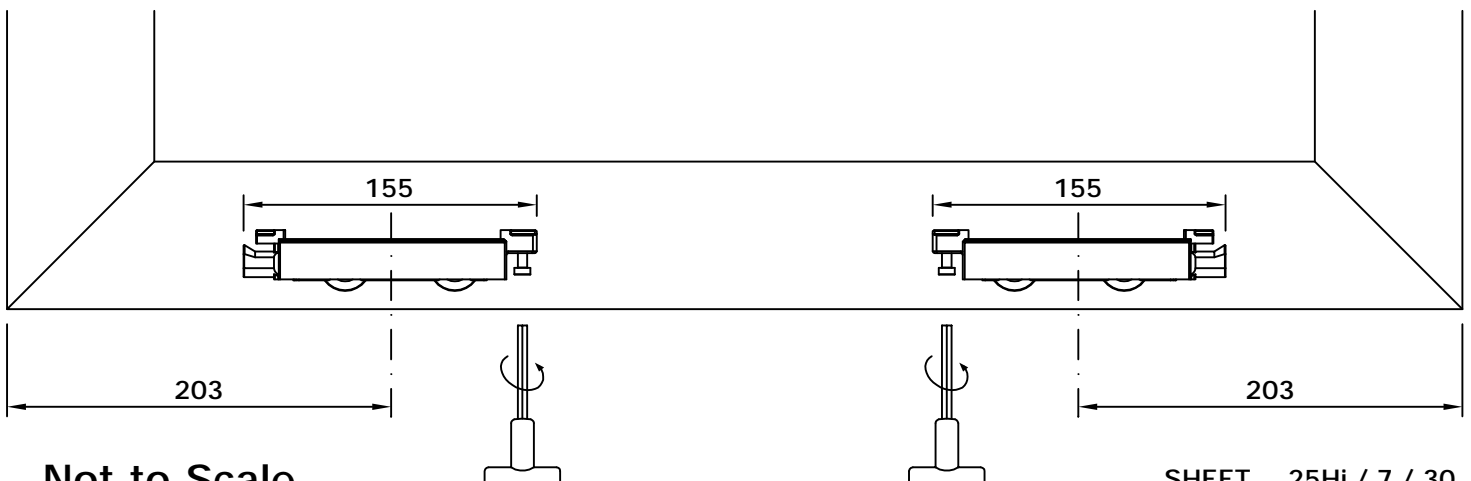


3. For gear assembly to sliding sash, the following components will be required:
  - SL052 Sliding carriage
  - SL051 Locking handle
  - SL053 Spindle drive with integral cam and keep (or SL054 spindle drive for slave leaf of 4-pane)
  - SL068 Double shock absorber and lift proof kit
  - SL071 Locking kits
  - SL023 Link rod
4. Slide SL052 sliding carriages into groove in polyamide strip in sash cill member, orientated as indicated.
5. Position SL052 sliding carriages centred 203mm from corners of sash and secure to cill profile by hand-tightening machine screws as indicated. Ensure threads of machine screws penetrate polyamide strip and underside of screw heads bottom out on castings.

SL052 Sliding carriage mechanism



6. Connect SL068 double shock absorber and lift proof components to link rod and slide into groove in polyamide strip in head member, and secure using No 8 x 19mm stainless steel pan head self tapping screw 7236. These components will later be removed on site to facilitate installation of the sash.



Not to Scale

SHEET 25Hi / 7 / 30

rev 12 20/08/13



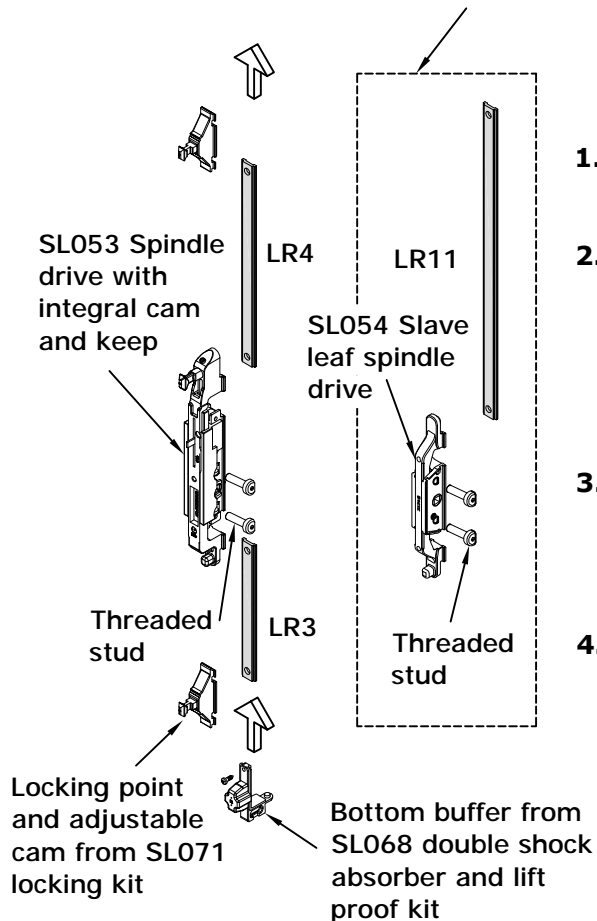
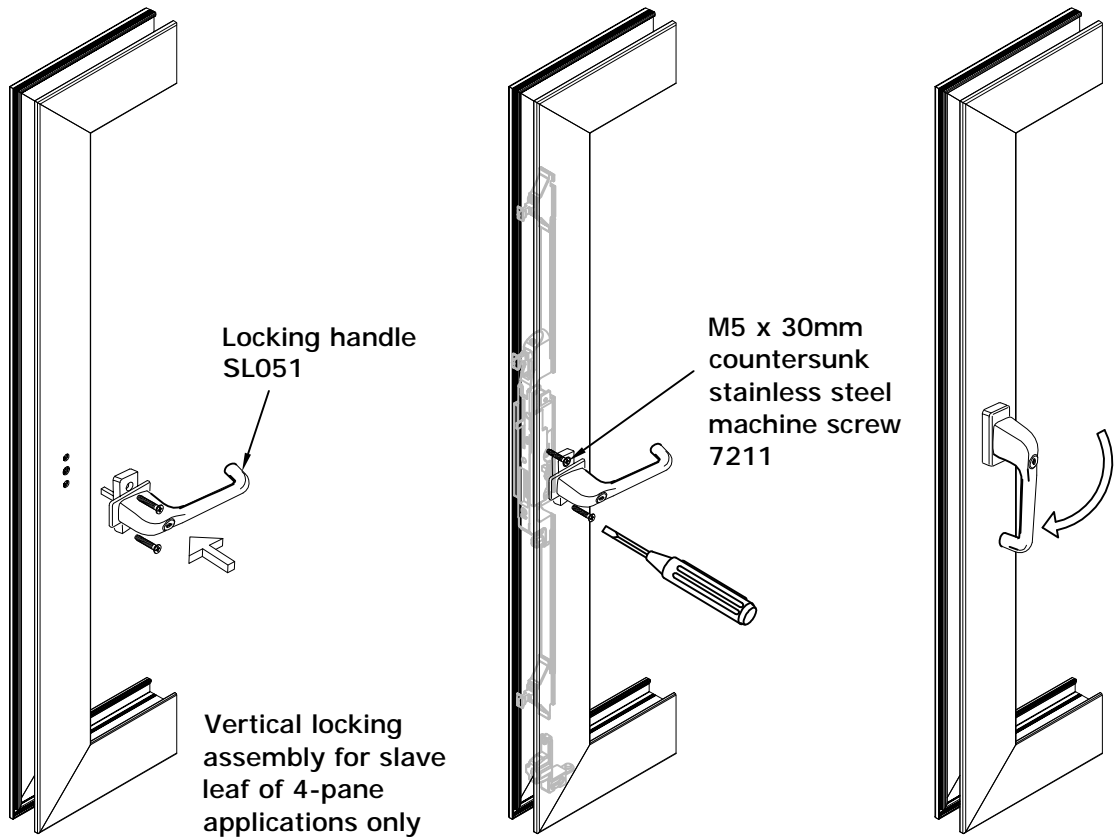
# Locking Gear Assembly to Sliding Sash



**System 25 Hi/Hi+**

.....  
SLIDING DOOR

.....



1. If using SL101E external pull handle, this must be fitted prior to fitting vertical locking assembly to ensure access to its fixings.
2. Set spindle drive to neutral position (no spindle drive cogs protruding at rear). Ensure threaded studs are located within spindle drive prior to inserting into sash profile. Head of studs to be located on same side of spindle drive as handle. Connect spindle drive, locking kits, buffer, and link rods and insert into groove in polyamide strip, from below, as indicated, to create vertical locking assembly.
3. Using 2 No M5 x 30mm countersunk stainless steel machine screws 7211, connect locking handle SL051 to threaded studs in spindle drive, ensuring lever is in horizontal position, as indicated. Secure machine screws and pull handle down into vertical position.
4. Insert bottom buffer from SL068 double shock absorber and lift proof kit into bottom corner of master locking stile as indicated, and secure using No 8 x 19mm stainless steel pan head self tapping screw 7236.

**Not to Scale**

SHEET 25Hi / 7 / 40

rev 4

19/02/14

# Anti-Lift Kit Assembly

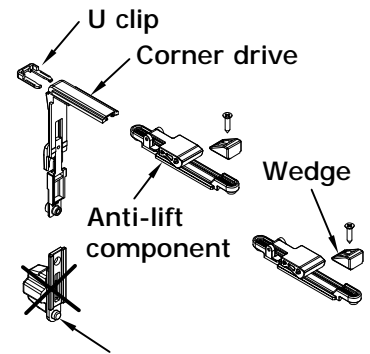
## For Slave Leaf of 4-pane Applications



### System 25 Hi/Hi+

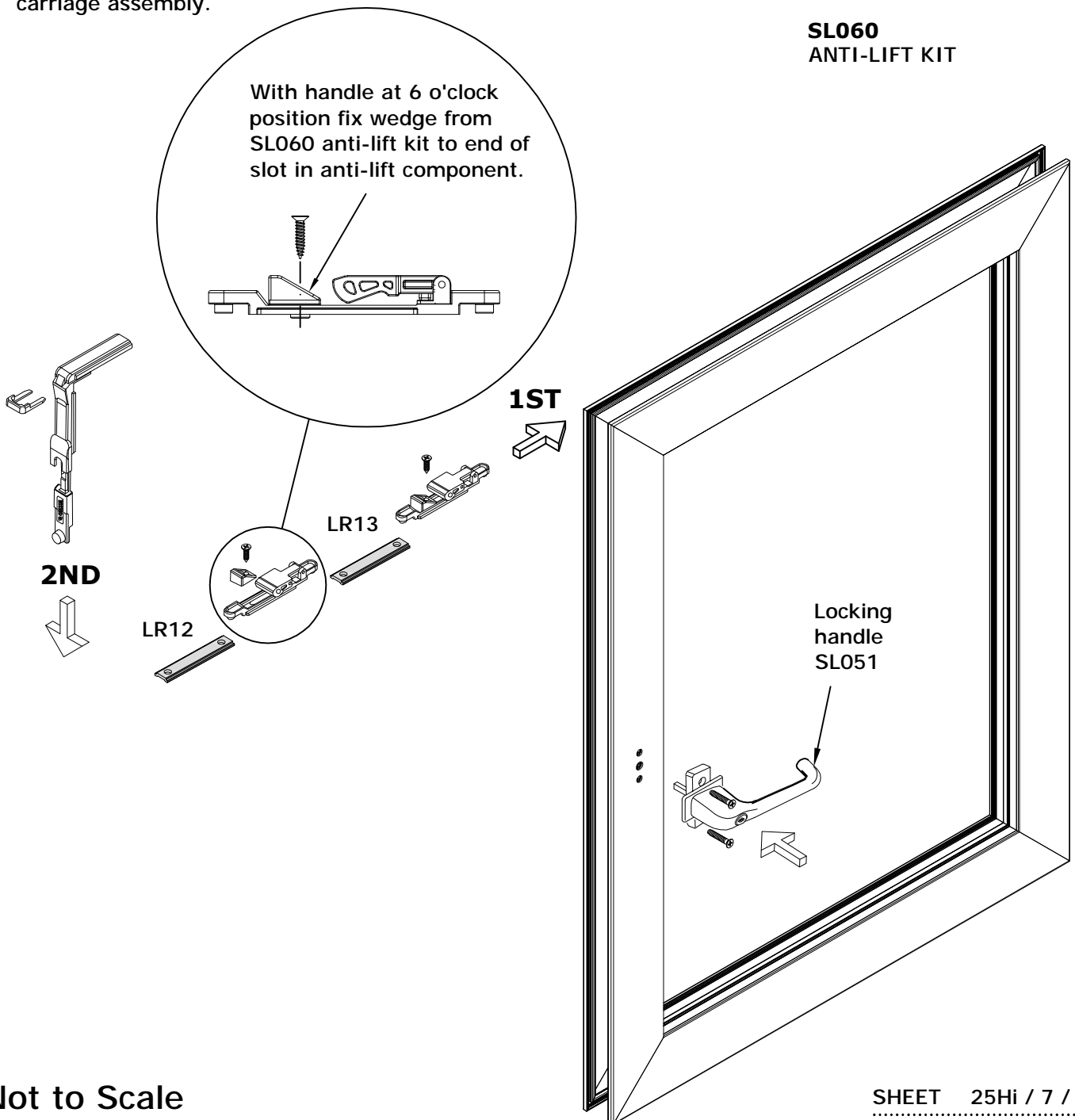
SLIDING / LIFT AND  
SLIDE DOOR

1. Anti-lift kit SL060 is required for slave leaf of both lift and slide, and sliding applications.
2. Assemble horizontal components of SL060 anti-lift kit as indicated and slide into groove in polyamide strip in top rail of slave sash. If already fitted remove handle and disconnect lift and slide carriages.
3. Slide vertical locking kit upward and connect corner drive of anti-lift kit to upper link rod.
4. Slide vertical locking assembly downward and connect corner drive to link rod of horizontal anti-lift kit assembly.
5. Insert U clip into corner drive to secure in place.
6. With spindle drive still in neutral position, re-fit handle, ensuring lever of handle is in horizontal position.
7. Pull handle down into vertical position and secure wedges to polyamide strip in head member through slot in anti-lift components using screws provided, as indicated.
8. In Lift and Slide applications connect vertical locking assembly to carriage assembly.



Buffer not required in this application.

#### SL060 ANTI-LIFT KIT



Not to Scale

# Carriage Assembly to Fixed Sash



## System 25 Hi/Hi+

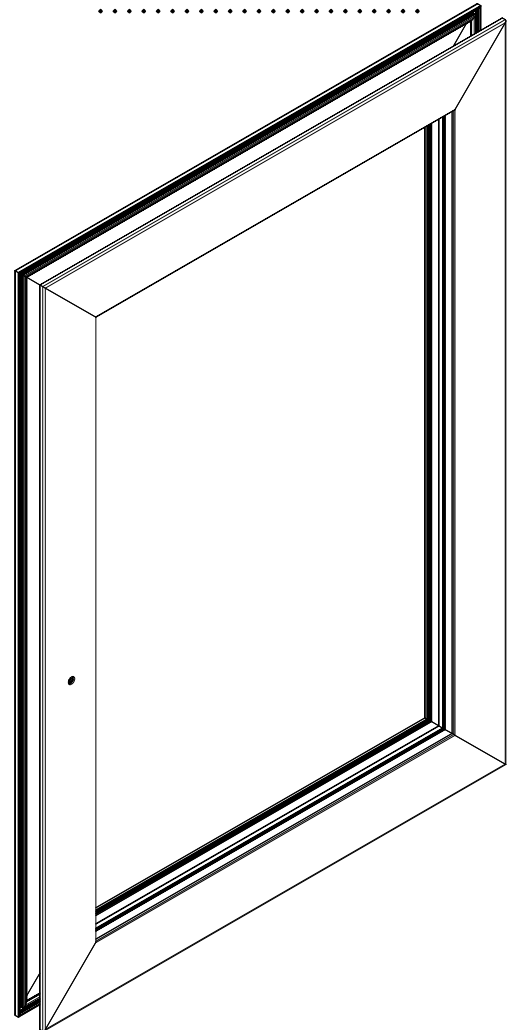
SLIDING / LIFT AND  
SLIDE DOOR

1. Identify jamb stile of fixed sash.
2. Ensure sash corners have been notched 5mm x 2.5mm as shown on "Sash Prep Details" sheet, using punch tool JIG25002.
3. For gear assembly to fixed sash, the following components will be required:
  - SL065 Fixed sash kit
  - SL075 Fixed sash rod drive
  - SL068 Double shock absorber and lift proof kit
  - SL071 Locking kits
  - SL023 Link rod

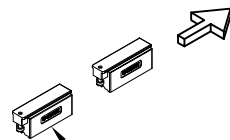
Anti-lift buffer and anti-lift block from SL068 double shock absorber and lift proof kit

No 8 x 19mm stainless steel pan head self-tapping screw 7236

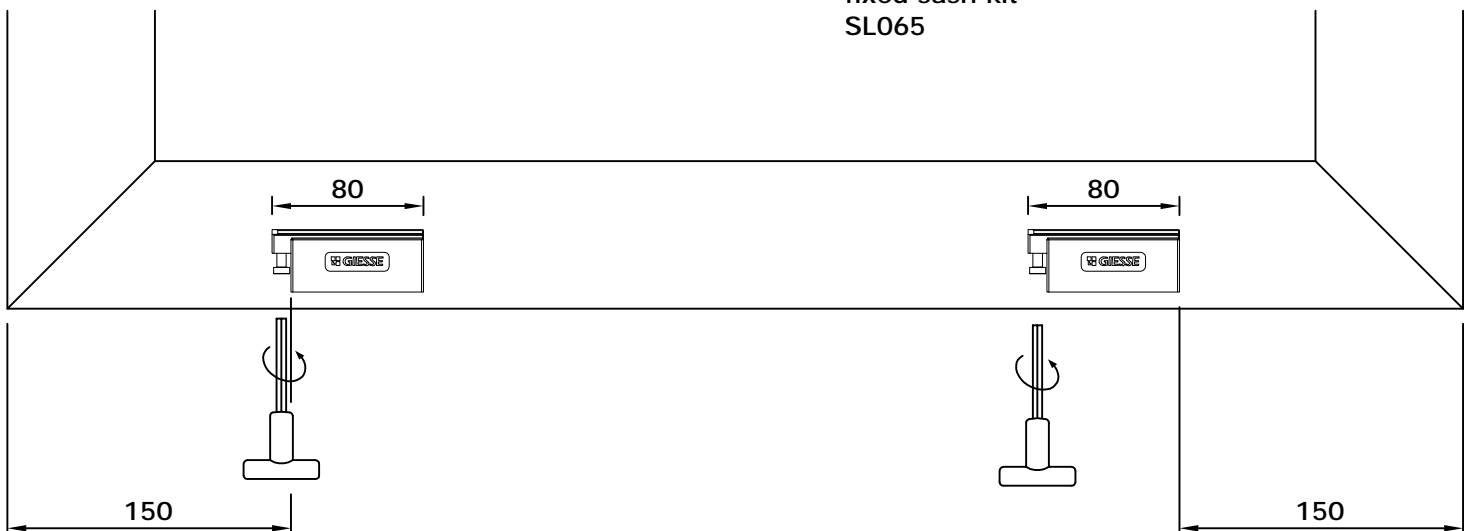
LR6 (and LR14 for second fixed sash in 4-pane applications only)



4. Slide carriages from SL065 fixed sash kit into groove in polyamide strip in sash cill member, positioned and orientated as indicated.
5. Secure to cill profile by hand-tightening machine screws. Ensure threads of machine screws penetrate polyamide strip and underside of screw heads bottom out on mouldings.
6. Connect SL068 double shock absorber and lift proof components to link rod and slide into groove in polyamide strip in head member, and secure using No 8 x 19mm stainless steel pan head self tapping screw 7236. These components will later be removed on site to facilitate installation of the fixed sash.



Carriages from fixed sash kit SL065



Not to Scale

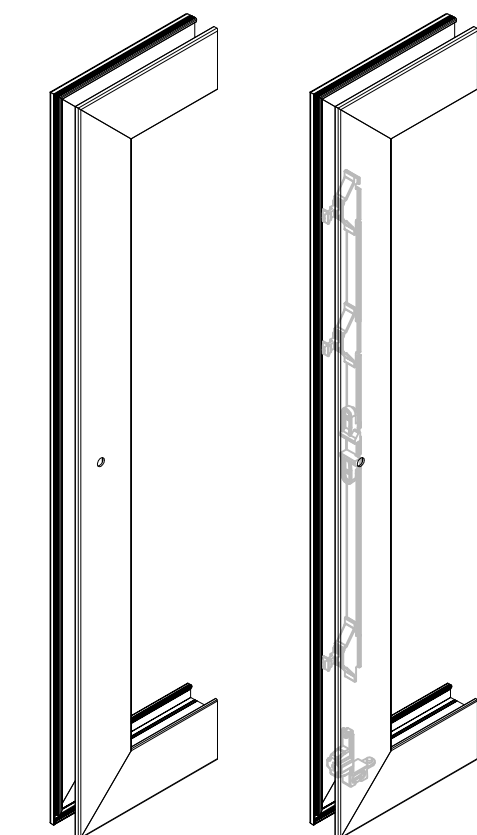
SHEET 25Hi / 7 / 60  
rev 7 20/08/13

# Locking Gear Assembly to Fixed Sash

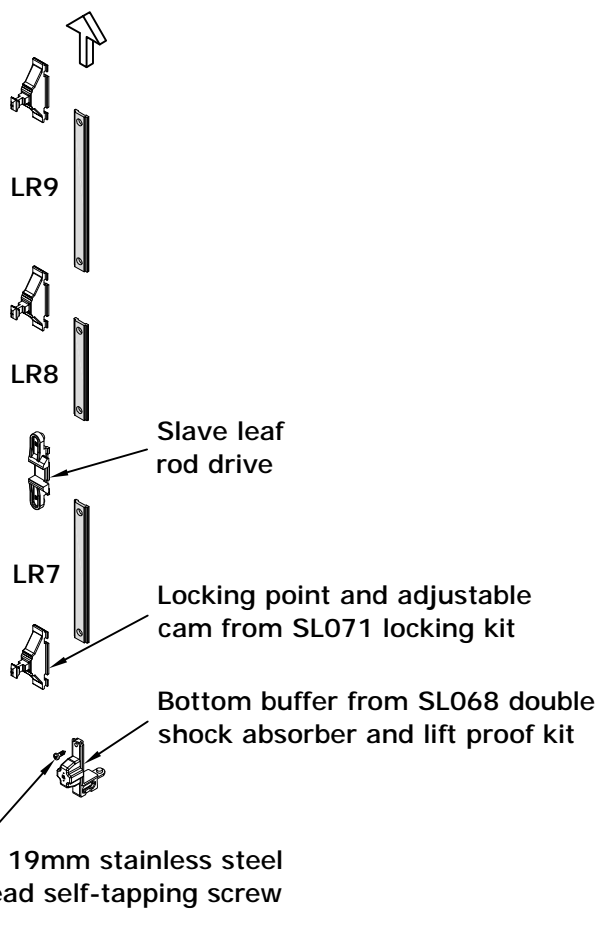


## System 25 Hi/Hi+

.....  
 SLIDING / LIFT AND  
 SLIDE DOOR  
 .....



1. Connect slave leaf rod drive, locking kits, and link rods and insert into groove in polyamide strip from below, as indicated to create vertical locking assembly.
2. Align central groove within SL075 fixed sash rod drive with hole in jamb stile.
3. Insert bottom buffer from SL068 double shock absorber and lift proof kit into bottom corner of jamb stile as indicated and secure using No 8 x 19mm pan head stainless steel self tapping screw 7236.



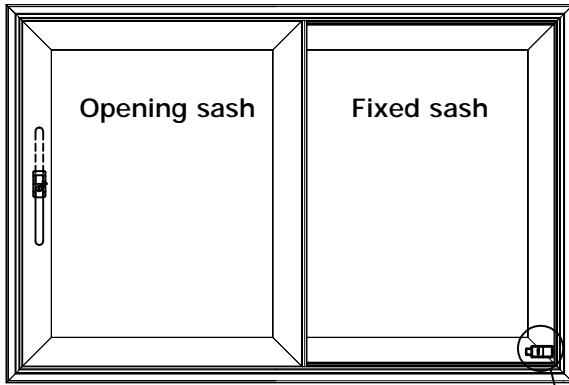
Not to Scale

# SL082 Door Stop Fitting Details



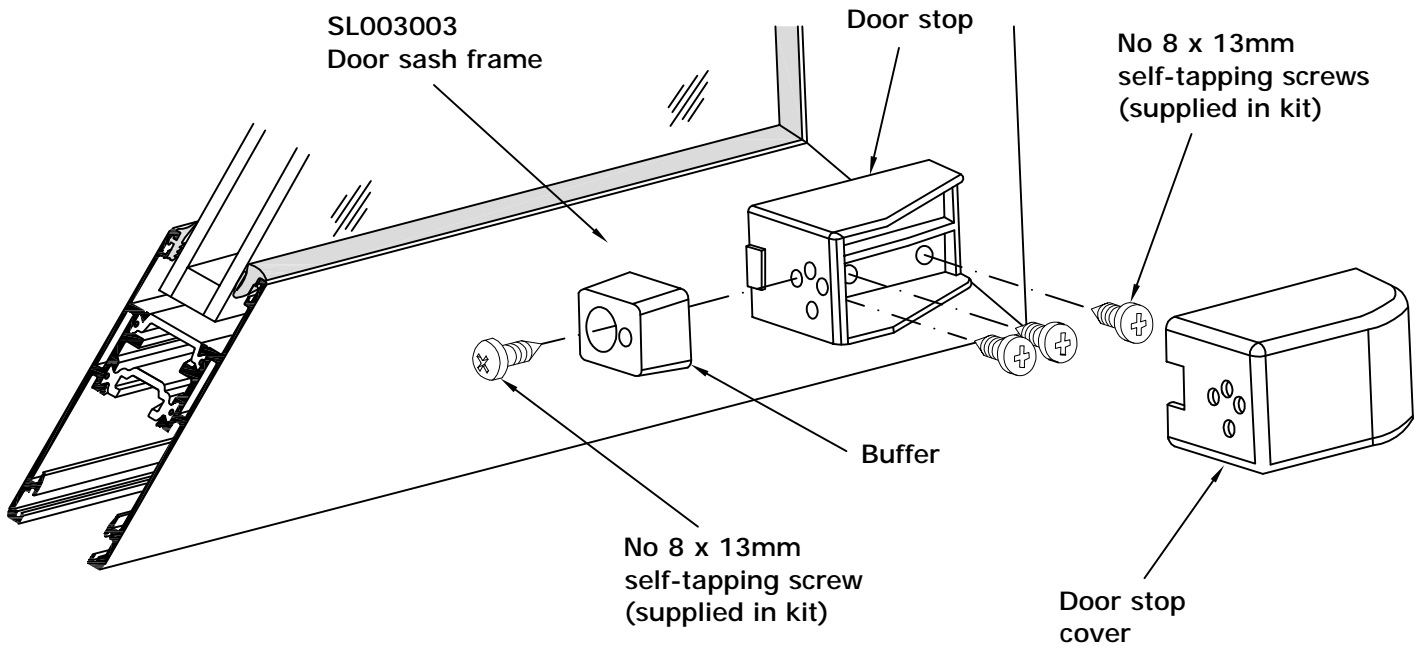
## System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR



Viewed from inside

1. Position the door stop as indicated on "Sash Prep Details - SL082 Door Stop" sheet, and secure using No 8 x 13mm self-tapping screws (supplied in kit) into lower set of fixing holes.
2. Clip the door stop cover onto door stop.
3. Fix buffer to door stop and cover using No 8 x 13mm self tapping screw.



Not to Scale

# SL101E External Pull Handle Assembly Details

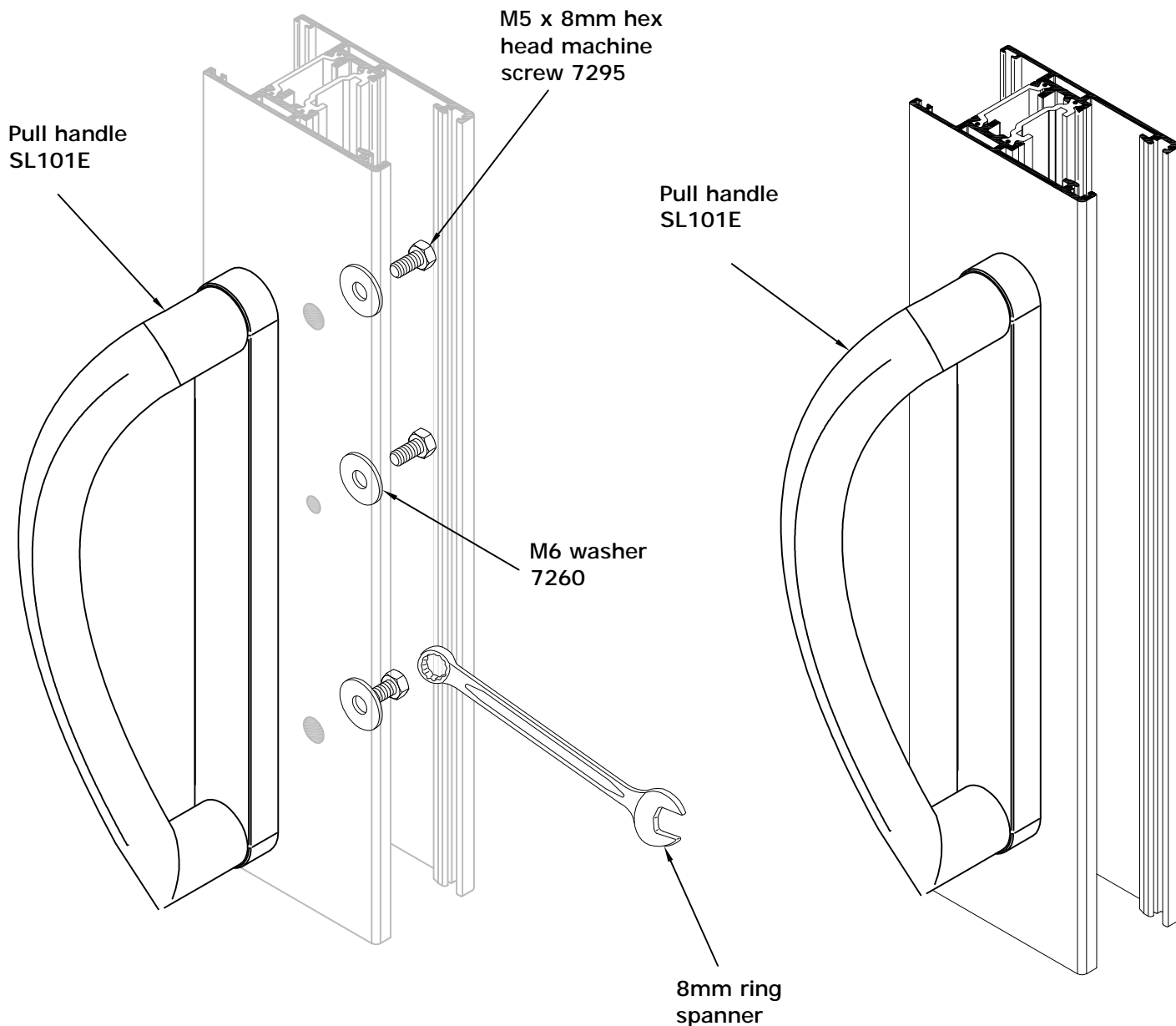


**System 25 Hi/Hi+**

.....  
SLIDING / LIFT AND  
SLIDE DOOR  
.....

Refer to "Sash Prep Details - SL101E External Pull Handle" sheet for fixing positions and handing.

Ensure SL101E external pull handle is fitted prior to fitting vertical locking assembly.



**Not to Scale**

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SHEET 25Hi / 7 / 90

rev 8

19/02/14

# SL102 External Pull Handle Assembly Details

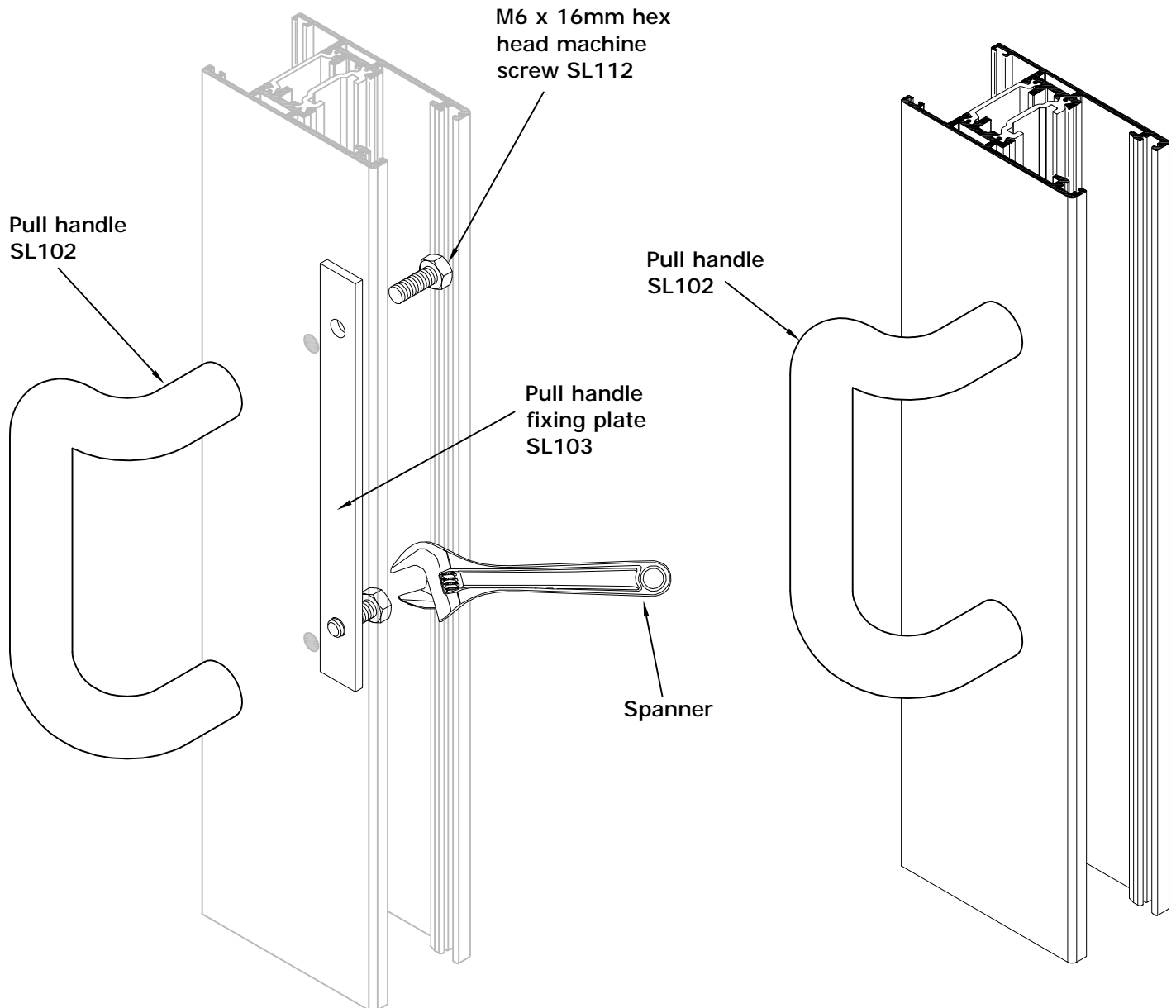


**System 25 Hi/Hi+**

.....  
SLIDING / LIFT AND  
SLIDE DOOR  
.....

Refer to "Sash Prep Details - SL102 External Pull Handle" sheet for fixing positions and handing.

Ensure SL102 external pull handle is fitted prior to fitting vertical locking assembly.



**Not to Scale**

# Locking Point Assembly



## System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR

1. Rotate and clip keeps into position in SL001002 outer frame, SL004004 locking profile and SL015015 jamb extension between cut lengths of SL020 head and jamb closer. Refer to "Cill, Head and Jamb Closer Sizes" sheets for positions. These details also apply when using SL015015 jamb extension.
2. Temporarily secure keeps in position within outer frame using 2.5mm allen key into threaded clamping screw, taking care not to overtighten.
3. Adjust height of cam to approximate\* positions indicated. Secure adjustable cam in place using 2.5mm allen key into grub screw as indicated.
4. Cam and keeps may later require final adjustment on site.

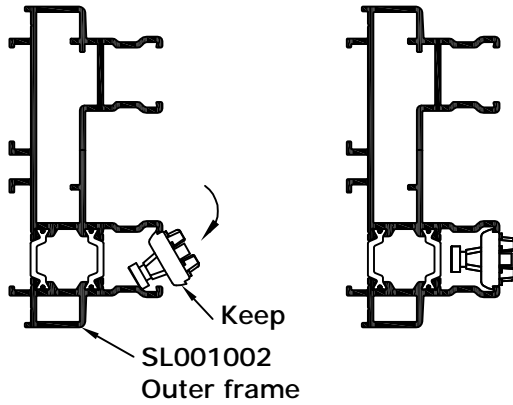
**SL071**  
Locking kit

Locking point

Adjustable cam

Threaded clamping screws

Keep



SL001002  
Outer frame

**SL053** Spindle drive with integral cam and keep

Plastic alignment cone

Threaded clamping screws

Spindle drive  
Threaded stud

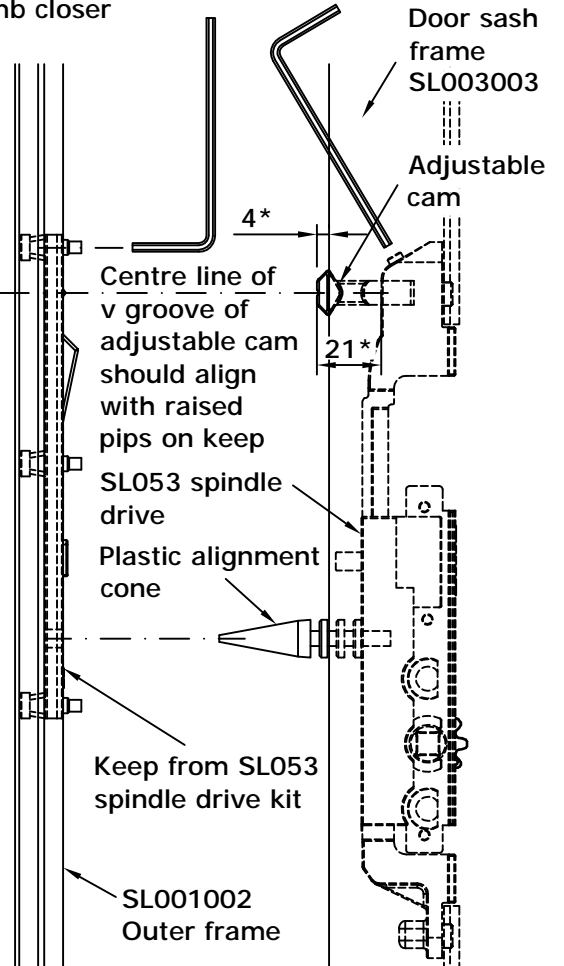
Adjustable cam

Door sash frame  
SL003003

Locking point

Adjustable cam

SL020 Head and jamb closer



2.5mm allen key to tighten keep into position within outer frame

Door sash frame  
SL003003

SL001002  
Outer frame

Adjustable cam

Locking point

2.5mm allen key to secure cam to locking point after adjustment

Locking keep screw fixed into place

SL001002  
Outer frame

**Not to Scale**

SHEET 25Hi / 7 / 110

rev 4

21/10/13

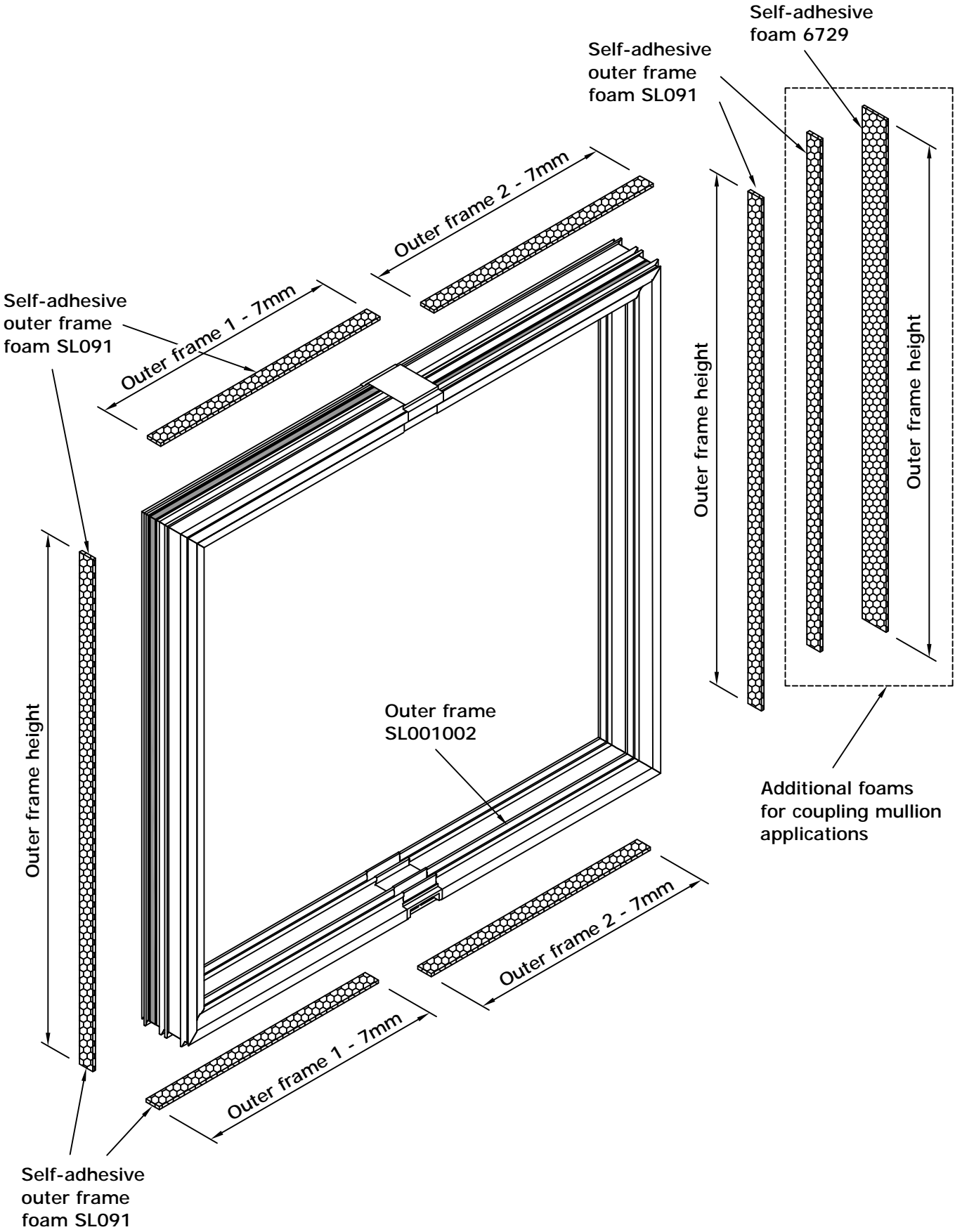


# Outer Frame Thermal Foam



## System 25 Hi+

.....  
 SLIDING / LIFT AND  
 SLIDE DOOR  
 .....



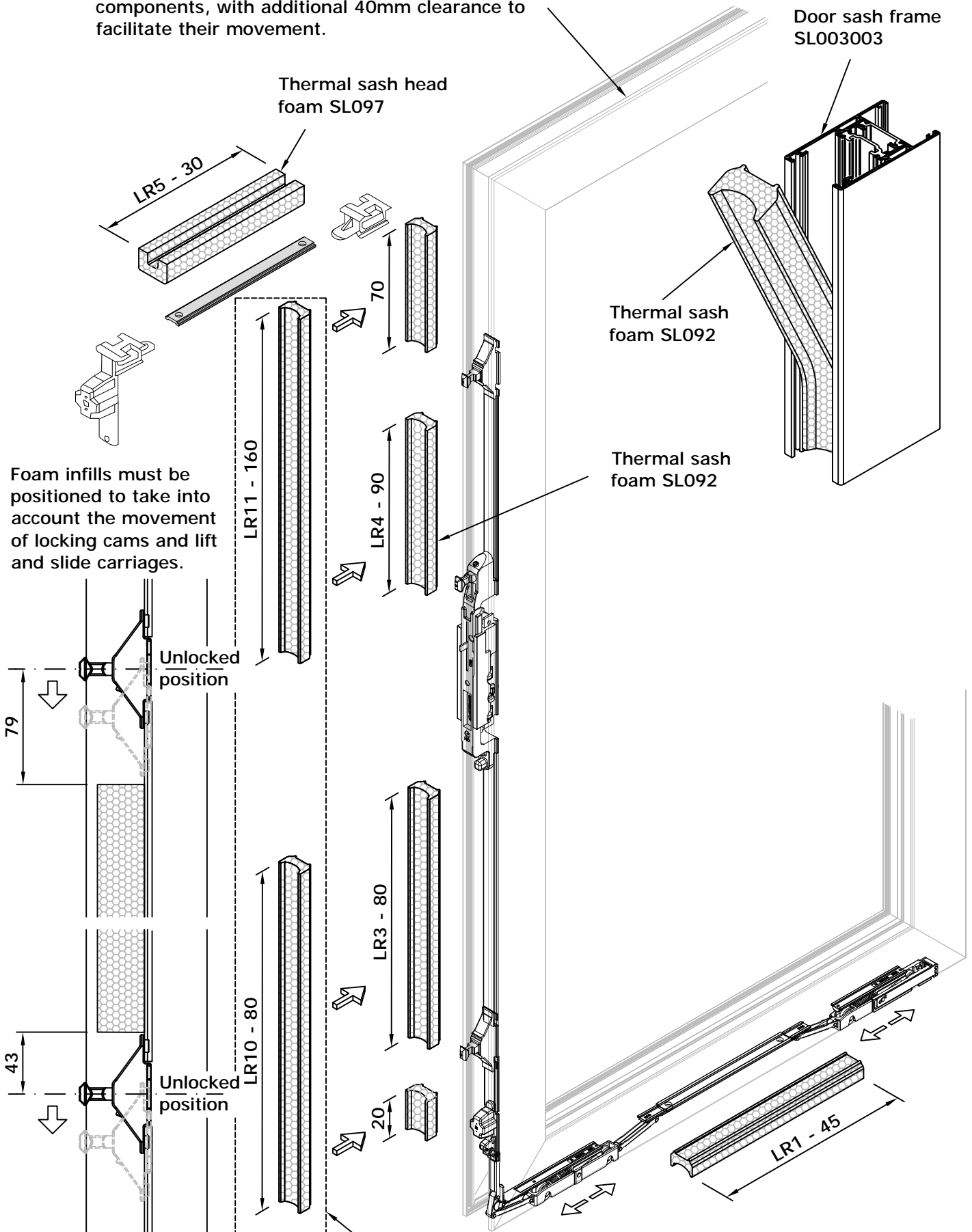
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# Lift and Slide Thermal Sash Foam

## SL092 and SL097 for Head, Cill and Locking Jamb

**System 25 Hi+**  
 .....  
 LIFT AND SLIDE DOOR  
 .....

When anti-lift kit SL060 is fitted, head foam to be inserted in three pieces, cut either side of the anti-lift components, with additional 40mm clearance to facilitate their movement.



Foam infills must be positioned to take into account the movement of locking cams and lift and slide carriages.

**Not to Scale**

Slave leaf for 4-pane lift and slide applications only.

# Sliding Thermal Sash Foam

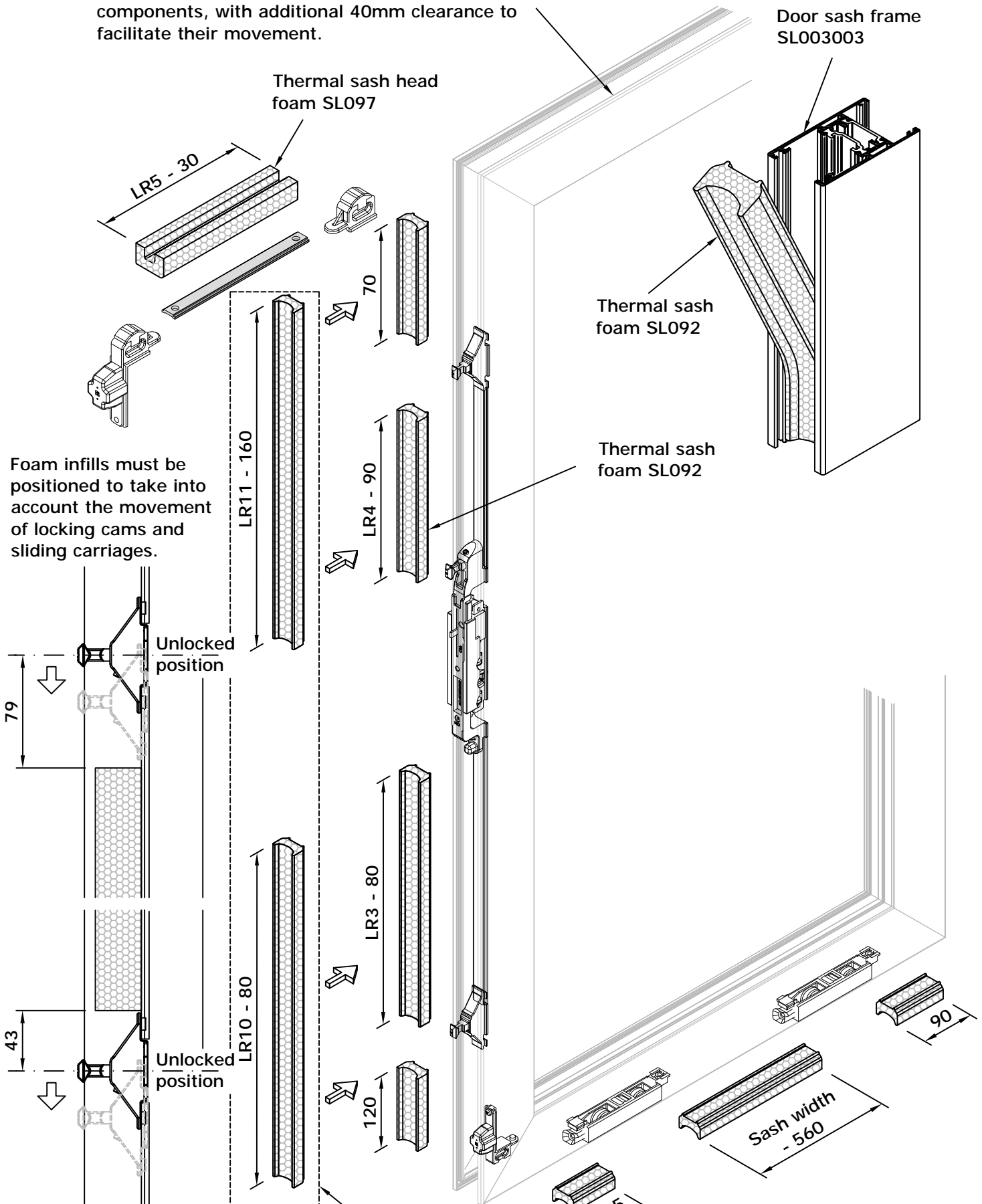
SL092 and SL097 for Head, Cill and Locking Jamb



**System 25 Hi+**

SLIDING DOOR

When anti-lift kit SL060 is fitted, head foam to be inserted in three pieces, cut either side of the anti-lift components, with additional 40mm clearance to facilitate their movement.



Foam infills must be positioned to take into account the movement of locking cams and sliding carriages.

**Not to Scale**

Slave leaf for 4-pane sliding applications only.

# Fixed Sash Thermal Foam

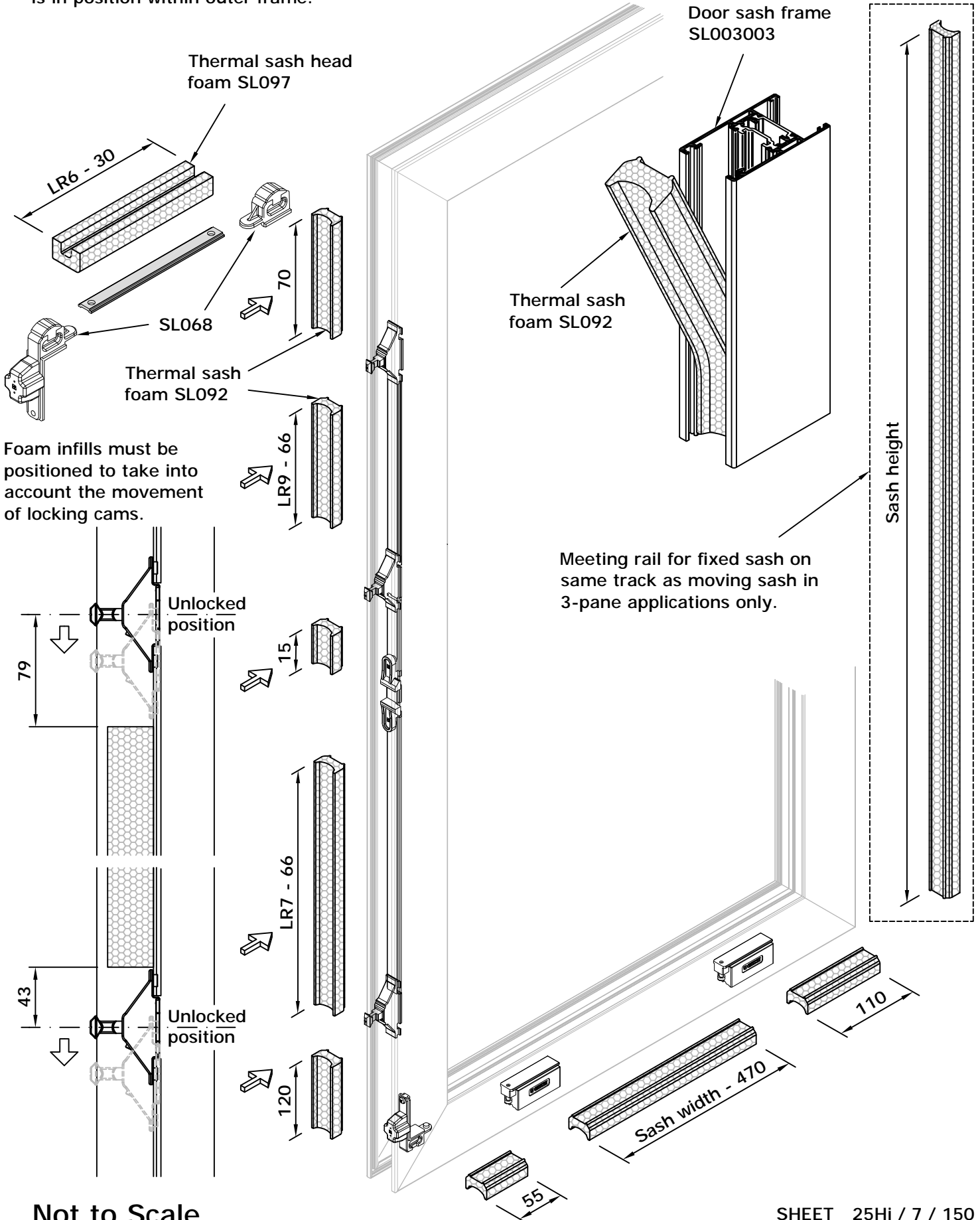
SL092 and SL097 for Head, Cill and Jambs



**System 25 Hi+**

SLIDING / LIFT AND SLIDE DOOR

SL068 Lift proof kit and SL097 foam can be temporarily fitted but must be removed when fitting door into the outer frame and refitted when door sash is in position within outer frame.



Foam infills must be positioned to take into account the movement of locking cams.

**Not to Scale**

# Interlock Thermal Foam

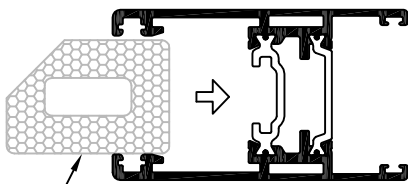
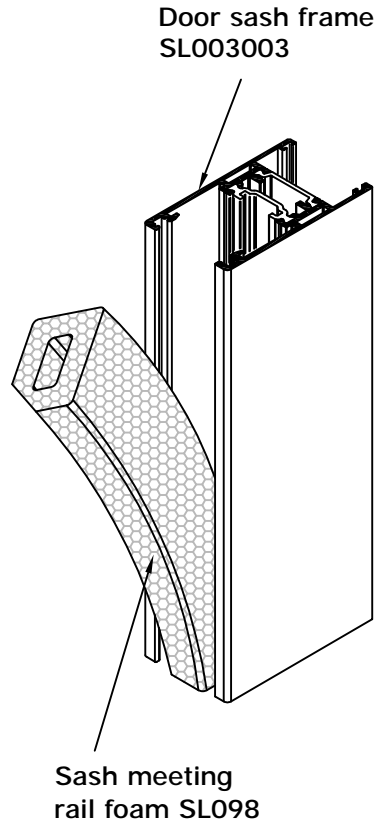
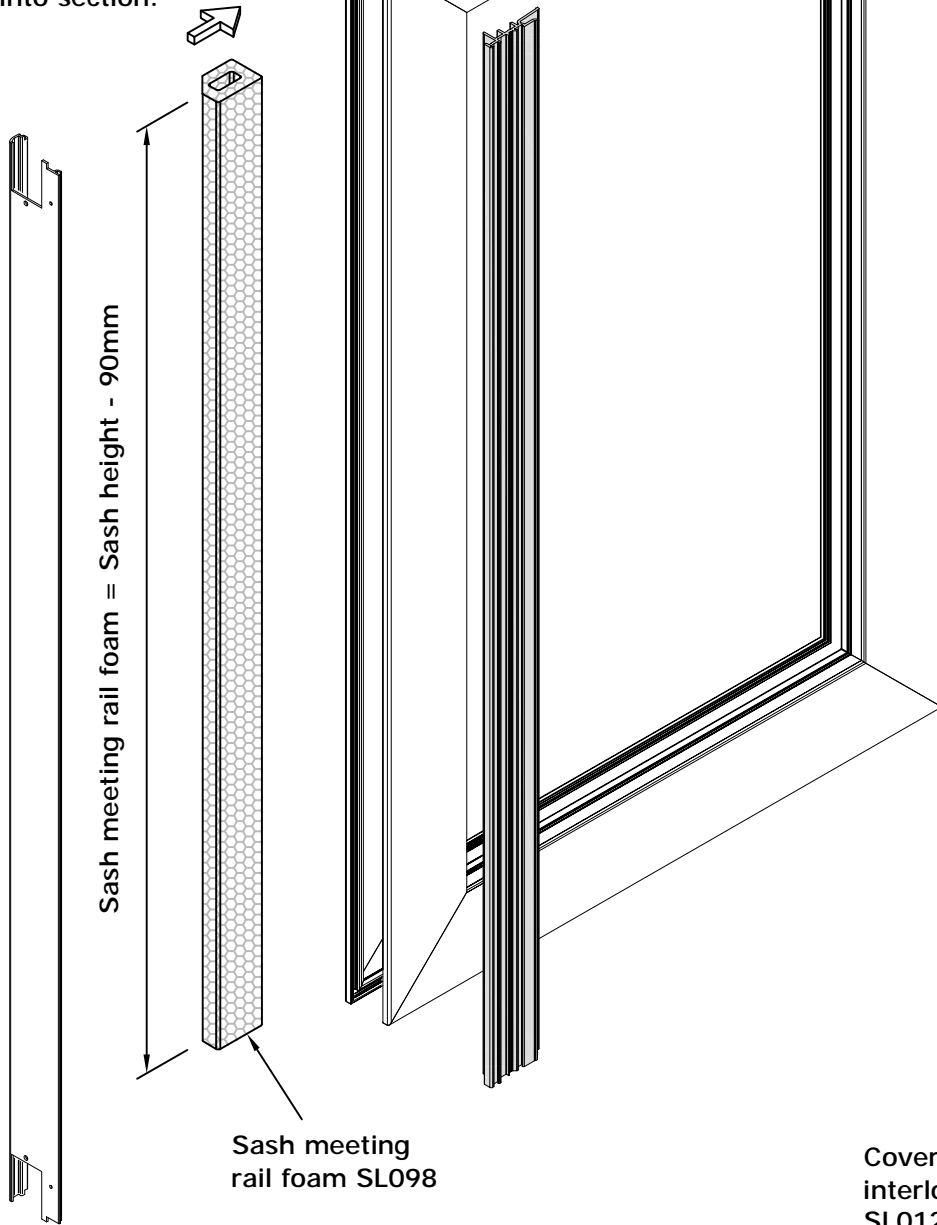
SL098 sash meeting rail foam to be applied to SL003003 sash profile prior to assembly interlock stile. Refer to "Sash Assembly - SL012 and SL021 Meeting Stile Fixing Details" sheets.



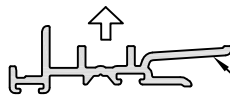
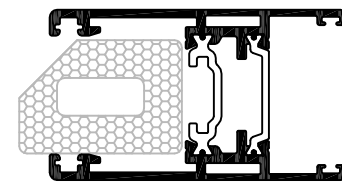
## System 25 Hi+

.....  
SLIDING / LIFT AND  
SLIDE DOOR  
.....

Push fit foam SL098 into section.

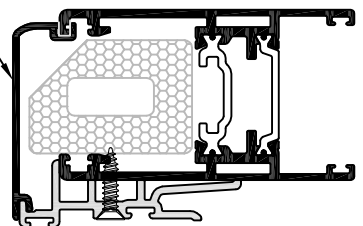


Sash meeting rail foam SL098



Meeting stile locking piece SL021

Cover for interlock SL012



Not to Scale

# Typical Fixing Detail



## System 25 Hi/Hi+

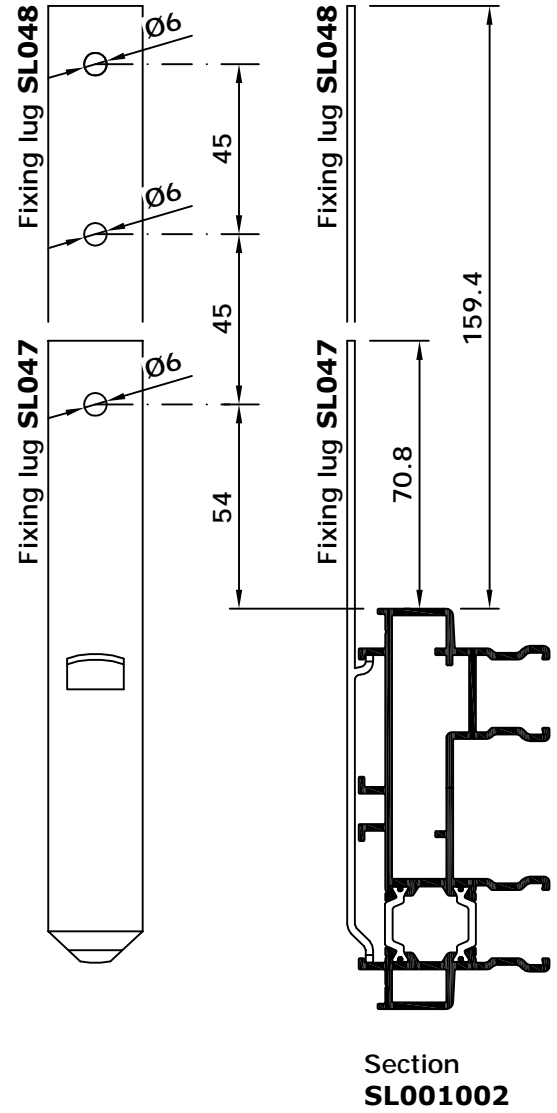
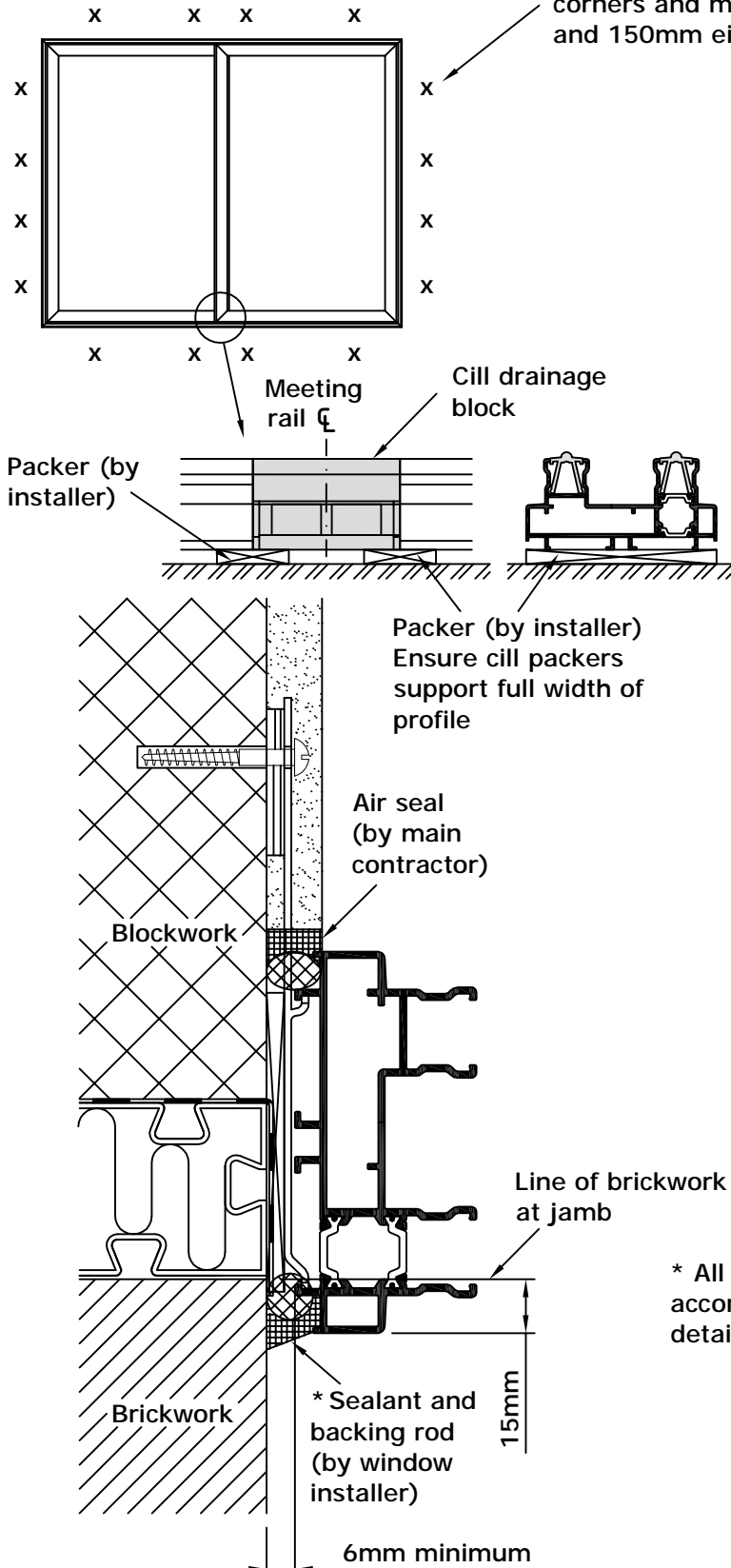
SLIDING / LIFT AND  
SLIDE DOOR

Fixing lugs provide lateral restraint only. Dead load support to be provided by perimeter structure. All fixings to be adequate and suitable for loading conditions and application.

Metal Technology recommend the use of fixing lugs as direct fixing through the cill is not permitted.

Packers between frame and structure to be positioned at or adjacent to fixing lug positions at head and jambs, and at maximum 200mm centres at cill, and both sides of cill drainage block, as shown. Cill packers to support full width of profile.

Positions of fixing lugs 150mm from corners and maximum 600mm centres and 150mm either side of a meeting stile.



Section SL001002

\* All sealants to be installed in strict accordance with manufacturers relevant details and BS 6093 to suit site conditions.

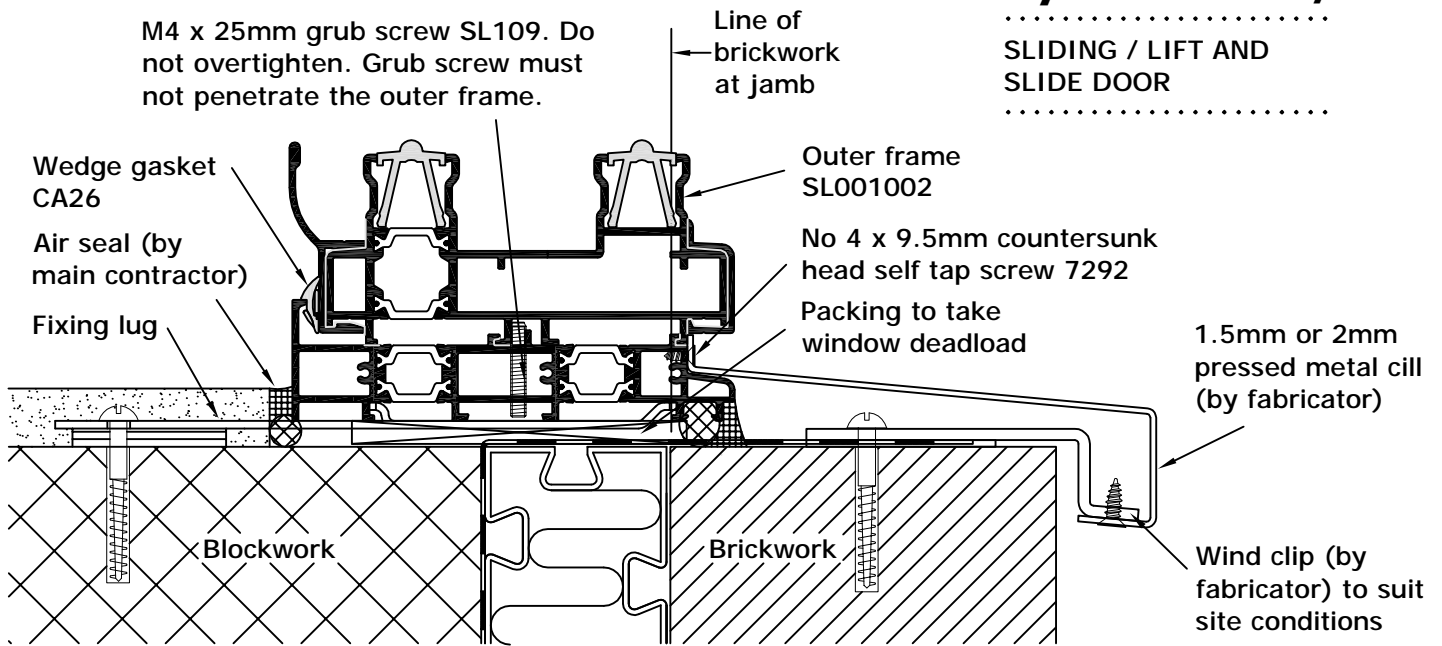
Not to Scale

# Typical Sub-Cill Detail

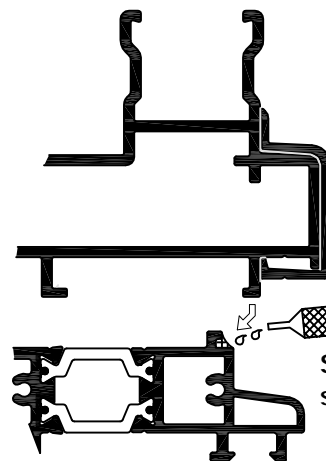
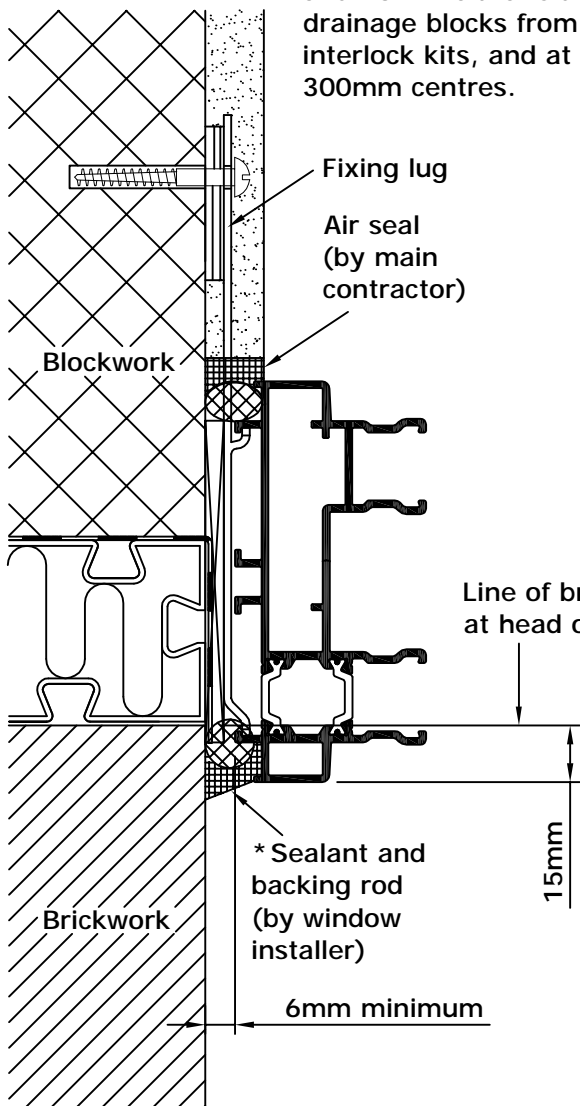
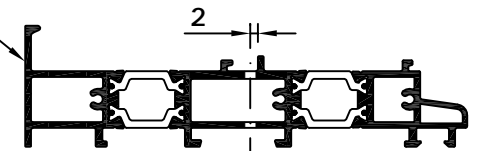


## System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR

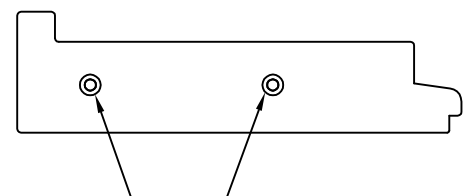


Drill and tapp holes into cill SL104105106 to suit M4 screws, 75mm from each end and 75mm either side of the centre line of drainage blocks from SL058 or SL059 interlock kits, and at not greater than 300mm centres.



Run bead of silicone along full length of cill as shown before attaching to outer frame SL001002

SL107 End cap (Black)



\* All sealants to be installed in strict accordance with manufacturers relevant details and BS 6093 to suit site conditions.

Scale 1:2

# Installation Procedures



## System 25 Hi/Hi+

.....  
SLIDING / LIFT AND  
SLIDE DOOR  
.....

The following instructions are a general guideline and cover the most common conditions. For further information, advice or project specific applications contact Metal Technology's Technical Department.

All doors should be adequately protected against minor scuffs and abrasions during installation. This can be achieved using a suitable low tack tape to all exposed surfaces of the frames. Low tack tape should be periodically renewed and should not remain on the frames for more than 6 months from the date of application. (This period may vary depending on exposure, application and manufacturers instructions)

**LOW TACK TAPE IS NOT A SUBSTITUTE FOR CAREFUL HANDLING.**

Ensure that the brickwork opening is the correct size and square, with sufficient clearance to accommodate any expansion, contraction, building movement and the minimum joint width requirement for the applicable sealant.

Ensure that the structure to which the door is fixed is sound and capable of adequately accepting the fixings and the subsequent loads transferred by them.

All aluminium should be isolated from direct contact with masonry, concrete and other incompatible materials by means of packing pieces, EPDM membranes, suitable paint or similar materials.

Establish handing and orientation of outer frame and position into opening so that fixed and moving sashes are correctly handed, and are on the appropriate track.

For logistical purposes, outer frame head, cill and jamb bars may be transported in their pre-fabricated form and assembled on site. (Refer to section 6 of the manual for component and assembly details).

Metal Technology recommend the use of fixing lugs as direct fixing through the cill is not permitted. For further advice refer to Metal Technology's Technical Department. Lugs should be fitted to the frames prior to offering the outer frame into the opening. The choice of fixing lug will depend on site application (two lengths of lug are available). The number and position of fixing lugs will depend on the door size and applicable loading. General fixing lug locations are 150mm from the corner, 150mm either side of a meeting stile and at a maximum of 600mm centres (see "Typical Fixing Detail" and "Typical Sub-Cill Detail" sheets in section 8 of manual for further clarification).

Where required fixing lugs may be cranked to accommodate the gap between the window frame and the structure. This should be done prior to snapping the lug into the frame.

Alternatively, where the gap between the frame and the structure is not suitable for adequately cranking the fixing lug, frame packers may be used.

Position the outer frame within the opening ensuring that all exposed aluminium is isolated from any material which may react unfavourably with it. This also applies to the fixings used to secure the doors. Metal Technology recommend that all fastenings to aluminium be Austenitic Stainless Steel A2-A4 grade, aluminium or other such compatible materials.

Suitable proprietary frame packers should be used to ensure the door frame is plumb, square, level, vertical and centralised within the opening.

The system 25 door must have continuous support over the width of the bottom outer frame member to ensure smooth operation of the sliding sashes. Packers between frame and structure to be positioned at or adjacent to fixing lug positions at head and jambs, and at maximum 200mm centres at cill, and both sides of cill drainage block. Frames must be adequately packed and fixed to ensure the load is directly transferred to the structure below. Frame packers should not protrude past the external line of the outer frame in order not to interfere with sealing to the structure.

Fix the door to the opening as required ensuring that the outer frame is not bowed or distorted and that the fixings used are adequate and suitable for the applicable loading conditions and application.



# Installation Procedures

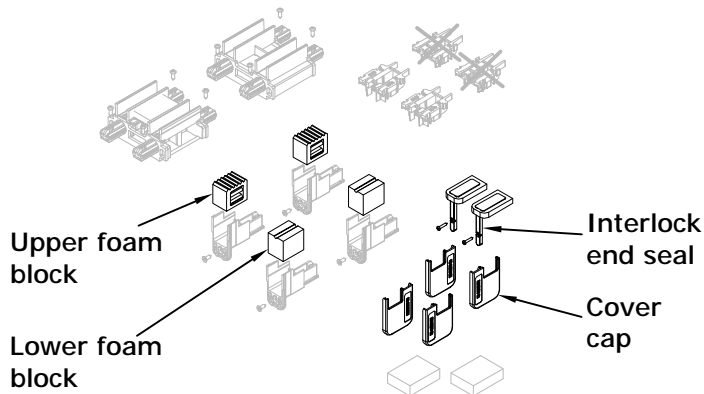


## System 25 Hi/Hi+

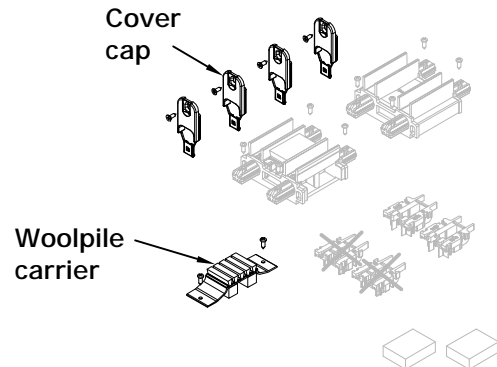
SLIDING / LIFT AND  
SLIDE DOOR

cont...

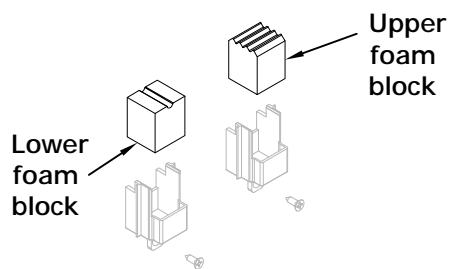
Components required on site will be:



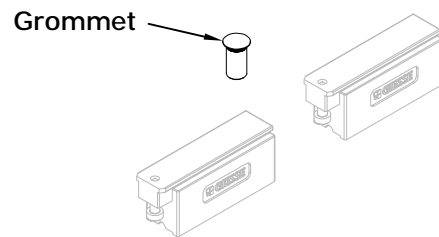
**SL058**  
INTERLOCK KIT -  
LIFT AND SLIDE



**SL059**  
INTERLOCK KIT -  
SLIDING DOOR



**SL055**  
SASH PLUG KIT



**SL065 \***  
FIXED SASH KIT

	2 - pane		3 - pane		4 - pane	
	Lift and slide	Sliding	Lift and slide	Sliding	Lift and slide	Sliding
SL058 upper and lower foam blocks	2 pairs	-	2 pairs	-	4 pairs	-
SL055 upper and lower foam blocks	-	-	1 pair	1 pair	1 pair	1 pair
SL058 interlock end seals	2	-	2	-	4	-
SL058 cover cap	4	-	4	-	8	-
SL059 cover cap	-	4	-	4	-	8
SL059 woolpile carrier	-	1	-	1	-	2
SL065 aluminium grommet	1	1	2	2	2	2

Not to scale

# Installation Procedures



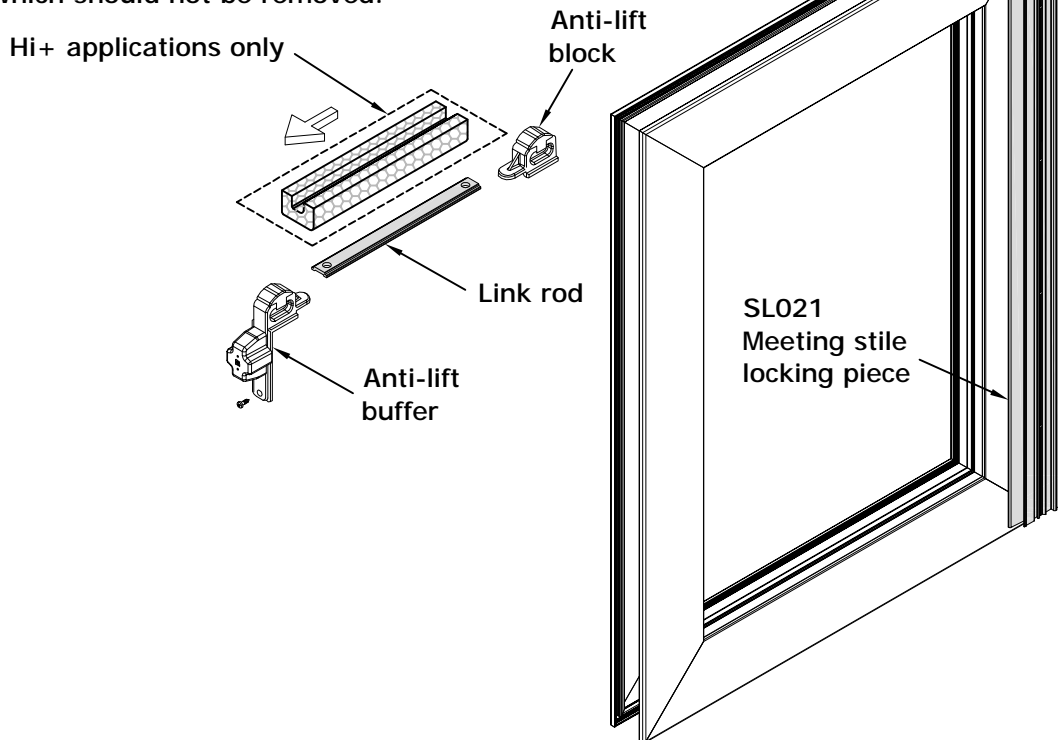
## System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR

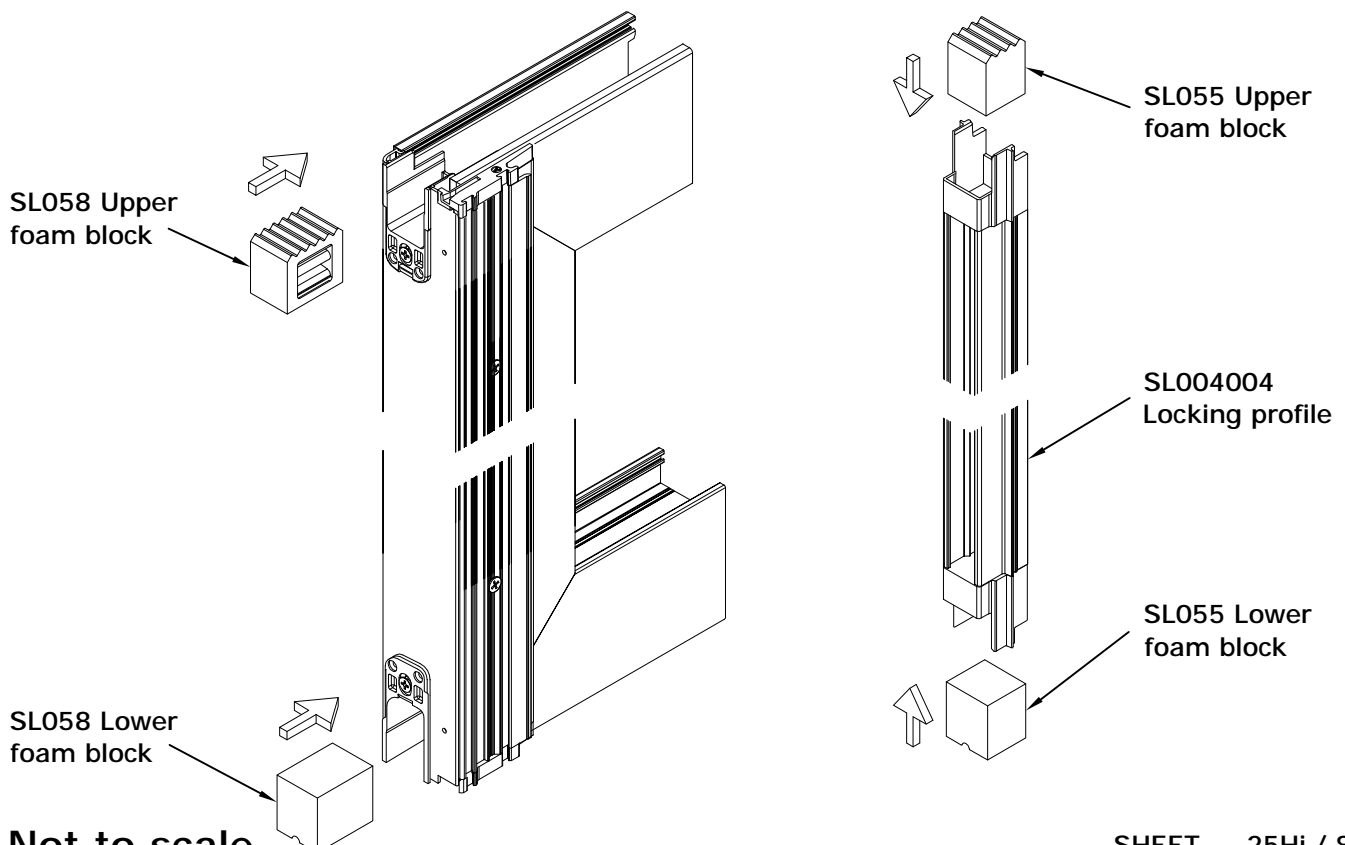
cont...

The following sash installation procedure is based on fitting and adjusting one sash at a time:

In lift and slide and sliding applications temporarily remove anti-lift buffer and anti-lift block assembly (including thermal foam) from SL067 or SL068, from top rail of sash. Slave sashes of 4-pane applications contain anti-lift kit SL060 which should not be removed.



In lift and slide applications insert upper and lower foam blocks from SL058 interlock kit and SL055 sash plug kit into the interlock end of the top and bottom rails. Foam blocks are required for all lift and slide interlock applications, both rebated and in-line, and for in-line interlock details only in the sliding door.



Not to scale

# Installation Procedures

cont...

Check handing and orientation of sashes. Offer head of sash over appropriate track. For slave sash in 4-pane applications ensure handle is in unlocked position (6 o'clock) in order to dis-engage anti-lift kit SL060 and allow slave sash to be fitted over track. Refer to General Arrangement drawings for sash layout details.

Rotate door into position so that carriages are centred on bottom track, and lower into place.

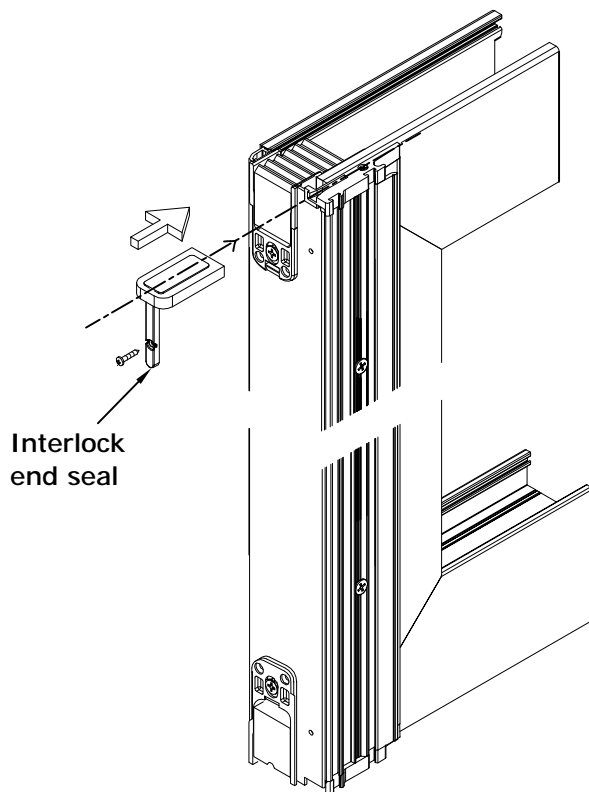
Slide sash into "open" position (including fixed sash) and re-insert anti-lift buffer and anti-lift block assembly (and foam) into top rail from vertical locking gear end and secure using screw provided. Note that anti-lift buffer and anti-lift block assembly may vary from sash to sash. Care must be taken to ensure the correct kit is re-inserted into the correct sash.

In lift and slide applications only fit interlock end seal from SL058 interlock kit into groove in upper B8770 interlock end cap, and fix into place with screw supplied in kit.



## System 25 Hi/Hi+

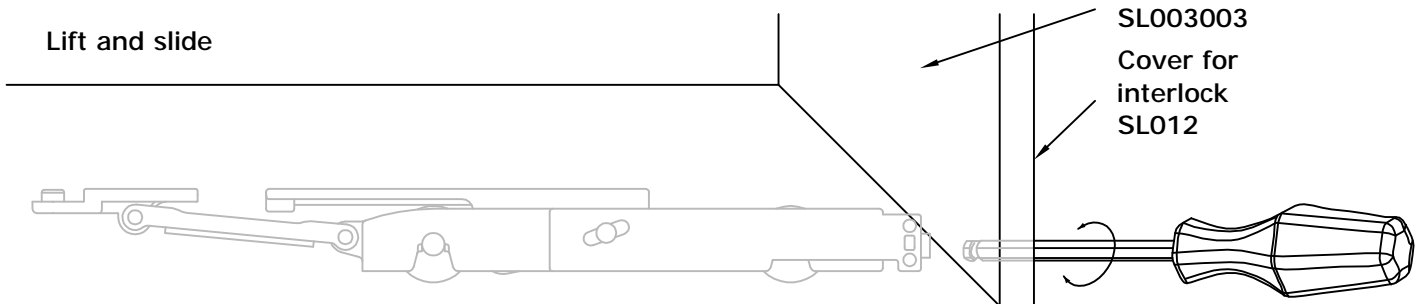
.....  
 SLIDING / LIFT AND  
 SLIDE DOOR  
 .....



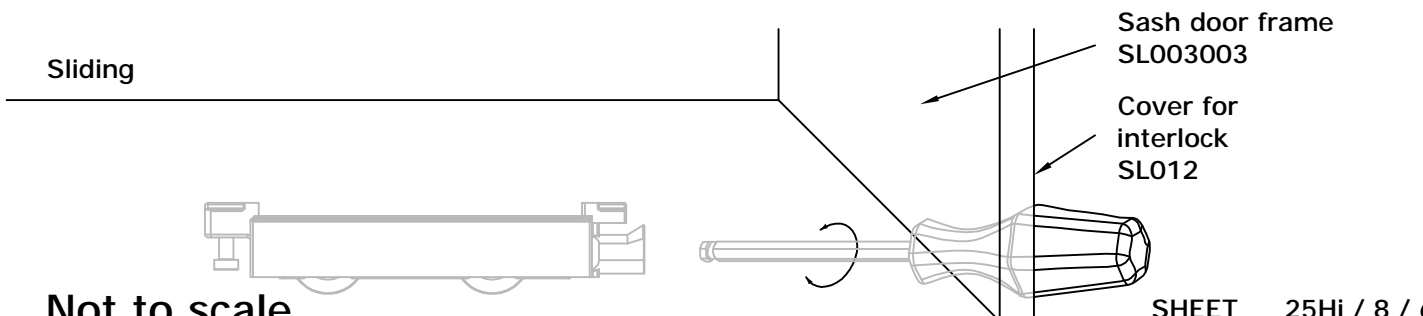
Interlock end seal

For slave and master opening sashes check verticality of leading edge using spirit level. If out of plumb, adjust carriage adjacent to rebated interlock with allen key as illustrated.

Lift and slide



Sliding



Not to scale

# Installation Procedures

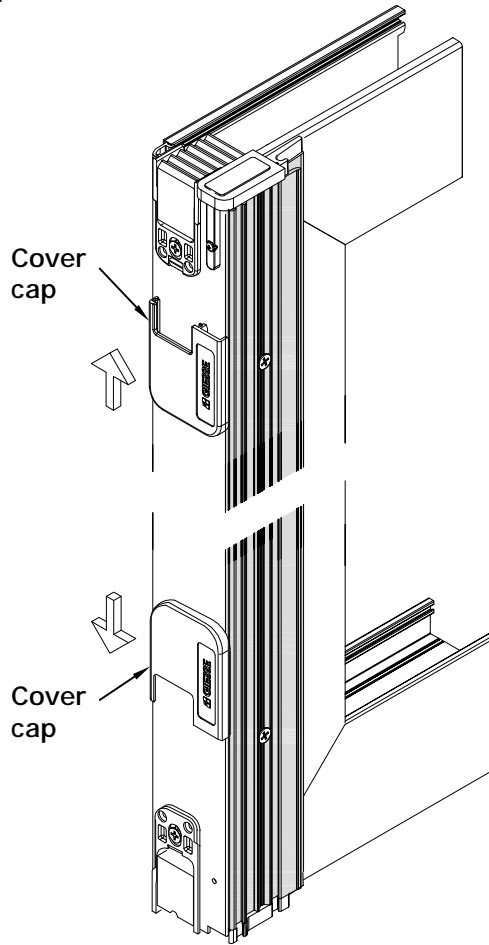


## System 25 Hi/Hi+

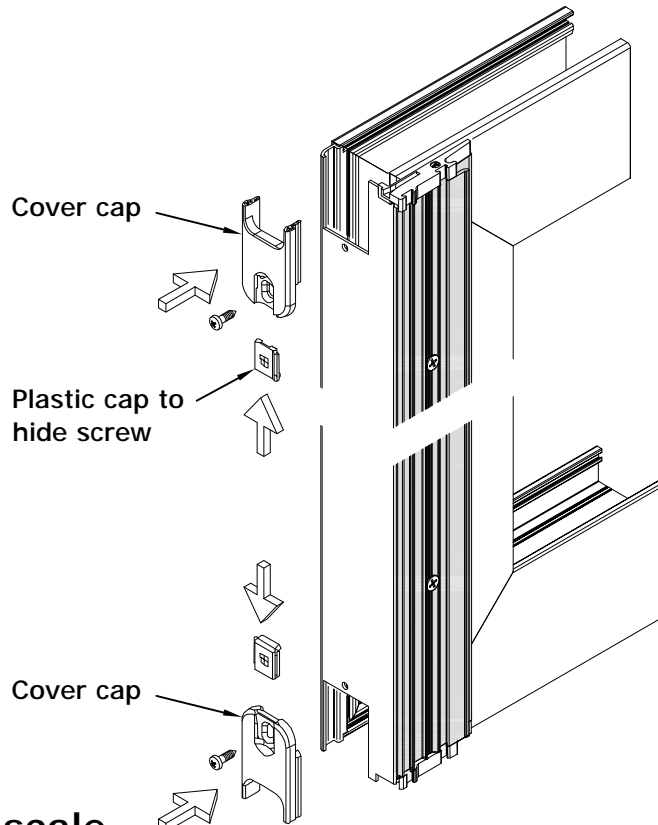
.....  
SLIDING / LIFT AND  
SLIDE DOOR  
.....

cont...

In lift and slide applications slide cover cap from SL058 interlock kit into position over top / bottom rail insert.



In sliding applications fit cover cap from SL059 interlock kit directly to SL012 cover for interlock and fix using screw supplied. Apply plastic cap provided to hide screw.



Not to scale

# Installation Procedures

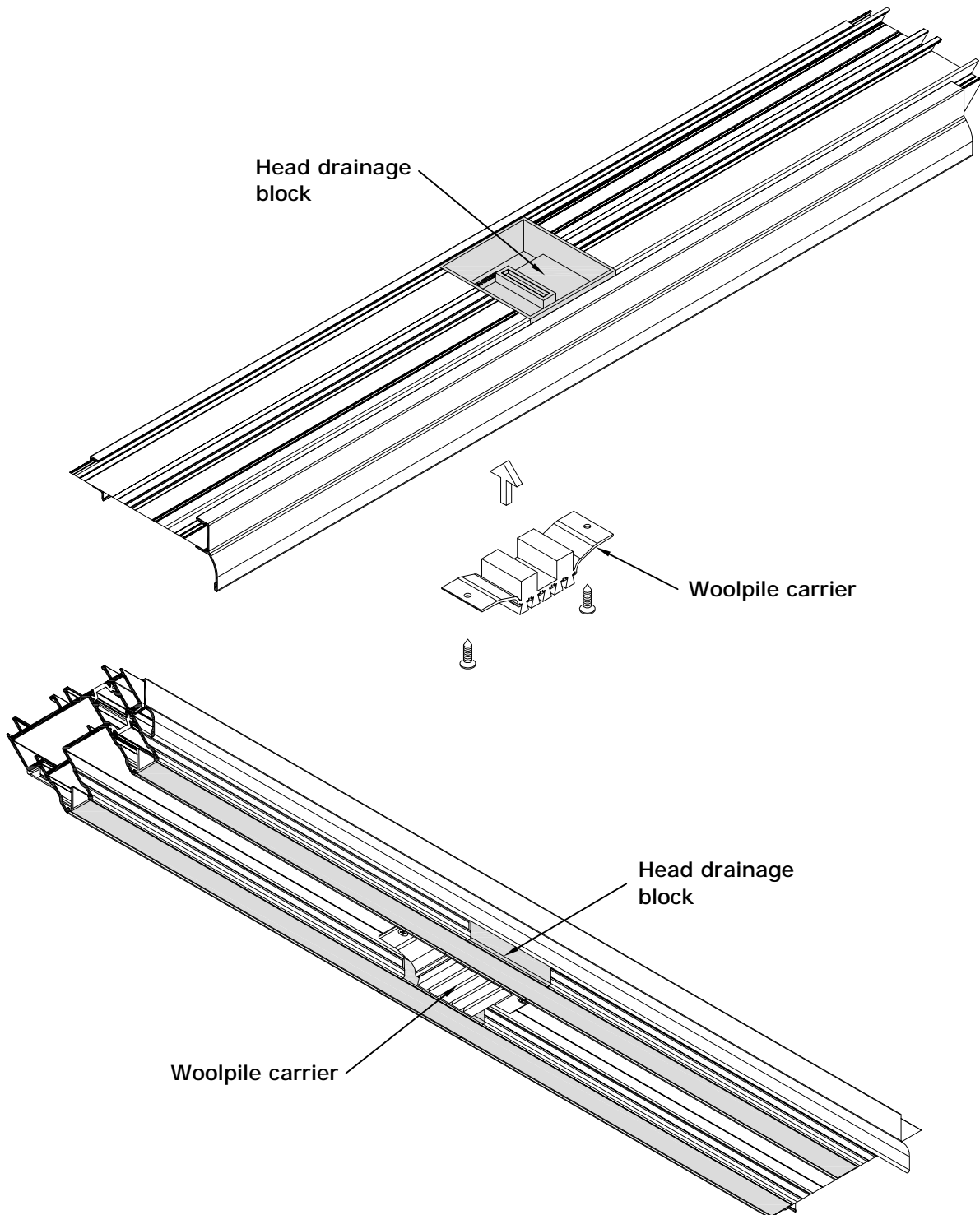


## System 25 Hi/Hi+

.....  
SLIDING / LIFT AND  
SLIDE DOOR  
.....

cont...

In sliding applications only, place sliding leaf in fully open position and insert woolpile carrier at drainage block position in head, as indicated. Screw through visible fixing hole. Close sliding leaf and fix into second visible hole in other side of woolpile carrier.



Scale 1:2

# Installation Procedures

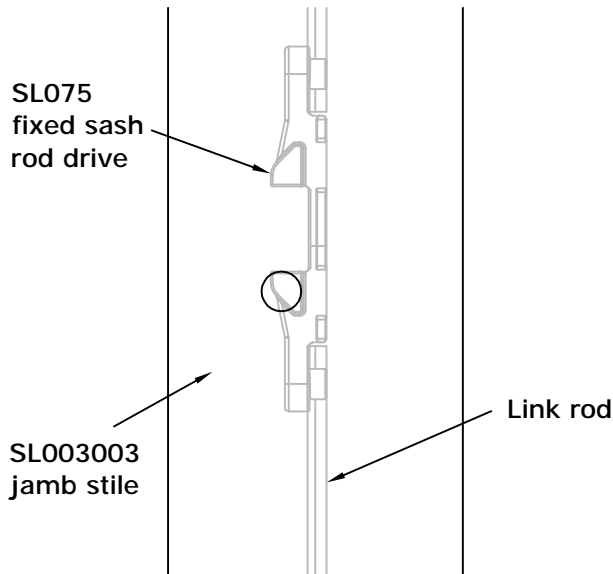


## System 25 Hi/Hi+

.....  
 SLIDING / LIFT AND  
 SLIDE DOOR  
 .....

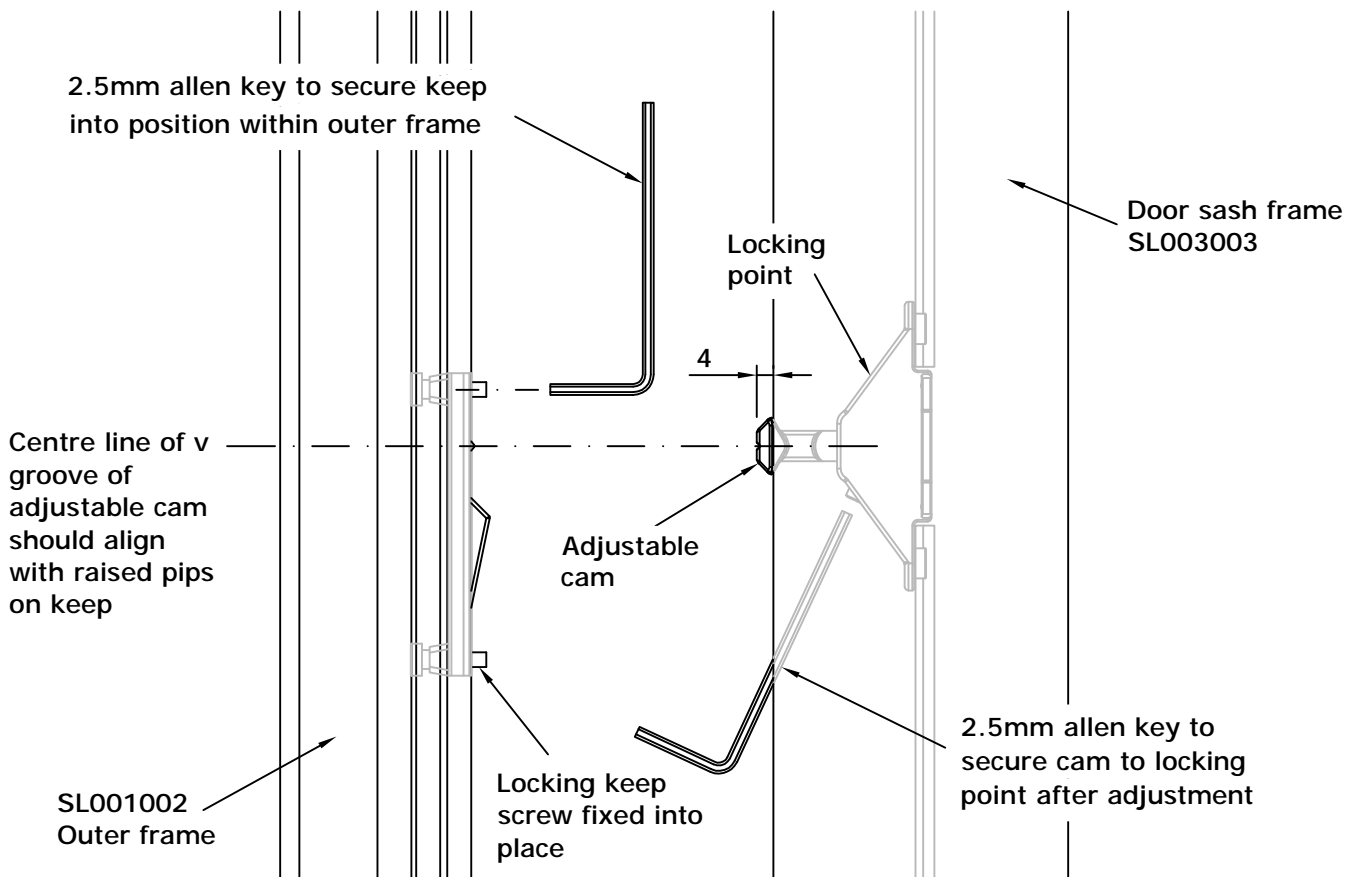
cont...

Ensure vertical locking gear is in unlocked position. For master locking sashes, handle to be in the 6 o'clock position. In fixed sash applications align bottom edge of groove in SL075 fixed sash rod drive with top edge of hole in jamb stile.



In 4-pane applications slave sash must be in locked position (handle at 12 o'clock) before adjusting pins on master locking sash.

Slide sash towards closed position, ensuring vee groove on locking points aligns with pip on keeps. Adjust, if necessary, by loosening grub screw on keep and re-aligning. Infills may need to be trimmed accordingly. Ensure adjustable cam on SL071 locking kit projects 4mm past edge of sash and lock into position using allen key as shown.



Scale 1:2

SHEET 25Hi / 8 / 90  
 rev 4 22/10/13

# Installation Procedures

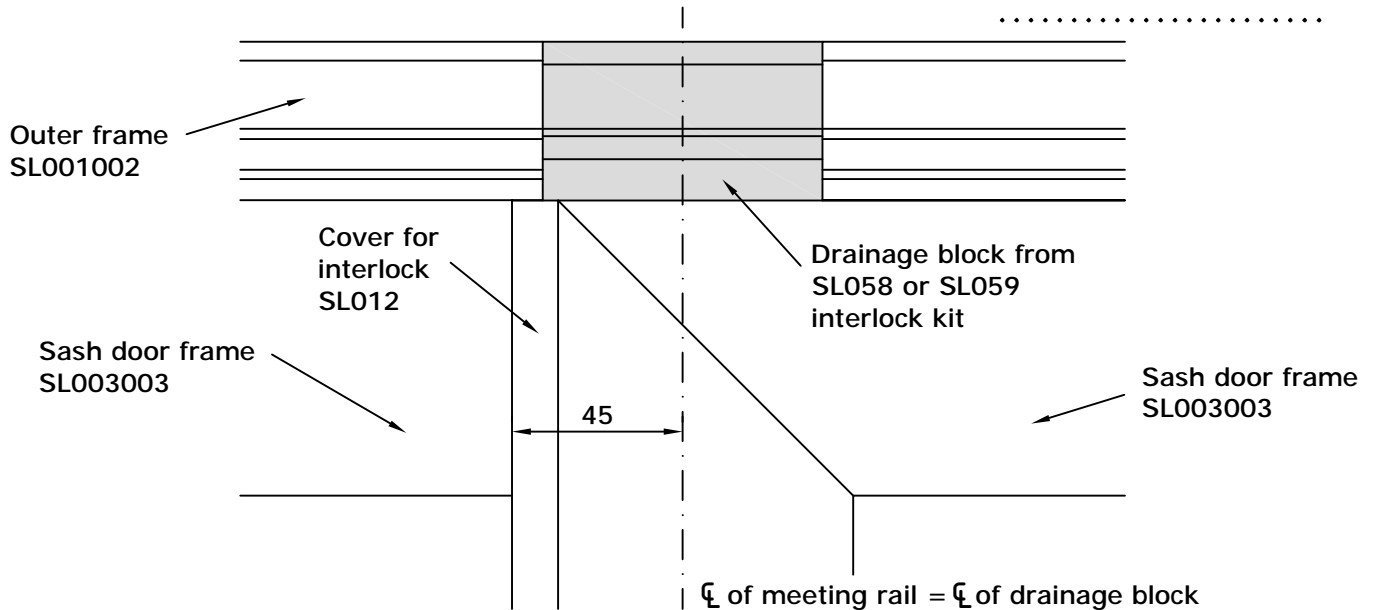


## System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR

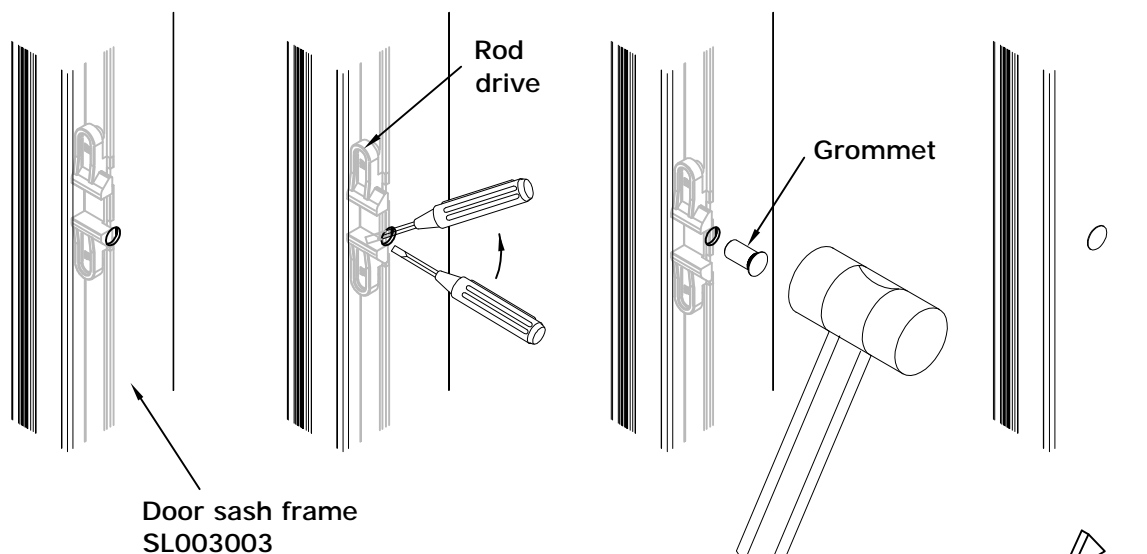
cont...

When adjusting locking points adjustable cams, they should be adjusted to centralise centre line of meeting rail to centre line of drainage blocks. Weather performance will be affected if not adjusted correctly.



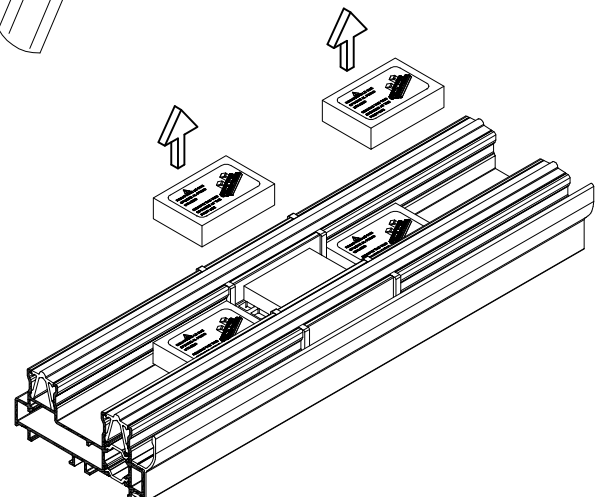
Close sash and secure in position:

- For master and slave moving sashes handle at 12 o'clock position.
- For fixed sashes position sash so that it overlaps outer frame by 8mm. Insert screwdriver into hole in jamb stile and push rod drive downward until top edge of groove in rod drive aligns with top edge of hole in jamb stile. Insert aluminium "grommet" from SL065 fixed sash kit into hole in jamb stile to secure fixed sash in place.



Check operation of sashes and locking points, and make final adjustments as necessary. (Refer to points above). In 4-pane applications always ensure slave leaf is closed and locked prior to closing master locking leaf.

When door is operating satisfactorily check groove between tracks in cill member and remove any debris. When satisfied that there is no risk of any further debris contaminating this area, remove temporary cill sponges. Keeping temporary cill sponges in place will help prevent debris from entering the door drainage system. However, they will also reduce the drainage capacity of the system if left in place.



Not to scale

# Installation Procedures

cont...

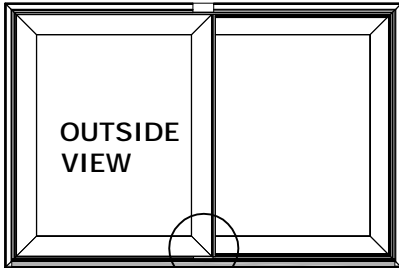
After sashes have been fitted, check the diagonals, plumb, level and verticality of the outer frame. Adjust outer frame / sashes as required before finally tightening lug fixings.

Apply a suitable sealant to the perimeter of the outer frame as per the sealant manufacturers recommendations and instructions. Care must be taken not to seal drainage route below cill drainage block from SL058 / SL059 interlock kits. Any excess sealant should be removed so as not to detract from the finished product/installation.



## System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR



OUTSIDE  
VIEW

Outside cill piece notched for drainage (punch tool JIG25001)

Care must be taken to create a continuous seal along the bottom outer frame ensuring slot in cill drainage block is not obstructed.

External cill cover SL005

Silicone sealant

B

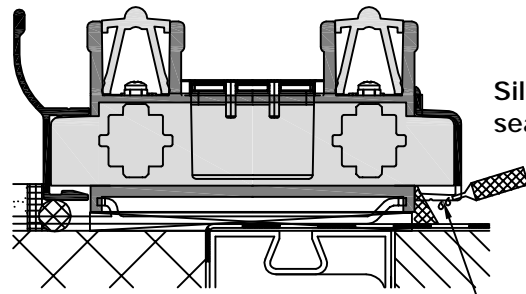
A

B

Cill drainage block from interlock kit SL058 or SL059

A

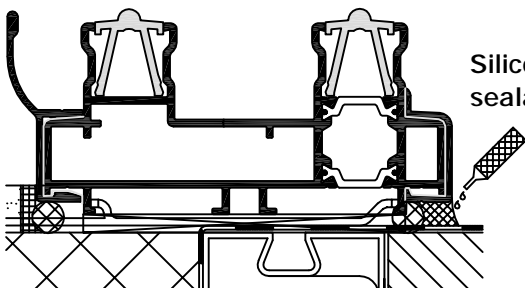
### SECTION A-A



Silicone sealant

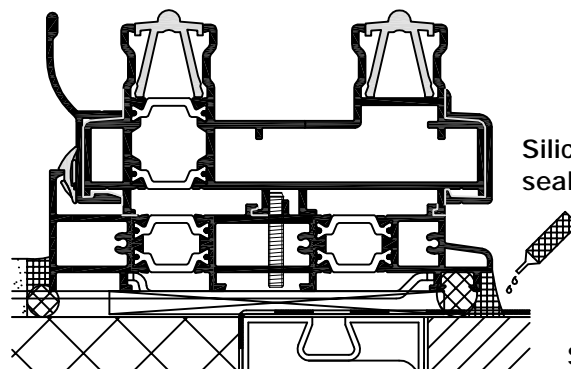
Ensure slot in cill drainage block is not obstructed.

### SECTION B-B



Silicone sealant

### SECTION A-A / B-B



Silicone sealant

Not to scale



# Installation Procedures



## System 25 Hi/Hi+

.....  
SLIDING / LIFT AND  
SLIDE DOOR  
.....

cont...

Cement and plaster can damage the finish of this product if they are not removed promptly. Any such contaminants should be removed using a weak solution of mild detergent in water. (i.e. 5% of Teepol in water)

Finished surfaces should be cleaned with a soft cloth or sponge. Where stubborn marks persist a natural bristle brush may be used with care. Abrasive cleaners, solvents or other cleaning agents should not be used.

For additional information on door installation and glazing refer to BS 6262, other relevant British Standards and/or Metal Technology's Technical Department.

Metal Technology recommend that doors should be installed by experienced and qualified installers. All installers should be fully trained and qualified with regard to the relevant Health and Safety requirements for the applicable site operations and should possess a current CSCS card endorsed with a relevant and recognised NVQ or CWCT Window Installers Part 1 qualification.

# Structural Properties



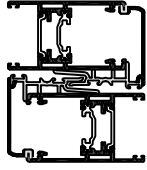
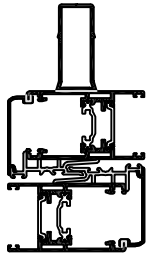
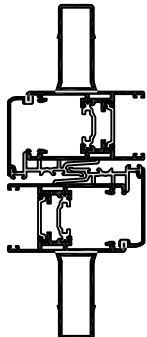
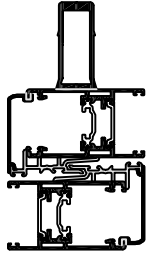
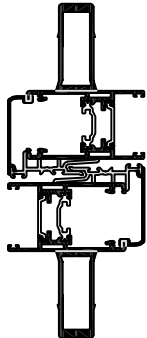
## System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR

Select values according to span

All structural values in cm<sup>4</sup>

Calculation of composite Ixx values based on BS EN 14024

Section		Ixx values (cm <sup>4</sup> ) based on span in metres				Iyy values (cm <sup>4</sup> )
Representative profile drawing	Section Number	1 to 1.5m	1.5 to 2m	2 to 2.5m	2.5 to 2.8m	All spans
	SL003003 SL003003	39.40	44.30	47.30	49.20	48.70
	007 SL003003 SL003003	79.30	89.40	95.80	100.00	51.60
	007 SL003003 SL003003 007	126.00	141.30	151.20	157.80	54.60
	008 SL003003 SL003003	90.87	101.30	108.10	112.60	52.30
	008 SL003003 SL003003 008	149.20	165.20	175.70	182.80	55.90

Scale 1:5

SHEET 25Hi / 9 / 10

rev 4

21/08/13

# Structural Properties



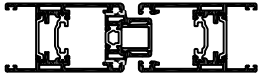
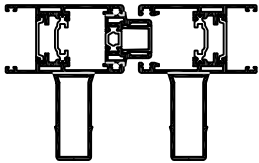
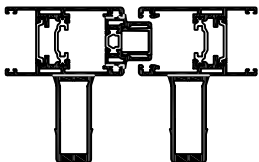
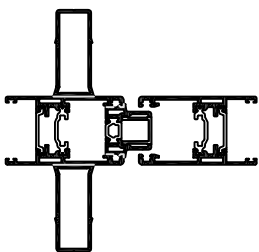

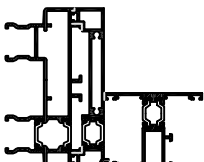
## System 25 Hi/Hi+

SLIDING / LIFT AND  
SLIDE DOOR

Select values according to span

All structural values in cm<sup>4</sup>

Calculation of composite Ixx values based on BS EN 14024

Section		Ixx values (cm <sup>4</sup> ) based on span in metres				Iyy values (cm <sup>4</sup> )
		1 to 1.5m	1.5 to 2m	2 to 2.5m	2.5 to 2.8m	All spans
	SL003003 SL004004 SL003003	28.00	33.10	36.20	38.20	49.00
	SL003003 SL003003 SL004004 007 007	119.10	134.40	144.30	150.90	52.00
	SL003003 SL003003 SL004004 008 008	142.30	158.30	168.90	175.90	55.00
	SL003003 SL003003 SL004004 007 007	136.00	160.00	177.00	190.00	50.00
	SL013014	49.38	53.18	55.42	56.78	1.63
	SL001002 SL013014 102-202	119.45**	129.85**	136.33**	140.24**	18.17**

\*\* Use these values only where the adjoining outer frames of System 25 Hi/Hi+ and window are attached to the coupling mullion over the full height of the coupling mullion.

Scale 1:5



## APPENDIX

### Section 0: Specification, Profile Index and Component ID

25Hi/0/10 rev 5	Specification Hi/Hi+
25Hi/0/20 rev 2	Specification Hi/Hi+
25Hi/0/30 rev 13	Profile Index Hi/Hi+
25Hi/0/40 rev 13	Component Identification Hi/Hi+
25Hi/0/50 rev 24	Component Identification Hi/Hi+
25Hi/0/60 rev 5	Component Identification Hi/Hi+
25Hi/0/70 rev 1	Component Identification Hi+
25Hi/0/80 rev 2	Component Identification Hi/Hi+
25Hi/0/90 rev 4	Component Identification Hi/Hi+

### Section 1: Section Drawings

25Hi/1/10 rev 10	Section Drawings Hi/Hi+
25Hi/1/20 rev 11	Section Drawings Hi/Hi+
25Hi/1/30 rev 0	Section Drawings Hi/Hi+

### Section 2: General Arrangement Drawings

25Hi/2/10 rev 12	General Arrangement - 3-Dimensional Assembly Detail Hi/Hi+
25Hi/2/20 rev 13	General Arrangement - 1 Pane Lift and Slide / 1 Pane Fixed Hi
25Hi/2/30 rev 12	General Arrangement - 1 Pane Sliding / 1 Pane Fixed Hi
25Hi/2/40 rev 12	General Arrangement - 1 Pane Lift and Slide or Sliding / 2 Pane Fixed Hi
25Hi/2/50 rev 12	General Arrangement - 1 Pane Lift and Slide or Sliding / 2 Pane Fixed Hi
25Hi/2/60 rev 9	General Arrangement - 2 Pane Lift and Slide or Sliding / 2 Pane Fixed Hi
25Hi/2/70 rev 10	General Arrangement - Curtain Wall Insert Hi
25Hi/2/80 rev 8	General Arrangement - Jamb Extension for External Opening Sash Hi
25Hi/2/90 rev 7	General Arrangement - 1 Pane Lift and Slide / 1 Pane Fixed Hi+
25Hi/2/100 rev 9	General Arrangement - 1 Pane Sliding / 1 Pane Fixed Hi+
25Hi/2/110 rev 10	General Arrangement - 1 Pane Lift and Slide or Sliding / 2 Pane Fixed Hi+
25Hi/2/120 rev 10	General Arrangement - 1 Pane Lift and Slide or Sliding / 2 Pane Fixed Hi+
25Hi/2/130 rev 6	General Arrangement - 2 Pane Lift and Slide or Sliding / 2 Pane Fixed Hi+
25Hi/2/140 rev 10	General Arrangement - Curtain Wall Insert Hi+
25Hi/2/150 rev 5	General Arrangement - Jamb Extension for External Opening Sash Hi+
25Hi/2/160 rev 1	Mullion Stiffener - For 2, 3 and 4 Pane Doors Hi/Hi+



25Hi/2/170 rev 0	Mullion Stiffener - For 2, 3 and 4 Pane Doors Hi/Hi+
25Hi/2/180 rev 1	Mullion Stiffener - For 3 and 4 Pane Doors Hi/Hi+
25Hi/2/190 rev 0	Mullion Stiffener - For 3 and 4 Pane Doors Hi/Hi+
25Hi/2/200 rev 0	Coupling Detail Hi/Hi+
25Hi/2/210 rev 1	Cill and Head Options Hi/Hi+

### Section 3: Ironmongery Requirements

25Hi/3/10 rev 11	Ironmongery - General Cautionary Notes and Thermal Foams Hi/Hi+
25Hi/3/20 rev 12	Vent Size Limitation Chart - Sliding / Lift and Slide Door Sash SL003003 Hi/Hi+
25Hi/3/30 rev 14	Lift and Slide / Fixed (2 Pane) - Kitting List Hi/Hi+
25Hi/3/40 rev 14	Sliding / Fixed (2 Pane) - Kitting List Hi/Hi+
25Hi/3/50 rev 13	Fixed / Lift and Slide / Fixed (3 Pane) - Kitting List Hi/Hi+
25Hi/3/60 rev 16	Lift and Slide / Fixed / Fixed (3 Pane) - Kitting List Hi/Hi+
25Hi/3/70 rev 15	Fixed / Sliding / Fixed (3 Pane) - Kitting List Hi/Hi+
25Hi/3/80 rev 4	Sliding / Fixed / Fixed (3 Pane) - Kitting List Hi/Hi+
25Hi/3/90 rev 6	Fixed / Lift and Slide / Lift and Slide / Fixed (4 Pane) - Kitting List Hi/Hi+
25Hi/3/100 rev 6	Fixed / Sliding / Sliding / Fixed (4 Pane) - Kitting List Hi/Hi+
25Hi/3/110 rev 5	SL023 Link Rod Details - For 2 and 3 Pane Applications Hi/Hi+
25Hi/3/120 rev 6	SL023 Link Rod Details - For 3 Pane Application Hi/Hi+
25Hi/3/130 rev 4	SL023 Link Rod Details - For 3 Pane Application Hi/Hi+
25Hi/3/140 rev 3	SL023 Link Rod Details - For 4 Pane Application Hi/Hi+
25Hi/3/150 rev 0	Cill, Head and Jamb Closer Sizes - Lift and Slide / Fixed (2 Pane), Sliding / Fixed (2 Pane) Hi/Hi+ Fixed / Lift and Slide / Fixed (3 Pane), Fixed / Sliding / Fixed (3 Pane) Hi/Hi+
25Hi/3/160 rev 1	Cill, Head and Jamb Closer Sizes - Lift and Slide / Fixed / Fixed (3 Pane), Sliding / Fixed / Fixed (3 Pane) Hi/Hi+
25Hi/3/170 rev 1	Cill, Head and Jamb Closer Sizes - Fixed / Lift and Slide / Lift and Slide / Fixed (4 Pane), Fixed / Sliding / Sliding / Fixed (4 Pane) Hi/Hi+

### Section 4: Profile Cutting and Prepping Details

25Hi/4/10 rev 10	Bar Cutting Sizes - Standard 2 Pane, 2 Pane with Jamb Extension Hi/Hi+
25Hi/4/20 rev 16	Bar Cutting Sizes - Standard 3 Pane, Standard 3 Pane, 3 Pane with Jamb Extension Hi/Hi+
25Hi/4/30 rev 17	Bar Cutting Sizes - 4 Pane Hi/Hi+
25Hi/4/40 rev 18	Fabrication and Cutting Sizes (2 Pane) - 1 Pane Lift and Slide / 1 Pane Fixed, 1 Pane Sliding / 1 Pane Fixed Hi/Hi+
25Hi/4/50 rev 10	Fabrication and Cutting Sizes (2 Pane with Jamb Extension) - 1 Pane Lift and Slide / 1 Pane Fixed, 1 Pane Sliding / 1 Pane Fixed Hi/Hi+
25Hi/4/60 rev 3	Fabrication and Cutting Sizes (3 Pane) - 1 Pane Lift and Slide / 2 Pane Fixed, 1 Pane Sliding / 2 Pane Fixed Hi/Hi+
25Hi/4/70 rev 2	Fabrication and Cutting Sizes (3 Pane with Jamb Extension) - 1 Pane Lift and Slide / 2 Pane Fixed, 1 Pane Sliding / 2 Pane Fixed Hi/Hi+
25Hi/4/80 rev 5	Fabrication and Cutting Sizes (4 Pane) - 2 Pane Lift and Slide / 2 Pane Fixed, 2 Pane Sliding / 2 Pane Fixed Hi/Hi+
25Hi/4/90 rev 7	Handing of Outer Frame Profiles - For 2 pane and 3 pane applications Hi/Hi+
25Hi/4/100 rev 3	Handing of Outer Frame Profiles - For 4 pane applications Hi/Hi+
25Hi/4/110 rev 3	Outer Frame Prep Details Hi/Hi+



25Hi/4/120 rev 3	Sash Prep Details Hi/Hi+
25Hi/4/130 rev 4	Sash Prep Details - Adjustable Glass Stop SL040 Hi/Hi+
25Hi/4/140 rev 3	Sash Prep Details - SL051 Locking Handle Hi/Hi+
25Hi/4/150 rev 3	Sash Prep Details - SL101E External Pull Handle Hi/Hi+
25Hi/4/160 rev 3	Sash Prep Details - SL102 External Pull Handle Hi/Hi+
25Hi/4/170 rev 2	Sash Prep Details - SL075 Fixed Sash Rod Drive Hi/Hi+
25Hi/4/180 rev 2	Sash Prep Details - SL082 Door Stop Hi/Hi+
25Hi/4/190 rev 1	Interlock Cover SL012 Prep Details Hi/Hi+
25Hi/4/200 rev 1	Locking Profile SL004004 Prep Details Hi/Hi+
25Hi/4/210 rev 1	End Prep for SL015015 Jamb Extension Hi/Hi+
25Hi/4/220 rev 0	Mullion Stiffener - 007, 008 and 009 Prep Detail Hi/Hi+

#### Section 5: Drainage Details

25Hi/5/10 rev 11	Drainage Detail - Lift and Slide Door Frame Hi/Hi+
25Hi/5/20 rev 10	Drainage Detail - Sliding Door Frame Hi/Hi+
25Hi/5/30 rev 6	Drainage Detail - Fixed Sash for Lift and Slide and Sliding Door Hi/Hi+
25Hi/5/40 rev 5	SL099 Outer Frame Drainage End Seal Hi/Hi+
25Hi/5/50 rev 2	SL005 Drainage Detail - Cill Cover Hi/Hi+

#### Section 6: Assembly Details

25Hi/6/10 rev 9	Head and Cill Profile Assembly - Drainage Block from SL058 or SL059 Interlock Kit Hi/Hi+
25Hi/6/20 rev 10	Head and Cill Profile Assembly - SL005 and SL006 Application Details Hi/Hi+
25Hi/6/30 rev 8	Corner Assembly Detail - Outer Frame Hi/Hi+
25Hi/6/40 rev 13	Corner Assembly Detail - Outer Frame Hi/Hi+
25Hi/6/50 rev 12	SL015015 Jamb Extension Assembly Hi/Hi+
25Hi/6/60 rev 9	Outer Frame Prep Details for SL015015 Jamb Extension Hi/Hi+
25Hi/6/70 rev 10	SL104105106 Sub-Cill Assembly Hi/Hi+
25Hi/6/80 rev 11	Head / Jamb and Cill Closer Application Hi/Hi+
25Hi/6/90 rev 11	Sash Assembly Hi/Hi+
25Hi/6/100 rev 7	Sash Assembly - Woolpile/Gasket Application Hi/Hi+
25Hi/6/110 rev 11	Sash Assembly - Woolpile/Gasket Application Hi/Hi+
25Hi/6/120 rev 6	Sash Assembly - Adjustable Glass Stop SL040 Hi/Hi+
25Hi/6/130 rev 5	Sash Assembly - Glazing Support Block SL094 Hi/Hi+
25Hi/6/140 rev 5	Sash Assembly - SL087 and SL088 Corner Chevrons Hi/Hi+
25Hi/6/150 rev 10	Sash Assembly - SL084 Corner Cleat Hi/Hi+
25Hi/6/160 rev 3	Glazing Requirements Hi/Hi+
25Hi/6/170 rev 6	Sash Assembly - SL012 and SL021 Meeting Stile Fixing Details Hi/Hi+

- 25Hi/6/180 rev 8 Sash Assembly - SL012 and SL021 Meeting Stile Fixing Details Hi/Hi+
- 25Hi/6/190 rev 1 Sash Assembly - SL004004 Locking Profile Fixing Details Hi/Hi+



**Section 7: Ironmongery Assembly and Foams**

- 25Hi/7/10 rev 7 Locking Gear Assembly to Lift and Slide Sash Hi/Hi+
- 25Hi/7/20 rev 14 Carriage Assembly to Lift and Slide Sash Hi/Hi+
- 25Hi/7/30 rev 12 Carriage Assembly to Sliding Sash Hi/Hi+
- 25Hi/7/40 rev 4 Locking Gear Assembly to Sliding Sash Hi/Hi+
- 25Hi/7/50 rev 4 Anti-Lift Kit Assembly - For Slave Leaf of 4-pane Applications Hi/Hi+
- 25Hi/7/60 rev 7 Carriage Assembly to Fixed Sash Hi/Hi+
- 25Hi/7/70 rev 5 Locking Gear Assembly to Fixed Sash Hi/Hi+
- 25Hi/7/80 rev 6 SL082 Door Stop Fitting Details Hi/Hi+
- 25Hi/7/90 rev 8 SL101E External Pull Handle Assembly Details Hi/Hi+
- 25Hi/7/100 rev 7 SL102 External Pull Handle Assembly Details Hi/Hi+
- 25Hi/7/110 rev 4 Locking Point Assembly Hi/Hi+
- 25Hi/7/120 rev 3 Outer Frame Thermal Foam Hi+
- 25Hi/7/130 rev 3 Lift and Slide Thermal Sash Foam - SL092 and SL097 for Head, Cill and Locking Jamb Hi+
- 25Hi/7/140 rev 8 Sliding Thermal Sash Foam - SL092 and SL097 for Head, Cill and Locking Jamb Hi+
- 25Hi/7/150 rev 4 Fixed Sash Thermal Foam - SL092 and SL097 for Head, Cill and Jamb Hi+
- 25Hi/7/160 rev 4 Interlock Thermal Foam Hi+

**Section 8: Installation**

- 25Hi/8/10 rev 7 Typical Fixing Detail Hi/Hi+
- 25Hi/8/20 rev 8 Typical Sub-Cill Detail Hi/Hi+
- 25Hi/8/30 rev 8 Installation Procedures Hi/Hi+
- 25Hi/8/40 rev 4 Installation Procedures Hi/Hi+
- 25Hi/8/50 rev 5 Installation Procedures Hi/Hi+
- 25Hi/8/60 rev 4 Installation Procedures Hi/Hi+
- 25Hi/8/70 rev 2 Installation Procedures Hi/Hi+
- 25Hi/8/80 rev 6 Installation Procedures Hi/Hi+
- 25Hi/8/90 rev 4 Installation Procedures Hi/Hi+
- 25Hi/8/100 rev 3 Installation Procedures Hi/Hi+
- 25Hi/8/110 rev 2 Installation Procedures Hi/Hi+
- 25Hi/8/120 rev 1 Installation Procedures Hi/Hi+

**Section 9: Structural Properties**

- 25Hi/9/10 rev 4 Structural Properties Hi/Hi+
- 25Hi/9/20 rev 2 Structural Properties Hi/Hi+