



**Optima 117 plus**

Single Glazed  
Partition System

16 July 2014

# Installer's Guide

## General Introduction

The purpose of this Installer's Guide is to illustrate the specific sequence and method for construction of **Optima 117 plus single glazed partition system**. It is assumed that the fitting teams carrying out the installation have the necessary skills to set out, operate the tools required and install the system to the required standard.

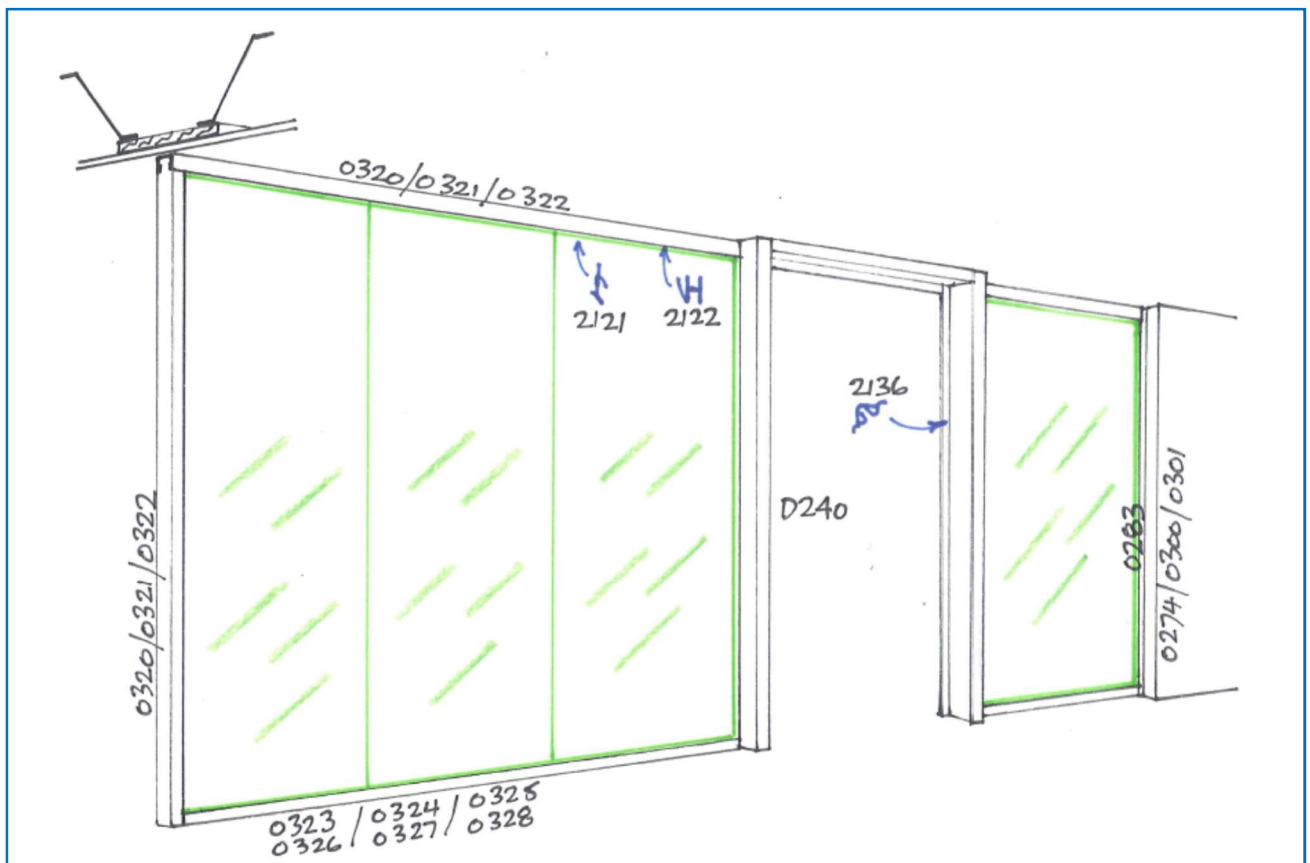
It is further assumed that good practice for installing factory-finished linear track sections will be followed at all times. This will include:

- Avoid cut lines/butt-joints coinciding on multi-section tracks – example: Floor track and glazing beads
- Ensure that where butt-jointing aluminium sections, the painted end of the extrusion is cut off first. This will ensure a good joint by removing the uneven end that can occur during the extrusion and painting process. When referenced in the following text, a full length is assumed to have been trimmed.
- Pre-drill and countersink all fixing holes to ensure that all countersunk fixing screws sit flush.
- Fix tracks to all abutments with fixings at maximum 300mm centres.
- To maintain the acoustic integrity ensure all abutment tracks are properly sealed to the structure with either the factory supplied (fitted) foam tapes or proprietary acoustic sealant. There should be no visible air gaps between track and structure.

It is the installer's responsibility to select fixings appropriate to the fixing substrate, since it is not possible to anticipate the nature of projects in advance. No recommendations will be made in this document. When considering the choice of fixings it is essential that the selection is capable of supporting the specified line load.

The text of this Installer's Guide, as far as possible, has been written in an abbreviated form in order to keep the document as short as possible. Where a particular component or track section is mentioned without an accompanying sketch, it will be annotated in bold text. The reader should refer to the appendix at the back of the document to cross reference the component code with an illustration for identification. Reference should also be made to The **Optima Designer's Guide** for typical installation configurations.

## Typical Arrangement



## Installation Sequence

The following is the installation sequence based on a standard installation having no provision for live load deflection as recommended by Optima Products Limited. Deviations from this sequence are permitted provided that the quality of the completed installation is not compromised.

The installation method is described with reference to a setting-out line drawn on the centreline of the 25mm glazing channels.

### 1 Prepare the Surrounding Structure

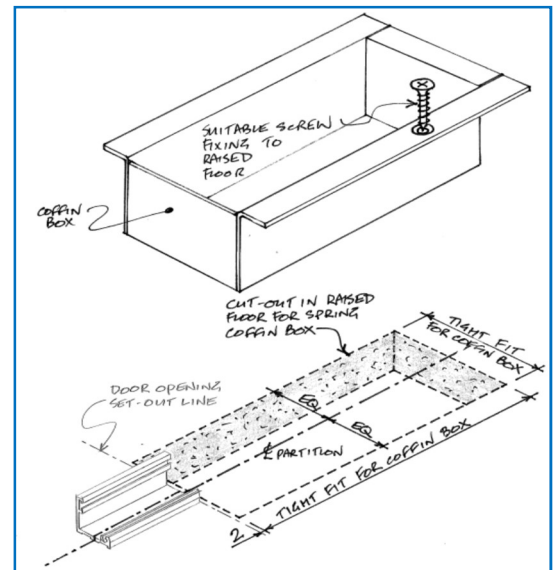
- Ensure all abutments are complete and preferably painted.
- The ceiling must be capable of supporting the weight of the head track and receiving its fixings. With a plasterboard ceiling, where fixings into the ceiling framework are assured, this may be sufficient. However, it is preferable and with tiled ceilings, essential that a suitable patress is positioned above the ceiling on the line of the head track. This will be ideally 18 or 25mm plywood. It may also be necessary to brace the patress back to the slab to eliminate any lateral movement in the event of a line load or eccentric door load being applied.
- Where tapeable glazing bars are being used at a drywall end, these should be fitted, taped and filled prior to commencing the partition installation. Refer to the appropriate Installer's Guide for specific installation details for tapeable glazing bars.

### 2 Prepare the Floor for Doors

Before installing the door frames the floor needs to be prepared for the doors by either cutting-in the floor springs or free-swing pivots.

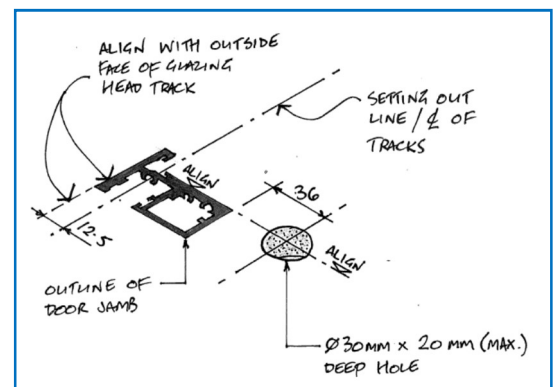
For frameless in-line pivoting doors:

- When using a **floor spring**, set-out the door opening on the partition centreline. This will be the positions where the floor tracks will terminate and will be 6mm wider than the door leaf.
- Measure back 2mm and position a coffin box over the set-out lines, equally either side of the centreline, mark and cut the coffin box hole for a tight fit.
- Drop the coffin box into the hole and fix in position using screws appropriate to the floor tile material.

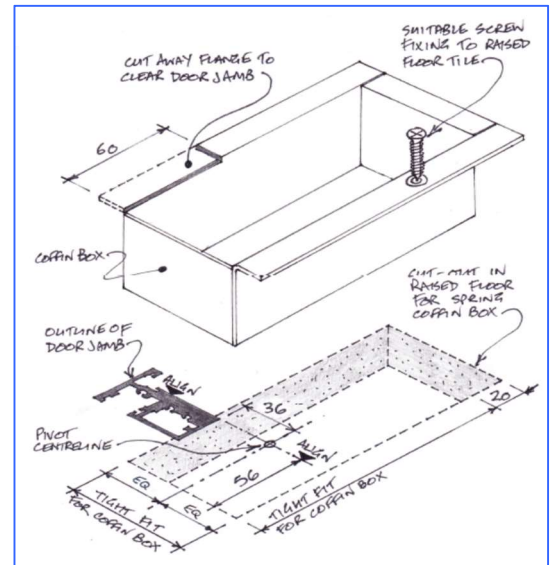


For doors in Microflush frames:

- Set out the position of the door frames and mark each jamb position on the setting-out line
- Plumb down each jamb position and mark clearly on the floor.
- From the door hinge jamb position, set-out the position of the pivot centreline. Project the face of the door rebate into the room and measure along the line 36mm from the inner face of the door frame. This will be the position of the pivot centreline – see detail.
- For a **free-swing pivot**, at the pivot centreline, drill a 30mm diameter hole to a maximum depth of 20mm (assuming fixing on a raised access floor).



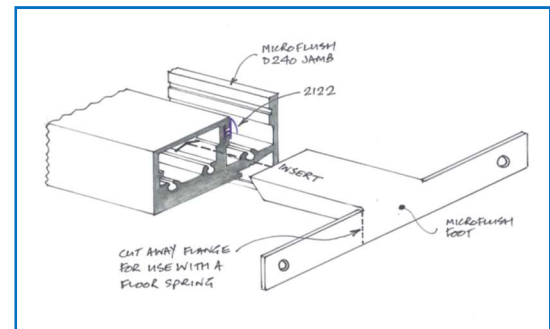
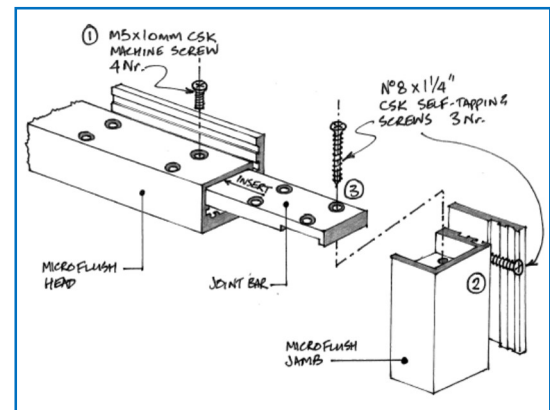
- For doors having a **floor spring**, draw a line parallel with the partition centreline through the pivot point and measure 56mm to the end of the floor spring coffin box – see detail.
- Position a coffin box over the set-out lines, equally spaced either side of the pivot centreline, mark and cut the coffin box hole for a tight fit **plus** 20mm on the length.
- Drop the coffin box into the hole (having first notched one flange to clear the door jamb) but do not fix in position. This will allow some adjustment of the pivot position during door installation.



### 3 Install the Microflush Door Frames

Before installing the door frames, they must first be assembled. They will be supplied in kit form as two jambs, a head and a set of fittings and screws. The following details are drawn for the Microflush D240 door jamb (**0333**).

- Cut the door frame jambs (**0333**) to length. This will be 2mm shorter than the tight dimension from the ceiling to the floor.
- Position and fix the Jamb/Head joint bars. Slide the bars into each end of the head section, leaving the notched end exposed and aligning the 4 nr tapped holes with the holes in the head section. Secure each joint bar using the 4 nr M5 x 10mm countersunk machine screws provided and hand tighten. ①
- Offer each jamb to the head, slotting the joint bar into the notch at the top of the jamb.
- Secure the jamb firstly by driving a No 8 x 1 1/4" countersunk self-tapping screw horizontally through the jamb into the screw port in the head and torque tighten. ②
- Drive a pair of No.8 x 1/4" countersunk self-tapping screws through the remaining holes in the joint bar into the screw ports in the jamb and hand tighten. ③
- Finally, ensure the head and jambs are mated correctly and torque-tighten all the screws before standing in position.
- Insert a continuous length of glazing inner gasket in each door jamb (**2122** for 12/12.8mm glass; **2205** for 10/10.8mm glass).
- Insert a Microflush foot into the base of each jamb. This will be a tight fit and may need to be tapped home using a hammer.



Note: If using a floor spring, one of the foot flanges will need to be cut away to avoid a conflict with the spring.

- Stand the frame in position and fix directly to the ceiling using appropriate screws through the pre-drilled holes in the frame head
- With the door frame head secured, plumb and secure the base of the jamb by fixing through the base cleat into the raised floor tile with a suitable fixing screw.
- Snap-fit the door frame gasket (**2136**) to complete the door frame installation.

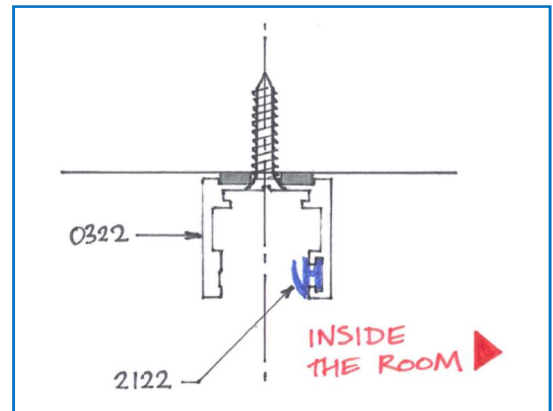
To install a door frame under a continuous partition head track refer to section **A-3 Door Frame** (on page 12). The installation method follows the same principles as for a deflection head and uses Microflush frames D340 or D350. Note that this method requires the use of 36mm wide track sections



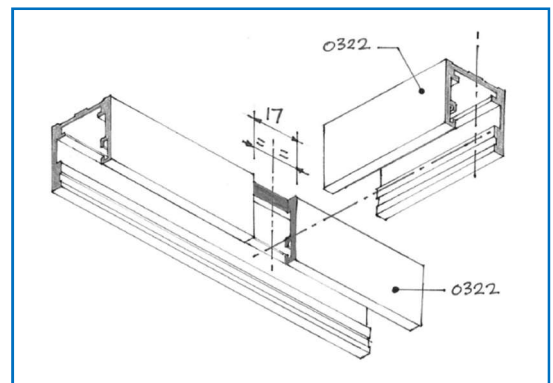
## 4 Install the Head Track

The head track is single 25mm wide aluminium extrusion of 25 mm, 40mm or 50mm depth. A range of similar extrusions of 36mm width may also be used. The following description is for the 25mm wide x 25mm deep section but all sections follow the same method.

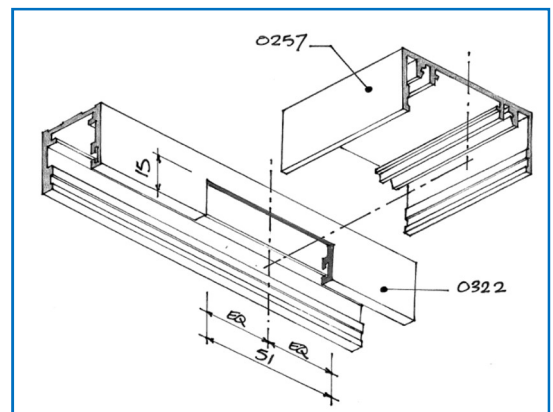
- The head track (**0322**) should be cut for a continuous tight fit between vertical abutments and door frames with 90° corners cut with two clean 45° mitres and drilled for fixing along its centreline.
- Insert a continuous length of glazing inner gasket (**2122** for 12/12.8mm glass; **2205** for 10/10.8mm glass).
- Before fixing head track in position, ensure that the two grooves on the top surface are fitted with acoustic foam tape.
- Fix the track with the **gasket towards the room side**.



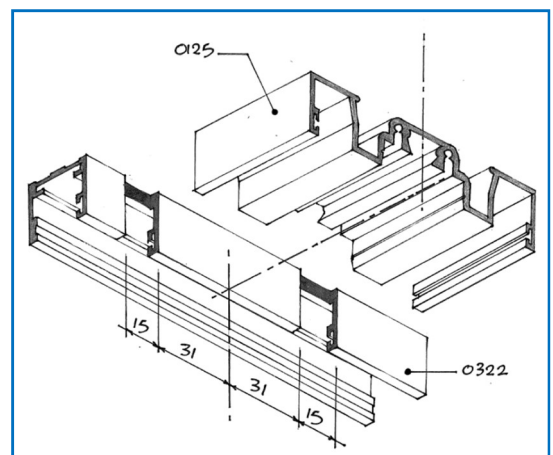
- To form a 3-way junction (for example to a fin) the office front track must be notched to allow the offset glass to pass through.
- On the centreline of the fin cut a 17mm wide opening in the face of the track, ensuring that the cut is deep enough not to leave any obstructing metalwork.



- To form a 3-way junction to a double glazed fin using Revolution 54 track section **0257**, the office front track must be notched to allow both panes of the offset glass to pass through.
- On the centreline of the fin cut a 51mm wide opening in the face of the track to a height of 15mm.
- Note: The Revolution 54 Glazing Inner Clip (**0227**) will need to be notched to pass through the aperture.



- To form a 3-way junction to a double glazed fin using Revolution 97 track section **0125**, the office front track must be notched to allow both panes of the offset glass to pass through.
- At 31mm either side of the fin centreline cut a 15mm wide opening in the face of the track, ensuring that the cut is deep enough not to leave any obstructing metalwork.



## 5 Install the Wall Abutment Tracks

Surface mounted wall abutments are used when fixing direct to an adjacent structure – example: face of a drywall partition. In this case, ensure that the abutment is complete with any plaster skim or tape & fill complete, sanded and primed and preferably painted to avoid any decorator's over-spill.

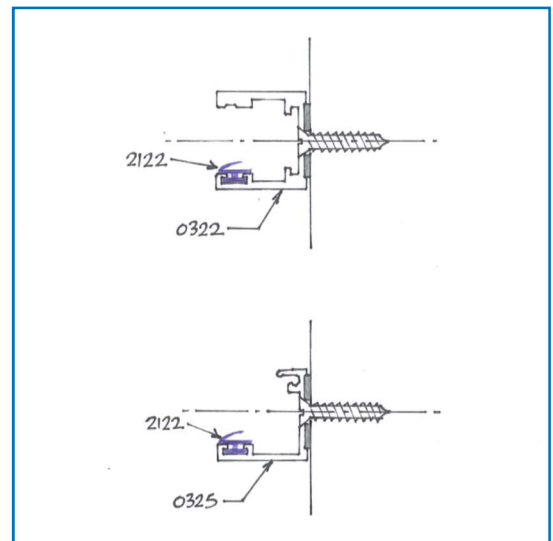
It is important that the abutment is capable of taking a suitable fixing itself or (if drywall) contains a suitable fixing ground centred on the line of the partition.

In order to avoid the risk of acoustic weakness, it is important for the surface of the wall to be even so that the acoustic foam tapes on the abutment track have a good surface compression. In the event of an uneven surface where the tapes cannot give a good seal, a silicone bead may be applied to the length of the abutment.

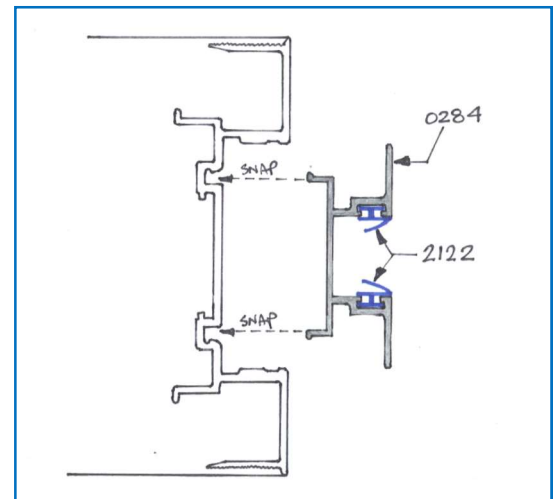
There are two options for surface mounted wall abutments:

- The standard wall abutment (**0322**) should be cut for a continuous tight fit between the floor and the underside of the head track and drilled for fixing along its centreline.
- Before fixing abutment track in position, insert a continuous length of glazing inner gasket (**2122** for 12/12.8mm glass; **2205** for 10/10.8mm glass) and ensure that the two grooves on the rear surface are fitted with acoustic foam tape.
- Where there are either one or two glass modules in the run, it is advisable to use the floor track (**0325**) and floor track beads (**0328**) for a wall abutment. This will give more flexibility in installing the glass.

In both cases the gasket must be positioned towards the inside of the room.



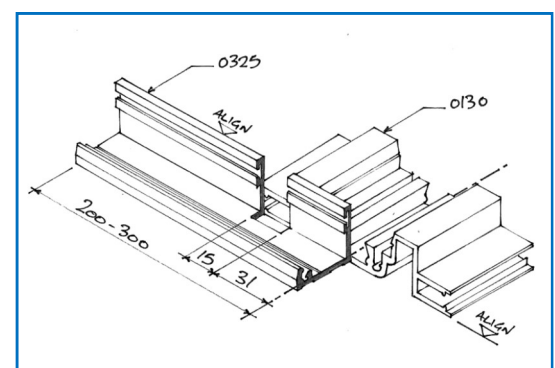
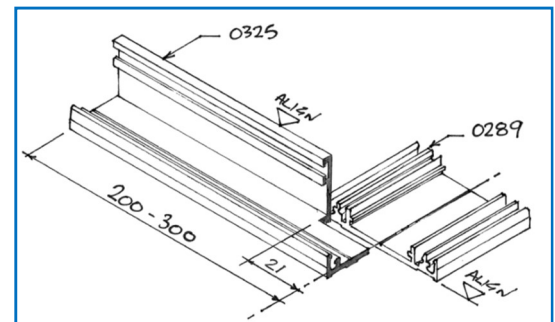
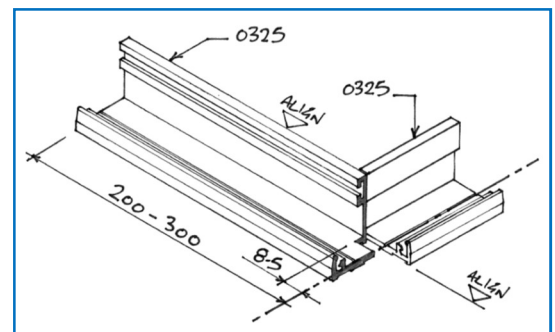
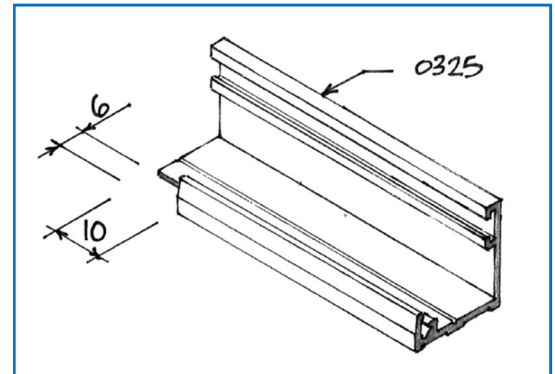
- When building away from drywall having one of the Optima tapeable glazing bars, this must be fitted with a glazing inner clip.
- Cut a length of glazing inner clip (**0284**) for a tight fit between floor and underside of head track.
- Insert a pair of continuous lengths of glazing inner gasket (**2122** for 12/12.8mm glass; **2205** for 10/10.8mm glass) before snapping into the glazing bar.



## 6 Fit the Floor Track

The floor track is a 2-part unit, having a secondary removable glazing bead which is fitted during glazing.

- Where standard wall abutment tracks or tapeable glazing bars have been used, cut the floor track (**0325**) for a tight fit between abutment tracks (and door jambs) and drill for fixing along its centreline.
- Before fixing floor track in position, insert a continuous length of glazing inner gasket (**2122** for 12/12.8mm glass; **2205** for 10/10.8mm glass) and ensure that the two grooves on the bottom surface are fitted with acoustic foam tape.
- Fix the track with the gasket towards the room side and the open track facing out.
- Where the a floor track has been used for a wall abutment, cut a notch 10mm long x 6mm deep at the abutment end of the floor track. This will enable the abutment bead to be removed without taking out the whole floor track.
- For 3-way junctions, fit a short section of track (200-300mm) either side of the fin centreline. These will need to be notched to allow the fin glass to pass through and the notch dimensions will vary depending on the system used for the fin.
- For an Optima 117 **plus** fin, notch the floor tracks either side of the fin centreline to remove the rear wall and gasket housing of the floor track (**0325**) by 8.5mm – see detail.
- For a Revolution 54 double glazed fin, notch the floor tracks either side of the fin centreline to remove the rear wall and gasket housing of the floor track (**0325**) by 21mm – see detail.
- For a Revolution 97 double glazed fin, cut a 15mm wide notch 31mm from the cut end either side of the fin centreline to remove the rear wall and gasket housing of the floor track (**0325**) – see detail.
- For 90° corners, cut both sections with a 45° mitre.

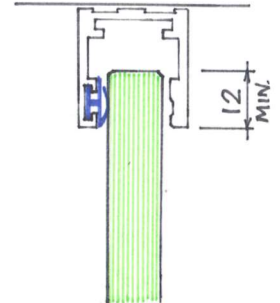


## 7 Measure and Install the Glazing

- Measure the glass for penetration into the floor tracks as described below. Note: In all cases, the minimum penetration must be 12mm. The following examples are for 25mm wide tracks. The same principles apply for the 36mm tracks also.

- Head Tracks:

Measure 12mm (minimum) into the tracks - Ref: **0320** (50mm deep); **0321** (40mm deep); **0322** (25mm deep).

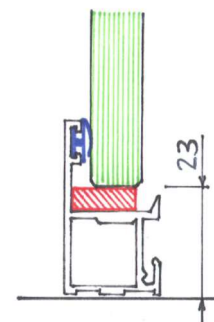
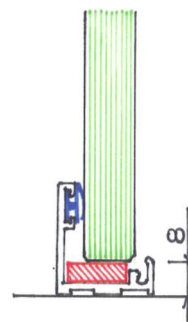


- Floor Tracks:

Allowing for a 4mm glazing packer

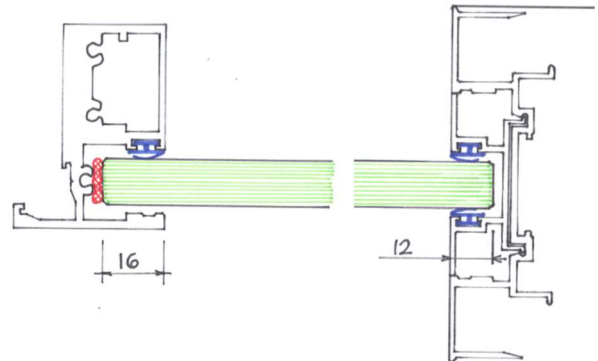
Measure 8mm off the floor/fixing surface – Ref: **0325** (25mm deep)

Measure 23mm off the floor/fixing surface – Ref: **0323** (50mm deep); **0324** (40mm deep)



- Tapeable Glazing Bar (**0274**, **0300** or **0301**) with snap-in Glazing Inner Clip (**0284**):

Measure 12mm into the glazing inner clip.



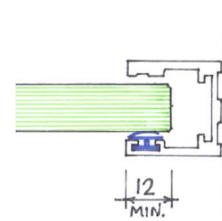
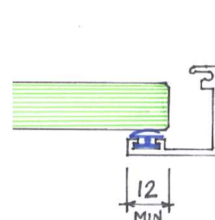
- Door Jamb (Microflush D240):

Allowing for a (nom) 2.5mm silicone stitch  
Measure 16mm into the door jamb

When glazing, apply a short (25mm) stitch of clear glazing silicone to the top, middle and bottom of the door jamb glazing slot to bed the glass into. Allow 24 hours for the silicone to cure before hanging the door.

- Surface-Fixed Wall Abutment:

Measure 12mm minimum into one-piece sections Ref: **0320** (50mm deep); **0321** (40mm deep); **0322** (25mm deep), and beaded sections Ref: **0323** (50mm deep); **0324** (40mm deep); **0325** (25mm deep).



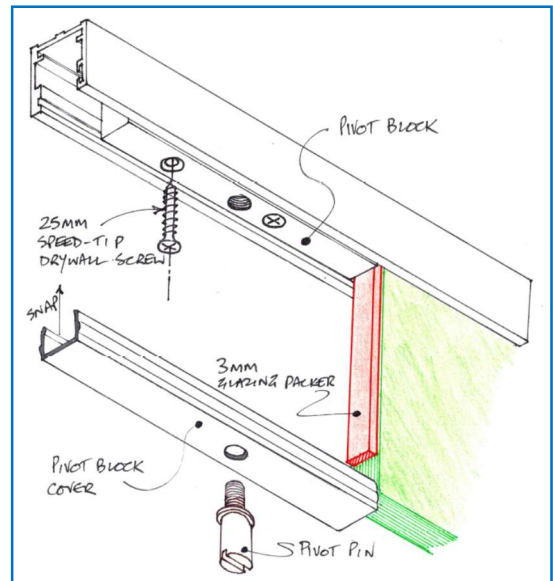
- Where floor tracks have been used (including for abutments), cut an equal length of floor track bead Ref: **0326** (50mm deep); **0327** (40mm deep); **0328** (25mm deep), and snap-fit to the track to retain the glass.
- Each panel should be seated on a non-metallic rigid glazing packer and set plumb before sealing into the tracks with a push-fit glazing gasket (**2121**)
- Where it is not possible to achieve a 12mm glass penetration (example – single module of glass to tapeable glazing bar) it is acceptable to secure the glass into the track with a continuous bead of glazing silicone, tooled off evenly.



## 8 Prepare for Installing the Doors

If installing in-line pivoting doors close up the head track and fit the pivot pin:

- With the fixed glass panels positioned either side of the door opening, ensure they are plumb and in their final positions.
- Insert and slide the pivot block towards the fixed panel at the pivot end and position hard up to the panel with a 3mm plastic glazing packer between the block and the glass.
- Secure the block into the head track by driving a countersunk 25mm speed-tip drywall screw through the holes either side of the centre, tapped hole into the head track. Remove the glazing packer.
- Cut the pivot block cover (supplied with the pivot block kit) allowing for 1mm clearance to the glass at either side and snap into the head track, ensuring that the hole is aligned with the tapped hole in the pivot block.
- Insert the pivot pin through the hole in the cover and tighten into the pivot block. The pin is a universal component and it may be necessary to cut it to length.



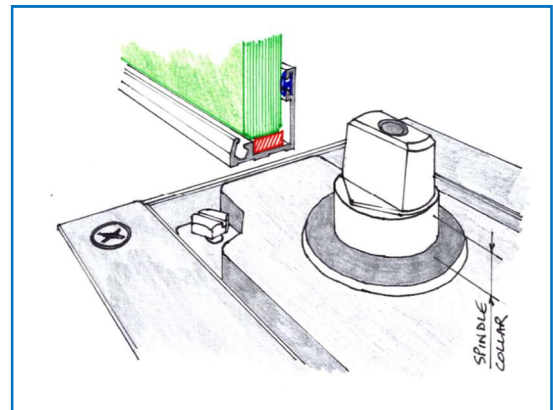
If installing doors with floor springs (In-line or in Microflush frames), set the spring in the coffin box:

There are two possible settings for the floor spring.

**Position 1** uses a plain steel cover plate, allowing the spring to be set below a carpet. Remove the factory fitted spindle which will have a 2.5mm high collar and replace with a spindle having a 7.5mm extension. This will have a 10mm collar – see detail

**Position 2** uses the proprietary stainless steel cover plate and requires the floor spring to be set level with the floor finish. Assuming an 8mm carpet, this will require a rigid 10mm packer in the base of the coffin box before inserting the spring.

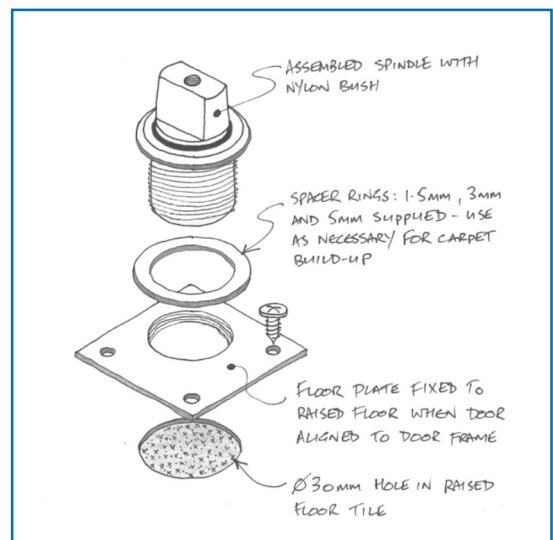
- Plumb the spring to the pivot overhead before tightening the spring into its mounting plates.



If installing doors with free-swinging floor pivots position and fix the floor pivot:

- Insert the barrel of the spindle into the base plate, allowing enough spacer rings to suit the carpet thickness.
- Place the barrel into the hole in the floor and align to position plumb to the pivot overhead.
- Fix to the floor tile using screws appropriate to the floor tile material.

Complete the door installation following the methods described in the patch fitting installation instructions or the Optima Door Sets Installer's Guide.

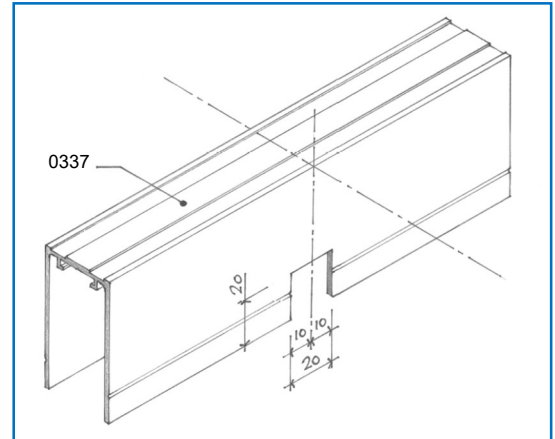


## Appendix A Installing with a [Inner] Deflection Head

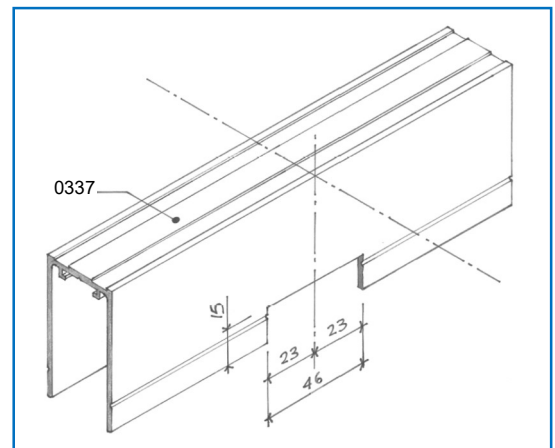
### A1 - Deflection Head Upper

To install a deflection head the one piece head track is replaced with a composite unit. The following is the method for  $\pm 25\text{mm}$  deflection. The method for  $\pm 40\text{mm}$  is similar.

- The Deflection Head Upper (**0337**) should be cut for a continuous tight fit between vertical abutments, with  $90^\circ$  corners cut with two clean  $45^\circ$  mitres and drilled for fixing at max. 300mm centres along its centreline.



- At 3-way junctions to an Optima 117 plus fin, the fin/cross-wall track will have a square-cut butt-joint to the office front track and the office front track must be notched with a 20mm wide x 20mm deep slot centred on the fin centreline – see detail



- At 3-way junctions to a Revolution 54 fin, the fin/cross-wall track will have a square-cut butt-joint to the office front track and the office front track must be notched with a 46mm wide x 15mm deep slot centred on the fin centreline – see detail

- Junctions to Optima 217 plus fins will also have a square butt-joint but the office front track section does not need to be notched.
- Before fixing head track in position, ensure that the two grooves on the top surface are fitted with acoustic foam tape.
- Appropriate steps should be taken when installing at abutments to ensure that the deflection head (upper) can deflect through the abutment if necessary (example – tapeable glazing bars).
- Before fitting the lower part of the deflection head loosely fill the upper half of the track with  $16\text{kg/m}^3$  mineral wool and hold in place with drywall screws driven into the top of the track.

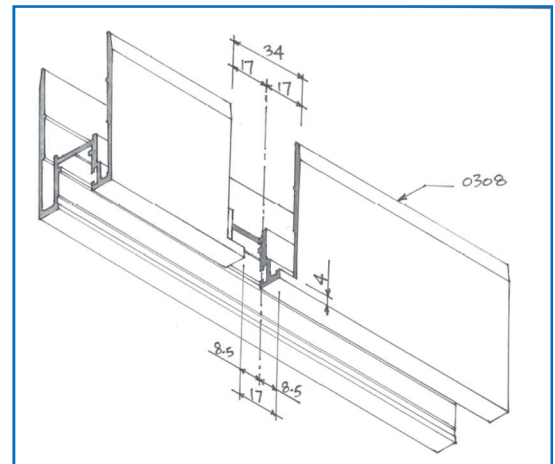
Note: If using the  $\pm 40$  Deflection Head Upper (**0306**) this will have to have the knock-out plate removed before installation. This can be done using a hammer and timber block at one end and peeling back over its full length.

### A2 – Deflection Head Lower

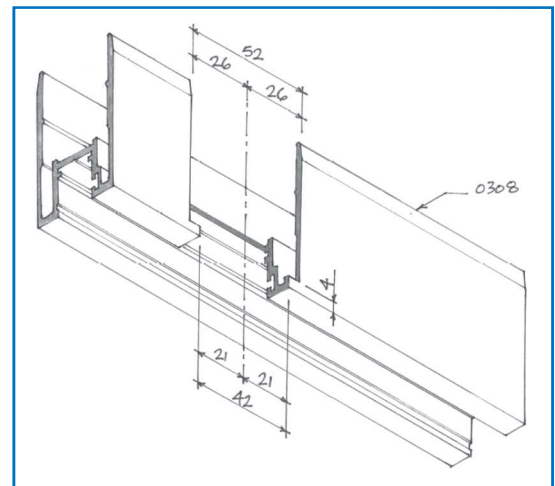
- The Deflection Head Lower (**0308**) should also be cut for a continuous tight fit between abutments and with  $90^\circ$  corners mitred. Ensure that upper and lower in-line butt-joints are overlapped.

Note: The Deflection Head Lower (**0308** and **0310**) will have to have the knock-out plate removed before installation. This can be done using a hammer and timber block at one end and peeling back over its full length.

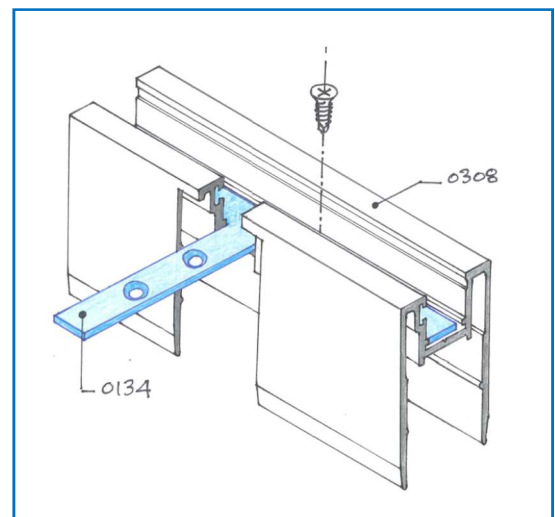
- At 3-way junctions to an Optima 117 plus fin, the fin/cross-wall track will have a square-cut butt-joint to the office front track and the office front track must be notched to allow both the deflection head upper and the glass from the fin to pass through it.
- Cut a 17mm wide slot (centred on the fin centreline) through to the glazing channel and widen it to 34mm wide from the top edge to a point 4mm from the bottom edge – see detail



- At 3-way junctions to a Revolution 54 fin, the fin/cross-wall track will have a square-cut butt-joint to the office front track and the office front track must be notched to allow both the deflection head upper and the glass from the fin to pass through it.
- Cut a 42mm wide slot (centred on the fin centreline) through to the glazing channel and widen it to 52mm wide from the top edge to a point 4mm from the bottom edge – see detail
- Note: The Revolution 54 Glazing Inner Clip (**0227**) will need to be notched to pass through the aperture and drilled/countersunk for use as a connection splice between the two track sections.



- The Deflection Head Lower should be joined at all junctions using the appropriate splice plate.
- Illustrated is the 3-way bracket (**0134**), which should be screwed into the glazing channel using countersunk no.6 x 13mm speed-tip self-tapping screws. There are similar splices for in-line joints (**0133**) and 90° corners (**0132**).
- In all cases, one end (leg) of the splice should be pre-fixed to the main run of track and screwed to the fin/offset track when levelled in position.

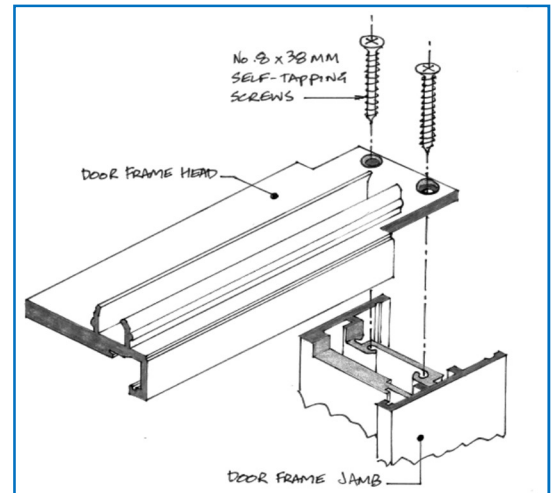


- Insert a continuous length of glazing inner gasket (**2122** for 12/12.8mm glass; **2205** for 10/10.8mm glass).
- Slide the lower section over the upper with the **gasket towards the room side** until the two sections lock together at the 25mm deflection line, using splice plate to ensure the track remains true when glazing. Fix the splices through with no.6 x 13mm countersunk speed-tip self-tapping screws.

### A3 - Door Frame

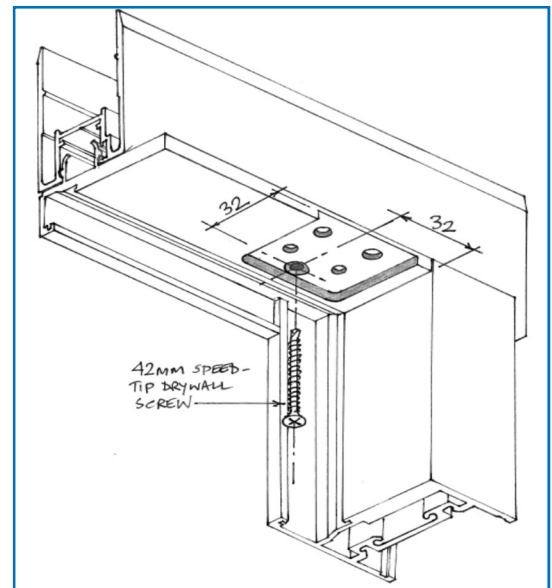
Before installing the door frames, they must first be assembled. They will be supplied in kit form as two jambs, a head and a set of fittings and screws. The following details are drawn for the Microflush D350 door frame and D340 is similar.

- Cut the door frame jambs to length. This will be 2mm shorter than the tight dimension from the partition head track to the floor.
- Offer each jamb to the head, slotting the profiled end into the notch at the top of the jamb.
- Drive a pair of No.8 x 38mm (1¼") countersunk self-tapping screws through the holes in the head into the screw ports in the jamb and hand tighten.
- Finally, ensure the head and jambs are mated correctly and torque-tighten all the screws before standing in position.

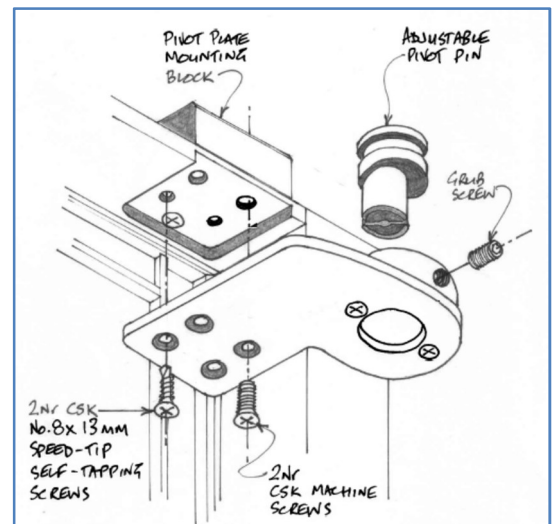


- In the base of each jamb, insert a base cleat with the fixing base leg facing towards the door rebate. This may need to be tapped home with a hammer if it is a tight fit.

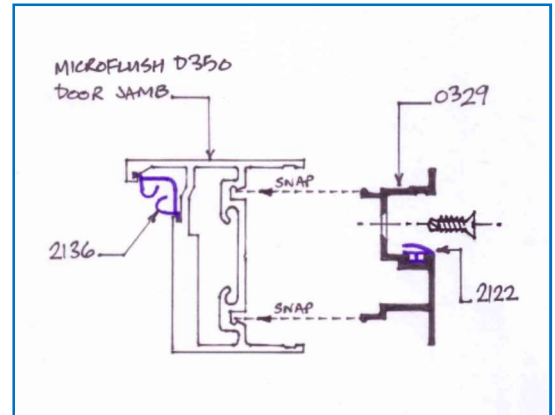
- Stand the frame in position and snap-fit into the head track. It will be necessary to remove the wiper blade from the slide-in gasket first using a sharp bladed knife.
- Secure to the head track by driving a 42mm bugle head speed-tip drywall screw through the rear hole in the pivot plate recess.
- If the frame is configured for hinges drill and countersink a hole in the same location.
- With the door frame head secured, plumb and secure the base of the jamb by fixing through the base cleat into the raised floor tile with a suitable fixing screw.



- Snap-fit the door frame gasket (2136) to complete the door frame installation.
- Fix the pivot plate to the door frame head by offering it into the machined rebate and securing with the 2 x M5 x 12mm csk. machine screws (through the door frame head and into the **Pivot Plate Mounting Block**) and 2 x no.6 x 13mm csk. Speed-tip self-tapping screws provided. Before fitting, ensure the grub screw faces away from the door frame as illustrated. It may be necessary to tap the plate home with a mallet if there is a build-up of paint around the rebate.
- Insert the offset pivot pin temporarily and secure in place with the grub screw. The pin will need to be withdrawn when installing the door leaf



- To complete the track-work below the deflection head, follow the same method as the non-deflection version described above.
- When building away from a door jamb this must be first be fitted with a glazing inner clip.
- Cut a length of glazing inner clip (**0329**) for a tight fit between floor and underside of head track. For Microflush D340 strike jamb only use section **0330**.
- Drill and countersink fixing holes for a No.6 x 13mm CSK self-tapping speed-tip screw through the 'V' groove in the glazing slot in three locations: mid-height and 100mm from each end.
- Insert a continuous length of glazing inner gasket (**2122** for 12/12.8mm glass; **2205** for 10/10.8mm glass) before snapping into the glazing bar.
- Drive a No.6 x 13mm CSK self-tapping speed-tip screw through each of the fixing holes.



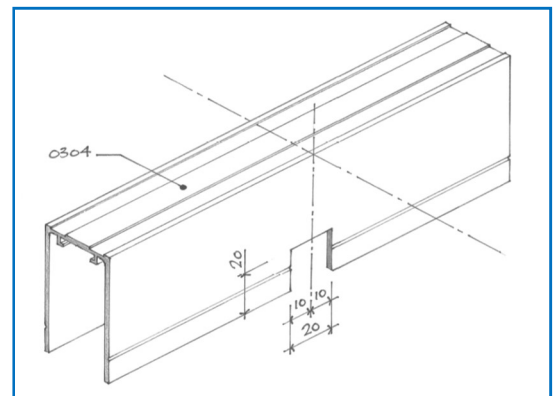
## Appendix B Installing with a [Inner] Deflection Head – 40mm Lower Section

### B1 – Deflection Head Upper

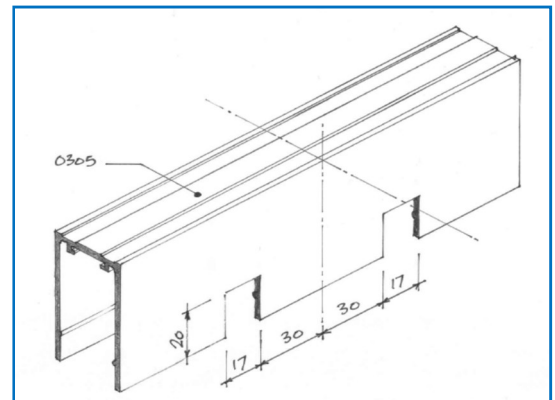
This variant may be used where a common appearance with Revolution 97 is required and where there is a requirement for  $\pm 25\text{mm}$  live-load deflection. It can also be used in its own right. See Designer's Guide detail 117103-01.

- The Deflection Head Upper (**0305**) should be cut for a continuous tight fit between vertical abutments, with 90° corners cut with two clean 45° mitres and drilled for fixing at max. 300mm centres along its centreline.

- At 3-way junctions to an Optima 117 plus fin, the fin/cross-wall track will have a square-cut butt-joint to the office front track and the office front track must be notched with a 20mm wide x 20mm deep slot centred on the fin centreline – see detail



- At 3-way junctions to a Revolution 97 double glazed fin, the fin/cross-wall track will have a square-cut butt-joint to the office front track and the office front track must be notched with two 17mm wide x 20mm deep slots 30mm either side of the fin centreline – see detail



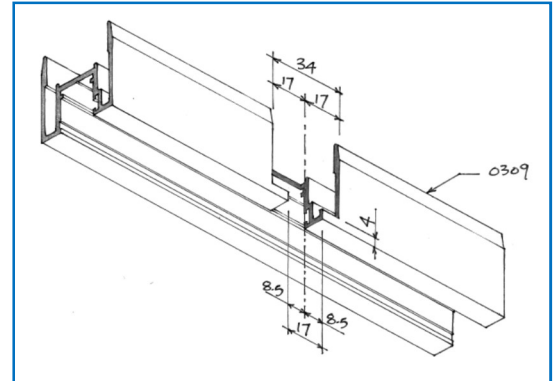


## B2 – Deflection Head Lower

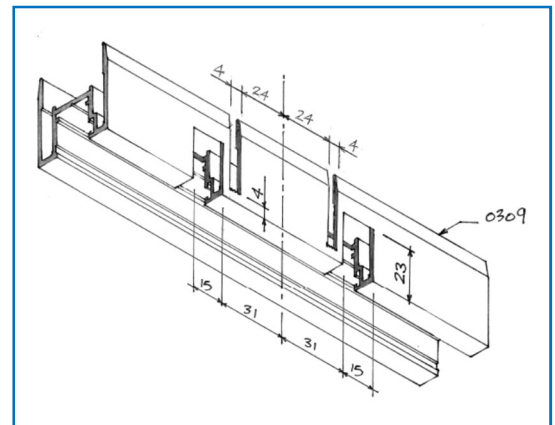
The Deflection Head Lower (**0309**) should also be cut for a continuous tight fit between abutments and with 90° corners mitred. Ensure that upper and lower in-line butt-joints are overlapped.

Note: The Deflection Head Lower (**0309**) will have to have the knock-out plate removed before installation. This can be done using a hammer and timber block at one end and peeling back over its full length.

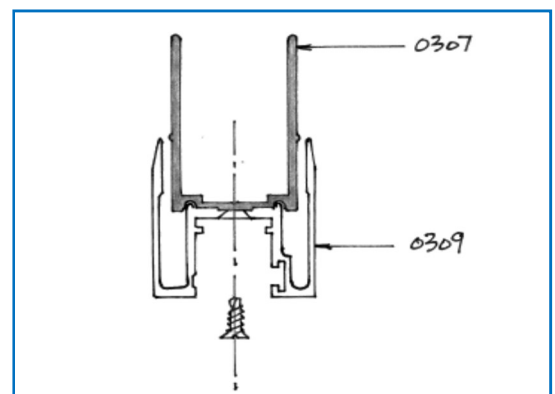
- At 3-way junctions to an Optima 117 plus fin, the fin/cross-wall track will have a square-cut butt-joint to the office front track and the office front track must be notched to allow both the deflection head upper and the glass from the fin to pass through it.
- Cut a 17mm wide slot (centred on the fin centreline) through to the glazing channel and widen it to 34mm wide from the top edge to a point 4mm from the bottom edge – see detail



- At 3-way junctions to a Revolution 97 double glazed fin, the fin/cross-wall track will have a square-cut butt-joint to the office front track and the office front track must be notched to allow both the deflection head upper and the glass from the fin to pass through it.
- Cut two 15mm wide x 23mm high slots, 31mm either side of the fin centreline through to the glazing channel. The cut two 4mm wide slots, 24mm either side of the fin centreline from the top edge to a point 4mm from the bottom edge – see detail



- Cut a length of Deflection Head Inner (**0307**) to the same length as the Deflection Head Lower (**0309**), also mitred at corners and fix the two sections together.
- Pre-drill and countersink the inside of the glazing channel on the Deflection Head Lower (**0309**) at 300mm centres. Mate the two sections together and fix using no.6 x 13mm CSK speed-tip self-tapping screws.



- Insert a continuous length of glazing inner gasket (**2122** for 12/12.8mm glass; **2205** for 10/10.8mm glass).
- Slide the lower section over the upper with the **gasket towards the room side** until the two sections lock together, using splice plate to ensure the track remains true when glazing. Fix the splices through with no.6 x 13mm countersunk speed-tip self-tapping screws.

Note: It is not possible to splice the Deflection Head Lower (**0309**) to a Revolution 97 head track.

- To complete the track-work below the deflection head, follow the same method as the non-deflection version described above.

### B3 - Door Frame

For door frame installation, follow the procedure set out in **Section A3** above

## Appendix C Installing with a [Outer] Deflection Head

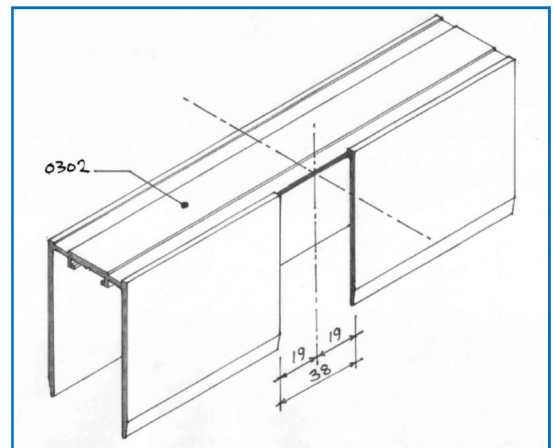
### C1 – Deflection Head Upper

This variant may be used where a common appearance with Revolution 54, having an outer deflection head is required and where there is a requirement for  $\pm 25\text{mm}$  live-load deflection. The method for  $\pm 40\text{mm}$  is similar.

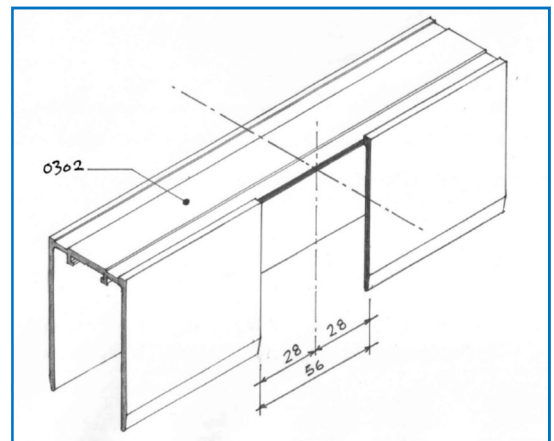
- The Deflection Head Upper (**0302**) should be cut for a continuous tight fit between vertical abutments, with  $90^\circ$  corners cut with two clean  $45^\circ$  mitres and drilled for fixing at max. 300mm centres along its centreline.

Note: If using the  $\pm 40$  Deflection Head Upper (**0303**) this will have to have the knock-out plate removed before installation. This can be done using a hammer and timber block at one end and peeling back over its full length.

- At 3-way junctions to an Optima 117 plus fin, the fin/cross-wall track will have a square-cut butt-joint to the office front track and the office front track must be notched with a 38mm wide slot centred on the fin centreline – see detail



- At 3-way junctions to a Revolution 54 fin, the fin/cross-wall track will have a square-cut butt-joint to the office front track and the office front track must be notched with a 56mm wide slot centred on the fin centreline – see detail



- Before fixing head track in position, ensure that the two grooves on the top surface are fitted with acoustic foam tape.
- Appropriate steps should be taken when installing at abutments to ensure that the deflection head (upper) can deflect through the abutment if necessary (example – tapeable glazing bars).
- Before fitting the lower part of the deflection head loosely fill the upper half of the track with  $16\text{kg/m}^3$  mineral wool and hold in place with drywall screws driven into the top of the track.

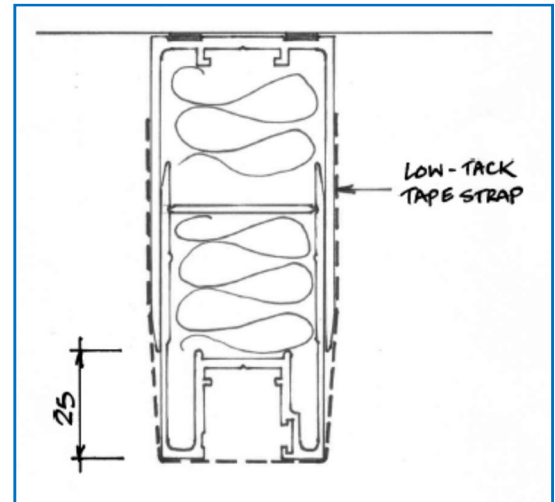
Note: If using the  $\pm 40$  Deflection Head Upper (**0303**) this will have to have the knock-out plate removed before installation. This can be done using a hammer and timber block at one end and peeling back over its full length.

## C2 – Deflection Head Lower

To install the Deflection Head Lower follow the procedure described in Section A2 above.

Note: The Deflection Head Lower sections (**0308** and **0310**) should **NOT** have the knock-out strip removed.

- When offering the upper and lower deflection head sections together there is no provision for the two sections to lock together.
- Loosely fill the void in the Deflection Head Lower (**0308**) with  $16\text{kg/m}^3$  mineral wool and also the top of the Deflection Head Upper, before sliding the two sections together.
- Level the lower section so that there is 25mm projecting and hold in place using a series of temporary low tack tape straps. The straps will be removed progressively as the glass is installed and is able to support the track.

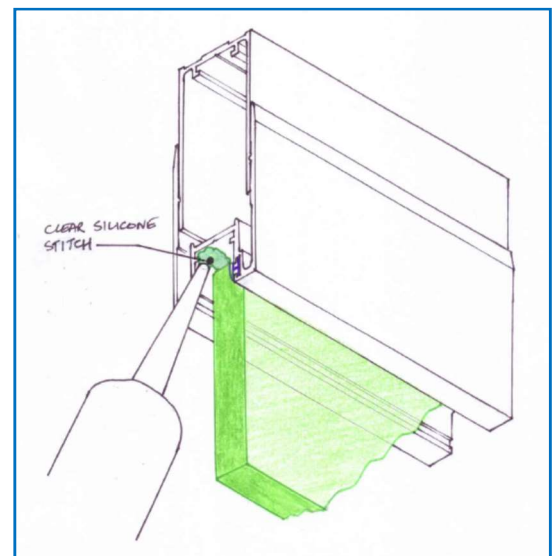


## Appendix E Glazing into a Deflection Head

The glass should be measured to ensure the minimum track penetration dimension of 12mm as with the non-deflection system illustrated in **Section 7**.

It is important to ensure that the glass cannot be detached from the glazing channel if subjected to significant negative live load deflection.

- When installing the glass, after each panel is stood in position and levelled, apply a clear silicone stitch to the top corner of the glass ensuring that the silicone is in contact with both glass and track



## Appendix D Installing with a Compressible Abutment for Lateral Deflection

Where there is a requirement to contain lateral deflection – example: at perimeter curtain wall mullions, the  $\pm 25\text{mm}$  deflection head assemblies may be used. It should be noted that it is not possible to accommodate structural movement in two directions at the same point. Therefore it is assumed that there will be no vertical deflection prevalent in this location.

When installing a compressible abutment ensure the cavity is loosely filled with  $16\text{kg/m}^3$  mineral wool.

Complete the track installation, building away from the compressible abutment

## Appendix E Schedule of Components



### **0234xxxxxxx Door Jamb (50mm)**

Supplied in kit form as Microflush D350 with door head (0332)



### **0237xxxxxxx Door Jamb (40mm)**

Supplied in kit form as Microflush D340 with door head (0332)



### **0332xxxxxxx Door Head**

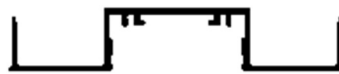
Supplied in kit form as Microflush D340 and D350 with door jamb (0237 & 0234)



### **0274xxxxxxx Tapeable Glazing Bar (Optima 97)**

3100mm lengths

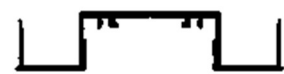
Use with glazing inner clip (0284) for a direct abutment with Optima 97 drywall



### **0300xxxxxxx Tapeable Glazing Bar (Generic 70mm stud)**

3100mm lengths

Use with glazing inner clip (0284) for a direct abutment with 70mm stud drywall



### **0301xxxxxxx Tapeable Glazing Bar (Generic 48mm stud)**

3100mm lengths

Use with glazing inner clip (0284) for a direct abutment with 48mm stud drywall



### **0302xxxxxxx Deflection Head Outer (±25mm)**

3100mm lengths

Use with Deflection Head Lower 0308



### **0303xxxxxxx Deflection Head Outer (±40mm)**

3100mm lengths

Use with Deflection Head Lower 0310



### **0337xxxxxxx Deflection Head Inner (±25mm)**

3100mm lengths

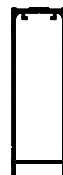
Use with Deflection Head Lower 0308



### **0305xxxxxxx Deflection Head Inner (±25mm)**

3100mm lengths

Use with Deflection Head Inner 0307 and Deflection Head Lower 0309



### **0306xxxxxxx Deflection Head Inner (±40mm)**

3100mm lengths

Use with Deflection Head Lower 0310



### **0307xxxxxxx Deflection Head Inner**

3100mm lengths

Use with Deflection Head Inner 0305 and Deflection Head Lower 0309



### **0308xxxxxxx Deflection Head Lower (±25mm)**

3100mm lengths

Use with Deflection Head Inner 0304 or Deflection Head Outer 0302



### **0309xxxxxxx Deflection Head Lower (±25mm)**

3100mm lengths

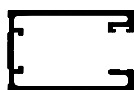
Use with Deflection Head Inner 0305 and Deflection Head Inner 0307



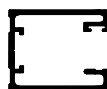
### **0310xxxxxxx Deflection Head Lower (±40mm)**

3100mm lengths

Use with Deflection Head Inner 0306 or Deflection Head Outer 0303



**0311xxxxxxx 50mm Abutment Channel**  
(36mm wide)  
3100mm lengths  
Wall abutment or non-deflection head track



**0312xxxxxxx 40mm Abutment Channel**  
(36mm wide)  
3100mm lengths  
Wall abutment or non-deflection head track



**0313xxxxxxx 25mm Abutment Channel**  
(36mm wide)  
3100mm lengths  
Wall abutment or non-deflection head track



**0314xxxxxxx 50mm Base Channel**  
(36mm wide)  
3100mm lengths  
Base Channel or wall abutment used with removable bead **0317**



**0315xxxxxxx 40mm Base Channel**  
(36mm wide)  
3100mm lengths  
Base Channel or wall abutment used with removable bead **0318**



**0316xxxxxxx 25mm Base Channel**  
(36mm wide)  
3100mm lengths  
Base Channel or wall abutment used with removable bead **0319**



**0317xxxxxxx 50mm Base Channel**  
**Bead (36mm wide)**  
3100mm lengths  
Bead used with Base Channel 0314



**0318xxxxxxx 40mm Base Channel**  
**Bead (36mm wide)**  
3100mm lengths  
Bead used with Base Channel 0315



**0319xxxxxxx 25mm Base Channel**  
**Bead (36mm wide)**  
3100mm lengths  
Bead used with Base Channel 0316



**0320xxxxxxx 50mm Abutment Channel**  
(25mm wide)  
3100mm lengths  
Wall abutment or non-deflection head track



**0321xxxxxxx 40mm Abutment Channel**  
(25mm wide)  
3100mm lengths  
Wall abutment or non-deflection head track



**0322xxxxxxx 25mm Abutment Channel**  
(25mm wide)  
3100mm lengths  
Wall abutment or non-deflection head track



**0323xxxxxxx 50mm Base Channel**  
**Bead (25mm wide)**  
3100mm lengths  
Base Channel or wall abutment used with removable bead **0326**



**0324xxxxxxx 40mm Base Channel**  
**Bead (25mm wide)**  
3100mm lengths  
Base Channel or wall abutment used with removable bead **0327**



**0325xxxxxxx 25mm Base Channel**  
**Bead (25mm wide)**  
3100mm lengths  
Base Channel or wall abutment used with removable bead **0328**





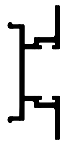
**0326xxxxxxx 50mm Base Channel Bead (25mm wide)**  
3100mm lengths  
Bead used with Base Channel 0323



**0327xxxxxxx 40mm Base Channel Bead (25mm wide)**  
3100mm lengths  
Bead used with Base Channel 0324



**0328xxxxxxx 25mm Base Channel Bead (25mm wide)**  
3100mm lengths  
Bead used with Base Channel 0325



**0284xxxxxxx Glazing Clip**  
3100mm lengths  
Use with Tapeable Glazing Bars **0274, 0300 & 0301**



**0329xxxxxxx Door Jamb Glazing Clip**  
3100mm lengths  
Use on hinge jamb **only** of Microflush D340 and **both** jambs of Microflush D350



**0330xxxxxxx Door Jamb Glazing Clip**  
3100mm lengths  
Use on strike jamb of Microflush D340 frames **only**



**0333xxxxxxx Door Jamb (40mm)**  
Supplied in kit form as Microflush D240



**212141300031 Glazing Outer Gasket (push-fit)**  
3000mm lengths  
Use for glazing outside face of all glazing tracks



**212241300031 Glazing Inner Gasket (slide-fit)**  
3000mm lengths  
Use for glazing inside face of all tracks when using 12mm or 12.8mm glass



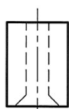
**220541300031 Glazing Inner Gasket (slide-fit)**  
3000mm lengths  
Use for glazing inside face of all tracks when using 10mm, 10.4mm or 10.8mm glass



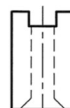
**213641300031 Door Frame Gasket**  
3000mm lengths  
Use as door seal in Microflush D240, D340 & D350 frames



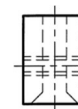
**0336xxxxxxx Pivot Bar Cover**  
Supplied in Kit form with Pivot/Stop Bars



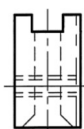
**010109000001 Pivot Bar**  
Supplied in kit form for use with Deflection Head Lower: **0308, 0309 & 0310**



**020109000001 Pivot Bar**  
Supplied in kit form for use with Abutment Channels: **0311, 0312, 0313, 0320, 0321 & 0322**



**010309000001 Stop Bar**  
Supplied in kit form for use with Deflection Head Lower: **0308, 0309 & 0310**



**020309000001 Stop Bar**

Supplied in kit form for use with Abutment Channels: **0311, 0312, 0313, 0320, 0321 & 0322**



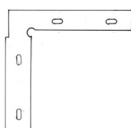
**020209000001 Pivot/Stop Bar Spacer**

Supplied in kit form for use with Abutment Channels: **0312 & 0321**



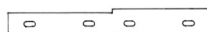
**010209000001 Pivot/Stop Bar Spacer**

Supplied in kit form for use with Abutment Channels: **0311 & 0320**



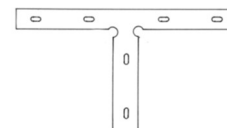
**013252000011 90° Corner Bracket**

Single units  
90° jointing splice for Deflection Head Lower (**0308, 0309 & 0310**)



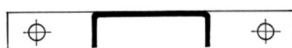
**013352000011 Straight Splice Bracket**

Single units  
Butt-jointing splice for Deflection Head Lower (**0308, 0309 & 0310**)



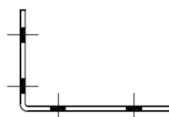
**013452000011 3-Way Bracket**

Single units  
3-way jointing splice for Deflection Head Lower (**0308, 0309 & 0310**)



**00095200011 Door Jamb Base Fixing Clip**

Supplied as part of the door frame fixing pack for D240 frames



**01215200011 Door Jamb Base Fixing Clip**

Supplied as part of the door frame fixing pack for D340 & D350 frames



**002731030637 Acoustic Foam Tape (grey)**

Roll of 30 metres  
6mm x 3mm self-adhesive acoustic foam tape (also **002934030637** – white)

## Appendix E Amendment Record

Amendment Date	Details	How Communicated	Authorized by
29 February 2012	First issue as part of the Formal Product Launch	Product Launch Documentation	P. Long
7 March 2012	Deflection head methods incorporated	Uploaded to Optima Website	P. Long
11 November 2013	Minor updates to text and component schedule	Uploaded to Optima Website	P. Long
16 July 2014	Minor textual amendments	Uploaded to Optima Website	P. Long