tenon
PARTITIONS

# Fire & Sound

## Method Statement

## INTRODUCTION

We strongly recommend that all sections of this document be read thoroughly before site installation commences. It is important that the relevant Health and Safety legislation be observed at all times i.e., suitable clothing and equipment etc,

These installation guidelines have been prepared based on the following site conditions and assumptions: -

- All materials have been checked and there are no shortages.
- All materials are suitably stored to minimise damage.
- The site dimensions compare with installation drawings.
- The partitions are to be installed to the underside of an existing suspended ceiling grid. To enable the grid to be made good if the partitions are relocated, fixing to the main runner should be avoided. All fixings should be positioned on 1200mm or 600mm cross tees.

To ensure that TENON FIRE AND SOUND achieves its stated levels of performance, it is imperative that the following methods of installation are followed and that all components supplied with the system are included in its construction. Warranty of the product is void if it is constructed from materials not supplied by CPD Distribution PLC.

Tenon FIRE AND SOUND may be installed with various options, giving differing levels of fire, acoustic and structural performance, each requiring different components and methods of construction. This guide deals with basic construction principals and is not intended to cover all variations. If you are unable to find the details that you require then please call the Tenon Technical Department on 0114 231 8030 for assistance.

## 1: SETTING OUT

- Mark the intended partition layout on the suspended ceiling by means of a chalk line. (Avoid excessive chalk lines which will not be covered by the finished partitions or alternatively remove the relevant ceiling tiles.)
- Transfer the layout to the floor and wall abutments by means of a plumb line. Where the layout shows door modules adjacent to three way junctions and corner posts, it is recommended that a small board infill (200mm wide) is fitted into the junction post behind the door, this will allow the door to fully open through 90°.
- If the door frames are fitted directly into the three way or corner posts it is important to fix a floor mounted door stop to restrain the door and prevent the furniture from damaging the board (or glass) behind the door when in the fully open position.
- The door stop should not be positioned too close to the base of the door frame as with continued use this will exert undue stress on the hinge fixings. Position the door stop further back towards the leading edge of the leaf.

## 2: BOARD DECORATION

- Always ensure that a suitable width wall covering is selected and it is applied with the manufacturers recommended adhesive. There are three options when considering decorating the partition boards: -

**Factory Decorated**

- Boards can be supplied with wall covering factory laminated ready for cutting and installation on site.
- To avoid damage to the pre-decorated face of the boards, care should be taken when offloading and moving these boards to the working area.

**Pre- Decorated On site**

- To minimise waste, boards should be cut to size before decorating, laid flat ensuring that they are supported at both ends on suitable benches or staging.
- Using board lengths as a guide, cut the wall covering to length leaving approx' 50mm over at each end.
- Thoroughly stir the adhesive and apply evenly to the wall covering using a lamb's wool roller, making sure that the entire surface of the paper is covered.
- Apply the wall covering to the board and smooth out the paper using a clean spatula. Work from centre of board outwards to remove all trace of air bubbles or excess adhesive.
- Using a clean sharp knife blade, trim off excess wall covering flush with the board ends and long edges.
- Any surplus adhesive should be removed immediately with a soft cloth and clean warm water.
- Decorated boards should be laid flat, stacked face to face, and allowed to rest overnight before fitting.

**Decorated In Position**

- This method calls for the wall covering to be applied to the boards in the upright position with the boards already fixed to the partition, and should be carried out before the skirting and aluminium cover trims are fitted.
- Cut wall covering to the required “drop” leaving approx' 50mm over at each end.
- Lay the wall covering pattern side down on a clean table and apply adhesive evenly with the roller to the entire area of the paper.
- Loosely fold the paper over to roughly cover ¾ of its length, then fold the remaining ¼ in from the opposite end.
- Set the paper aside and allow to rest for 5 minutes.
- Peel back top a ¼ of the paper and slide into position at the top of board. Once aligned peel back the remainder and allow to hang loosely.
- Smooth the paper out with a clean spatula, working outwards from centre of board towards the edges.
- Working with a sharp knife blade and a clean straight edge, cut the wall covering tightly into the edges of galvanised clamp section and head channel. Trim the bottom edge of paper to below the height of the skirting.
- Remove any surplus adhesive immediately with a soft cloth and clean warm water.
- When estimating vinyl usage it is advisable to allow a suitable wastage factor.

## 3: HEAD CHANNEL OPTIONS

Before commencing installation of the partition, consideration should be given to the layout with regard to the various head channel configurations.

- Where aluminium radius profile junction posts are used (e.g. TF326/327), they must be fitted to the underside of the ceiling with the head channel square cut and fitted up to either side of the post. Use an off cut off corner post to assist in the setting out of the head channel and corner junction detail.
- Where the partition changes direction and a plasterboard corner assembly is specified then the head channel should be mitred.
- Radius junction posts should be cut to match the floor to ceiling height and fixed to the ceiling channel using A11 steel brackets fitted to both faces. Where this is not possible a piece of softwood may be positioned behind the ceiling tile to provide a housing for the fixing. Alternatively the head channel may be fitted first, with the post then placed in position and fixed using the steel brackets to the underside of the head channel.
- Select a length of TF311 aluminium head channel and TF202 galvanised steel track.
- Position steel track in the centre of aluminium channel.
- Using a 3mm drill bit, drill holes at 600mm centres along the length of the assembly and fix the steel track into place by pop riveting through the back of the aluminium channel.
- Should the ceiling be uneven then it is recommended that A10 self adhesive foam be applied to the back of the aluminium head channel before fixing to the ceiling.
- Using a self tapping screw, fix the head channel assembly to the suspended ceiling, taking care to avoid fixing through the main runner; position fixings into the cross tees.
- Transfer the layout of the partition from the ceiling to the floor using a plumb line and chalk line.
- Place a length of TF202 galvanised floor track on the line on the floor. DO NOT ATTEMPT TO FIX THE FLOOR TRACK AT THIS STAGE!
- 
- Cut a length of TF201 galvanised stud section to length and locate into one end of the track at floor and head by means of a twisting motion.
- Repeat the procedure with another stud positioned at the opposite end of the floor track.
- Manoeuvre both studs into the vertical position and plumb in both planes using a spirit level.
- Taking care not to dislodge the floor track from position, fix the track to floor using a fixing suited to the site conditions.
- Cut further TF201 studs to length and position in the floor track at measured 600mm centres.
- Fix the studs into position at the base only (if required) using either pop rivets or wafer head TEK screws, or by notching floor track either side of stud and folding the track over.
- For fire rated installations, the studs should be cut 15mm short of the full height to allow expansion in the event of a fire.
- Alternative head assembly details can be formed using TF202 galvanised steel track and a choice of offset cover trims.

## 4: JUNCTION POSTS

- Aluminium radius profile junction posts must always be fitted to the underside of the ceiling with the head channel square cut and fitted up to either side of the post.
- Radius profile junction posts are fixed to the ceiling channel using A11 steel brackets fitted to both faces.
- Before fitting the corner post into position, the integral stud profile of the section must be cut away at the top to allow it to avoid snagging on the head channel. Alternatively the head channel may be notched to achieve the same result.
- An alternative corner detail can be formed using a standard plasterboard assembly.
- For this detail the TF311 aluminium head channel must always be mitred and the internal and external corner trims fitted to the underside of the head channel.
- Three-way junctions are formed using a TF323 aluminium post section. This section is cut to fit to the underside of the suspended ceiling with the head channel square cut and fitted up to each side of the post.
- TF323 three-way posts are fixed to the head channel using A11 steel brackets located on all three open faces of the post.
- Alternative three-way junctions are formed using a standard plasterboard assembly incorporating TF311 aluminium channel section and TF201 galvanised studs.
- TF272 aluminium internal corner trims held in place by TF273 clips fitted top, bottom and at 600mm centres in between can be used in lieu of aluminium wall channel.

## 5: ABUTMENTS

- Glazed wall abutments are formed by assembling TF311 aluminium channel and TF202 galvanised steel track, in the same manner as for the head channel detail. When in position a further length of track is slotted onto the face of the existing section to 'box' the track. This allows the glazing profile to sit in the correct position and provide a surface for fixings to key into.
- The wall abutment should be cut and assembled to fit from floor level to the underside of the aluminium head channel and fixed to the wall at 600mm intervals using a fixing suited to the site conditions.
- Solid wall abutments may be fitted in the sane manner as above but may use a standard stud (TF201) in lieu of the steel track.
- Alternative wall abutments can be formed by fixing TF201 stud or TF202 track direct to the wall with a choice of offset cover trims used in lieu of the aluminium wall channel.

## 6: SOLID MODULE CONSTRUCTION

- Installation of solid full height panels will normally commence at corner posts/door frames and work back towards wall abutments where any trimmed boards are located.
- Set out the partition, assemble and fix head channel and locate floor track as before.
- Cut TF201 galvanised studs to length and position inside TF202 floor track at measured 600mm centres and fix in position at base only (if required).
- The basic framework is now ready to receive the boards.
- Before fitting the boards consideration should be given to the various options for decorating the panels.
- Cut the boards to the floor to ceiling height allowing a 6 mm tolerance and starting at a junction or abutment, offer the first board into the head channel.
- If the board has been pre-decorated care should be taken to avoid damage to the wall covering. Should location of the board prove difficult, a surform should be used to reduce the thickness of the board slightly along the top inside face. This may be necessary if the track has been deformed or has been fitted off centre.
- When positioned correctly the long edge of the board should be covering half of the TF201 stud.
- The board should now be fixed to the studs using 25mm drywall screws positioned at 300mm centres. Providing the board has not been pre-decorated then it is recommended that the board be also screwed to the centre stud. Where the board is decorated a bead of adhesive or mastic may be applied to the stud prior to the positioning of the board.
- Screws should not be positioned too close to the edge of the board, as this may cause the edge to crumble.
- When the system is fire rated, boards should be positioned in a staggered configuration.
- Continue fixing boards in a sequential manner to complete one side of the partition only.
- Ensure that cut down panels at the end of the partition run are measured to fit inside the wall abutment assembly.
- Before boarding the other side of the partition, any insulation required should be fitted inside the partition cavity. The insulation is generally wedged between the upright studs, however stick pins may be used as an altenative.
- It is important that consideration be given at this stage to any services that have to be routed inside the partition cavity. These must be located before the partition is “closed” by boarding the remaining side of the partition.
- Once the boards are fitted and decorated the chosen cover trim can be selected.
- The sequence for fitting cover trims depends on the type of skirting selected: -

**Option 1: Laminate skirting/clamp and cover.**

- TF275 galvanised backing strips should now be cut to suit the height of the partition, positioned to cloak the vertical joints of the boards and fixed through into the studs using 25mm drywall screws positioned at 300mm intervals. If required the boards should now be decorated.
- Select a length of TF274 aluminium cover trim and cut to length to extend from the underside of the head channel to below the height of the intended skirting.

## 6: SOLID MODULE CONSTRUCTION (Continued)

- Place aluminium cover trim onto the backing strip and secure into position by hammering with a rubber mallet or a hammer and a timber block.
- Cut the laminate skirting to length to suit the layout and apply A08 self-adhesive skirting foam to the top reverse edge. Place in position against the partition and cut away foam where it crosses the face of the aluminium cover trim.
- Using a 7/64 drill bit, pre-drill the skirting at 600mm intervals to coincide with the position of the upright studs and fix with 25mm x No.6 black flange head screws.

**Option 2: Laminate skirting/radius cover trims and omega inserts.**

- Radius cover trims are fitted from the underside of the TF311 head channel to the top edge of the skirting section.
- Laminate skirting should be cut to length, fitted with A08 foam and fixed in position with 25mm x No.6 black flange head screws.
- Radius cover trims are supplied pre-drilled and countersunk at 600mm centres along its length and should be fixed into place using 25mm drywall screws. TF289 plastic omega insert is then cut to length and push fitted into place to conceal the screw fixing or for ease be located by using the patented Tenon Omega Applicator.

**Option 3: Laminate skirting/top hat and infill.**

- A further option is to use the TF293 steel top hat section fitted with either a TF294 steel infill or TF295 plastic infill section.
- As the TF293 section fits between the vertical edges of the boards and does not fit over the board joint, it must be remembered that as a consequence the module stud centres need to be set at 1217mm (and not 1200mm as is the norm) to accommodate the top hat section between the boards.
- It is recommended that the boards be decorated before the top hat sections are fitted in order to fully cover the edges of the wall covering.
- TF293 and TF294/5 top hat and infill should be cut to extend from the underside of the ceiling channel to below the level of the intended skirting, and should be fitted before the skirting.
- Aluminium skirting sections may be used in lieu of laminate using methods of installation described in all three options.

## 7: HALF GLAZED CONSTRUCTION

Certain elements of glazed construction require the studs to be boxed. All Tenon studs are interlocking and when fitted together form a solid box section.

- Position boxed studs (TF201 x 2) at 1200mm centres where glazing is required.
- Mark the height of the glazing transom on the studs.
- Position a 52mm pre-cut notched galvanised transom (TF202/12) at the required height between the upright studs, check for level and fix in position using 13mm wafer head TEK screws or pop rivets. Continue this process throughout the length of the glazed run.
- Where the glazing meets the aluminium head channel and galvanised track (TF311 & TF202) at the soffit, a further pre-cut transom (TF202/12) should be fitted to form a boxed section at the head to allow the fixing of the window frame section.
- Intermediate studs (TF201) can now be cut to the required length and fitted between the floor track (TF202) and the underside of the pre-cut transom section (TF202/12).
- The aluminium double glazing transom (horizontal) sections (TF340/12), which are pre-notched and pre-cut to length to suit a 1200mm wide module, can now be positioned on top of the galvanised dado transom and also fitted into the head channel assembly by wrapping around the boxed transom detail formed earlier.
- With both horizontal sections now in position, the vertical aluminium glazing sections can now be measured, square cut to length and fitted to each side of the glazing aperture.
- The plasterboard panel beneath the glazing can now be cut to size and screw fixed to the framework in the same manner as for solid panel construction, taking care that the top edge of the board is cut tight with the underside of the aluminium dado section.
- Following the same procedure as for solid panel construction the selected cover trims can now be fitted. Firstly covering the upright joints of the glazing at the module centres and then fitting the trims to the horizontal joint beneath the glazing dado transom.
- If the plasterboard panels are to receive wall covering it is advisable to decorate the panels before the cover trims and skirting are fitted.
- The double-glazing spacer (TF345) can now be cut to size and fitted into the glazing aperture, the top and bottom lengths should be fitted first followed by the sides.
- Following the same sequence as above cut and loose fit the plastic glazing bead (TF222/TF223) making sure the bead extends fully into the glazing frame and do not show any gaps. Once cut to size, remove all beads and safely set aside.
- With any necessary assistance, position the glass equally within the frame and whilst holding the glass hard against the double glazing spacer, securely fit the glazing bead in place. Working from the opposite side of the frame, repeat the process to fit the second piece of glass.
- When fitting single glazed window frames, follow the same installation procedure as for double-glazing, but always ensure that the plastic single glazing bead is securely fitted into one side of the frame before attempting to fit the glass.

## 7: HALF GLAZED CONSTRUCTION (CONTINUED)

- When the installation calls for fire rated window frames it is essential that the following components be fitted as the glazing modules are being constructed -

**TF342: Steel liner** (used only on fire rated double glazing)

This section is positioned behind the aluminium window frame section, and is located by sliding the liner between the screw port recess and the back of the frame section before fitting the frame. The steel liner must be fitted all round the perimeter of the window frame for fire rated installations.

**TF207 Galvanised steel retaining bead**

This section must be fitted to all fire rated glazing installations and, in the event of a fire, is there to ensure the glass stays in position. The bead is fixed in position with self-tapping screws through the aluminium window section into the steel sections behind. In double glazed applications the bead is only required to secure the fire rated glass on the 'corridor' side of the partition.

## 7: HALF GLAZED CONSTRUCTION USING PRE-CUT WINDOW FRAMES

Tenon Fire & Sound window frame packs are supplied with all the necessary components pre-cut to size for ease of installation.

- Carefully unwrap the frame taking care all components are set aside for safe keeping.
- Assemble the frame by screwing the pre-drilled and notched horizontal sections to the vertical upright sections using the 38mm x No.8 flange head self-tapping screws supplied.
- Ensure that all screws fully locate through the pre-drilled pilot hole and into the screw port recess in the back of the vertical upright sections.
- Position boxed studs (TF201 x 2) at 1200mm centres where glazing is required.
- Fit a pre-cut galvanised transom (TF202/12) between the upright studs and into the galvanised track at the partition head to form a box section to receive the window frame.
- Check that the first boxed stud is plumb in both vertical planes and fix in position using 13mm TEK screws or pop rivets. Pposition the second upright stud but do not fix at this point.
- Offer the assembled window frame between the upright studs and slide upward into the head channel, ensuring the frame is fully located into the head channel assembly (moving the second stud slightly out of position may make this operation easier.)
- Move the frame over towards the first (fixed) boxed stud and ensure the frame is fully wrapped around this upright.
- Reposition the second boxed stud fully into the back of the window frame, check the stud is plumb and fix in position as before.
- Secure the widow frame in place using another galvanised pre-cut notched transom (TF202/12) positioned directly beneath the frame.
- Ensure this transom is fully located into the underside of the frame, check for level and fix in position at each end and both sides using 13mm TEK screws or pop rivets.
- The intermediate studs (TF201), located at 600mm centres, should now be cut to size and fitted to extend from inside the floor track (TF202) to the underside of the galvanised transom (TF202/12).
- The plasterboard panels beneath the glazing can now be cut to size and screw fixed to the framework in the same manner as for solid panel construction. The top edge of the board should be cut tight to the underside of the aluminium dado section.
- Continue the same installation process until the glazing run is completed.
- The selected cover trims can now be cut to length and fitted by following the same procedure as for solid panel construction. Fit trims to the vertical joints first, followed by the horizontal trims beneath the glazing transom.
- If the plasterboard panels are to receive wall covering it is advisable to decorate the panels before the cover trims and skirting are fitted.
- The pre-cut double-glazing spacers (TF345) can now be fitted into the frame, the top and bottom horizontals are fitted first, followed by the sides.

## 7: HALF GLAZED CONSTRUCTION USING PRE-CUT WINDOW FRAMES (CONTINUED)

- With all the double glazing spacers securely in place offer one piece of glass into the frame and whilst holding the glass hard against the spacer, snap fit the pre-cut glazing bead securely into place. Fit the top and bottom lengths first, followed by the sides.
- Working from the opposite side of the partition repeat the procedure to fit the second piece of glass.
- When fitting single glazed window frames, follow the same installation procedure as for double glazing, but always ensure that the plastic single glazing bead is securely fitted into one side of the frame before attempting to fit the glass.
- When the installation calls for fire rated window frames, it is essential that the following additional components be fitted as the glazing modules are being constructed.

**TF342**: **Steel liner (used only on fire rated double glazing)**

This section is positioned behind the aluminium window frame section, and is located by sliding the liner between the screw port recess and the back of the frame section before fitting the frame. The steel liner must be fitted all round the perimeter of the window frame for fire rated installations.

**TF207** **Galvanised steel retaining bead.**

This section must be fitted to all fire rated glazing installations and, in the event of a fire, is there to ensure the glass stays in position. The bead is fixed in position with self-tapping screws through the aluminium window section into the steel sections behind. In double glazed applications the bead is only required to secure the fire rated glass on the 'corridor' side of the partition.

## 8: SOLID/GLAZED/SOLID CONSTRUCTION

- Follow the installation procedures as set out previously for solid and half glazed construction.
- Using TF201 boxed upright studs at 1200mm centres, set out the glazing elevation.
- Position a TF202/12 pre-cut notched galvanised transom between the upright studs to set the height of the top and bottom of the glazing. The upper transom is generally located in line with the head of the door frame so that the chosen cover trims are in turn fitted in line with the top of the door frame section. Set to level and fix in position using wafer head TEK screws or pop rivets.
- Repeat the process to set the height of the top of the glazing.
- Single intermediate studs should now be cut and fitted above and beneath the glazing aperture.
- Fit the window frame, the panels above and below the glazing and the selected cover trims by following the instructions in section 7.
- If the installation is required to be fire rated, the steel-retaining bead (TF207) and the steel liner (TF342, for double glazing only) must be used in the construction of the glazed modules.
- Fit the glazing beads and glass as described in section 7.

## 8: FULL HEIGHT GLAZED CONSTRUCTION

Certain elements of glazed construction require the studs to be boxed. All Tenon studs are interlocking and when fitted together form a solid box section.

- Position boxed studs (TF201 x 2) at 1200mm centres where glazing is required.
- Position the notched steel transom 3mm higher than the skirting selected to ensure that when fitted the skiting sits in the middle of the glazing section. Check for level and fix in position using 13mm wafer head TEK screws or pop rivets onto the face of the stud. Continue this process throughout the length of the glazing run.
- Where the glazing meets the aluminium head channel and galvanised track (TF311 & TF202), a further pre-cut transom (TF202/12) should be fitted to form a boxed section at the head to allow the fixing of the window frame section.
- The aluminium double glazing transom (horizontal) sections (TF340/12), which are pre-notched and pre-cut to length to suit a 1200mm wide module, can now be positioned on top of the galvanised base transom and also fitted into the head channel assembly by wrapping around the boxed transom detail formed earlier.
- With both horizontal sections in position, the vertical aluminium glazing sections can now be measured, square cut to length and fitted to each side of the glazing aperture. Before fixing the sections to the steel studs, ensure that the studs are secured within the assembly as if left loose, the corners of the frame may move during the act of fixing.
- The plasterboard panel beneath the glazing can now be cut to size and screw fixed to the framework in the same manner as for solid panel construction, taking care that the top edge of the board is cut tight with the underside of the aluminium base glazing section.
- Following the same procedure as for solid panel construction the selected cover trims can now be fitted to cover the upright joints of the glazing at the module centres.
- The double-glazing spacer (TF345) can now be cut to size and fitted into the glazing aperture, the top and bottom lengths should be fitted first followed by the upright sides.
- Following the same sequence as above cut and loose fit the plastic glazing bead (TF222/TF223) making sure the bead extends fully into the glazing frame and does not show gaps. Once cut to size, remove all beads and safely set aside.
- With the necessary assistance and equipment, equally position the glass within the frame and whilst holding the glass hard against the double glazing spacer, snap fit the glazing bead securely in place. Working from the opposite side of the frame, repeat the process to fit the second piece of glass.
- When fitting single glazed window frames, follow the same installation procedure as for double-glazing, but always ensure that the plastic single glazing bead is securely fitted into one side of the frame before attempting to fit the glass.

## 8: FULL HEIGHT GLAZED CONSTRUCTION (CONTINUED)

- When the installation calls for fire rated window frames it is essential that the following components be fitted as the glazing modules are being constructed.

**TF342: Steel liner (used only on fire rated double glazing)**

This section is positioned behind the aluminium window frame section, and is located by sliding the liner between the screw port recess and the back of the frame section before fitting the frame. The steel liner must be fitted all round the perimeter of the window frame for fire rated installations.

**TF207 Galvanised steel retaining bead.**

This section must be fitted to all fire rated glazing installations and, in the event of a fire, is there to ensure the glass stays in position. The bead is fixed in position with self-tapping screws through the aluminium window section into the steel sections behind. In double glazed applications the bead is only required to secure the fire rated glass on the 'corridor' side of the partition.

## 9: FULL HEIGHT GLAZED CONSTRUCTION USING PRE-CUT WINDOW FRAMES

Certain elements of glazed construction require the studs to be boxed. All Tenon studs are interlocking and when fitted together form a solid box section.

- Assemble the frame by screwing the pre-drilled and notched horizontal sections to the vertical upright sections using the 11/2" x No.8 flange head self-tapping screws supplied.
- Ensure that all screws fully locate through the pre-drilled pilot hole and into the screw port recess in the back of the vertical upright sections.
- Position boxed studs (TF201 x 2) at 1200mm centres where glazing is required
- Fit a pre-cut galvanised transom (TF202/12) between the upright studs and into the galvanised track at the partition head to form a box section to receive the window frame.
- Check that the first boxed stud is plumb in both vertical planes and fix in position using 13mm TEK screws or pop rivets, position the second upright stud but do not fix.
- Offer the assembled window frame between the upright studs and slide upward into the head channel, ensuring the frame is fully located into the head channel assembly (moving the second stud slightly out of position may make this operation easier.)
- If necessary move the frame over towards the first (fixed) boxed stud and ensure the frame is fully wrapped around this upright.
- Reposition the second boxed stud fully into the back of the window frame, check the stud is plumb and fix in position as before.
- Secure the widow frame in place using another galvanised pre-cut notched transom (TF202/12) positioned directly beneath the frame.
- Ensure this transom is fully located into the underside of the frame, check for level and fix in position at each end and both sides using 13mm TEK screws or pop rivets.
- The plasterboard panel beneath the glazing can now be cut to size and screw fixed to the framework in the same manner as for solid panel construction, taking care that the top edge of the board is cut tight with the underside of the aluminium base glazing section.
- Following the same procedure as for solid panel construction the selected cover trims can now be fitted to cover the upright joints of the glazing at the module centres.
- The double-glazing spacer (TF345) can now be cut to size and fitted into the glazing aperture, the top and bottom lengths should be fitted first followed by the upright sides.
- Following the same sequence as above cut and loose fit the plastic glazing bead (TF222/TF223) making sure the bead extends fully into the glazing frame and does not show gaps. Once cut to size, remove all beads and safely set aside.
- With the necessary assistance, centrally position the glass within the frame and whilst holding the glass hard against the double glazing spacer, snap fit the glazing bead securely in place. Working from the opposite side of the frame, repeat the process to fit the second piece of glass.
- When fitting single glazed window frames, follow the same installation procedure as for double-glazing, but always ensure that the plastic single glazing bead is securely fitted into one side of the frame before attempting to fit the glass.

## 8: FULL HEIGHT GLAZED CONSTRUCTION USING PRE CUT WINDOW FRAMES (CONTINUED)

- When the installation calls for fire rated window frames it is essential that the following components be fitted as the glazing modules are being constructed.

**TF342: Steel liner (used only on fire rated double glazing)**

This section is positioned behind the aluminium window frame section, and is located by sliding the liner between the screw port recess and the back of the frame section before fitting the frame. The steel liner must be fitted all round the perimeter of the window frame for fire rated installations.

**TF207 Galvanised steel retaining bead.**

This section must be fitted to all fire rated glazing installations and, in the event of a fire, is there to ensure the glass stays in position. The bead is fixed in position with self-tapping screws through the aluminium window section into the steel sections behind. In double glazed applications the bead is only required to secure the fire rated glass on the 'corridor' side of the partition.

## 9: DOOR FRAME INSTALLATION

All Fire & Sound single door frame packs are supplied "universal" i.e. they can be cut on site for either right or left handing. Frames should always be fitted between 'boxed' Tenon studs that include a softwood stud infill. The assembly should

- Using the pre-notched steel transom (TF202/12) set the distance between the studs at either side of the door opening.
- Fix the studs at the partition head and the base of the partition using brackets or screw fixings, ensuring that the studs are plumb in both planes.
- To determine the height of the bottom edge of the steel transom and allowing a 6mm gap beneath , add 17mm to the height of the door. Measure from floor level and mark the height on the door stud. (where unusually thick floor coverings are encountered the 6mm gap should be increased accordingly).
- Fix the steel transom into the framework through the face of the stud using a 12mm wafer head self drill or self tapping screw.
- If the module is to be solid above the door then cut and fit the panels so that they finish level with the bottom edge of the steel transom
- If the panel above is to be glazed then follow the same procedure as for half glazed construction ensuring that the transom is boxed at door head height.
- Door frame legs are supplied mitred at both ends and 50mm oversize and are trimmed to suit once the handing of the frame has been decided. The frame is manufactured to allow for a 2.5/3.0mm gap around the edge of the door so the door leg should be cut to provide a clear opening allowing for the door height, plus the 3.0mm gap at the head, plus the 6mm gap at the base. e.g. 1981 + 3.0 + 6.0 = 1990mm.The distance is used to measure from the inside of the mitre. Cut the frame legs to size and put to one side.
- Taking the pre-cut door head and using a hammer, tap the steel mitre cleats into the four edges of the frame section ensuring that the inside of the cleat does not bite into the face of the mitre. Offer the door head up into the underside of the opening and lever into position.
- Taking the appropriate door leg to match the handing, position the section in line with the steel cleats and the cleat housing and gradually ease the section into position. It may be necessary to apply some force to achieve this, so a wooden block and hammer may be used on the top of the door head. Repeat the operation for the leg on the opposite side of the frame.
- Once in position fix the frame into the partition through the pre-drilled holes in the rebate behind the frame stop, using 38mm x N° 8 countersunk self tapping screws. In order to avoid damage to the frame it is recommended that an extended bit be used whilst fitting the screws.
- Screw the hinges and lock box to the frame. Using the hinges as a guide, mark the position and let the hinges into edge of door to finish flush with lipping.
- Using the centre line of the lockbox as a guide, mark the position of the lock and furniture and fit to door.
- Once all of the above is complete, fit the door seal into the rebate of the frame ensuring that the flexible fin sits towards the face of the door.