tenon
PARTITIONS

fire & sound
A cost effective performer

www.tenonpartitions.co.uk
Areas of use

Fire performance
- Solid modules - up to 60 minute fire rating.
- Glazed modules - up to 60 minute fire rating in both centre single and double glazed applications.
- Door modules - up to 60 minute fire rating.*

Acoustic performance
- Solid modules - standard construction - up to 52dB (Rw).
- Glazed modules - standard construction - up to 40dB (Rw).
- Door modules - standard solid door core - up to 30dB (Rw).

Construction Options
- Solid modules - standard construction is with 12.5mm plasterboard panels with a wide choice of finishes together with numerous joint and trim options.
- Glazed modules - includes offset single, centre single, double glazing and the option of venetian blinds.
- Door modules - standard frames are supplied to suit 1981 x 838 x 44mm doors. Frames will also accept most types of doors.

Max Construction Heights
- Solid modules - standard construction - up to 4200mm. Heights in excess of this are achievable.
- Glazed modules - maximum recommended height using standard sections - 3000mm.

* 60 minute rating on timber door sets only.
Versatility

**Tenon Fire & Sound** is a versatile, demountable and re-locatable partition system that provides up to one hour fire performance and high levels of sound reduction.

The variety of partition widths, stud, panel and joint / trim options make the system ideal for a wide range of uses, in both office and light industrial areas.

The system is constructed using an aluminium head channel and galvanised steel studs together with aluminium glazing and door frame sections. The 77mm system is available with single centre, single offset and double glazing. The 102mm system has single centre and double glazing options only.

One or two layers of the specified panel can be fitted to provide the level of fire, sound or structural performance required.

Tenon Fire & Sound is well established as one of the most popular performance partition systems available.
Flexibility

Panel options include plasterboard with bevelled or negative edges to create feature joints, square edge boards for use with the suite of trim sections or tapered edge boards for flush monolithic finish. Panels can be supplied pre-decorated with a choice of wallcoverings or fabricated with laminate or steel facings.

Standard module size is 1200mm. Maximum construction height is determined by the choice of stud size and panel type, however, 102mm Fire & Sound can be built up to a height of 4200mm.

Venetian blinds can be accommodated within the system, as can a range of electrical switches with the use of a cable management post.

Solid core doors are available in natural wood finishes, including Ash, Koto, Oak, Cherry, Beech, Maple and Sapele. All doors can include any shape or size of vision panel or lipping.
Adaptability

77mm Fire & Sound is available with enhanced styling and features:
» Radius junction posts and door frame profiles
» Top hat and radius omega trim sections
» Omega concealed fix skirting
» Radius single offset and double glazing
» Switch post and radius end capping section

The 102mm system can also be supplied with radius door frame, trim and double glazing sections.

Fire & Sound has been tested to BS476 part 22 and offers up to 60 minutes fire resistance in full height glazed, solid and door elevations. Insulation performance is available on both solid and glazed elevations. Where acoustic performance is a consideration, the system can provide sound attenuation values of up to 52dB(Rw) under laboratory test conditions.
Construction details are similar for both 77mm and 102mm systems, with the variety of stud, panel and joint / trim options making it suitable for a wide range of locations and uses.

Components
Fire & Sound is constructed from a range of aluminium and galvanised steel sections, that allow the use of a variety of plasterboard and panel types. Details of individual components and their functions can be found in the section guide on page 14 - 15.

Size
Tenon Fire & Sound is based on a standard module width of 1200mm with the two partition thicknesses providing three options of construction:

<table>
<thead>
<tr>
<th>Overall Width</th>
<th>Stud Size</th>
<th>No of Board Layers</th>
</tr>
</thead>
<tbody>
<tr>
<td>77mm</td>
<td>50mm</td>
<td>One</td>
</tr>
<tr>
<td>102mm</td>
<td>50mm</td>
<td>Two</td>
</tr>
<tr>
<td>102mm</td>
<td>75mm</td>
<td>One</td>
</tr>
</tbody>
</table>

Maximum construction heights and associated levels of performance are contained within a table on page 15.

Appearance
Aluminium profiles are supplied from stock in a silver anodised finish, Grade AA5, but may be powder coated in a range of seventeen standard colours:

- RAL 5003 Dark Sapphire Blue
- RAL 5010 Gentian Blue
- RAL 5012 Light Blue
- RAL 5014 Pigeon Blue
- RAL 6005 Moss Green
- RAL 7011 Iron Grey
- RAL 7016 Anthracite Grey
- RAL 7035 Pale Grey
- RAL 9003 Dark Grey
- RAL 9005 Jet Black
- RAL 9006 Silver
- RAL 9010 Pure White
- RAL 9016 Traffic White
- BS:00 A 01 Ash Grey
- BS:00 A 05 Goose Grey
- BS:04 E 53 Poppy Red
- BS:08 B 15 Magnolia
- BS:08 B 29 Van Dyke Brown
- BS:00 A 05 Goose Grey
- BS:00 A 05 Goose Grey
- BS:04 E 53 Poppy Red
- BS:08 B 15 Magnolia
- BS:08 B 29 Van Dyke Brown

Venetian Blinds
77mm and 102mm Fire & Sound has a minimum internal void of 29mm and will accept both 15mm and 25mm blinds in double glazed and single offset glazed applications.

Glazing
Glazing is achieved by the use of aluminium sections that are fixed to the steel sub-frame and are available with a choice of plastic glazing beads. The following types of glazing are available within the system:

- With the use of standard components, glass with a thickness of between 6/7mm may be specified. However, other thicknesses of glass can be accommodated within the system. Fire rating for centre single and double glazing is achieved with the use of a number of additional steel beads and liners. However, only approved glass types may be used. Single offset glazing is available as non-fire rated only.

Aluminium glazing profiles have screw-ports that allow frames to be assembled prior to installation. Where accurate site dimensions are available, frames can be supplied pre-cut in pack form complete with glazing beads. Setting out dimensions and glazing apertures can be calculated using the information shown on page 12.

All glass fitted within the system should comply with BS 6262 and Approved Document N of The Building Regulations 1992. Part N1 covers glazed areas of critical locations with regard to safety. This includes all full height partitions, half glazed partitions adjacent to doors and vision panels in doors. Part N2 covers manifestation of glazing in critical locations where people may collide with it.

Plastic glazing and cover trim sections are available in black, white or grey and can be painted to match or contrast office colour schemes.

Plasterboard panels can be faced with paper and fabric backed vinyls or laminates from all leading manufacturers.
Solid Panels
Fire & Sound is based around the use of standard 12.5mm plasterboard. However, it can accommodate a wide range of panels and boards that provide varying degrees of decorative choice, fire resistance, sound attenuation, impact and moisture resistance.

Laminated boards and other faced substrates can be fitted within the system and pre-decorated boards are available for fast track installation contracts.

Joint/Trim Options
The system is available with a range of trim and joint options that allow for different methods of construction. The choice of trim/finish will depend on the chosen method and the level of performance required.

Door Modules
Standard doorframes are supplied as universal frame packs (i.e. left or right handed), with a choice of frame profile (see below), and come pre-mitred complete with pre-cut steel transom, factory fitted hinges and Tenon lock box and door seal. The door seal has been tested as a smoke seal and complies with the requirements of BS 476 part 31.1.

Fire rated frames do not require a steel liner, but the inclusion of intumescent strip (TF260) within the frame and the use of a suitably rated door closer are necessary to achieve stated performance levels.

When ordering door frames to suit full height doors and doors with over panels, please specify the handing of the door. 60 minute fire rated door assemblies are supplied with hardwood frames.

Doors
Doors are available with veneered or laminate facings with a choice of hardwood or laminate lippings. Both cellular core and solid core doors can be supplied in standard sizes in Sapele, Cherry, Oak, Ash, Koto, Maple and Beech veneers as standard. Non-standard sizes and veneers are available to order. Please contact your nearest CPD branch with your requirements.

The full range of Tenon joinery options is available including vision panels, relipping etc. For details of the range of ironmongery available to complement the Tenon range please refer to the latest Tenon Partition price guide.

Product Maintenance
All elements of the Fire & Sound system can be cleaned using a solution of mild detergent in warm water and a soft cloth or sponge. The frequency of cleaning will depend on the environment the partition is situated in and the level to which the surface has been soiled. Full product maintenance details and COSHH data sheets are downloadable from www.tenonpartitions.co.uk
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Technical Specifications

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102mm Fire & Sound - Elevations
Technical Specifications

Glazed Modules

Fire & Sound - Glazing Setting Out Details

<table>
<thead>
<tr>
<th>WIDTH</th>
<th>HEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIM A</td>
<td>DIM E</td>
</tr>
<tr>
<td>1200mm</td>
<td>1171mm</td>
</tr>
<tr>
<td>DIM B</td>
<td>DIM F</td>
</tr>
<tr>
<td>35mm</td>
<td>N/A</td>
</tr>
<tr>
<td>DIM C</td>
<td>DIM G</td>
</tr>
<tr>
<td>50mm</td>
<td>1184mm</td>
</tr>
<tr>
<td>DIM D</td>
<td>DIM H</td>
</tr>
<tr>
<td>77mm</td>
<td>1158mm</td>
</tr>
</tbody>
</table>

* Assumes a floor to ceiling height of 2400mm
** Assumes a floor to ceiling height of 2100mm
*** Assumes the use of 75mm skirting

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Door Modules

**Technical Specifications**

**Door Modules**

Fire & Sound - Door Frame Setting Out Details

<table>
<thead>
<tr>
<th>WIDTH</th>
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<th>DOUBLE</th>
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<tbody>
<tr>
<td></td>
<td>METRIC DOOR</td>
<td>IMPERIAL DOOR</td>
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<tr>
<td>DIM A</td>
<td>826mm</td>
<td>838mm</td>
</tr>
<tr>
<td>DIM B</td>
<td>Dim A + 21mm</td>
<td>Dim A + 21mm</td>
</tr>
<tr>
<td>DIM C</td>
<td>Dim A + 56mm</td>
<td>Dim A + 56mm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HEIGHT</th>
<th>SINGLE</th>
<th>FULL - O/P</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>METRIC DOOR</td>
<td>IMPERIAL DOOR</td>
</tr>
<tr>
<td>DIM D</td>
<td>2040mm</td>
<td>1981mm</td>
</tr>
<tr>
<td>DIM E</td>
<td>Dim D + 17mm</td>
<td>Dim D + 17mm</td>
</tr>
<tr>
<td>DIM F</td>
<td>Dim D + 33mm</td>
<td>Dim D + 33mm</td>
</tr>
</tbody>
</table>

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### Technical Specifications

- **TF201** 50mm GALVANISED STEEL STUD
  Used for all vertical framework, singularly or boxed for solid construction, dependant on height and joint detail. Section is boxed for all glazing.

- **TF202** 52mm GALVANISED STEEL CHANNEL
  Used at head, wall and floor details both singularly and boxed where appropriate with 50mm stud (TF201). Also used as notched transom with all glazing sections.

- **TF205** GALVANISED STEEL FIXING CHANNEL
  Used at all horizontal plasterboard joints.

- **TF207** STEEL GLAZING BEAD
  Used with all plastic glazing beads within aluminium glazing sections to achieve fire rated glazing.

- **TF210/211** SOFTWOOD STUD INSERT
  Use in conjunction with boxed steel stud section (TF201/1401) at either side of door frames to provide additional support for door frame leg and to give a suitable housing for fixings.

- **TF216** PLASTIC RADIUS DOUBLE/SINGLE GLAZING BEAD
  Use with double/single offset glazing section. Accepts glass with a thickness of between 6.0 and 7.0mm. Single offset with 75mm glazing only.

- **TF220** PLASTIC SINGLE GLAZING BEAD
  Use with Single glazing section (TF340). Accepts glass with a thickness of between 6.0 and 7.0mm.

- **TF222** PLASTIC SQUARE DOUBLE/SINGLE GLAZING BEAD
  Use with double/single offset glazing section. Glass with a thickness of between 6.0 and 7.0mm. Single offset with 75mm glazing only.

- **TF270/271** ALUMINIUM 90° EXTERNAL COVER TRIM & CLIP
  Used to cover 90° external corner joints. Clip section fitted at 600mm centres.

- **TF272/273** ALUMINIUM 90° INTERNAL CORNER TRIM & CLIP
  Used to cover 90° internal corner joints. Clip section fitted at 600mm centres.

- **TF274** ALUMINIUM JOINT COVER TRIM
  Used to conceal board and glazing joints both vertically and horizontally. Used in conjunction with steel clamping strip (TF275).

- **TF275** STEEL CLAMPING STRIP
  Used to secure cover trims (TF274/277/278), offset cover trim (TF279) and steel clamping section (TF275).

- **TF277** ALUMINIUM 135° INTERNAL CORNER TRIM
  Used to cover 135° internal corner joints with steel clamping strip (TF275).

- **TF278** ALUMINIUM 135° INTERNAL CORNER TRIM
  Used to cover 135° internal corner joints with steel clamping strip (TF275).

- **TF279** 32mm ALUMINIUM OFFSET COVER TRIM
  Used as an alternative to head channel section and at solid wall abutments. Used in conjunction with steel clamping strip (TF275).

- **TF286** ALUMINIUM RADIUS VERTICAL COVER TRIM
  Used with plastic Omega insert (TF289). Trim pre-drilled at 600mm centres to accept a standard drywall screw.

- **TF287** ALUMINIUM RADIUS HORIZONTAL COVER TRIM
  Used with plastic Omega insert (TF289). Trim pre-drilled at 600mm centres to accept a standard drywall screw.

- **TF288** ALUMINIUM RADIUS ABUTMENT TRIM
  Used with plastic Omega insert (TF289). Trim pre-drilled at 600mm centres to accept a standard drywall screw.

- **TF289** PLASTIC OMEGA INSERT
  Use with sections (TF286/287/288/291/292/312/325) to conceal fixings.

- **TF290** 75mm ALUMINIUM CONCEALED FIX SKIRTING
  Use at the base of the partition on both solid and glazed modules. Use with steel clamping strip (TF275).

- **TF291/292** 75/100mm ALUMINIUM OMEGA CONCEALED FIX SKIRTING
  Used at the base of the partition on both solid and glazed modules. Fixings concealed with the use of TF296 plastic omega section.

- **TF293** STEEL TOP HAT TRIM SECTION
  Use with infill section (TF294/295). Suitable for non fire rated applications only.

- **TF294** STEEL TOP HAT TRIM INFILL
  Use with steel top hat section (TF295). Suitable for non-fire rated applications only.

- **TF295** PLASTIC OMEGA INSERT
  Use with steel top hat section (TF295). Suitable for non-fire rated applications only.

- **TF308** 135° INTERNAL STEEL PLATE
  Used to form 135° corners.

- **TF311** 77mm ALUMINIUM HEAD CHANNEL
  Used for all applications except under combustible ceilings. Also used as an abutment section for both solid and glazed.

- **TF312** 77mm ALUMINIUM END CAPPING SECTION
  Used at the free ends of partition runs. Use with omega insert strip (TF289) to conceal fixings.

- **TF313** 77mm ALUMINIUM Y POST SECTION
  Used to create Y junctions in conjunction with stud section (TF201) and trim sections (TF274/275).

- **TF315** 77mm ALUMINIUM THREE WAY CONVERSION POST
  Used to convert Tenon Fire & Sound doubling walls to Tenon Flexplus along the front of offices.

- **TF318** ALUMINIUM SINGLE OFFSET GLAZING SECTION
  Use to create single offset glazing in conjunction with 77mm aluminium glazing section (TF340) and plastic glazing beads (TF216/222). 77mm system only is always mitred and therefore requires fitting as the glazing frame is assembled. Non-fire rated.

- **TF320** 77mm ALUMINIUM SINGLE CENTRE GLAZING SECTION
  Used for both non-fire rated and fire rated single. Used in conjunction with plastic glazing bead (TF201) together with steel glazing bead (TF207) in fire rated applications. Also, supplied in pre-notched form for as a transom (TF320/12).

- **TF323** 77mm ALUMINIUM THREE WAY POST
  Used to create three way junctions, accepting any combination of glazing, solid or door modules. Use timber packer (TF212) when fitting door frame directly to the post. No additional trims are required.

- **TF325/327** 77mm ALUMINIUM CABLE MANAGEMENT POST
  Used to house electrical and venetian blind cabling. Post suitable for use with Crabtree architrave switch and back box ref: 4077/4177. Use with plastic omega (TF289) and timber packer (TF213) when fitting next to door frames.

- **TF326** 77mm ALUMINIUM RADIUS 90° CORNER POST
  Use for 90° corner junctions, accepting a combination of glazing, solid or door modules. Use timber packer (TF212) when fitting door frame directly to the post. No additional trims are necessary.

- **TF327** 77mm ALUMINIUM RADIUS 135° CORNER POST
  Use for 135° corner junctions, accepting a combination of glazing, solid or door modules. Use timber packer (TF212) when fitting door frame directly to the post. No additional trims are necessary.

- **TF340/345** 77mm DOUBLE GLAZING SECTION AND SPACER
  Used for non-fire and fire rated double glazing.

- **TF342** STEEL DOUBLE GLAZING LINER
  Use with double glazing section (TF340) in fire rated applications.

- **TF360** 77mm ALUMINIUM UNIVERSAL DOOR FRAME
  Milled for and including one pair of 100mm steel hinges, Tenson lockbox, door seal (TF266) and mitre cleats (TF262). Door frame pre-cut and mitred at ends to allow frame to be used for both right hand left hand doors.
**Technical Specifications**

**TF380/381** 77mm ALUMINIUM BASE AND CLIP FIT SKIRTING SECTION  
Used as a main base channel in place of steel (TF202). Skirting section (TF381) clip fits onto main section (TF380) to provide easy access for cable management clip if required.

**TF401** 75mm GALVANISED STEEL STUD  
Used for all vertical framework, singularly or boxed solid construction, dependant on height and joint detail. Section is boxed for all glazing.

**TF402** 77mm GALVANISED STEEL CHANNEL  
Used at head, wall and floor details both singularly and boxed where appropriate with 50mm stud (TF401). Also used, as notched transom with all glazing sections.

**TF411** 102mm ALUMINIUM HEAD CHANNEL  
Used for all applications except under combustible ceilings. Also used as an abutment section for both solid and glazing.

**TF420** 102mm ALUMINIUM SINGLE CENTRE GLAZING SECTION  
Used for both non-fire rated and fire rated single glazing. Used in conjunction with plastic glazing TF220 together with steel glazing bead (TF207) in rated applications. Also supplied in pre-notched for use as a transom (TF420/12).

**TF442** STEEL DOUBLE GLAZING LINER  
Use with double glazing section (TF440) in fire rated applications.

**TF440/445** 102mm DOUBLE GLAZING SECTION AND SPACER  
Used for non-fire and fire rated double glazing. Use with plastic glazing beads (TF216/TF222) and steel liner (TF442) / steel glazing bead (TF207) in fire rated applications. Single offset glazing not available with this section.

**TF460** 102mm ALUMINIUM UNIVERSAL DOOR FRAME  
Milled for and including one pair of 100mm steel hinges, Tenon lockbox, door seal (TF266) and mitre cleats (TF262). Door frame pre-cut and mitred at ends to allow frame to be used for both right hand and left hand doors.

**A01** LAMINATE SKIRTING  
Face fixed skirting 75/100/150mm high. Use with 8 x 6mm black skirting foam (A08).

**A02** ALUMINIUM SKIRTING  
Face fixed skirting 75/100mm high. Use with 8 x 6mm black skirting foam (A08).

**TS501** BOARD EDGE CLIP  
Used for the fitting of negative and bevelled edge plasterboards to stud sections (TF201/TF401).
Fire & Sound is only one of the systems that forms the Tenon range. Other products in the range include:

- flexplus
- ovation
- scion
- vitrage
- washrooms
- operable walls
- wall store
- accessories

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