

system 5000 partitioning

technical and construction data

System 5000 introduction

System 5000

The components are designed as accessories for a relocatable, non-load-bearing, lightweight performance office partitioning system. The overall thickness of the system is 113mm, with all exposed MDF profiles available finished with an Ash, Maple, Oak or Steamed Beech veneer.

System 5000 is based upon a nominal 1200mm module.

Solid partitions are constructed with a framework of 50mm wide galvanised stud faced on both sides with 12.5mm gypsum plasterboard. The cavity within the system can be used to incorporate insulation material to enhance the acoustic performance. Glazed partitions are constructed with a framework of MDF profiles. Both constructions utilise veneered skirting and trims.

Fire performance

The installed system offers fire resistance of 30 minutes for solid elevations and glazed elevations in double glazed configuration; 90° & 135° corner posts and for doors.

Acoustic performance

The acoustic performance through solid panels is up to 46dB R_w

The acoustic performance through fully glazed panels is up to 44dB R_w

Structural performance

The system can be constructed with solid elevations and doors providing medium duty performance levels.

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System 5000 technical specifications

Standards

System 5000 is an internal partitioning system for non-load-bearing walls, and as such complies with current Building Regulations, Fire Protection Acts and Health and Safety Regulations including glass and glazing.

To achieve the specified performance characteristics outlined for the system, it must be constructed in accordance with company recommendations as detailed and tested or assessed.

Limitations

System 5000 is unsuitable for use in areas subject to continuous damp or humid conditions.

Whilst every effort is made during manufacture to maintain uniformity of colours of veneered surfaces of profiles, there may be slight variations, particularly if sourced over significant time periods. SAS International is therefore unable to guarantee exact matching beyond our manufacturers' limitations.

The stock hardwood veneered products we provide are 'off the shelf, mass produced components' and as such are priced accordingly. We will not be responsible for matching beyond the limit of the stock available, if in our judgement a match is indeed possible. If it is a requirement for the doors to match then an enquiry should be made for bespoke materials, which will be priced on application, and lead-time advised.

It should also be noted that new material would never be the same colour as an existing installation or an aged sample.

Mismatches are not a valid reason for replacement, reimbursement or return.

Handling and storage

SAS International fully accepts its responsibilities as a supplier of building materials and systems as required by the Health and Safety at Work Act 1974. The designer should take full account of relevant regulations, and the contractor should ensure that all packaging notes are adhered to and that all materials are stored and used on site to avoid damage.

Content

The data in this publication is correct at the time of going to press. However SAS International reserves the right to amend specifications without prior notification in accordance with our policy of continuous development.

The designer and user should also note that the acoustic performance data stated for the system was obtained under laboratory conditions. Particular attention should therefore be paid to the sealing of air gaps particularly to facilitate sound insulation by reducing flanking transmission of sound. If insulation material is included in the cavity to provide improved acoustic performance, compression of the material beyond that tested should be avoided.

Manufacturing

The fabrication of the veneered MDF door frames and mullions and secondary operations carried out to door leaves, are all performed at our manufacturing facility, under a Quality Management System which conforms with the requirements of BS EN ISO 9001 : 2008. Certificate no. FM 54954.

Fire resistance

SAS System 5000 has been tested to BS476 : Part 22 (1987) in various configurations. Its construction is covered by a Field of Application Report prepared by International Fire Consultants, Report No. IFCA 03226 including solid and glazed partitions and doorsets for 30 minutes fire resistance.

See separate sheet for system details and limitations.

Acoustic performance

SAS System 5000 has been tested under laboratory conditions for acoustic performance. The tests were conducted in accordance with BS EN ISO 140-3 (1995) and rated in accordance with BS EN ISO 717/1 (1997) to give a weighted sound reduction index, for both solid and glazed construction.

See separate sheet for system details and performance levels.

Structural stability

SAS System 5000 has been tested to BS5234: Part 2 (1992) Annexes A to G for structural stability, solid partitions, corner posts and doorsets are rated as Medium Duty.

See separate sheet for construction details.

Galvanised steel sections

To BS EN 10142 (2000) Continuously hot dip zinc coated low carbon steels strip and sheet for cold forming. Technical delivery conditions, and BS EN 10162 (2003) Cold rolled steel sections. Technical delivery conditions. Dimensional and cross sectional tolerances.

Veneer wrapped MDF mouldings

The manufacture of the veneered MDF profiles is performed under a Quality Management System which conforms with the requirements of BS EN ISO 9001 : 2000.

Some of the MDF used for the production of the profiles (thicker sections are excepted) carries FSC Certification for 50% of the fibre used being FSC approved virgin fibre.

The MDF material is classified as 'Low formaldehyde' under European Standards.

The lacquer used in the finishing process of the profiles is water based.

Single swing veneer wrapped MDF door frames for 44mm thick timber door leaves

General:

- Door frame packs are supplied complete with door buffer / cold smoke seal, lock box (single door frame only), HL103 hinges in either satin or bright polished finish, biscuit joints and all the necessary fixings to assemble the door frame and hang the door.
- The half hour fire rated door frame requires an intumescent strip, which is necessary to achieve the fire resistance, to be fitted into the door leaf.

Door frames to suit 1981 x 838mm and 2040 x 826mm doors:

- Single door frames are handed and are manufactured to suit either left or right hand installations. Frame stiles are mitred at one end

(other end square cut), with machined hinge and lock keep recesses as necessary.

- Double door frames are reversible and the stiles are mitred at the top with the bottom square cut.

Door frames to suit 1981mm and 2040mm doors in excess of 838mm wide:

- Door frames will normally be fitted with at least 3 hinges. Single door frames are handed and are manufactured to suit either left or right hand installations. Frame stiles are mitred at one end (other end square cut), with machined hinge and lock keep recesses as necessary.

Door frames to suit doors in excess of 2040mm high:

- Door frames will be handed and the stiles are mitred at the top only with the bottom square cut. Frames will be fitted with 3 hinges if the height of the door leaf does not exceed 2400mm, or 4 hinges if the height of the door leaf is between 2400mm and 2700mm.

Note: Some large door sizes and double doorsets will need additional intumescent strip, or constructional components – please see system details.

Cold smoke seal

Moulded MDF door frame sets include an extruded PVC combined door buffer and cold smoke seal, tested in accordance with BS476 : Part 31, Methods for measuring smoke penetration through doorsets and shutter assemblies, Section 31.1 (1983) Method of measurement under ambient temperature conditions. Complies with BS5588 : Part 3 (1983), and Amendment 6160 : 1989.

Hinges

SAS System 5000 employs HL103 hinges in either satin or bright polished finish. Class 12 to BS EN 1935 (2002) Building hardware. Single axis hinges. Requirements for test methods.

Timber door leaves

General:

- Overall sizes to BS4787 : Part 1 1980 (1995) Internal and external wood doorsets, door leaves and frames. Specification for dimensional requirements.

- Flatness to BS5277 (1976), EN 24 (1975) Doors. Measurement of defects of general flatness of door leaves.
- Squareness to BS5278 (1976), EN 25 (1975) Doors. Measurement of defects of squareness of door leaves.

Hollow core doors – 44mm thick:

- 33 x 36mm single softwood stiles and 33 x 36mm twin rails top and bottom.
- 300 x 110mm softwood lock block centrally positioned on both edges.
- Heavy duty multi-cell paper core.
- 6mm hardwood lippings to both vertical edges.
- 3.6mm hardboard substrate with 0.6mm thick face veneer laid to the edge concealing the lippings.
- Veneered doors are fully lacquered to both faces and long edges using 2 coats of semi-matt UV acrylic lacquer.
- Approximate weight: 10 kg/m²

Solid core half hour fire resistant doors 44mm thick – option 1:

- 33 x 36mm single softwood stiles and 33 x 36mm twin rails top and bottom.
- Solid chipboard core (density 500 kg/m³).
- 6mm hardwood lippings to both vertical edges.
- 3.2mm hardboard substrate with 0.6mm thick face veneer laid to the edge concealing the lippings.
- Veneered doors are fully lacquered to both faces and long edges using 2 coats of semi-matt UV acrylic lacquer.
- Achieves FD30 when fitted into appropriate construction with intumescent material and an overhead door closer.
- Approximate weight: 27 kg/m²

Solid core half hour fire resistant doors 44mm thick – option 2:

- Solid 3 layer particle board core (average density 630 kg/m³).
- 6mm hardwood lippings to both vertical edges.
- 0.6mm thick face veneer bonded directly to the core and laid to the edge concealing the lippings.
- Veneered doors are fully lacquered to both faces using 2 coats of semi-matt UV acrylic lacquer.

Plasterboard

Plasterboard used for cladding panels should comply with BS1230 : Part 1 (1985) Specification for plasterboard excluding materials submitted to secondary operations. To achieve the performance levels listed should be at least Type 1 wallboard, unless otherwise stated.

Glass

Glass installed must conform to:

- BS6206 (1981) Specification for impact performance requirements for flat safety glass and safety plastics for use in buildings.
- BS6262–4 (1994) Glazing for buildings. Safety related to human impact.
- Building Regulations Approved Document N – Glazing – safety in relation to impact, opening and cleaning.

Large areas of transparent glass in non-domestic applications where mullions are greater than 400mm apart will require manifestation which should conform to current Building Regulations and Approved Document N and Approved Document M.

Electrical

In accordance with BS7671 (1992), Amendment No. 2 1997, electrical wiring at a depth of less than 50mm from the surfaces of the wall or partition, should be installed within 150mm of the top of the wall or partition, or within 150mm of an angle formed by two adjoining walls or partitions.

Where the cable is connected to a point, accessory or switch-gear on the wall or partition, the cable may be installed outside these zones only in a straight run either horizontally or vertically, to the point, accessory or switch-gear.

Where compliance with this regulation is impractical, the cable shall incorporate an earthed metallic covering which complies with the regulations for a protective conductor of the circuit concerned, or shall be enclosed in an earthed conduit, trunking or ducting satisfying the requirements of the regulations for a protective conductor, or by mechanical protection sufficient to prevent penetration of the cable by nails, screws and the like, or be of insulated concentric construction.

Environmental

SAS International Apollo Park, operates an Environmental Management System conforming to ISO 14001 : 2004, BSI Certification No. EMS 508066.

Please where possible recycle any waste or surplus materials or alternatively ensure they are disposed of responsibly.

System 5000

Method of build

FULL HEIGHT SOLID PARTITION

System 5000 full height solid partitions can be constructed on an MDF framework similar to the glazed partition but with profiles not veneered and this would be recommended for small filler sections. However longer runs are generally constructed on a framework of 50mm stud and 52mm track, with a single layer of 12.5mm plasterboard fixed to each side, trimmed using veneered MDF cover beads and skirting profile.

It is recommended that for solid partitions using stud and track, the construction either incorporates the 18mm thick MDF head / wall abutment packer and standard 52mm track, or alternatively uses extra deep 52mm track.

- 1 Accurately mark out the partition layout.
- 2 (a) Cut the 18mm MDF packer as necessary and fix to the soffit or ceiling on the line of the partition using suitable fixings positioned max. 150mm from each end and at max. 600mm centres. Where performance is a requirement, sealant / intumescent sealant should be applied to the back of the MDF prior to fixing. A length of galvanised steel track is then fixed to the MDF using suitable fixing screws positioned max. 150mm from each end and at max. 600mm centres. For continuous runs of partition it should be ensured that the steel track is positioned to abut previous lengths.
- 2 (b) Cut extra deep track as necessary and fix to the soffit or ceiling on the line of the partition using suitable fixings positioned max. 150mm from each end and at max. 600mm centres. Where acoustic performance is a requirement, sealant should be applied to the back of the track prior to fixing. For continuous runs of partition it should be ensured that the steel track is positioned to abut previous lengths.
- 3 Using a plumb line from the head track mark the position of the floor track and fix lengths of galvanised steel track to the floor with suitable fixings positioned max. 150mm from each end and at max. 600mm centres.

Alternatively a cable duct can be formed at the base in the following manner:

Using a plumb-line from the 18mm packer at

the head mark the position of the base and fix lengths of base track 'T' section to the floor through the pre-drilled holes with suitable fixings positioned max. 150mm from each end and at max. 600mm centres, with fixings staggered on each side of the section. (This section is omitted at doorways).

Fix further lengths of the 18mm MDF packer onto the top of the base track 'T' section (using the 28mm wide rebate as location and with the 20mm wide groove uppermost) through the pre-drilled holes with suitable fixings positioned max. 150mm from each end and at max. 600mm centres. Next fix lengths of galvanised steel track to the top of the constructed base profile with suitable fixings positioned max. 150mm from each end and at max. 600mm centres.

Using square edge plasterboard with veneered joint cover beads:

Note: To achieve medium duty rating, for all partitions in excess of 2.5metres high, studs must be fully boxed.

- 4 At the position of each vertical stud measure the distance between the inside of the head track and the floor track. Deduct 10mm from this dimension (35mm for fully boxed studs), cut the studs to length and clip them into their approximate position by twisting them into the head and floor track, with all studs facing in the same direction. Check that all studs are plumb in both vertical planes and adjust the setting out as necessary. The studs should be now set out at 600mm centres.

Fully boxed studs should be offset at the ends in order that only one engages within both the head and floor track.

- 5 Measure the height from the ceiling to the floor at the first and third studs to obtain the board height, and cut the first sheet of plasterboard to size. The board is now offered into position, by lifting its top edge up to the ceiling and pushing the bottom in towards the stud framework.
- 6 Check that the board edges are plumb and are on the stud centre-lines, and then fix it into position with 25mm drywall screws at max. 300mm vertical centres along both edges and to the centre stud.

- 7 Where acoustic performance is a requirement, the insulation material is now fitted between the studs behind the first board. It can be held in position by cutting tabs 25mm wide in the head track and pressing them back to trap the quilt.
- 8 This procedure continues with vertical board joints tightly butted, and staggered between faces until the partition is fully boarded.
- 9 The screw heads are filled, and filler sanded smooth when set and the selected decorative finish is applied to the plasterboard.
- 10 Pre-drill 2.5mm holes and fix 1150mm lengths of galvanised steel retaining strip (cutting as necessary) with the screws and retaining clips provided at 300mm centres horizontally on a line approx. 23mm below the partition head to align with the centre line of the cover bead. Approx. 80mm up from the base of the partition to align with the centre of the dovetail groove in the skirting pre-drill 2.5mm holes and fix 1150mm lengths of galvanised steel retaining strip (cutting as necessary) with the screws and retaining clips provided at 600mm centres horizontally (fixing to studs), repeated for each module.
- 11 Pre-drill 2.5mm holes and fix retaining clips with screws at 300mm centres to the vertical board joints, and at abutments 23mm in from the adjoining wall.
- 12 Cut sufficient lengths of 18mm thick veneered cover bead to suit the overall partition length, and ensuring that the retaining clips are correctly aligned clip the cover bead into place at the partition head in order that the clips locate into the dovetail groove on the back of the bead.
- 13 Measure from floor to the underside of the trim fixed at the partition head and cut 18mm thick veneered cover bead to suit for the wall abutments, and ensuring that the retaining clips are correctly aligned clip the cover bead into place at the abutment in order that the clips locate into the dovetail groove on the back of the bead.
- 14 Cut the skirting to length to fit between

abutments and ensuring that the retaining clips are correctly aligned clip the skirting into place at the base of the partition in order that the clips locate into the dovetail groove on the back of the skirting profile.

- 15 Measure from the underside of the trim fixed at the partition head to the top of the skirting at each of the vertical board joints and cut lengths of 15mm thick veneered cover bead to suit each joint, and ensuring that the retaining clips are correctly aligned clip the cover bead into place over the joint in order that the clips locate into the dovetail groove on the back of the bead to complete the construction.

Using tapered edge plasterboard for flush filled joints:

Follow steps 1–8 above.

- 16 The board joints are taped and filled and the screws at the board centre are filled, then all are sanded smooth when set. The selected decorative finish is applied to the plasterboard.
- 17 Continue following steps 10, 12, 13 & 14, (omitting the clips and cover beads at vertical board joints).

PARTITION INCORPORATING GLAZING – NON FIRE RATED

The partition can be constructed to a maximum height of 3.0 metres, although at this height careful planning of the layout and a review of the module widths should be undertaken to prevent undue deflection in the completed construction.

Double glazed configuration is the only currently available option.

- 1 Accurately mark out the partition layout.
- 2 Cut the 18mm MDF packer as necessary and fix to the soffit or ceiling on the line of the partition (with the 28mm wide groove uppermost and against the ceiling) using suitable fixings positioned max. 150mm from each end and at max. 600mm centres. Where acoustic performance is a requirement, sealant should be applied to the back of the MDF prior to fixing. For continuous runs of partition it

- should be ensured that the MDF is positioned to abut previous lengths.
- 3 Using a plumb-line from the 18mm packer at the head mark the position of the base and fix lengths of base track 'T' section to the floor through the pre-drilled holes with suitable fixings positioned max. 150mm from each end and at max. 600mm centres, with fixings staggered on each side of the section. (This section is omitted at doorways).
 - 4 Fix further lengths of the 18mm MDF packer onto the top of the base track 'T' section (using the 28mm wide rebate as location and with the 20mm wide groove uppermost) through the pre-drilled holes with suitable fixings positioned max. 150mm from each end and at max. 600mm centres.
 - 5 At abutments measure from the underside of the 18mm MDF packer fixed to the ceiling to the top of the completed base, and cut further lengths of the 18mm MDF packer to size and fix to the adjoining structure through the pre-drilled holes with suitable fixings positioned max. 150mm from each end and at max. 600mm centres.
 - 6 Starting at an abutment measure from the underside of the 18mm MDF packer fixed to the ceiling to the top of the completed base, and cut a 3.0m length of veneered large chair to size to fit. When positioned over the MDF packer, drill pilot holes into the 18mm MDF packer through the pre-drilled holes in the large chair using a 2.5mm drill bit and then fix together with 25 x 3mm countersunk self tapping screws positioned max. 150mm from each end and at max. 300mm centres down both sides.
 - 7 Take two 1165mm lengths of veneered large chair for the first module (if not constructing 1200mm modules first determine the module width and cut these large chair profiles to length accordingly). Position the first length to be fitted to the underside of the 18mm MDF packer on the ceiling, then drill pilot holes into the 18mm MDF packer through the pre-drilled holes in the large chair using a 2.5mm drill bit and then fix with 25 x 3mm countersunk self tapping screws positioned max. 150mm from each end and at max. 300mm centres along both sides. The other length is fitted to the top of the base profile in the same manner, ensuring the ends of both pieces of large chair align.
 - 8 At the end of the large chair profiles fixed in (7) above furthest from the abutment measure from the underside of the 18mm MDF fixed to the ceiling to the top of the completed base, and cut a veneered mullion to length to be a good fit in between. Into both ends fit a mullion bracket into the hollow within the post. Position the mullion tightly against the ends of the veneered large chair previously fixed, in order that the brackets are within the 20mm wide groove in the 18mm packer profile at head and base, and the brackets face away from the veneered large chair profiles. Ensuring that the mullion is plumb fix it in place with two screws through each of the two brackets into the 18mm MDF packer.
 - 9 The construction proceeds in this manner until the next abutment is reached.
 - 10 If the glazing does not extend from floor to ceiling without interruption, a transom profile will be required. Veneered / veneered for glass to glass transoms, or veneered / plain for glass to solid transoms. Transoms are held in position using the 90° connecting bracket which locates into the prepared rebate on the side of the transom. Eight brackets are required for each transom and it will be necessary to cut away the edge of the rebate on the mullion to allow the bracket to locate.

The transom(s) are positioned to suit the required elevation, levelled, and fixed in position by first pre-drilling pilot holes using a 2.5mm drill bit and then fixing with 25 x 3mm countersunk self tapping screws through all of the holes in the brackets.

Always align transoms in adjacent modules preferably by using a string line pulled taut, or laser to avoid a 'saw tooth' effect.
 - 11 If the modules comprise any part solid panels, between the transom and head or base (dependant upon the position of the solid infill)

a central stud must be installed. Fix a short off cut (100mm) of 52mm track to both transom and 18mm packer centrally within the module. Cut a short length of stud to fit between these two pieces of track and clip it into position within the track profiles. The rebate in the glazing sections (large chair, mullions and transoms) is used to accommodate plasterboard or other solid infill panels.

- 12 Self adhesive 12 x 8mm brown glazing foam is fitted to the back of the glazing rebate in the profiles in order that it will be behind the glass when it is installed.
- 13 Within each module 1150mm lengths of universal steel retention strip are fitted using universal fixing clips and pan head screws provided.

These are fixed to the horizontal large chair profile (and transoms if installed) along the shallow 'v' line which can be seen on the edge of the profiles. Firstly position the steel retention strip (cut to size if necessary) on the 'v' line and pre-drill pilot holes into the MDF profile using a 2.5mm drill bit and then fix using the pan head screws through the clips provided, positioned max. 50mm from each end and at max. 300mm centres. Four lengths are used horizontally in each module, at head and base on both faces of the partition (two extra will be required for each transom, if installed).

- 14 On both edges of the large chair at the abutments, measure between the horizontal steel retention strip previously fixed in (13) above, and from this dimension deduct 12mm and then cut 3.0m lengths of the steel retention strip to length to the resultant dimension.

The cut to size strips are to be fixed to the vertical shallow 'v' line on the large chair on the wall abutment. Pre-drill pilot holes into the MDF profile using a 2.5mm drill bit and then fix using the pan head screws through the clips provided, positioned max. 50mm from each end and at max. 300mm centres.

- 15 On both edges of each mullion measure between the horizontal steel retention strip previously fixed in (13) above, and from this dimension deduct 12mm and then cut and

fix 3.0m lengths of the steel retention strip to length to the resultant dimension in the same manner as those fixed at the abutments.

The steel retention strip will be subsequently removed in order to fit the glass, and then re-fixed to retain the glass in position.

When the glazing is in place the cover beads are fitted.

- 16 Cut sufficient lengths of 18mm thick veneered cover bead to suit the overall partition length, and ensuring that the retaining clips are correctly aligned clip the cover bead into place at the partition head in order that the clips locate into the dovetail groove on the back of the bead.
- 17 Measure from floor to the underside of the trim fixed at the partition head and cut 18mm thick veneered cover bead to suit for the wall abutments, and ensuring that the retaining clips are correctly aligned clip the cover bead into place at the abutment in order that the clips locate into the dovetail groove on the back of the bead.
- 18 Cut the skirting to length to fit between abutments and ensuring that the retaining clips are correctly aligned clip the skirting into place at the base of the partition in order that the clips locate into the dovetail groove on the back of the skirting profile.
- 19 Measure from the underside of the trim fixed at the partition head to the top of the skirting at each of the mullions and cut lengths of 15mm thick veneered cover bead to suit each position, ensuring that the retaining clips are correctly aligned clip the cover bead into place over the joint in order that the clips locate into the dovetail groove on the back of the bead to complete the construction.
- 20 Where the construction employs transoms, 12mm thick veneered cover bead should be cut to fit between the vertical cover beads previously fixed and then ensuring that the retaining clips are correctly aligned clip the cover bead into place over the joint in order that the clips locate into the dovetail groove on the back of the bead.

Blinds

The double glazing configuration of System 5000 will permit the fitting of interstitial blinds within the cavity between the two panes of glass.

It is necessary that the flexible control for tilt and turn operation is fitted within the mullion during manufacture, as this is not recommended for site installation. If blinds are to be installed, it is therefore imperative that mullions are ordered with control cables pre-fitted.

It is the responsibility of the contractor to ensure that the glass installed complies with all current regulations, and where necessary manifestations are applied to the glass to comply with Building Regulations (fully glazed without blinds).

PARTITION INCORPORATING GLAZING – ½ HOUR FIRE RATED

Although large pane sizes are permitted, at heights of 2.7 metres and above it is advisable that careful planning of the layout and a review of the module widths should be undertaken to prevent undue deflection in the completed construction.

Double glazed configuration is the only currently available option.

- 1 Accurately mark out the partition layout.
- 2 Cut the 18mm MDF packer as necessary and fix to the soffit or ceiling on the line of the partition (with the 28mm wide groove uppermost and against the ceiling) using suitable fixings positioned max. 150mm from each end and at max. 600mm centres. Where performance is a requirement, intumescent sealant should be applied to the back of the MDF prior to fixing. For continuous runs of partition it should be ensured that the MDF is positioned to abut previous lengths.
- 3 Using a plumb-line from the 18mm packer at the head mark the position of the base and fix lengths of base track 'T' section to the floor through the pre-drilled holes with suitable fixings positioned max. 150mm from each end and at max. 600mm centres, with fixings staggered on each side of the section. (This section is omitted at doorways).
- 4 Fix further lengths of the 18mm MDF packer

onto the top of the base track 'T' section (using the 28mm wide rebate as location and with the 20mm wide groove uppermost) through the pre-drilled holes with suitable fixings positioned max. 150mm from each end and at max. 600mm centres.

- 5 At abutments measure from the underside of the 18mm MDF packer fixed to the ceiling to the top of the completed base, and cut further lengths of the 18mm MDF packer to size and fix to the adjoining structure through the pre-drilled holes with suitable fixings positioned max. 150mm from each end and at max. 600mm centres.
- 6 Starting at an abutment measure from the underside of the 18mm MDF packer fixed to the ceiling to the top of the completed base, and cut a 3.0m length of 13 x 20mm MDF fillet to suit and locate in the 4.5mm deep groove rebated into the MDF packer. Next cut a length of veneered large chair to size to fit. Position over the MDF packer locating the protruding fillet into the 9.5mm deep groove rebated into the rear of the large chair. Drill pilot holes into the 18mm MDF packer through the pre-drilled holes in the large chair using a 2.5mm drill bit and then fix together with 25 x 3mm countersunk self tapping screws positioned max. 150mm from each end and at max. 300mm centres down both sides.
- 7 Take two 1165mm lengths of veneered large chair for the first module (if not constructing 1200mm modules first determine the module width and cut these large chair profiles to length accordingly). Position the first length to be fitted to the underside of the 18mm MDF packer on the ceiling, then drill pilot holes into the 18mm MDF packer through the pre-drilled holes in the large chair using a 2.5mm drill bit and then fix with 25 x 3mm countersunk self tapping screws positioned max. 150mm from each end and at max. 300mm centres along both sides. The other length is fitted to the top of the base profile in the same manner, ensuring the ends of both pieces of large chair align.
- 8 At the end of the large chair profiles fixed in (7) above furthest from the abutment measure from the underside of the 18mm MDF fixed to

the ceiling to the top of the completed base, cut a veneered mullion (after ensuring that the mullion is intended for fire rated construction - central hollow is filled with an MDF fillet) to length to be a good fit in between. At both ends fix a mullion bracket for a fire rated mullion with screws into the ends of the post. Position the mullion tightly against the ends of the veneered large chair previously fixed, in order that the brackets are within the 20mm wide groove in the 18mm packer profile at head and base, and the brackets face away from the veneered large chair profiles. Ensuring that the mullion is plumb fix it in position with two screws through each of the two brackets into the 18mm MDF packer.

- 9 The construction proceeds in this manner until the next abutment is reached.
- 10 If the glazing does not extend from floor to ceiling without interruption, a transom profile will be required. Veneered / veneered for glass to glass transoms, or veneered / plain for glass to solid transoms. Transoms are held in position using the 90° connecting bracket which locates into the prepared rebate on the side of the transom. Eight brackets are required for each transom and it will be necessary to cut away the edge of the rebate on the mullion to allow the bracket to locate.

The transom(s) are positioned to suit the required elevation, levelled, and fixed in position by first pre-drilling pilot holes using a 2.5mm drill bit and then fixing with 25 x 3mm countersunk self tapping screws through all of the holes in the brackets.

Always align transoms in adjacent modules preferably by using a string line pulled taut, or laser to avoid a 'saw tooth' effect.

- 11 If the modules comprise any part solid panels, between the transom and head or base (dependant upon the position of the solid infill) a central stud must be installed. Fix a short off cut (100mm) of 52mm track to both transom and 18mm packer centrally within the module. Cut a short length of stud to fit between these two pieces of track and clip it into position within the track profiles. The rebate

in the glazing sections (large chair, mullions and transoms) is used to accommodate plasterboard or other solid infill panels.

- 12 The 13 x 10mm steel angle liner is fixed with screws located centrally in the slots and positioned max 100mm from each end and at max 400mm centres, first to the glazing rebate at the head on the protected side only (to be behind the fire resistant glass) cut as necessary to finish 20mm from each end of the glazing profile (it is not necessary to fit the angle liner at the base). Next it is then fitted to any horizontal transoms in the same manner. Finally it is then fitted to the vertical rebate on the protected side only, again cut as necessary to finish max. 100mm from the ends of the mullions and with a max. 500mm gap in between any adjoining lengths.
- 13 Self adhesive 12 x 8mm brown glazing foam is fitted to the back of the glazing rebate in the profiles on both partition faces (on top of the steel angles on the protected side) in order that it will be behind the glass when it is installed.
- 14 Within each module 1150mm lengths of universal steel retention strip are fitted using universal fixing clips and pan head screws provided.

These are fixed to the horizontal large chair profile (and transoms if installed) along the shallow 'v' line which can be seen on the edge of the profiles. Firstly position the steel retention strip (cut to size if necessary) on the 'v' line and pre-drill pilot holes into the MDF profile using a 2.5mm drill bit and then fix using the pan head screws through the clips provided, positioned max. 50mm from each end and at max. 300mm centres. Four lengths are used horizontally in each module, at head and base on both faces of the partition.

- 15 On both edges of the large chair at the abutments measure between the horizontal steel retention strip previously fixed in (14) above, and from this dimension deduct 12mm and then cut 3.0m lengths of the steel retention strip to length to the resultant dimension.

The cut to size strips are to be fixed to the vertical shallow 'v' line on the large chair on

the wall abutment. Pre-drill pilot holes into the MDF profile using a 2.5mm drill bit and then fix using the pan head screws through the clips provided, positioned max. 50mm from each end and at max. 300mm centres.

- 16 On both edges of each mullion measure between the horizontal steel retention strip previously fixed in (14) above, and from this dimension deduct 12mm and then cut and fix 3.0m lengths of the steel retention strip to length to the resultant dimension in the same manner as those fixed at the abutments.

The steel retention strip will be subsequently removed in order to fit the glass, and then re-fixed to retain the glass in position.

When the glazing is in place the cover beads are fitted.

- 17 Cut sufficient lengths of 18mm thick veneered cover bead to suit the overall partition length, and ensuring that the retaining clips are correctly aligned clip the cover bead into place at the partition head in order that the clips locate into the dovetail groove on the back of the bead.
- 18 Measure from floor to the underside of the trim fixed at the partition head and cut 18mm thick veneered cover bead to suit the for the wall abutments, and ensuring that the retaining clips are correctly aligned clip the cover bead into place at the abutment in order that the clips locate into the dovetail groove on the back of the bead.
- 19 Cut the skirting to length to fit between abutments and ensuring that the retaining clips are correctly aligned clip the skirting into place at the base of the partition in order that the clips locate into the dovetail groove on the back of the skirting profile.
- 20 Measure from the underside of the trim fixed at the partition head to the top of the skirting at each of the vertical board joints and cut lengths of 15mm thick veneered cover bead to suit each joint, and ensuring that the retaining clips are correctly aligned clip the cover bead into place over the joint in order that the clips locate into the dovetail groove on the back of

the bead to complete the construction.

- 21 Where the construction employs transoms, 12mm thick veneered cover bead should be cut to fit between the vertical cover beads previously fixed and then ensuring that the retaining clips are correctly aligned clip the cover bead into place over the joint in order that the clips locate into the dovetail groove on the back of the bead.
- 22 On installation of the glass, the fire resistant glass must be bedded on intumescent mastic, allowing 8mm edge cover there will remain a 4mm gap between the glass edge and the glazing profile and this should be filled with intumescent mastic. The sacrificial pane is installed in the normal manner.

Blinds

The double glazing configuration of System 5000 will permit the fitting of interstitial blinds within the cavity between the two panes of glass.

It is necessary that the flexible control for tilt and turn operation is fitted within the mullion during manufacture, as this is not possible to be installed on site. If blinds are to be installed, it is therefore imperative that mullions are ordered with control cables pre-fitted.

It is the responsibility of the contractor to ensure that the glass installed complies with all current regulations, and where necessary manifestations are applied to the glass to comply with Building Regulations (fully glazed without blinds).

DOOR MODULE

Door frames are usually incorporated into the construction as work proceeds, but doors are hung at a later stage to prevent damage to them.

The System 5000 standard single door frames are handed to either suit left or right hand installations, mitred one end of the frame stiles. All door frames are manufactured to be trimmed in height by at least 40mm, in order that a difference in floor level or installation before the floor covering can be accommodated, and all require removal of this surplus from the stiles prior to installation. Simply check the door height and then square cut the appropriate end of each stile accordingly.

For fire resistant door frames intumescent strips must be fitted into the door leaf edges.

Installation of the door frame:

Solid partition

- 1 The position of the door module is established from the partition layout and the floor track is omitted for the width of the door module.
- 2 The correct set out width is ascertained (see the setting out information sheet provided in the door frame pack). At the position of both vertical studs at the sides of the door frame opening measure the distance between the inside of the head track and the floor track. Deduct 35mm from this dimension, cut two studs to length and box them together with the ends offset in order that only one engages within both the head or floor track. The softwood stud infill is inserted into the boxed studs for the full height, with any surplus cut off. Clip the studs with infills into their approximate position by twisting them into the head and floor track. Check that the studs are plumb in both vertical planes and adjust the setting out as necessary. The stud is now fixed in place by snipping the sides of the head track and bending them inwards at either side of the stud, at the base they are fixed in place with wafer head screws through the wall of the floor track.
- 3 The height at which the transom is to be fixed is ascertained (see the set out sheet in the door frame pack for guidance). If the floor covering is not in place allowance can be made for its thickness to obviate the need to trim the height of the door. With the transom brackets facing upwards, the transom is screwed in position ensuring it is level.

Ensure that any transoms in consecutive modules are checked for line and level.

Note: For all doors other than 1981 x 838mm and 2040 x 826mm the transom should also have the softwood stud infill fitted.

For full height doors the 18mm MDF packer in conjunction with the 6mm MDF abutment fillet is used at the head (in lieu of transom or track), to which the door frame head is fixed and provides the correct alignment for the

cover bead when it is subsequently installed.

- 4 Any surrounding solid panels are constructed.

An intermediate stud may be required above the door, subject to the panel height or width. If the height exceeds 500mm, or the width exceeds 900mm an intermediate stud should be used.

- 5 The door frame components are removed from the pack. The frame stiles are cut to length, removing the surplus from the square cut end of the stiles. The biscuits for jointing the mitres are fitted into the machined slots in the door frame head. The corresponding slot in the frame stile is also located onto the biscuit to form the mitred joint. Screws are then fitted through the pre-drilled holes in the frame head down into the stiles to assemble the frame.
- 6 Offer the prepared door frame into the constructed opening in the partition wall, ensuring that the frame stiles are plumb in both planes and that the head is level, fix the frame in position with screws through the rebate for the door buffer.
- 7 The door frame seal can now be neatly cut to fit within the frame recess, and after removing the release paper to reveal the adhesive strip it is bonded into position.
- 8 The lock keep is fitted into the machined recess in the frame stile and fixed in place with two screws.
- 9 The hinges are located in the machined recesses in the frame stile and 3.5mm pilot holes are drilled and the hinges are then secured in place with the 30 x 5mm screws provided in the door frame pack (five screws per hinge).
- 10 The installation of the door frame is now complete, and ready for the door to be hung, this is normally carried out at the later stages of the installation to prevent damage occurring to the door leaf during other parts of the construction.

Glazed partition

- 1 The position of the door module is established from the partition layout and the base profile is omitted for the width of the door module.

- 2 The correct set out width is ascertained (see the setting out information sheet provided in the door frame pack). At both sides of the door frame opening measure from the underside of the 18mm MDF packer fixed to the ceiling to the top of the completed base, and cut a length of veneered large chair to size to fit.

Note: For all half hour fire rated door frames a 20 x 13mm MDF fillet must be fitted in the machined recesses of the large chair / door frame junction.

- 3 The door frame components are removed from the pack. The frame stiles are cut to length removing the surplus from the square cut end of the stiles. The biscuits for jointing the mitres are fitted into the machined slots in the door frame head. The corresponding slot in the frame stile is also located onto the biscuit to form the mitred joint. Screws are then fitted through the pre-drilled holes in the frame head down into the stiles to assemble the frame.

Note: For all full height door frames an additional 6mm MDF abutment fillet is used between the door frame and 18mm MDF packer fixed to the ceiling, the frame can be fixed in position at the head with screws through the rebate for the door buffer.

- 4 Position the frame within the opening left in the base profile and support it in an upright position. Using two mullion brackets located in the recess in the rear face of the door frame and the recess on the top of the prepared base profile, secure the door frame with screws to the base profile.
- 5 The 20 x 13mm MDF fillet is now fitted into the recess on the reverse of the frame for half hour fire rated installations.
- 6 The veneered large chair profile is positioned on the rear face of the door frame (over the MDF packer, locating the protruding fillet into the 9.5mm deep groove rebated into the rear of the large chair for FD30 door frames) and drill pilot holes into the door frame through the pre-drilled holes in the large chair using a 2.5mm drill bit and then fix together with 25 x 3mm countersunk self tapping screws positioned max. 150mm from each end and at

max. 300mm centres down both sides.

- 7 For all door frames other than full height, a section of small chair is cut to fit on the reverse of the large chair profile which extends above the door frame to the underside of the packer at the ceiling and is then fixed to form a 'mullion' profile, this can be secured to the 18mm packer fixed to the ceiling using a mullion bracket.
- 8 Glazing above the door frame is accommodated by fixing large chair profile to the reverse of the door frame head and to the underside of the 18mm MDF packer fixed to the ceiling.
- 9 The door frame seal can now be neatly cut to fit within the frame recess, after removing the release paper to reveal the adhesive strip it is bonded into position.
- 10 The lock keep is fitted into the machined recess in the frame stile and fixed in place with two screws.
- 11 The hinges are located in the machined recesses in the frame stile and 3.5mm pilot holes are drilled and the hinges are then secured in place with the 30 x 5mm screws provided in the door frame pack (five screws per hinge).
- 12 The installation of the door frame is now complete and ready for the door to be hung, this is normally carried out at the later stages of the installation to prevent damage occurring to the door leaf during other parts of the construction.

SETTING OUT FOR DOOR FRAMES

To accurately set out for the door frame, the setting out information sheet provided in the door frame pack can be used, if it is not available the following calculations can be applied:

Solid partitions:

Single doors:

The correct spacing between the vertical stud faces for single doors can be calculated by adding 64mm to the width of the door to be installed.

i.e. For an 838mm wide door the dimension will be
 $838 + 64 = 902\text{mm}$

For an 826mm wide door the dimension will be
 $826 + 64 = 890\text{mm}$

Double doors:

The correct spacing between the vertical stud faces for double doors can be calculated by adding 66mm to the width of the doors to be installed, this allows 2mm clearance between the meeting edges.

i.e. For 838mm wide doors the dimension will be
 $2 \times 838 + 66 = 1742\text{mm}$

For 826mm wide doors the dimension will be
 $2 \times 826 + 66 = 1718\text{mm}$

Glazed partitions:**Single doors:**

The correct opening to be left within the base profiles for single doors can be calculated by adding 64mm to the width of the door to be installed.

i.e. For an 838mm wide door the dimension will be
 $838 + 64 = 902\text{mm}$

For an 826mm wide door the dimension will be
 $826 + 64 = 890\text{mm}$

Double doors:

The correct opening to be left within the base profiles for double doors can be calculated by adding 66mm to the width of the doors to be installed, this allows 2mm clearance between the meeting edges.

i.e. For 838mm wide doors the dimension will be
 $2 \times 838 + 66 = 1742\text{mm}$

For 826mm wide doors the dimension will be
 $2 \times 826 + 66 = 1718\text{mm}$

Transom height:

The correct transom height including an allowance of 5mm clearance below the door leaf can be calculated by adding 37mm to the height of the door to be installed.

i.e. For 1981mm high doors the dimension will be
 $1981 + 37 = 2018\text{mm}$

For 2040mm high doors the dimension will be
 $2040 + 37 = 2077\text{mm}$

HANGING THE DOOR

After the door frame is installed, and the remainder of the construction is completed, the doors are hung into the door frame.

- 1 Position the door within the frame, ensuring an equal gap of 3mm between door edges and frame and sufficient clearance above the floor covering at the bottom of the door for it to open normally, trimming the door as necessary in height or width to achieve this.
- 2 Accurately mark the positions of the hinges on the door edge using a sharp knife, and withdraw the door from the frame.
- 3 Remove the hinges from the door frame by releasing the screws. Place the hinges on the door edge in the positions marked in (2) above, and mark around the hinges for the outline for the hinge cut-outs.
- 4 Carefully cut out the hinge recesses in the door edge.
- 5 Fit the hinges into the recesses, pre-drill for the 3.5mm pilot holes for the hinge fixing screws, and secure the hinges to the door with the 30 x 5mm wood screws provided (5 per hinge).
- 6 Offer the door up at right angles to the frame, raising it with wedges to engage the top hinge into the machined recess in the frame. Secure the top hinge with the screws.
- 7 Fit the bottom hinge into its machined recess in the frame by lifting the door away from the frame sufficiently to permit it to engage (removing the wedges used to raise the door at the same time). Secure the bottom hinge with the screws.

If more than 2 hinges are supplied with the frame, carry out the installation as above, but only fit the top and bottom hinge to the door. The remaining hinge(s) should be fitted to the frame and fixed to the door when it is in position in the frame with the top and bottom hinges secured.

- 8 Ensure that the door closes into the frame, and that a 3mm gap remains between the door edges and the frame.
- 9 Fit the remaining ironmongery and door furniture to the door, open and close the door to check normal operation, adjusting as necessary.

The installation is now complete.

RECOMMENDED FIXINGS

18mm MDF packer at head and abutments to structure, & base profile to floor

- Timber backgrounds – 38 x 5.0mm wood screws.
- Masonry backgrounds – 38 x 5.0mm wood screws and red plugs.
- Metal backgrounds – 38 x 4.0mm self tapping screws.

Fixing plasterboard

- Single layer – 25mm drywall screws.

General framework assembly & fixing steel angle liners

- Into MDF profiles – 25 x 3.0mm countersunk screws.

Fixing steel retaining strips to framework (and fixing cover beads)

- 25 x 3.0mm pan head self tapping screws & clips.

Door frames to studs (in solid partitions)

- 50 x 4.0mm countersunk self tapping screws.

Hinges to door frame

- 30 x 5.0mm countersunk wood screws.

Lock keep to door frame

- 13 x 4.0mm pan head self tapping screws.

DRILL SIZES FOR PILOT HOLES:

To ensure that the fixings are secure, the correct size pilot hole should be drilled first.

- 3.0mm self tapping screws – 2.5mm HSS drill.
- 3.5mm self tapping screws – 2.85mm ($\frac{7}{64}$ " HSS drill.
- 4.0mm self tapping screws – 3.5mm ($\frac{9}{64}$ " HSS drill.
- 5.0mm wood screws (into timber) – 3.5mm ($\frac{9}{64}$ " HSS drill.
- 5.0mm wood screws and red plugs – 6.0mm masonry drill.

STANDARD TRANSOM SIZES

Standard (1200mm) module transom

Length %all section	1165mm
Module centres	1200mm

Stud transoms for solid partitions

Door frame transom – single doors

838mm door

Length %all steel section	900mm
Length %all brackets	902mm

826mm door

Length %all steel section	888mm
Length %all brackets	890mm

Door frame transom – double doors

2 x 838mm doors

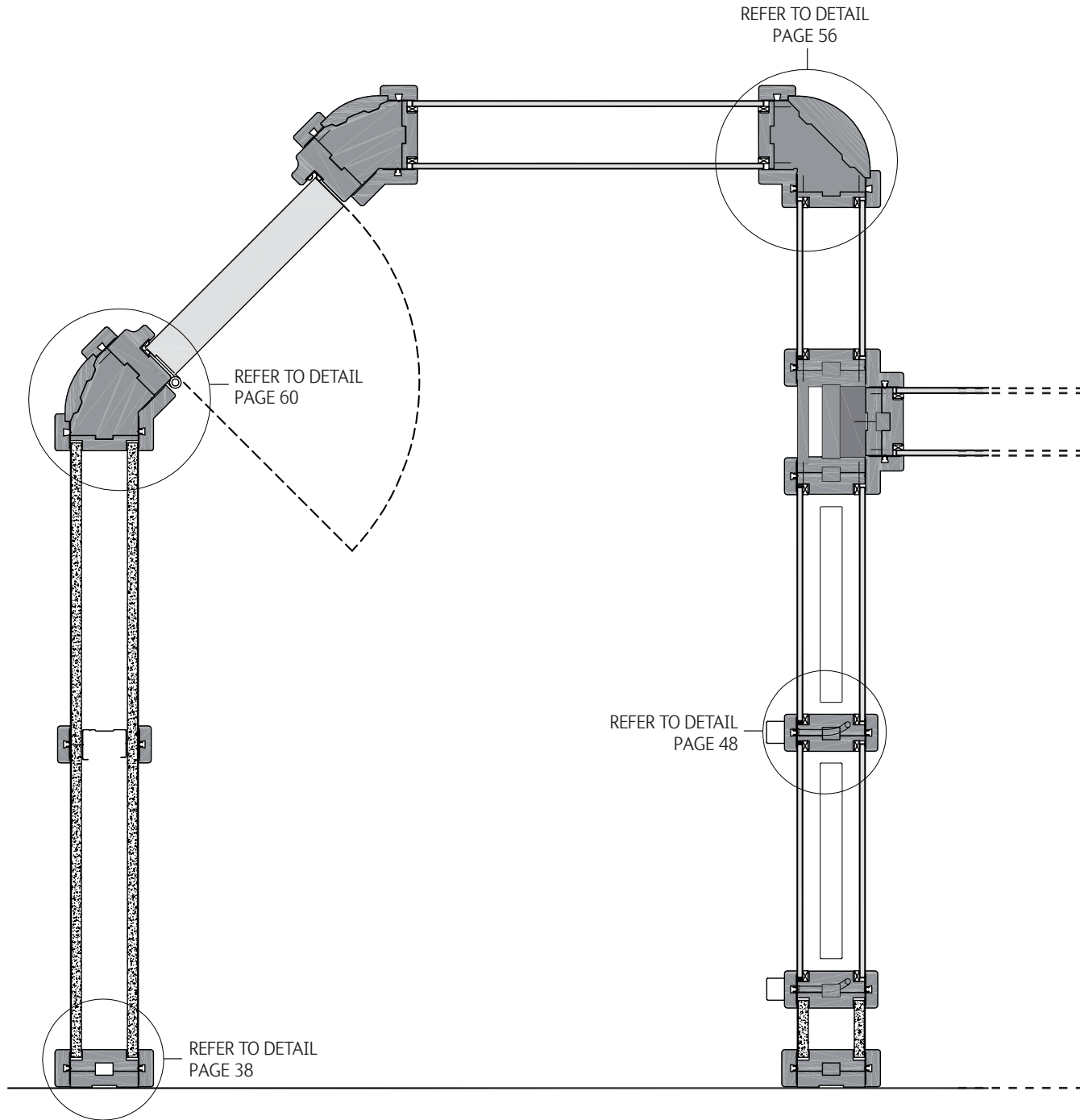
Length %all steel section	1740mm
Length %all brackets	1742mm

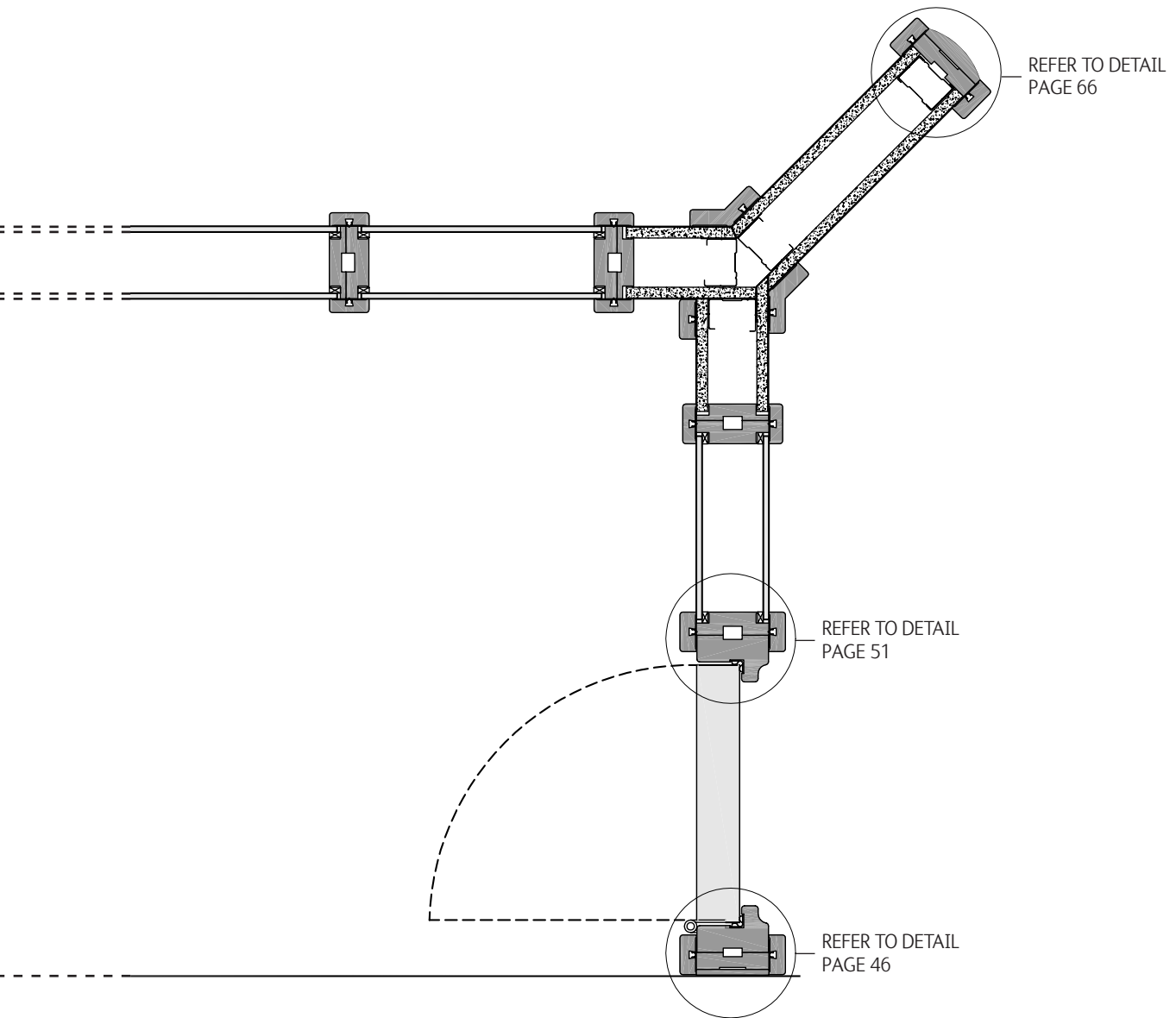
2 x 826mm door

Length %all steel section	1716mm
Length %all brackets	1718mm

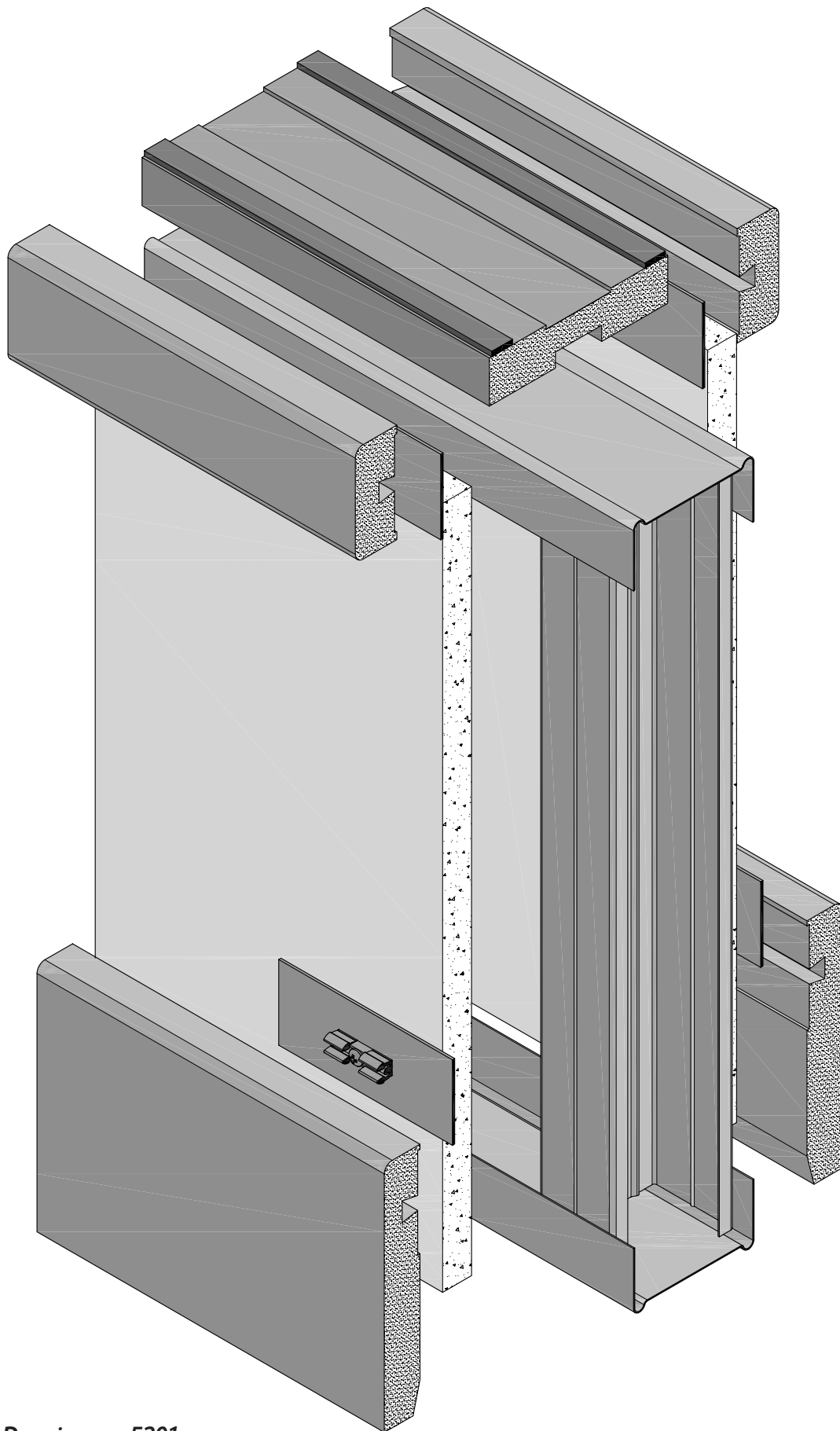
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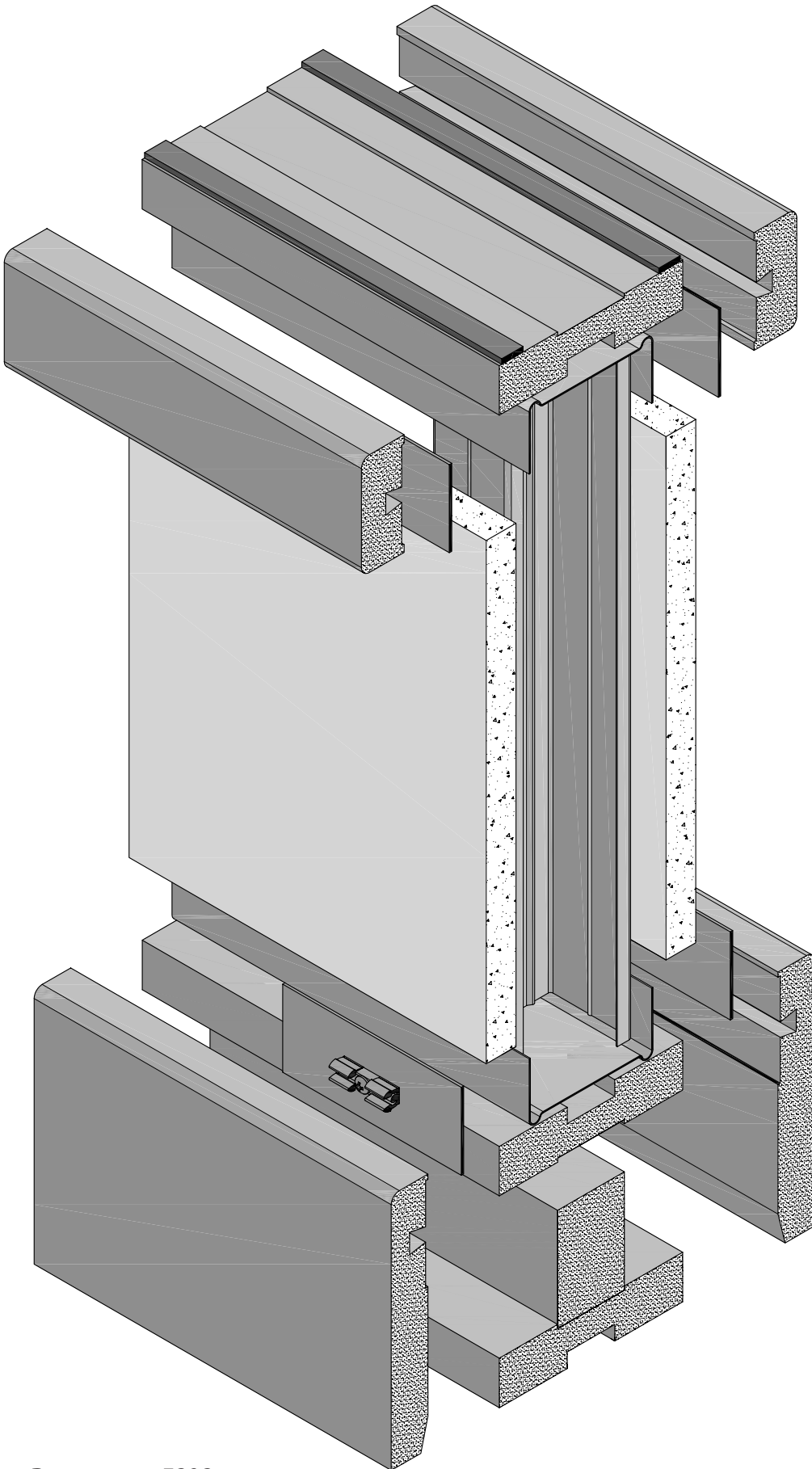




system 5000 exploded view – solid full height

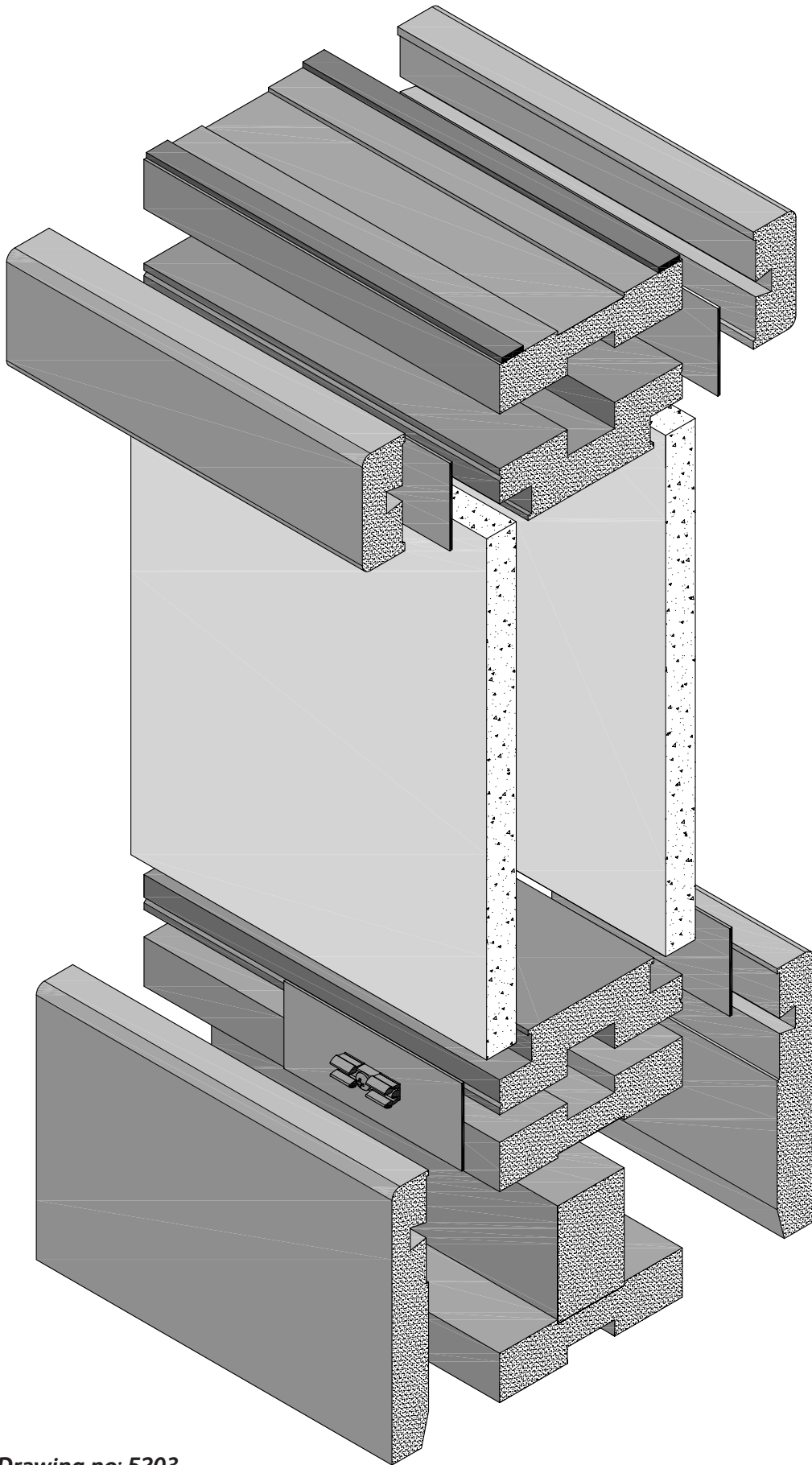


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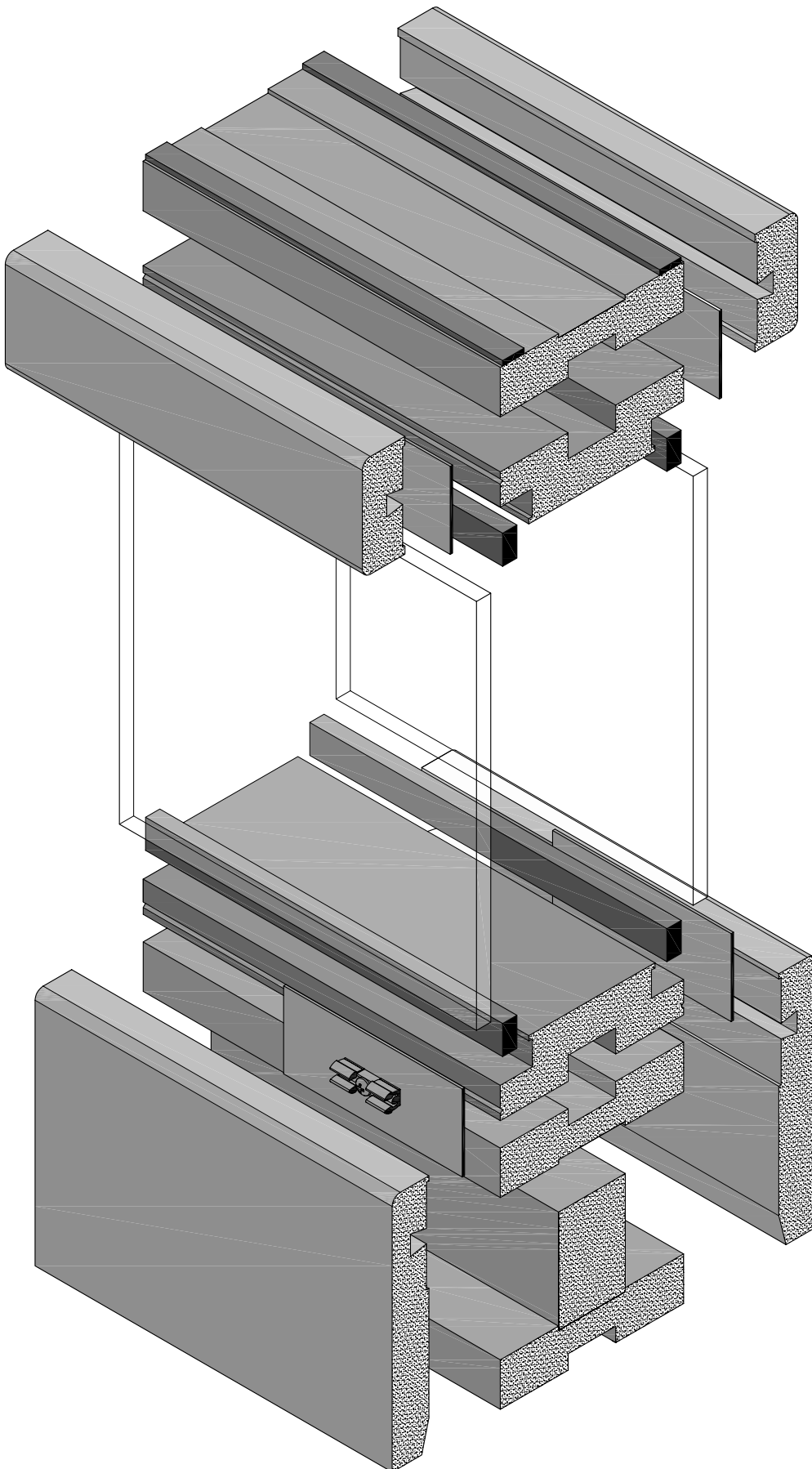


Drawing no: 5202

system 5000 exploded view – solid full height

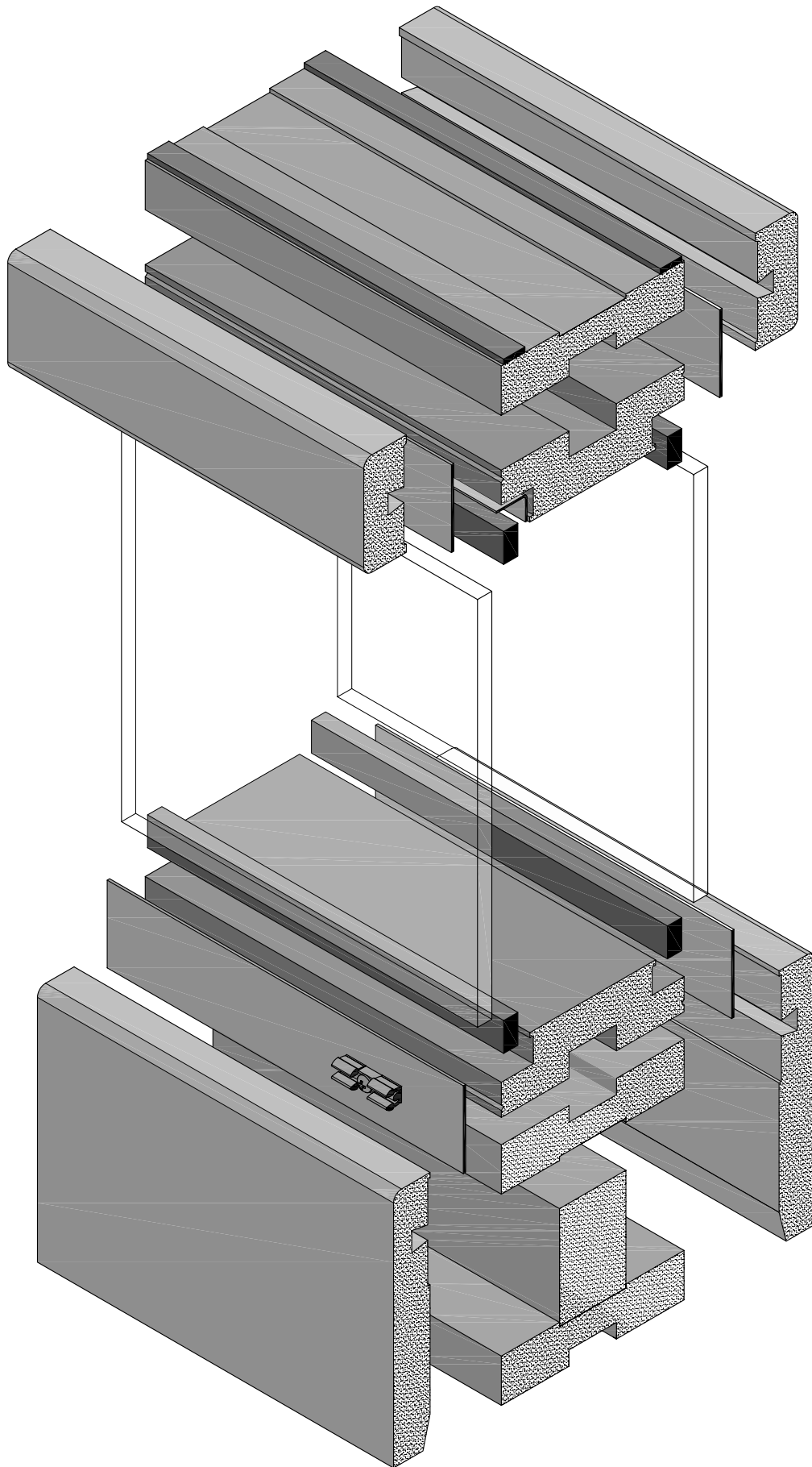


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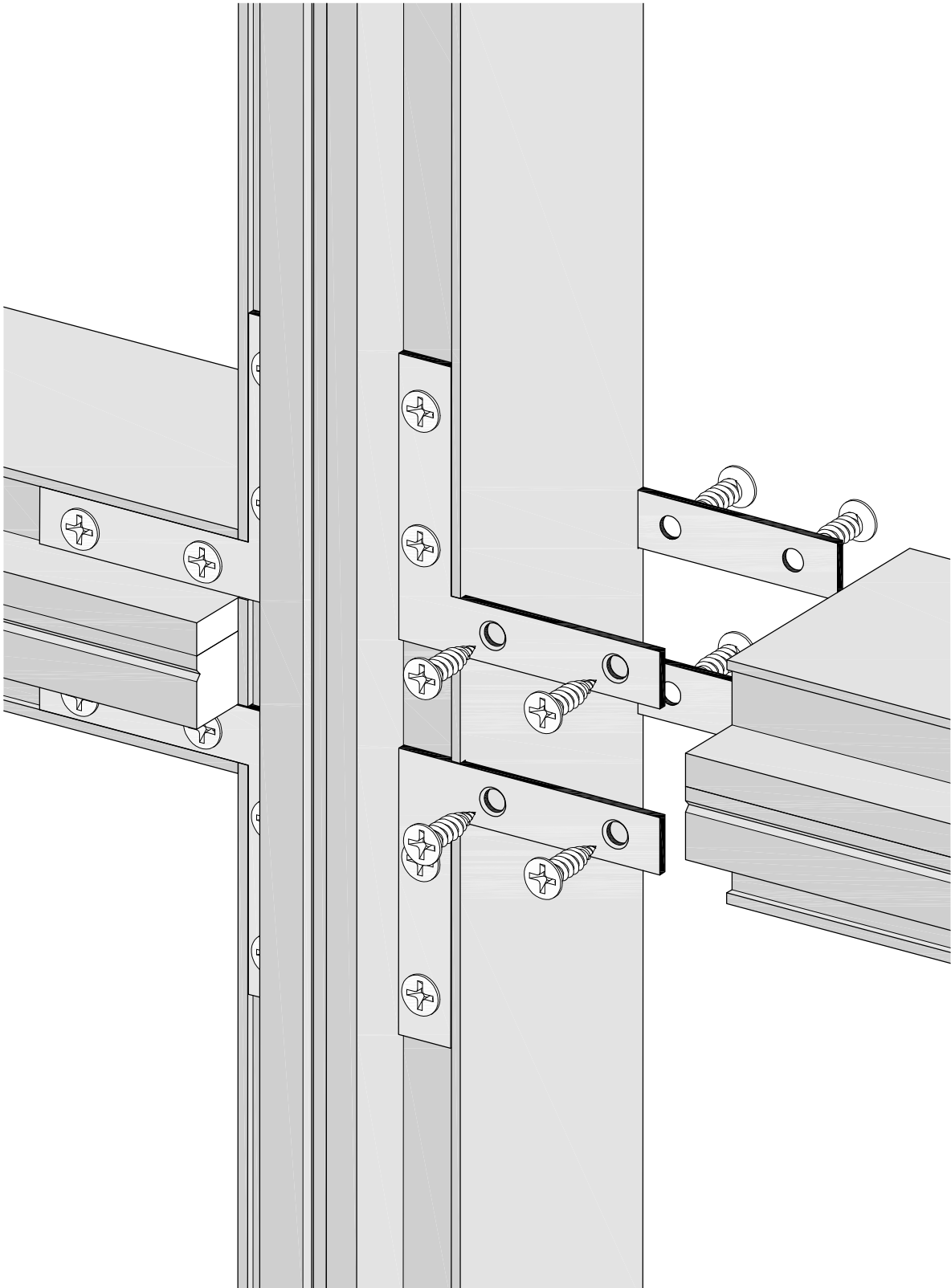


Drawing no: 5204

system 5000 exploded view – full double glazed (30min fire-rated)

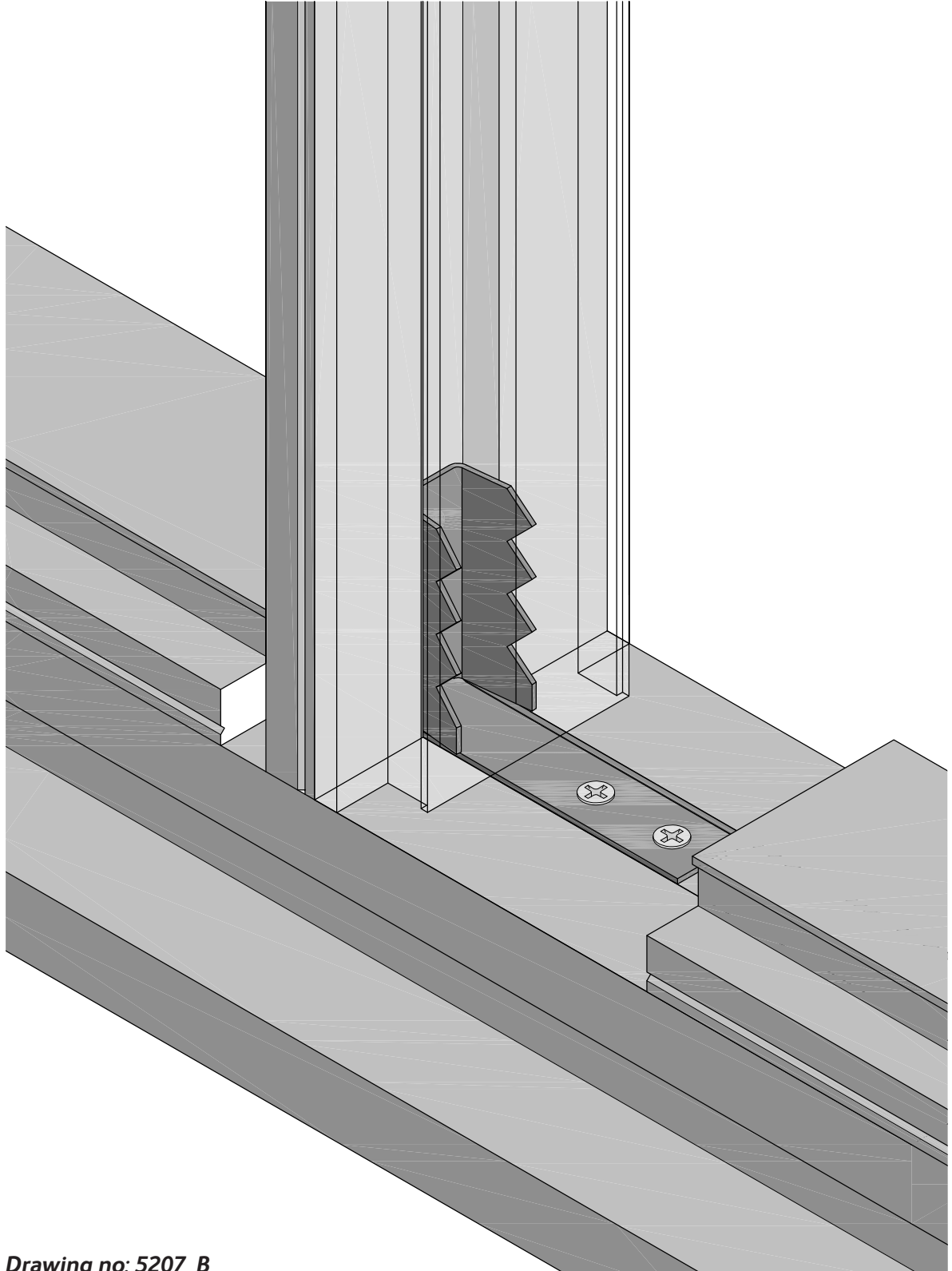


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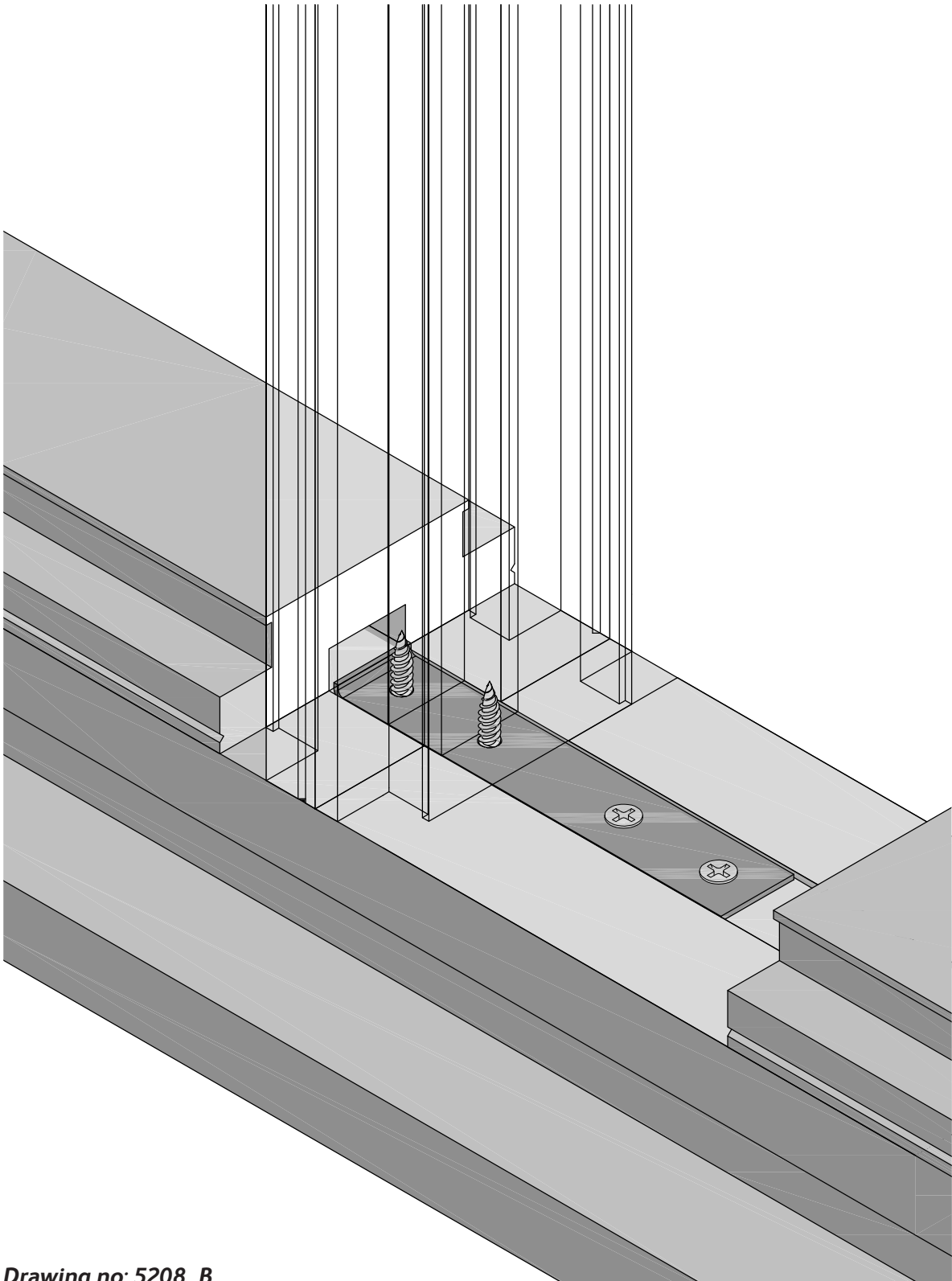


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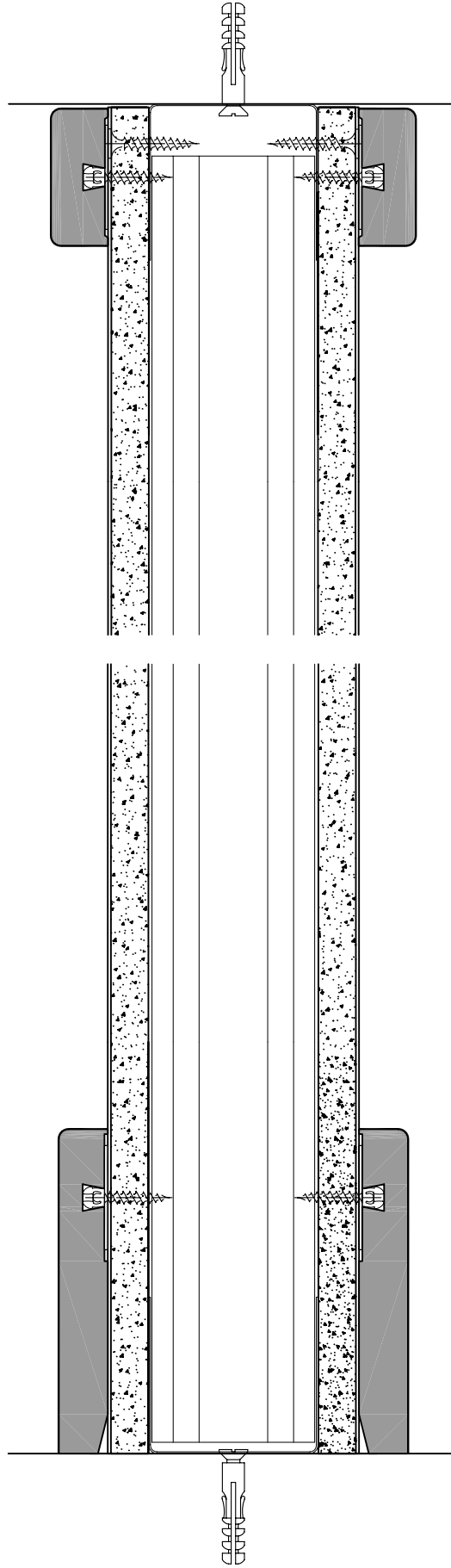
system 5000 exploded view – mullion support bracketry (non-fire-rated)



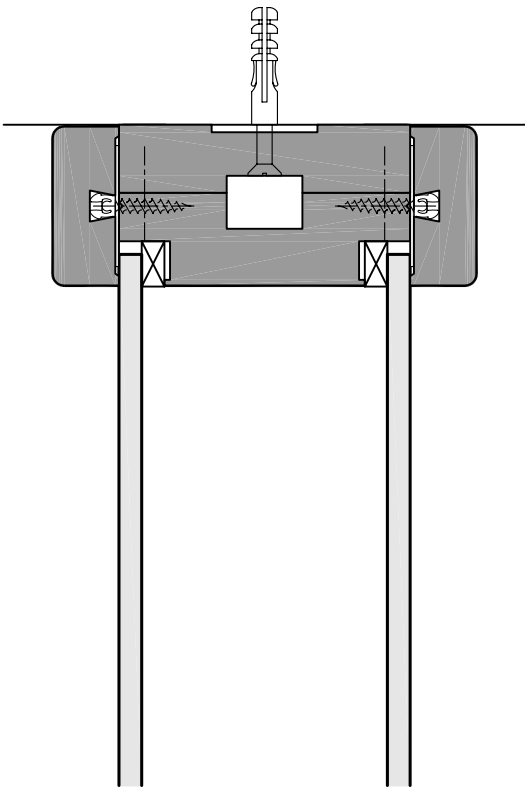
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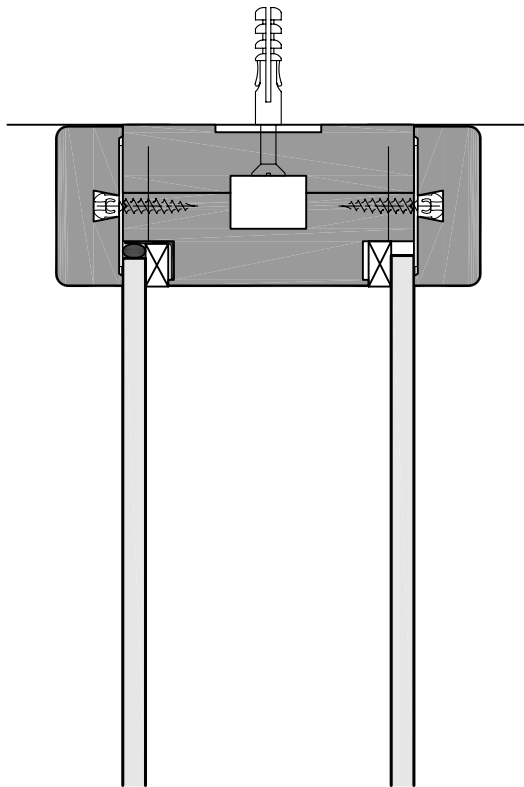
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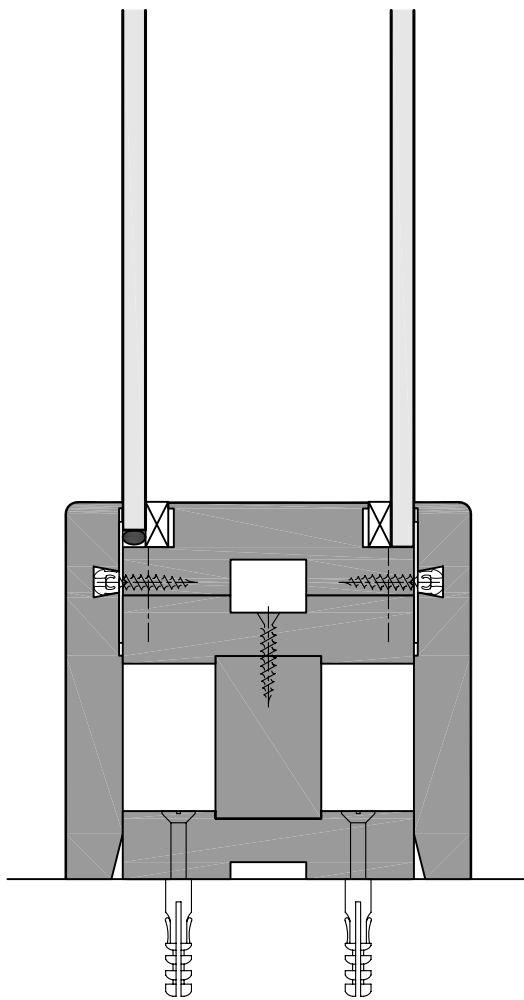
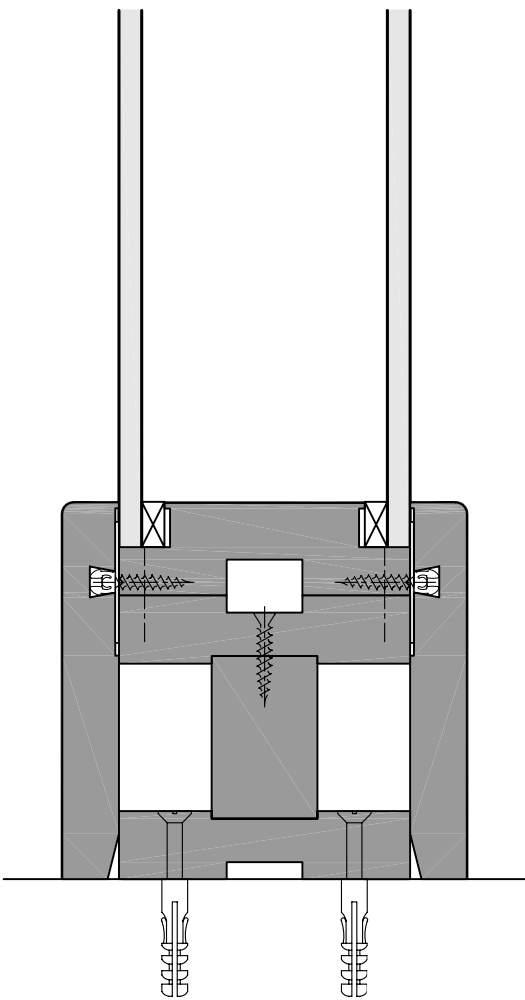
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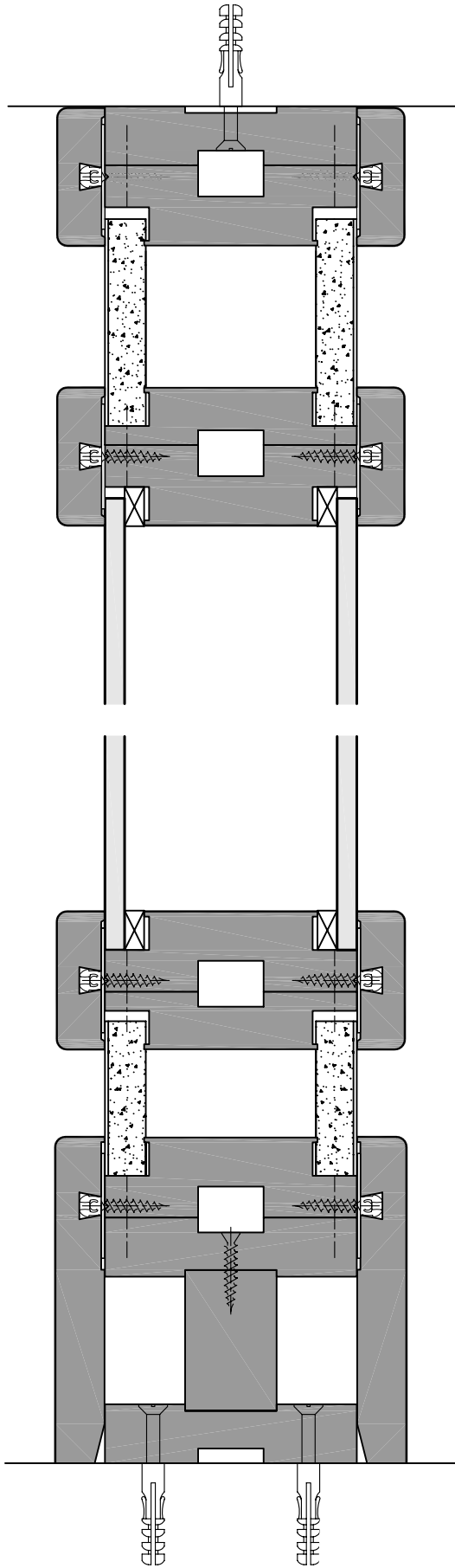


Non-fire-rated
Drawing no: 5214

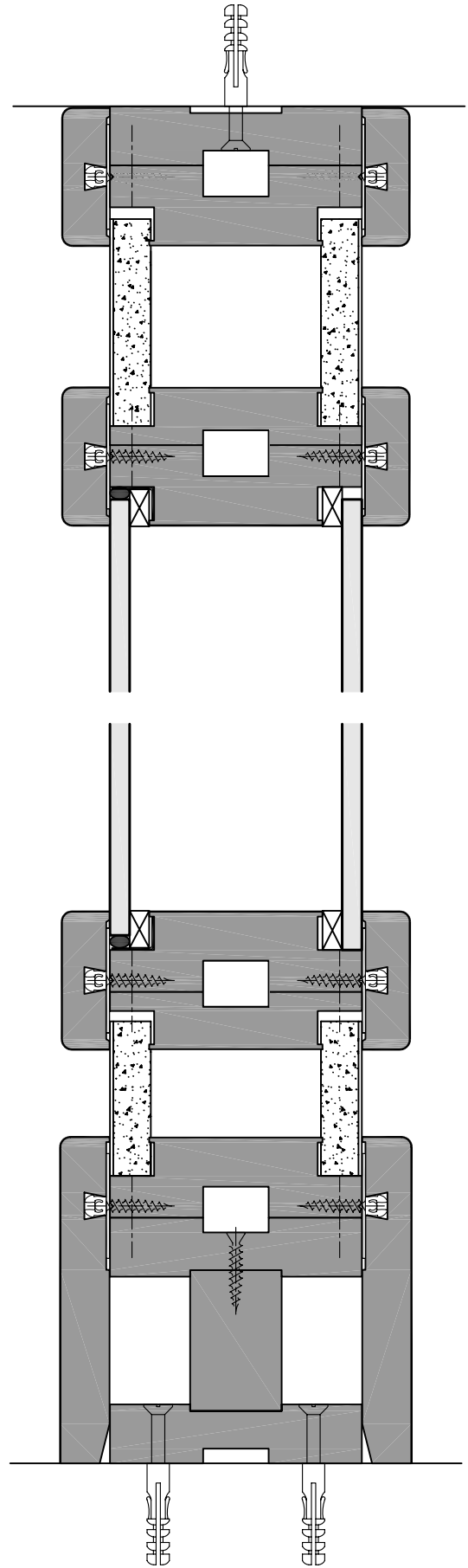


30 min fire-rated
Drawing no: 5217

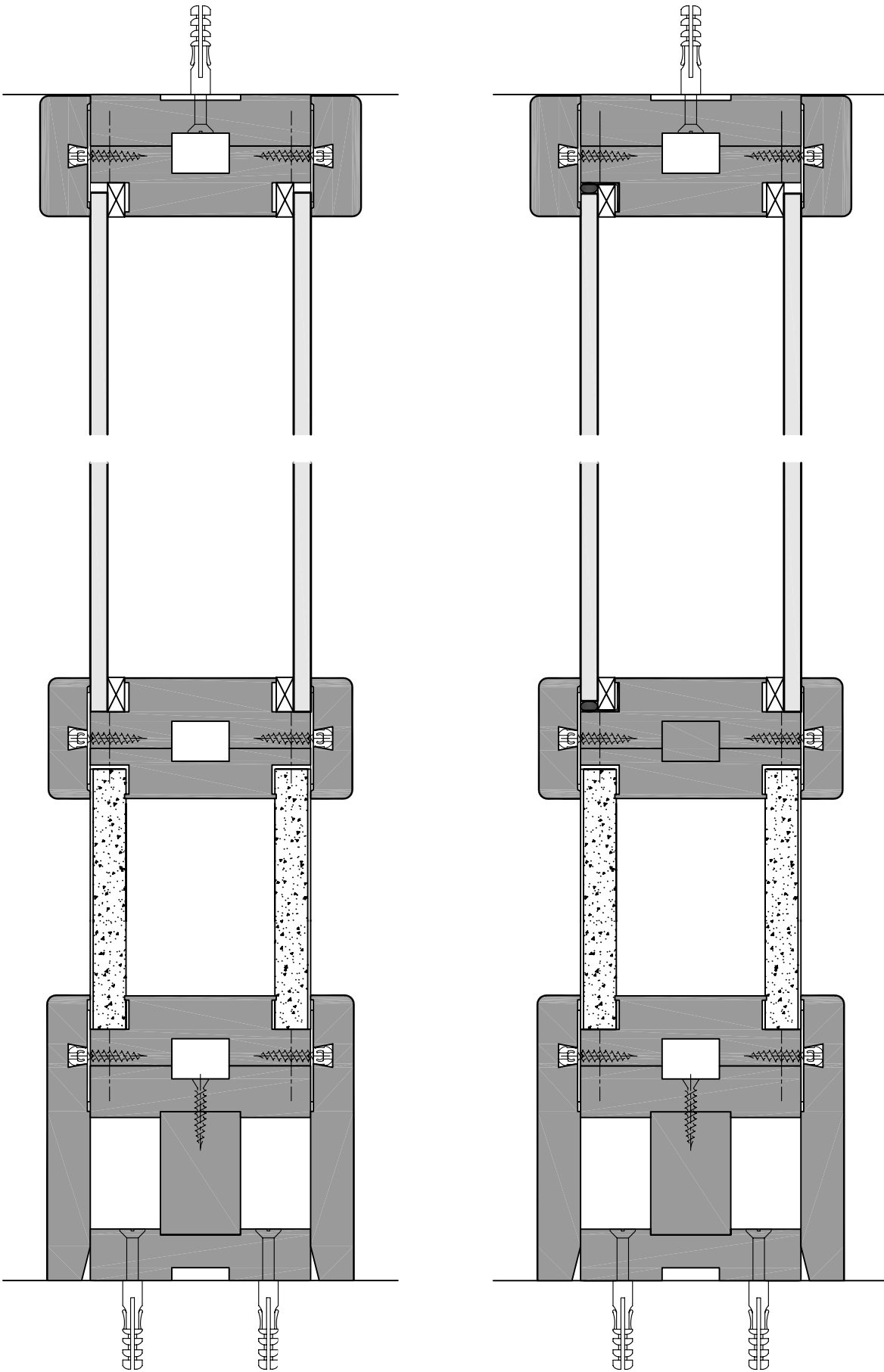




Non-fire-rated
Drawing no: 5212



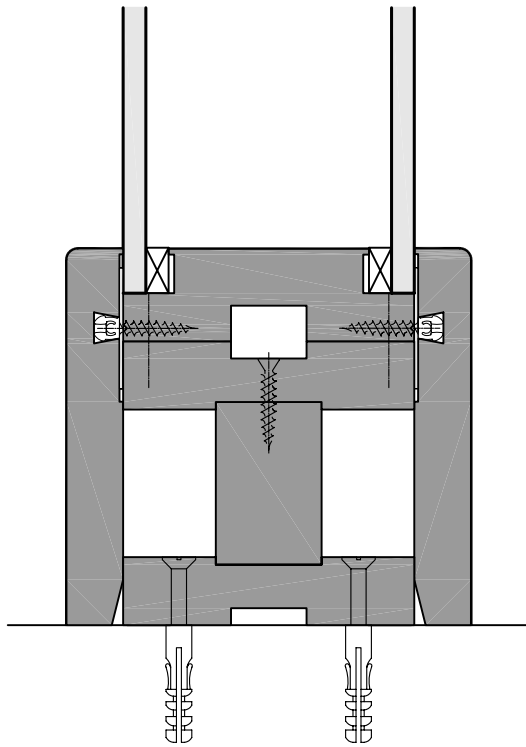
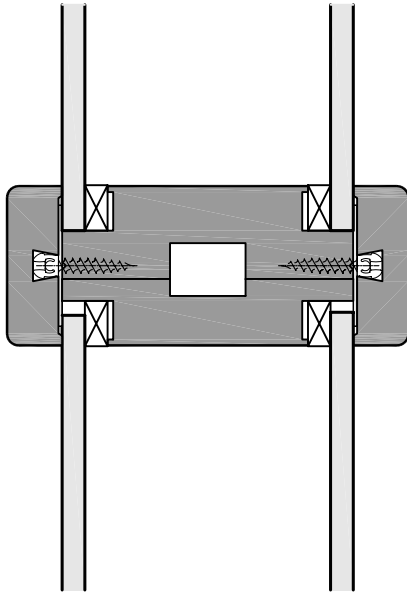
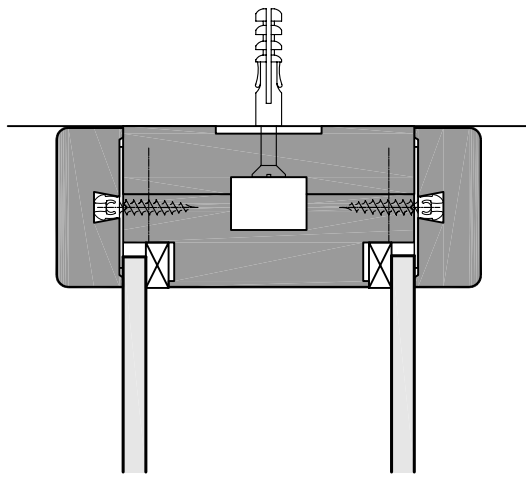
30 min fire-rated
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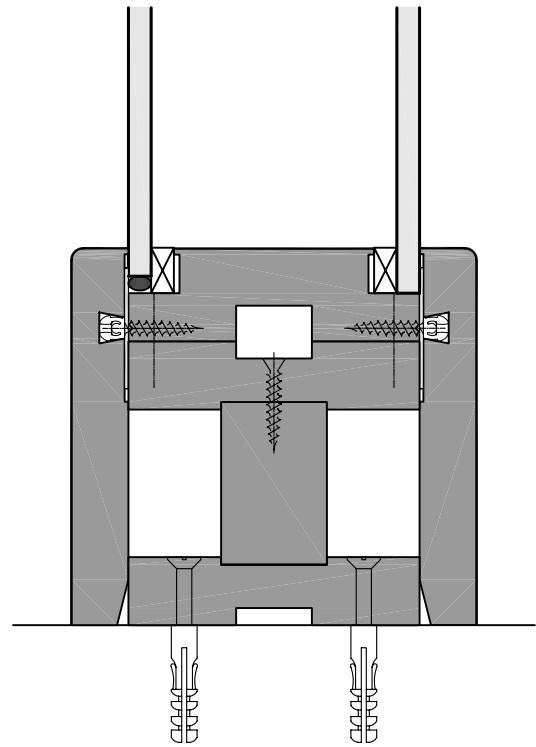
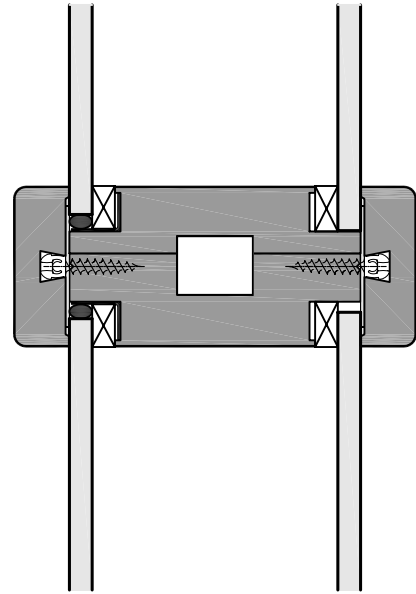
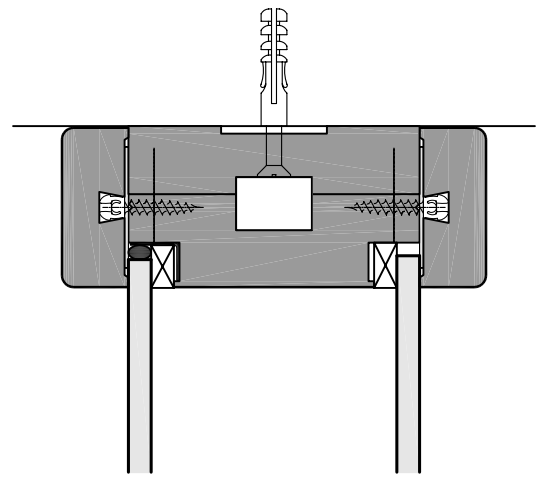
Non-fire-rated
Drawing no: 5213

30 min fire-rated
Drawing no: 5216

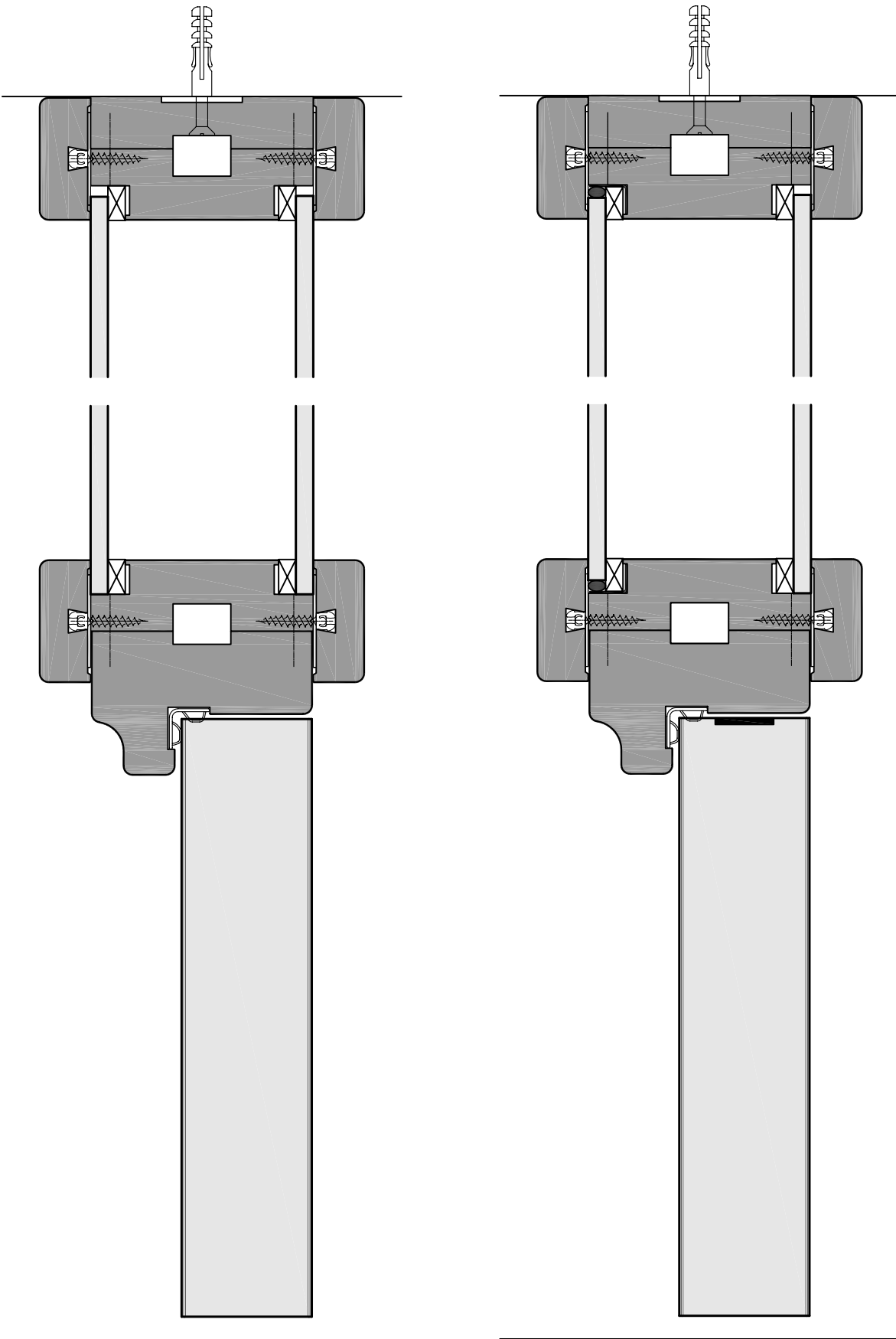
system 5000 – full-height double glazed + transom



Non-fire-rated
Drawing no: 5209



30 min fire-rated
Drawing no: 5210



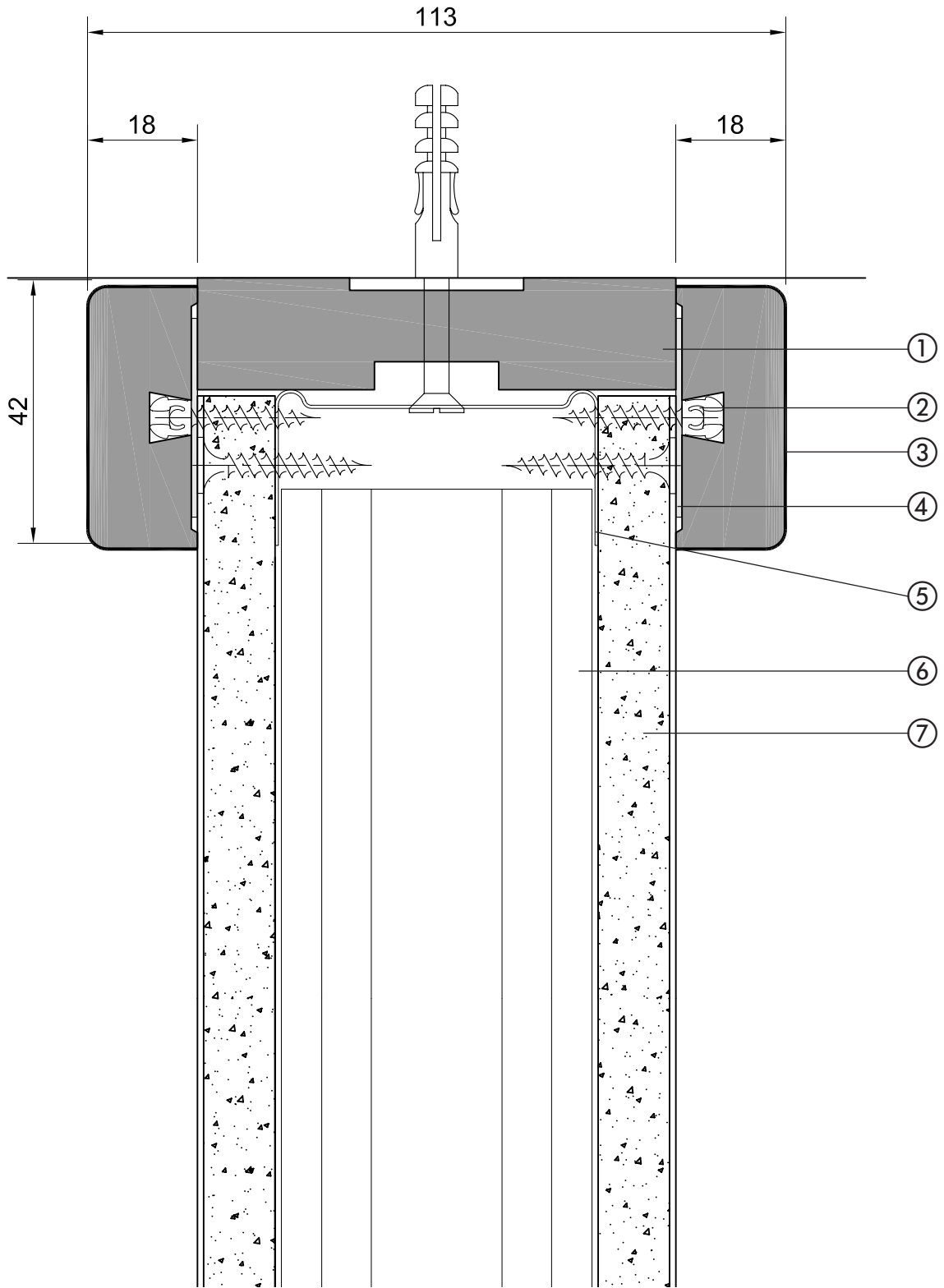
Non-fire-rated
Drawing no: 5209

30 min fire-rated
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- 1) 18mm Base assembly top section/head packer/non-fire wall abutment
- 2) Clip & screw
- 3) 18mm Cover bead
- 4) Steel retaining strip
- 5) 52mm track
- 6) 50mm stud
- 7) Plasterboard



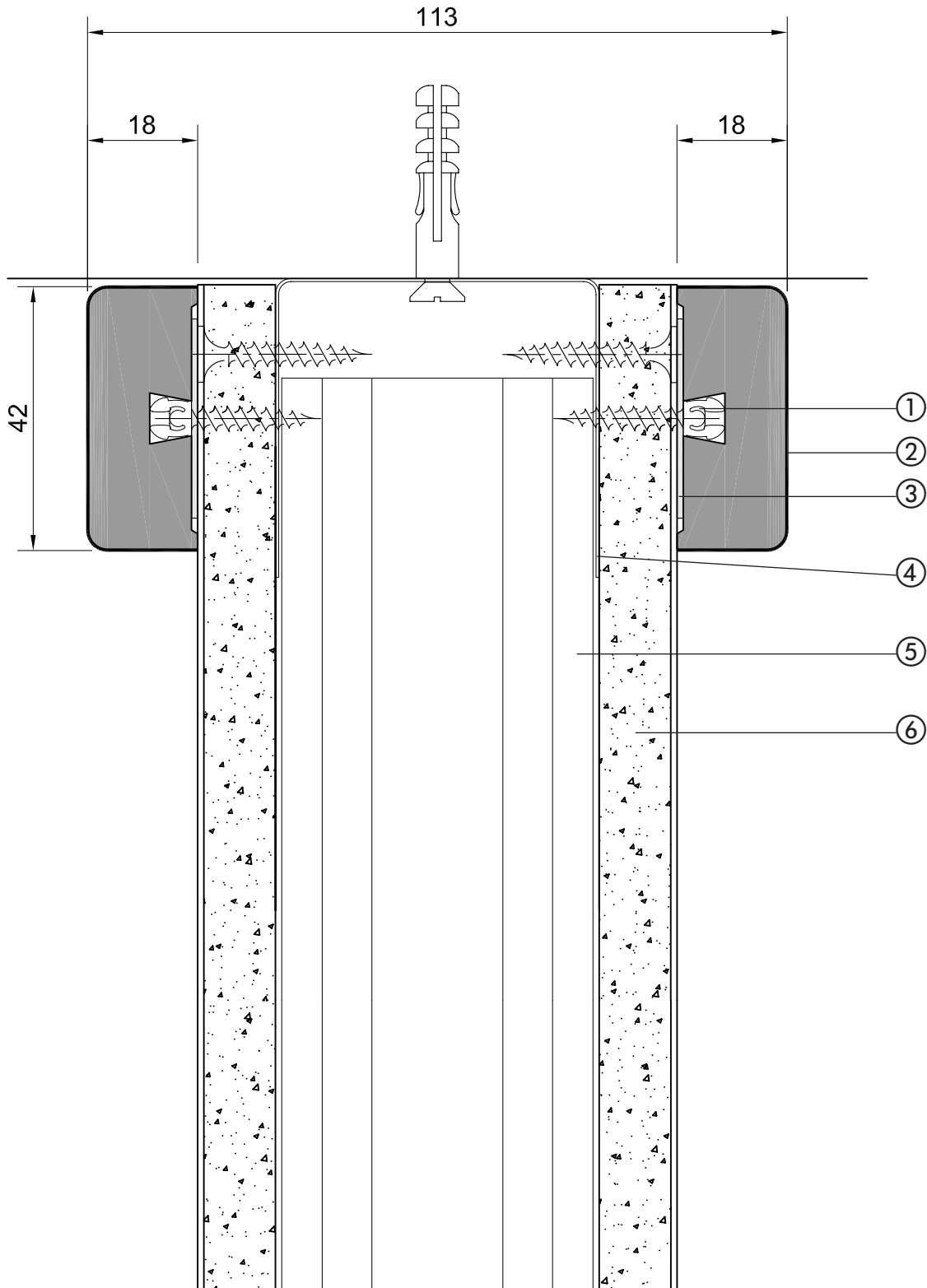
Drawing no: 5218

1) Clip & screw
5) 50mm stud

2) 18mm Cover bead
6) Plasterboard

3) Steel retaining strip

4) 52mm extra deep track

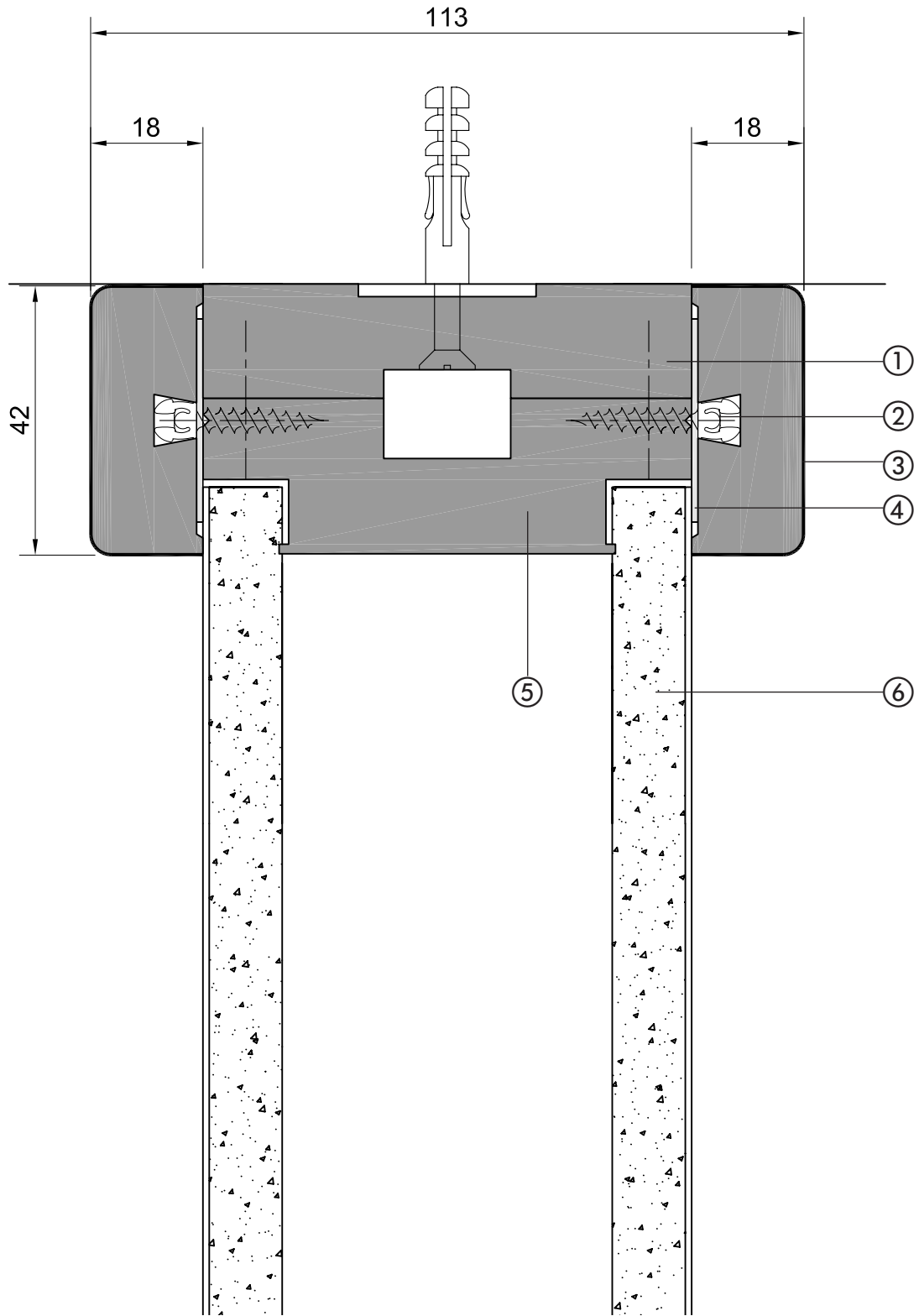


system 5000 head – solid (stud & track framework)

Drawing no: 5219

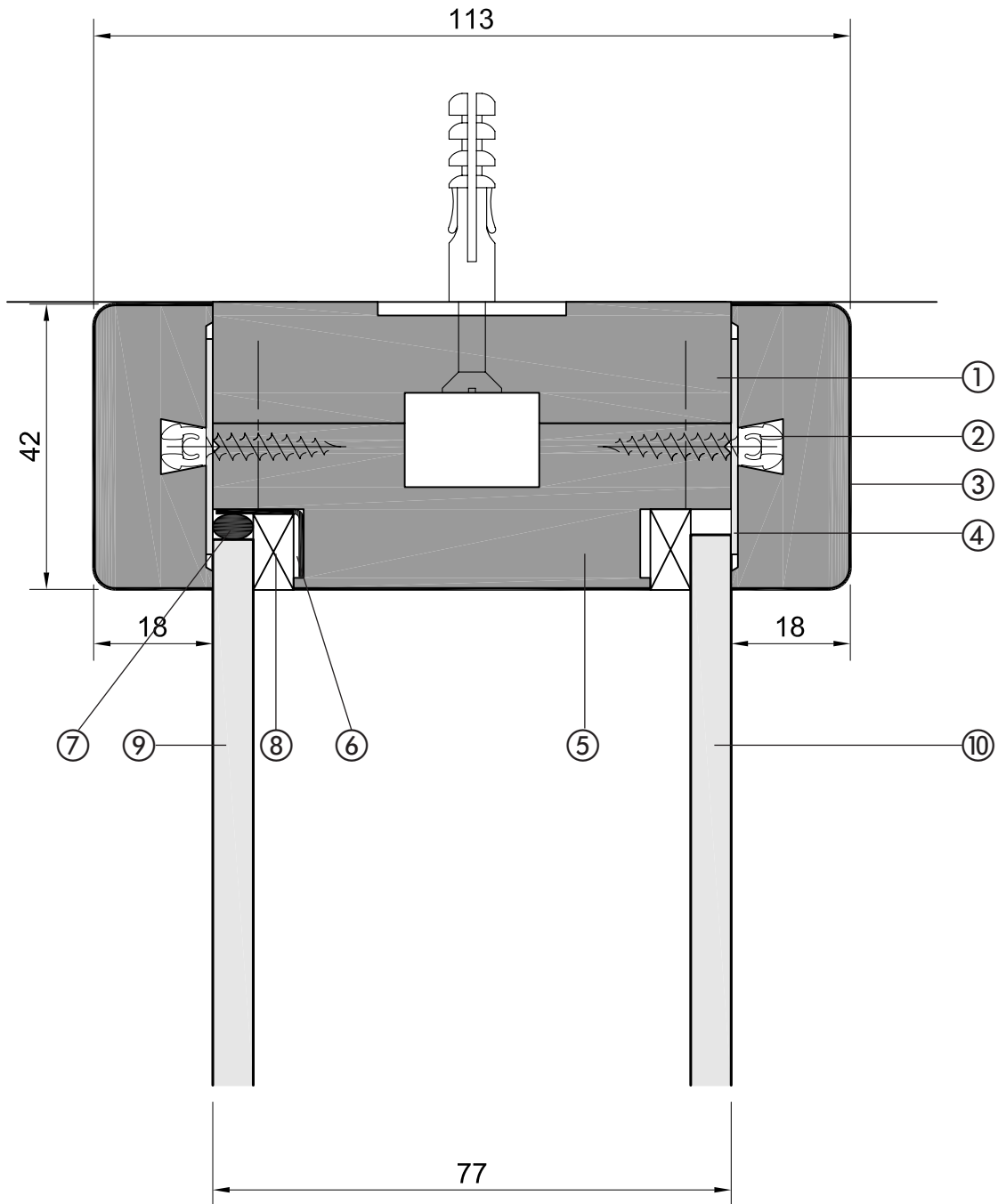
- 1) 18mm Base assembly top section/head packer/non-fire wall abutment
- 2) Clip & screw
- 3) 18mm Cover bead
- 4) Steel retaining strip
- 5) Large chair
- 6) Plasterboard

- 2) Clip & screw
- 6) Plasterboard



Drawing no: 5220

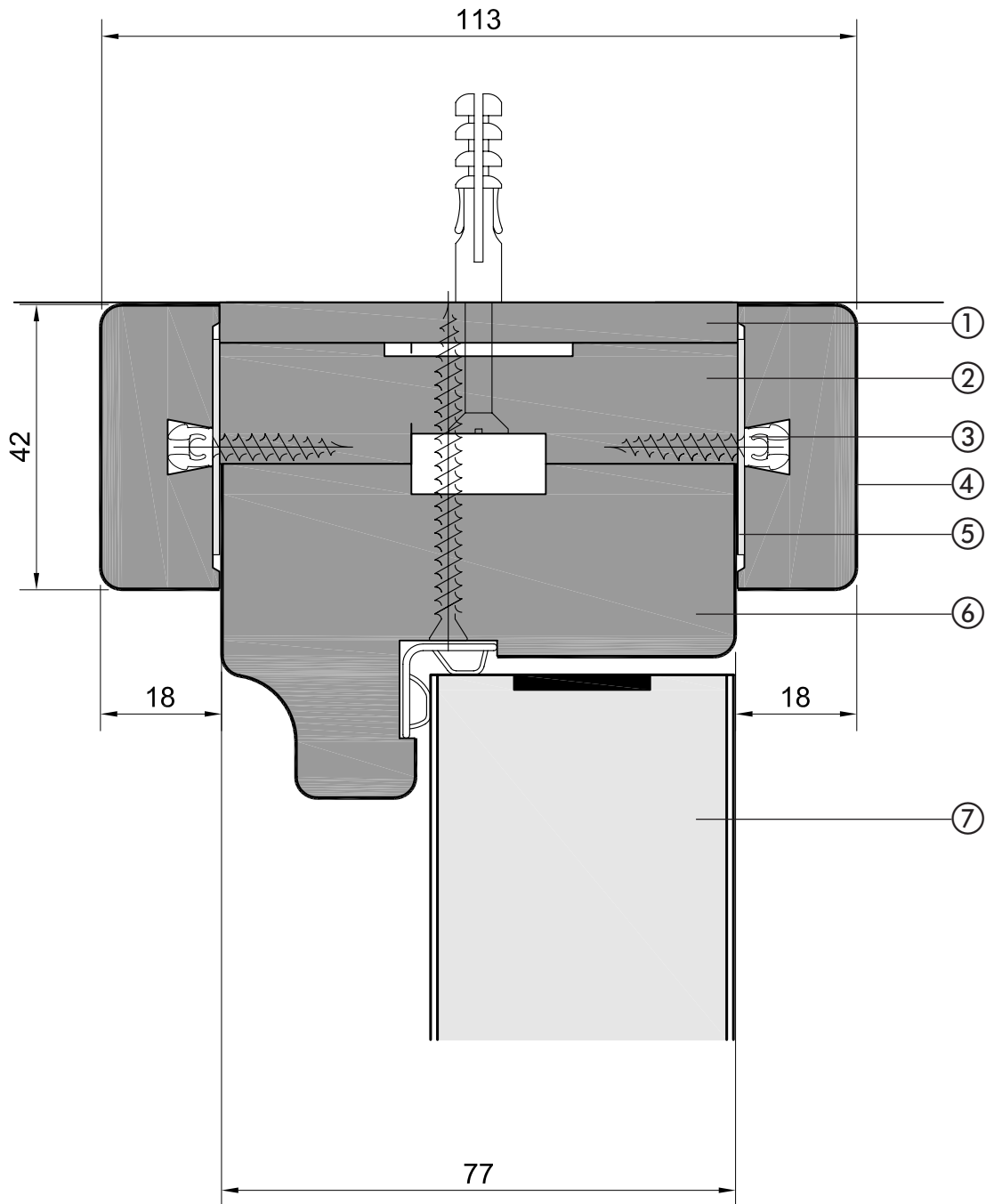
- | | | | |
|--|--------------------------|---------------------|-----------------------------|
| 1) 18mm Base assembly top section/head packer/non-fire wall abutment | 2) Clip & screw | | |
| 3) 18mm Cover bead | 4) Steel retaining strip | 5) Large chair | 6) Fire-rated glazing liner |
| 7) Intumescent mastic | 8) Foam gasket | 9) Fire rated glass | 10) Non-fire-rated glass |



system 5000 head – double glazed (30min fire-rated)

Drawing no: 5221

- | | | |
|----------------------------|--|--------------------------|
| 1) 6mm MDF abutment fillet | 2) 18mm Base assembly top section/head packer/non-fire wall abutment | |
| 3) Clip & screw | 4) 18mm Cover bead | 5) Steel retaining strip |
| 6) Door frame and seal | 7) Door | |



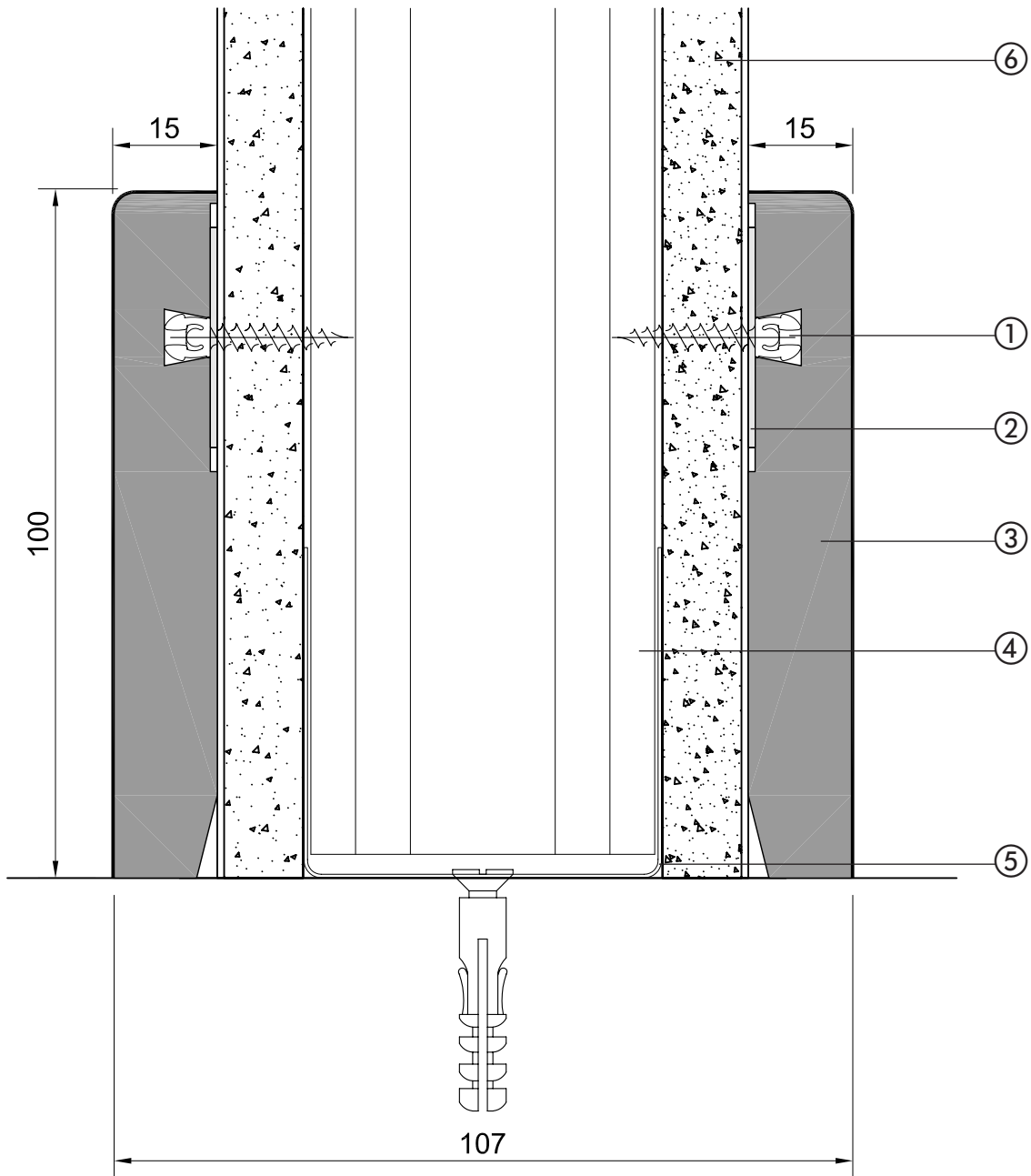
Drawing no: 5222

1) Clip & screw
5) Extra deep 52mm track

2) Steel retaining strip
6) Plasterboard

3) Skirting

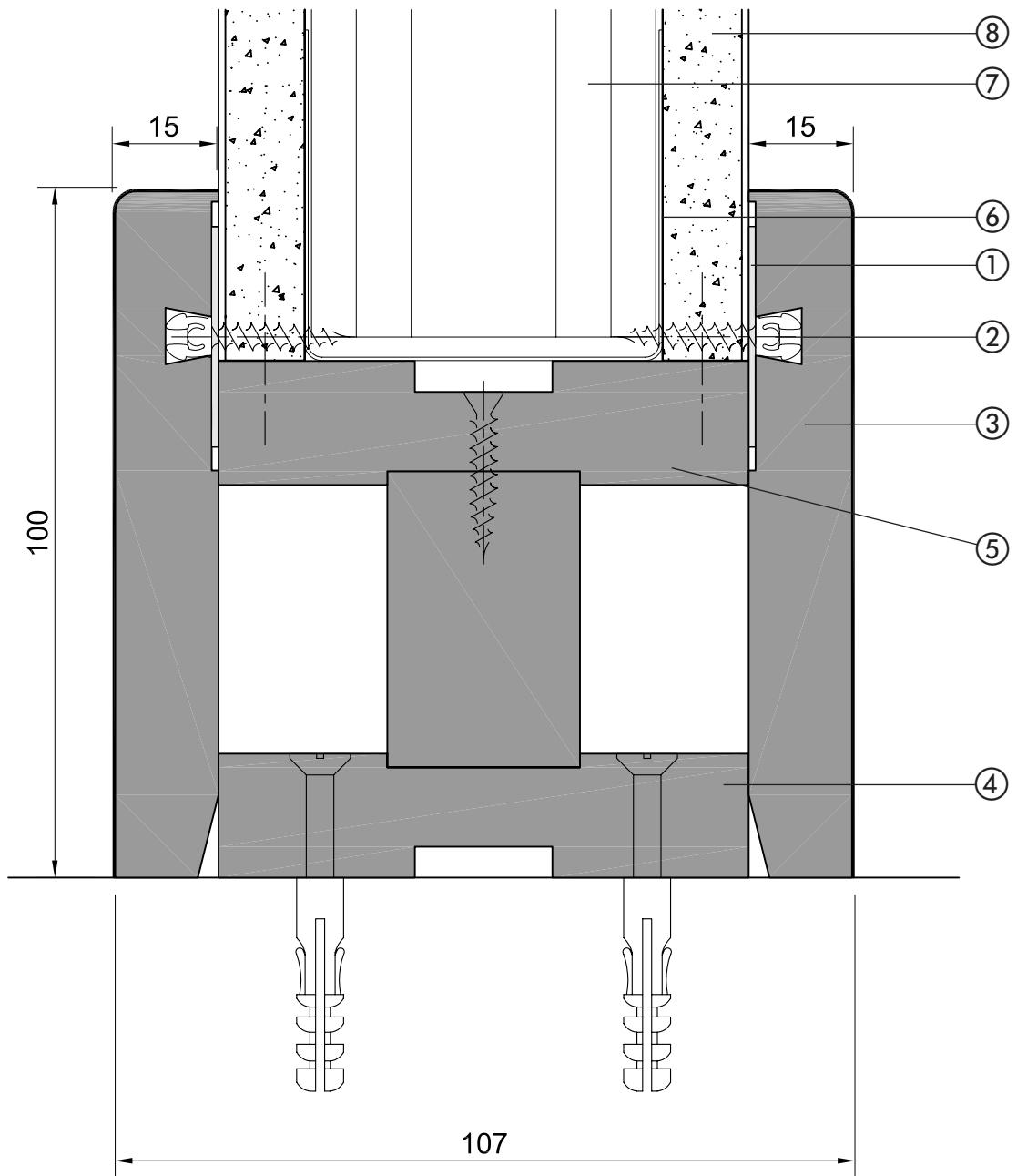
4) 50mm stud



Drawing no: 5223

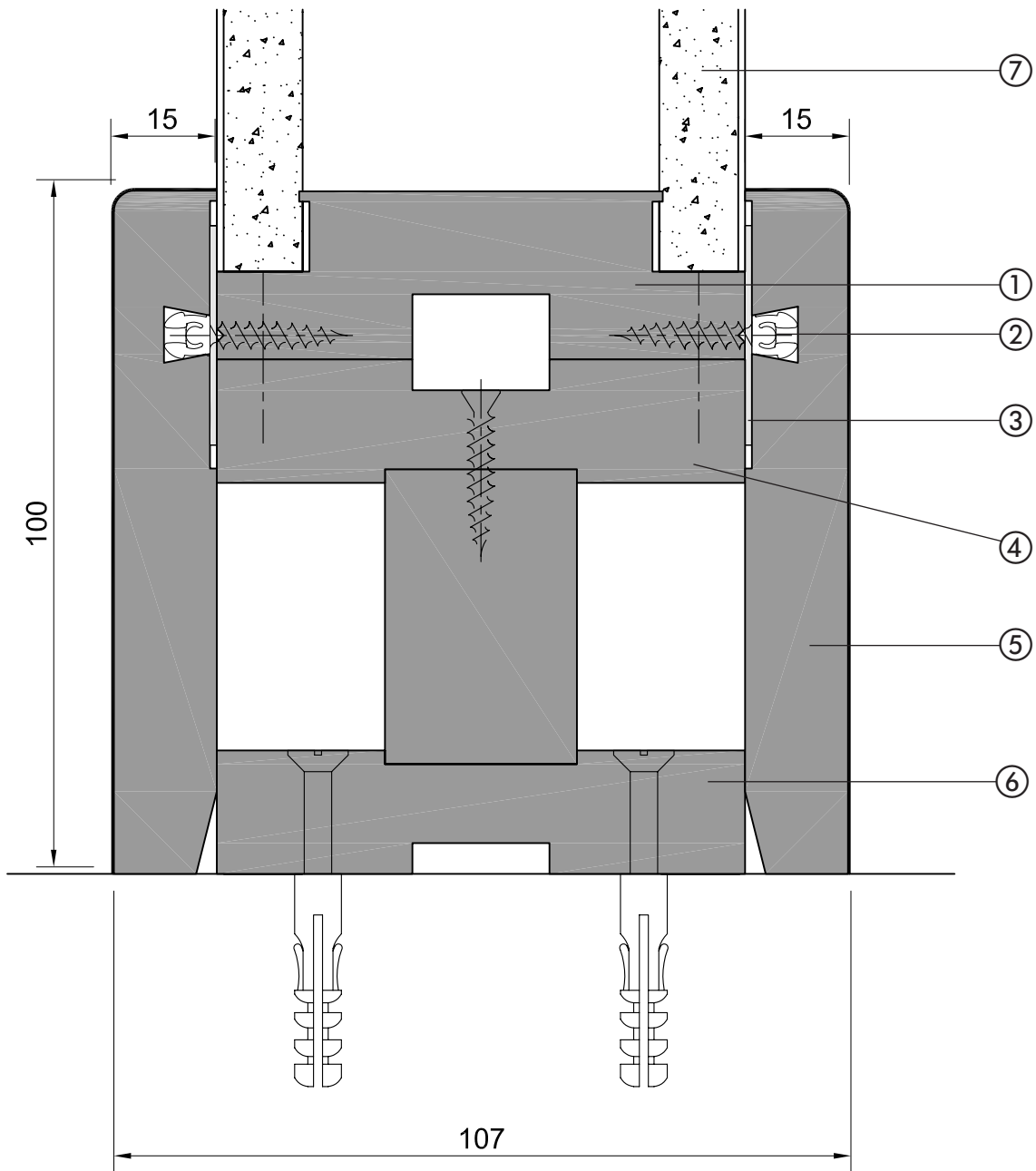
system 5000 base – solid (stud & track framework)

- | | | | |
|--|--------------------------|-------------|---------------------------|
| 1) Steel retaining strip | 2) Clip & screw | 3) Skirting | 4) Base track 'T' section |
| 5) 18mm Base assembly top section/head packer/non-fire wall abutment | 6) Extra deep 52mm track | 7) Stud | 8) Plasterboard |



Drawing no: 5224

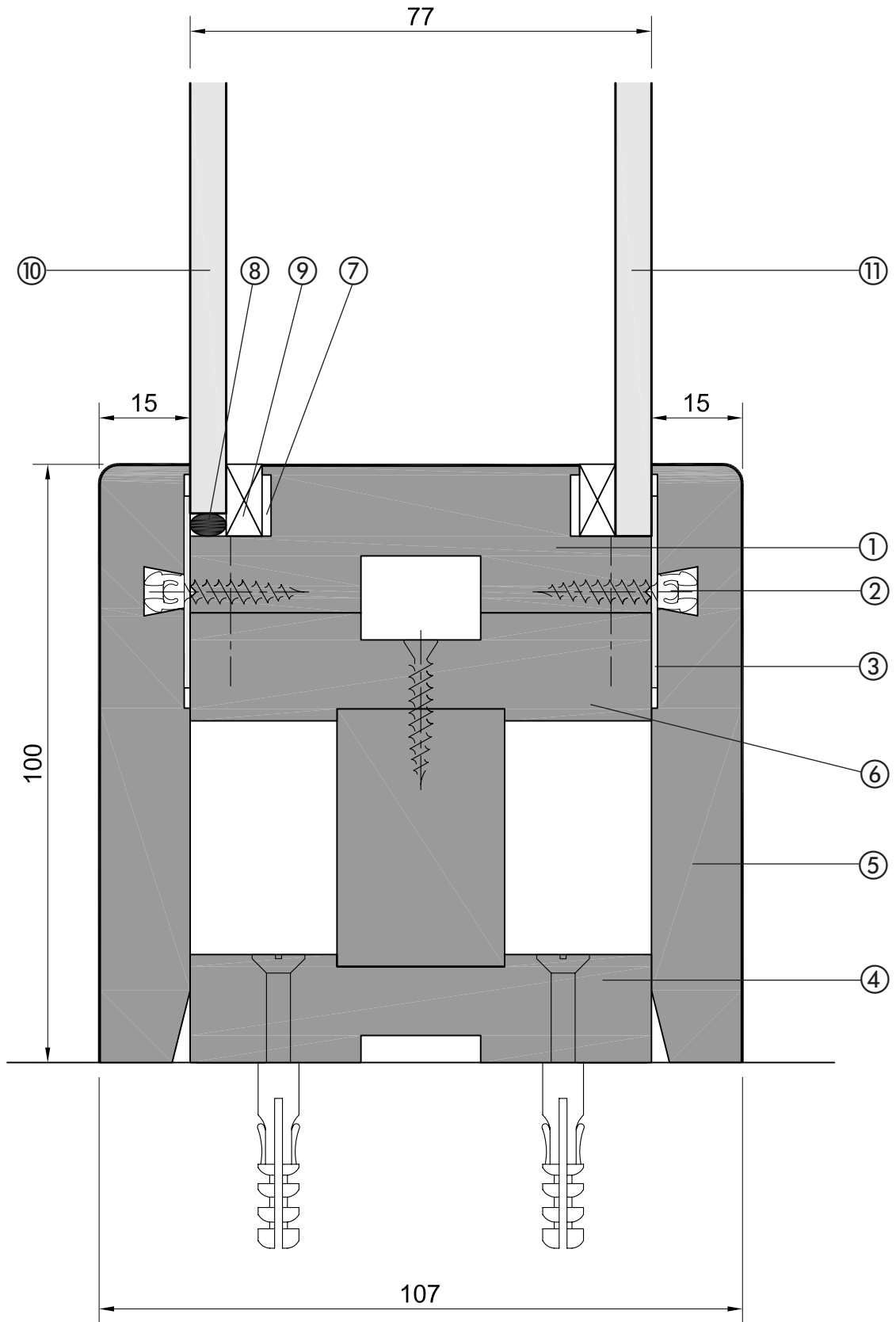
- 1) Large chair 2) Clip & screw 3) Steel retaining strip 4) Base track 'T' section 5) Skirting
- 6) 18mm Base assembly top section/head packer/non-fire wall abutment 7) Plasterboard



system 5000 base – solid (MDF sections framework)

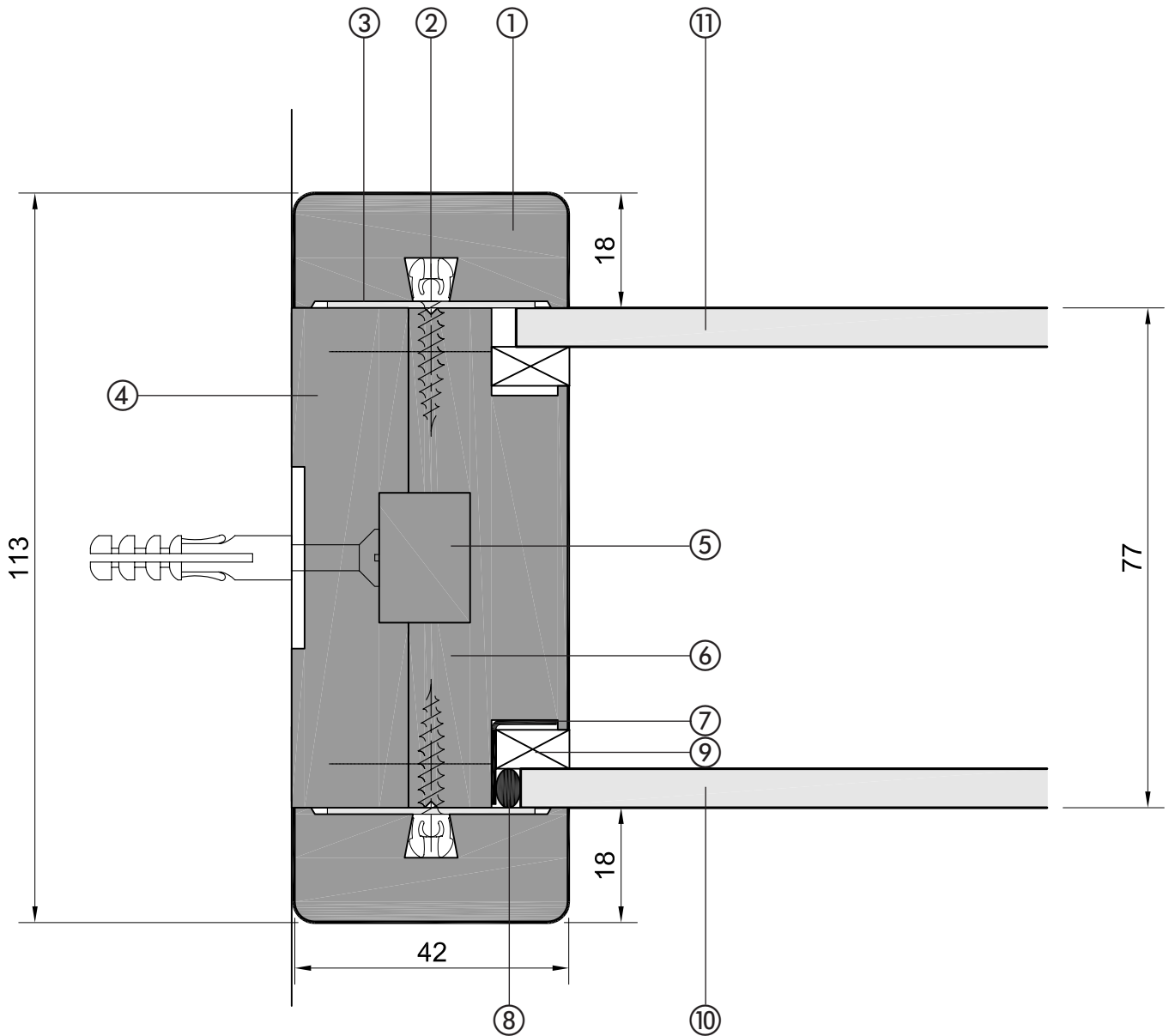
Drawing no: 5225

- 1) Large chair 2) Clip & screw 3) Steel retaining strip 4) Base track 'T' section 5) Skirting
 6) 18mm Base assembly top section/head packer/non-fire wall abutment 7) Fire-rated glazing liner
 8) Intumescent mastic 9) Foam gasket 10) Fire rated glass 11) Non-fire-rated glass



Drawing no: 5226

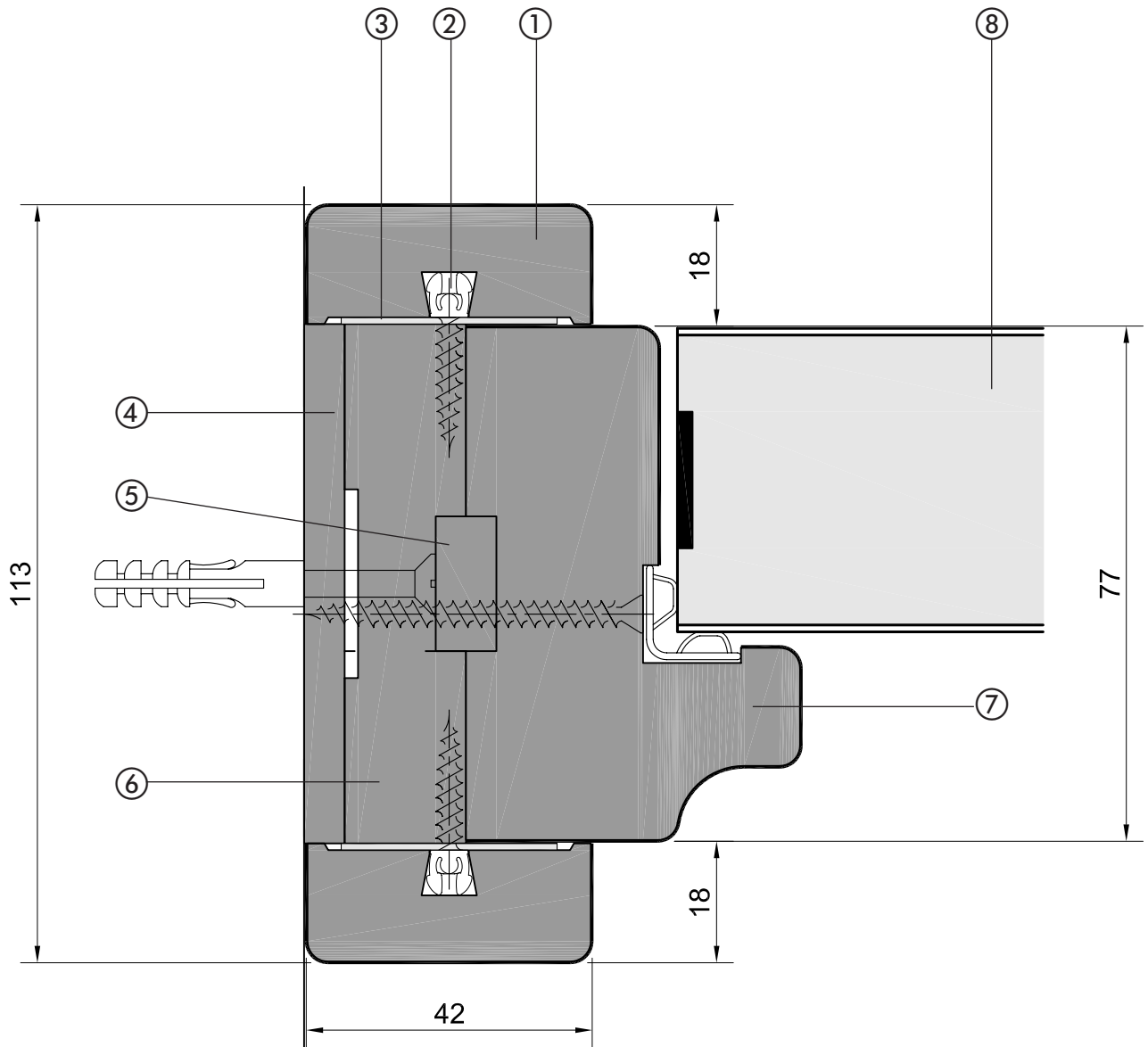
- 1) 18mm Cover bead 2) Clip & screw 3) Steel retaining strip
- 4) 18mm Base assembly top section/head packer/non-fire wall abutment
- 5) Fire-rated MDF infill
- 6) Large chair
- 7) Fire-rated glazing liner
- 8) Intumescent mastic
- 9) Foam gasket
- 10) Fire rated glass
- 11) Non-fire-rated glass



system 5000 wall abutment – double glazed (30min fire-rated)

Drawing no: 5227

- 1) 18mm Cover bead 2) Clip & screw 3) Steel retaining strip 4) 6mm MDF abutment fillet
- 5) Fire-rated MDF infill 6) 18mm Base assembly top section/head packer/non-fire wall abutment
- 7) Door frame and seal 8) Door

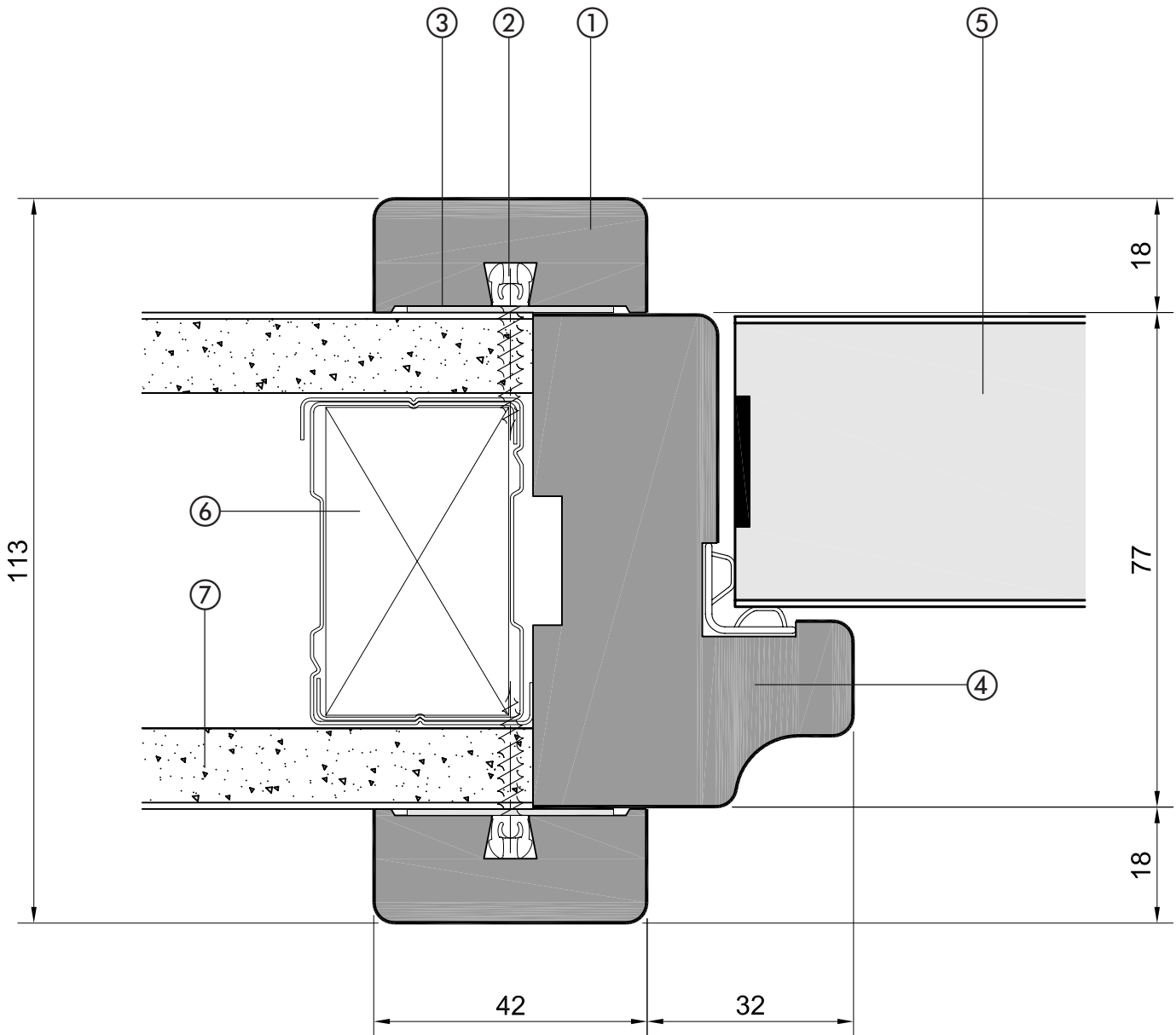


Drawing no: 5228

1) 18mm Cover bead
5) Door

2) Clip & screw
6) Fully boxed stud with softwood stud infill
7) Plasterboard

3) Steel retaining strip
4) Door frame and seal
7) Plasterboard

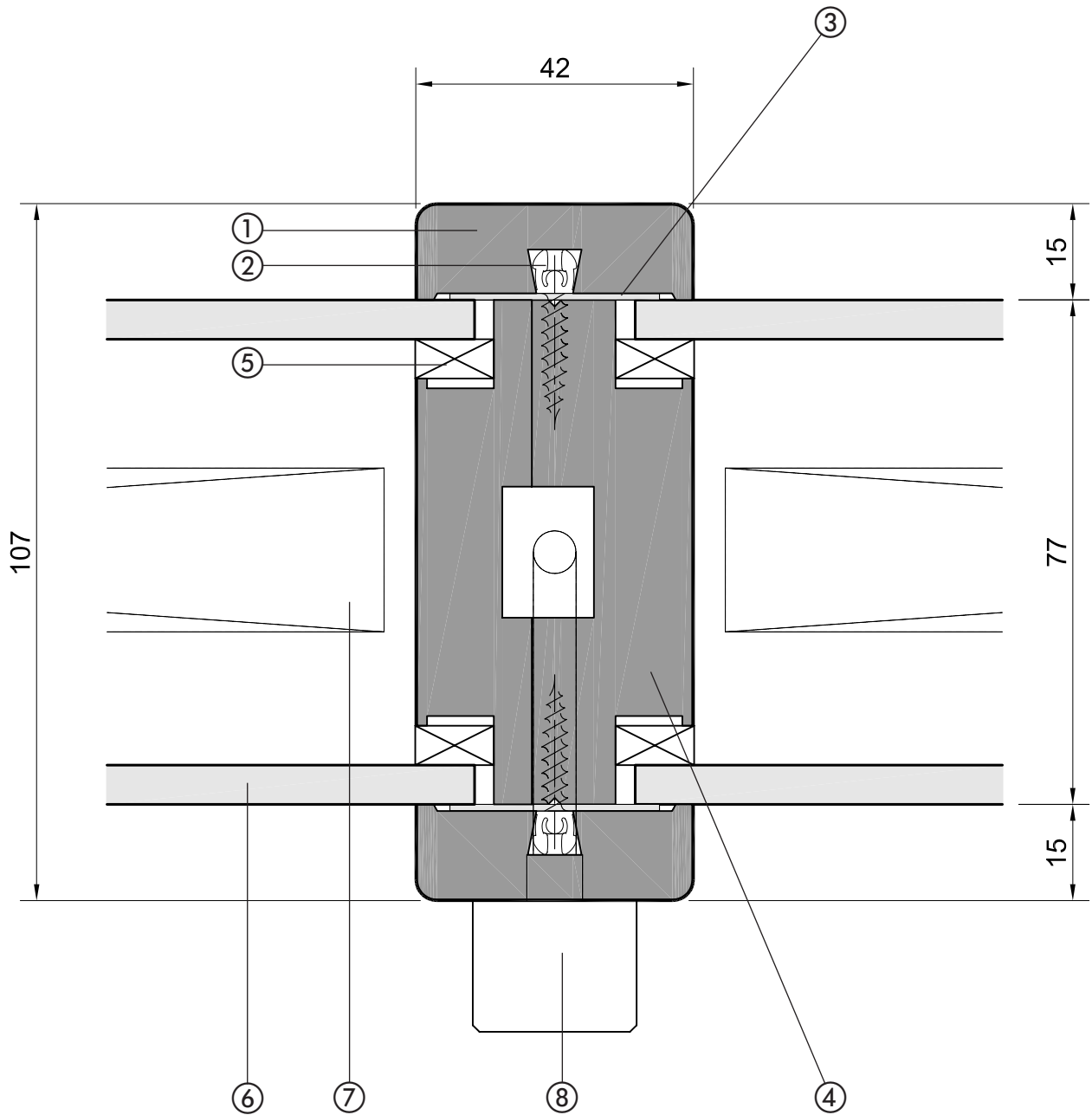


system 5000 horizontal section – solid / door frame (boxed metal stud)

Drawing no: 5229

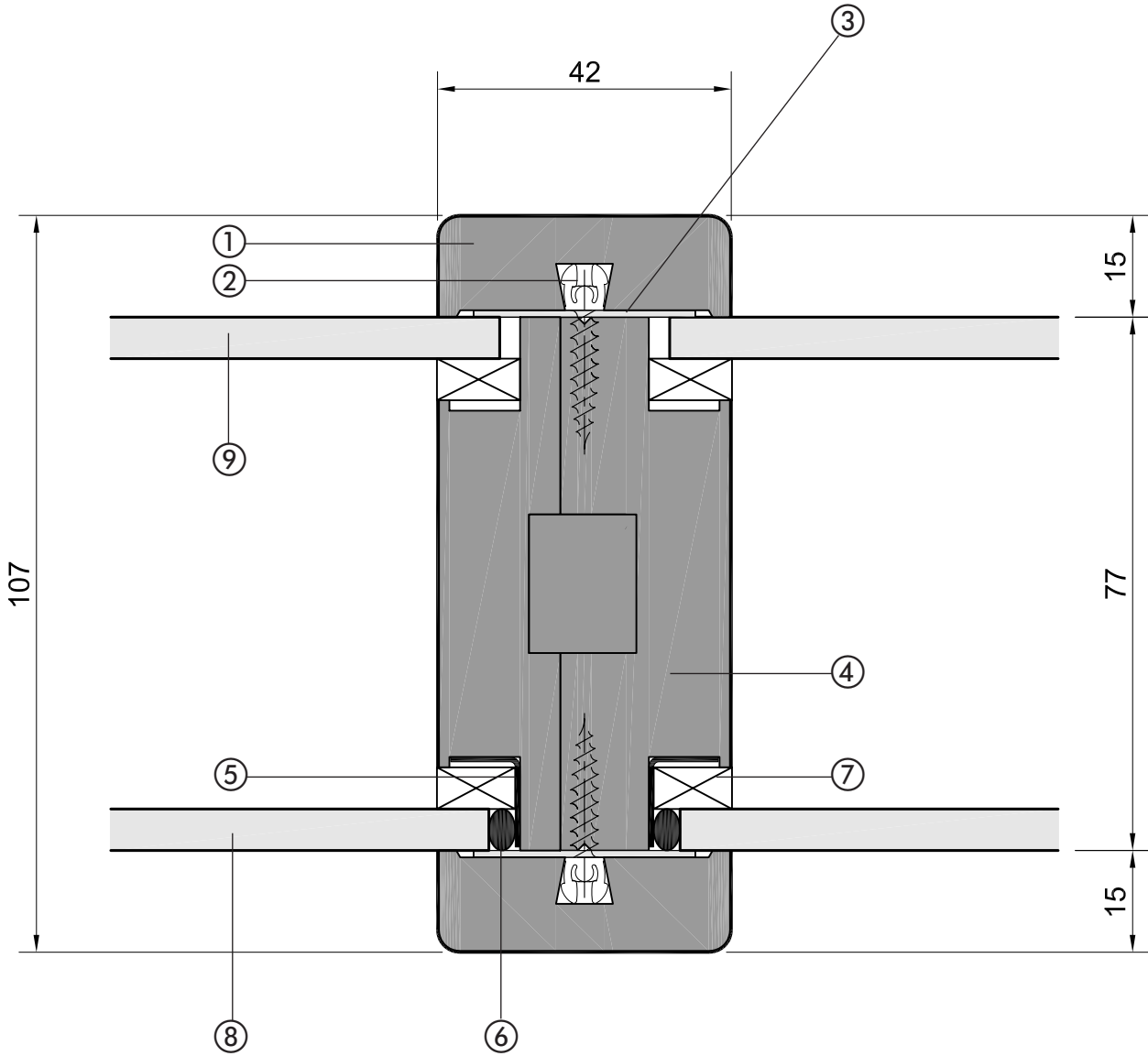
system 5000 mullion – double glazed / double glazed (with blind control)

- 1) 15mm Cover bead
- 2) Clip & screw
- 3) Steel retaining strip
- 4) Mullion
- 5) Foam Gasket
- 6) Glass
- 7) Blind
- 8) Blind control



Drawing no: 5230

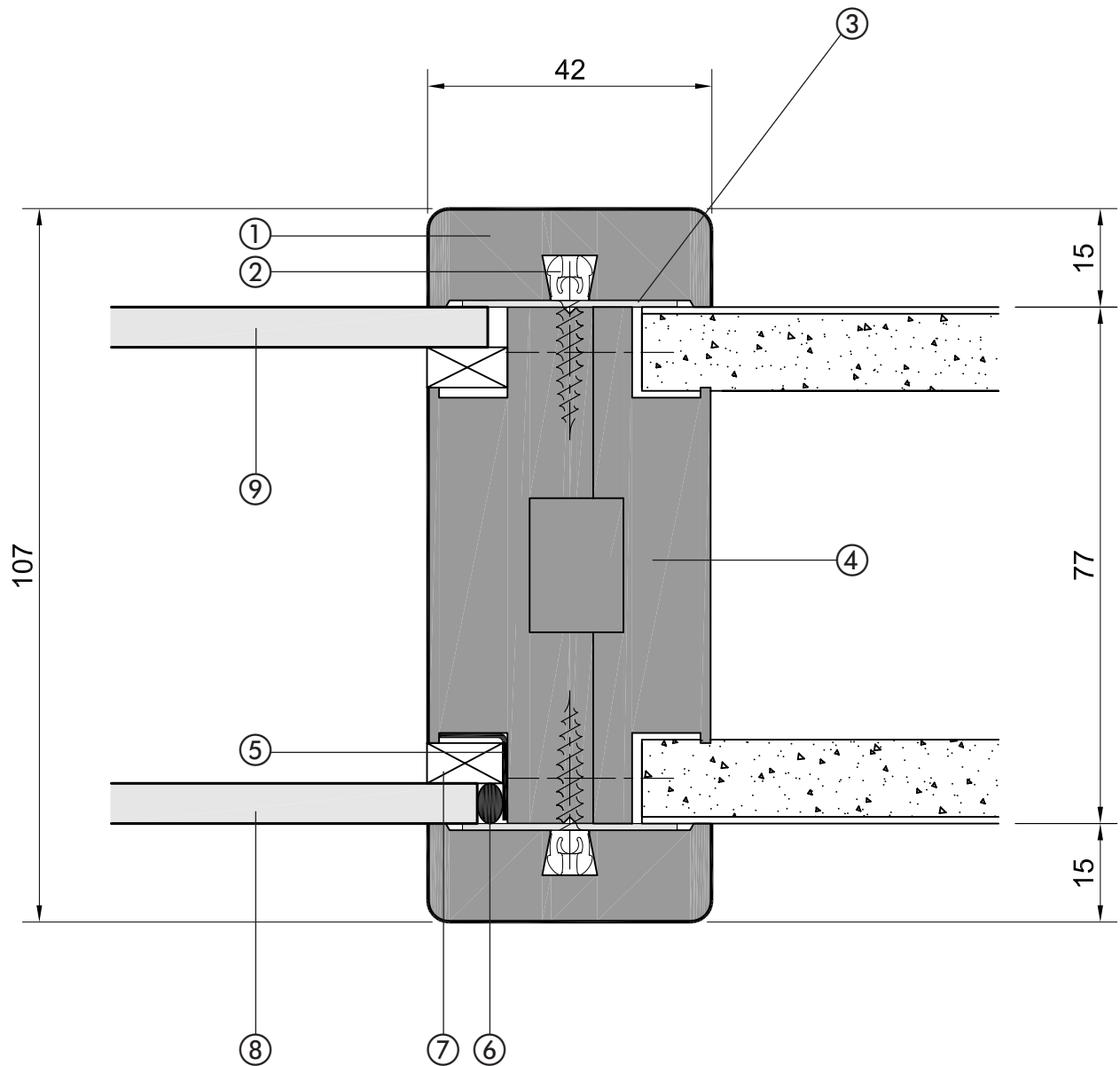
- 1) 15mm Cover bead
- 2) Clip & screw
- 3) Steel retaining strip
- 4) Mullion (fire-rated)
- 5) Fire-rated glazing liner
- 6) Intumescent mastic
- 7) Foam gasket
- 8) Fire rated glass
- 9) Non-fire-rated glass



system 5000 mullion – double glazed / double glazed (30min fire-rated)

Drawing no: 5231

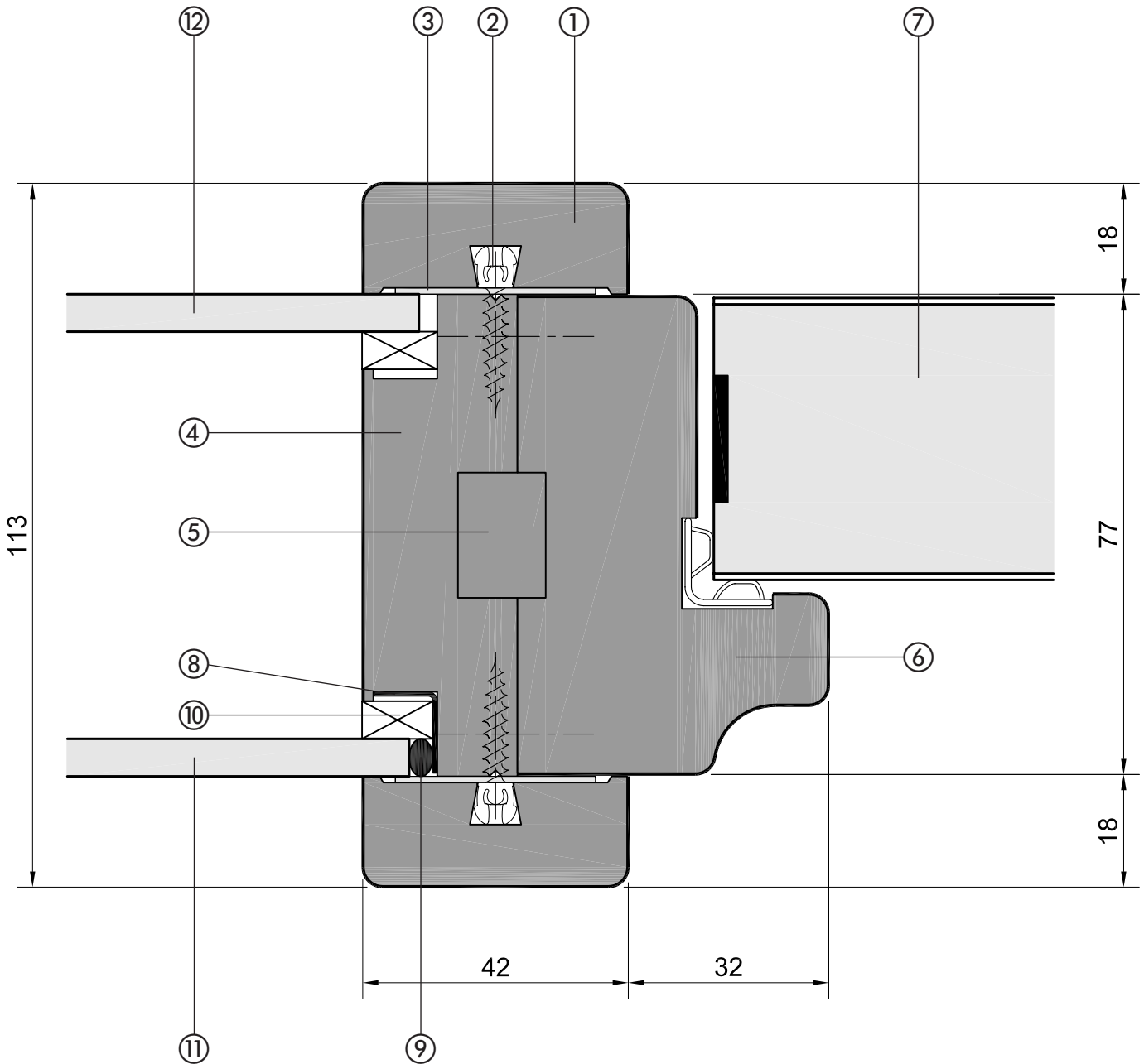
- 1) 15mm Cover bead 2) Clip & screw 3) Steel retaining strip 4) Mullion (fire-rated)
- 5) Fire-rated glazing liner 6) Intumescent mastic 7) Foam gasket 8) Fire rated glass
- 9) Non-fire-rated glass



system 5000 mullion – double glazed / solid (30min fire-rated)

Drawing no: 5232

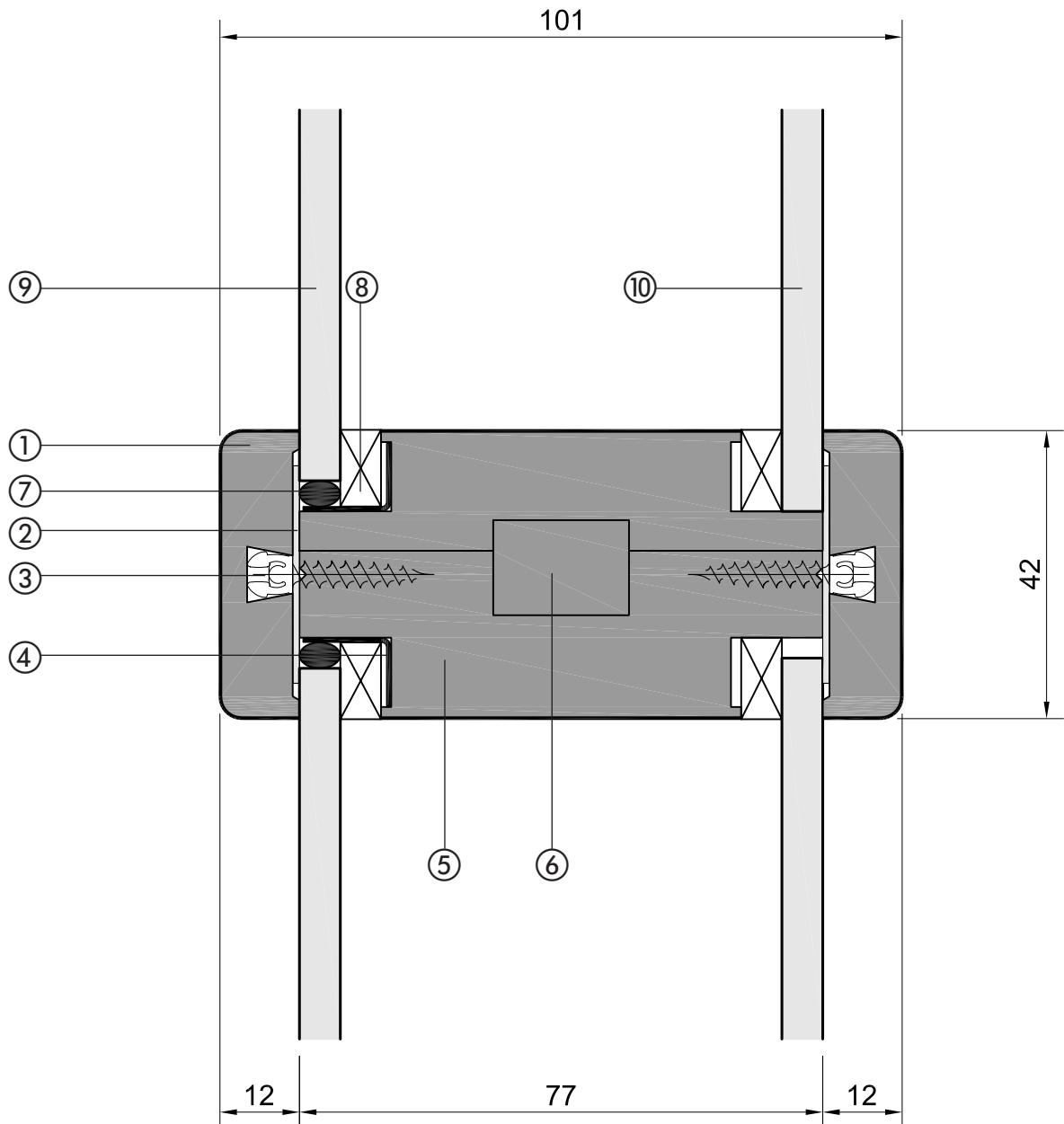
- | | | | |
|--------------------------|------------------------|--------------------------|-----------------------------|
| 1) 18mm Cover bead | 2) Clip & screw | 3) Steel retaining strip | 4) Large chair |
| 5) Fire-rated MDF infill | 6) Door frame and seal | 7) Door | 8) Fire-rated glazing liner |
| 9) Intumescent mastic | 10) Foam gasket | 11) Fire rated glass | 12) Non-fire-rated glass |



system 5000 mullion – double glazed / door frame (30min fire-rated)

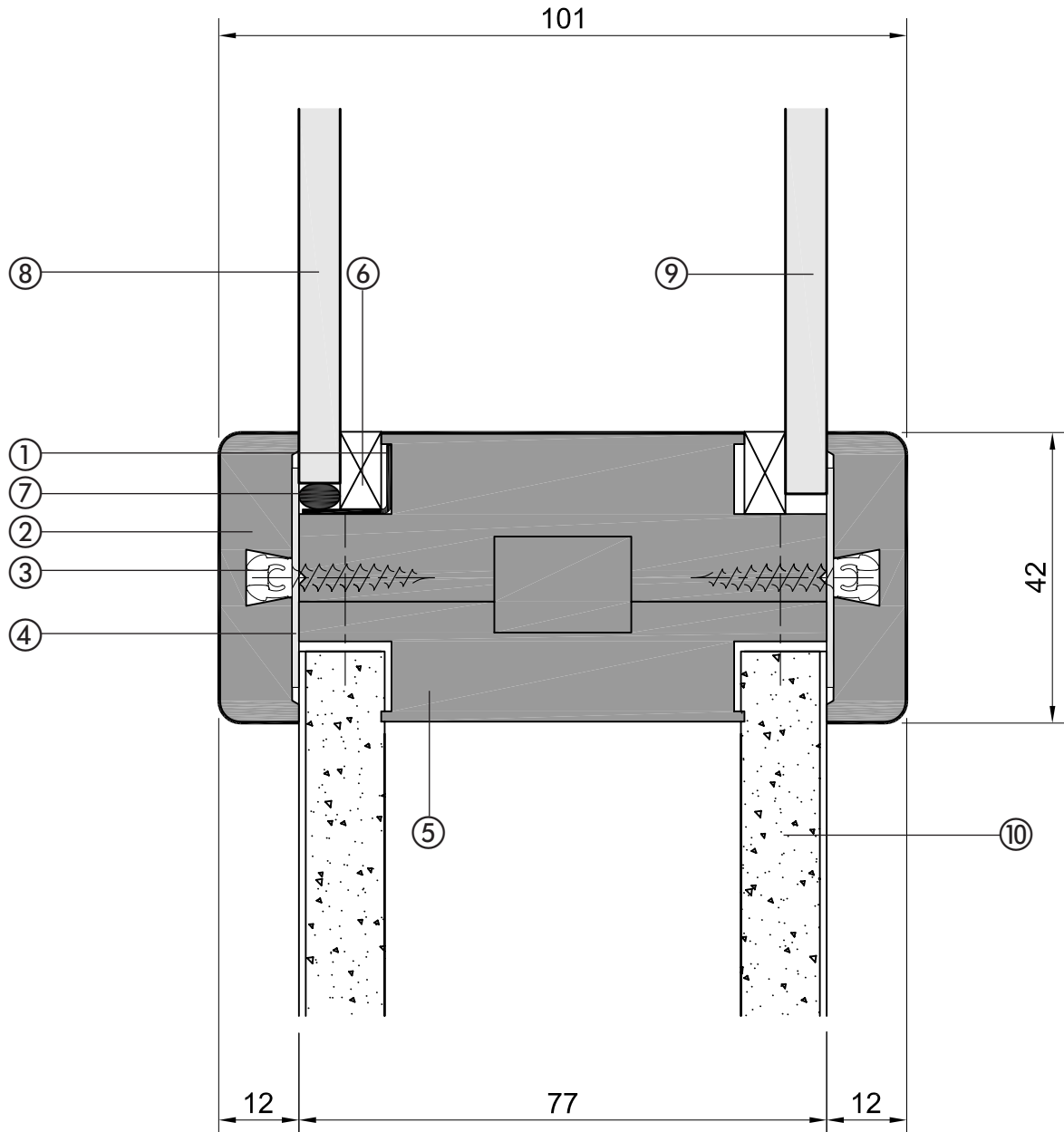
Drawing no: 5233

- | | | | |
|-------------------------|--------------------------|-----------------------|-----------------------------|
| 1) 12mm Cover bead | 2) Steel retaining strip | 3) Clip & screw | 4) Fire-rated glazing liner |
| 5) Transom (fire-rated) | 6) Fire-rated MDF strip | 7) Intumescent mastic | 8) Foam gasket |
| 9) Fire rated glass | 10) Non-fire-rated glass | | |



Drawing no: 5234

- | | | | |
|-----------------------------|--------------------|-----------------------|--------------------------|
| 1) Fire-rated glazing liner | 2) 12mm Cover bead | 3) Clip & screw | 4) Steel retaining strip |
| 5) Transom (fire-rated) | 6) Foam gasket | 7) Intumescent mastic | 8) Fire rated glass |
| 9) Non-fire-rated glass | 10) Plasterboard | | |

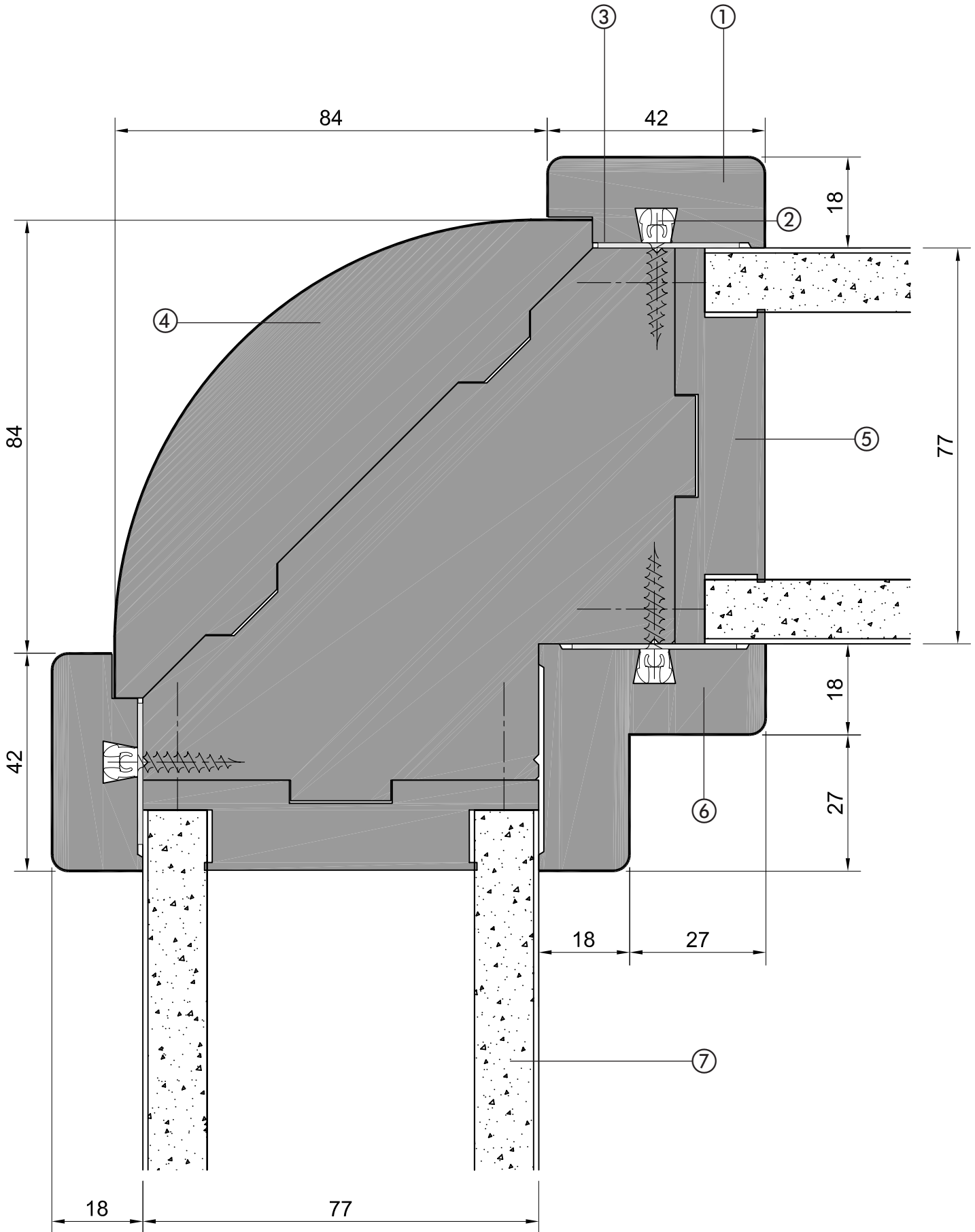


system 5000 transom – double glazed / solid (30min fire-rated)

Drawing no: 5235

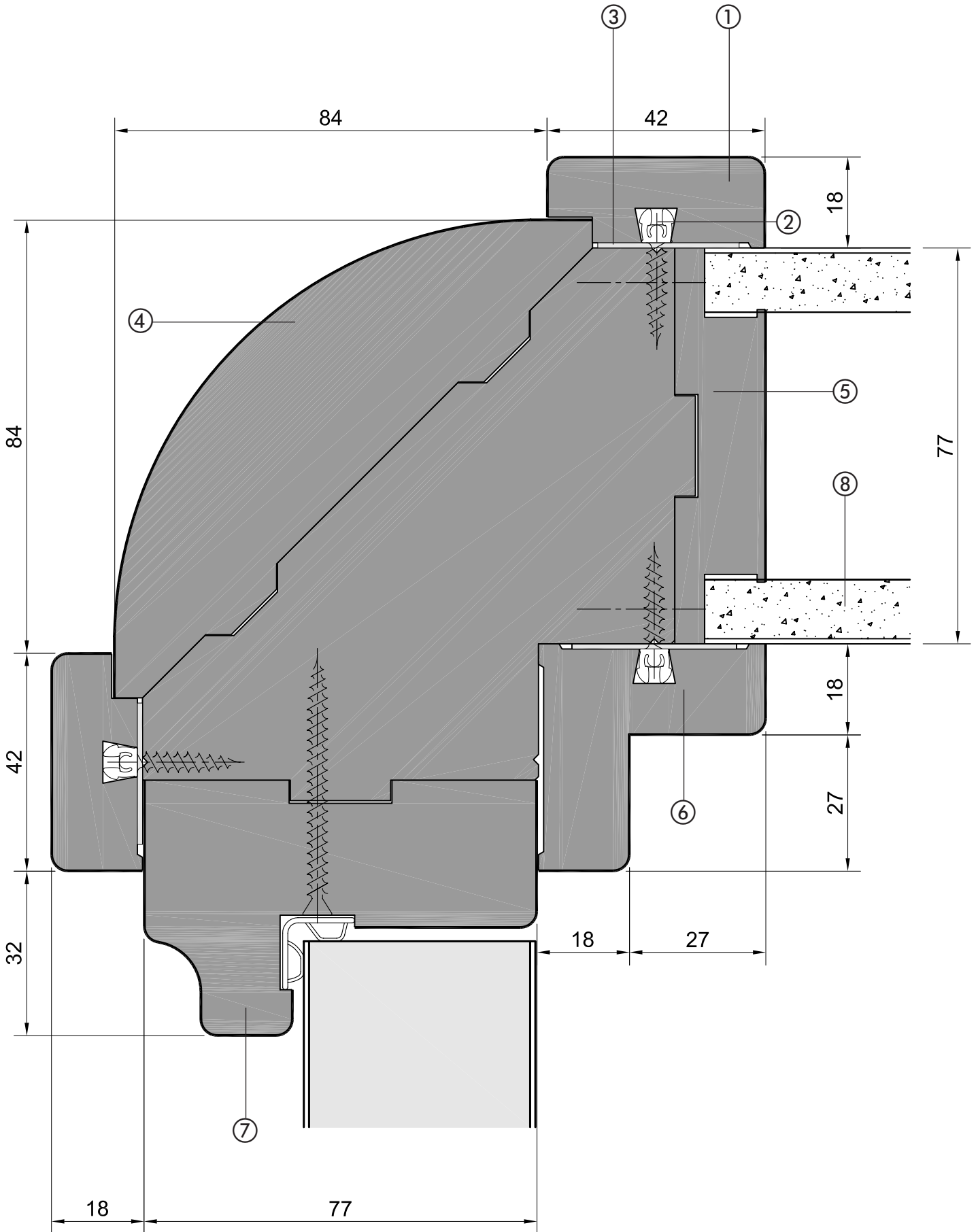
- 1) 18mm Corner cover bead 2) Clip & screw 3) Steel retaining strip 4) 90° Corner post
- 5) Small chair 6) 90° Corner inner trim 7) Plasterboard

system 5000 90° corner – solid / 90° corner post / solid



Drawing no: 5236

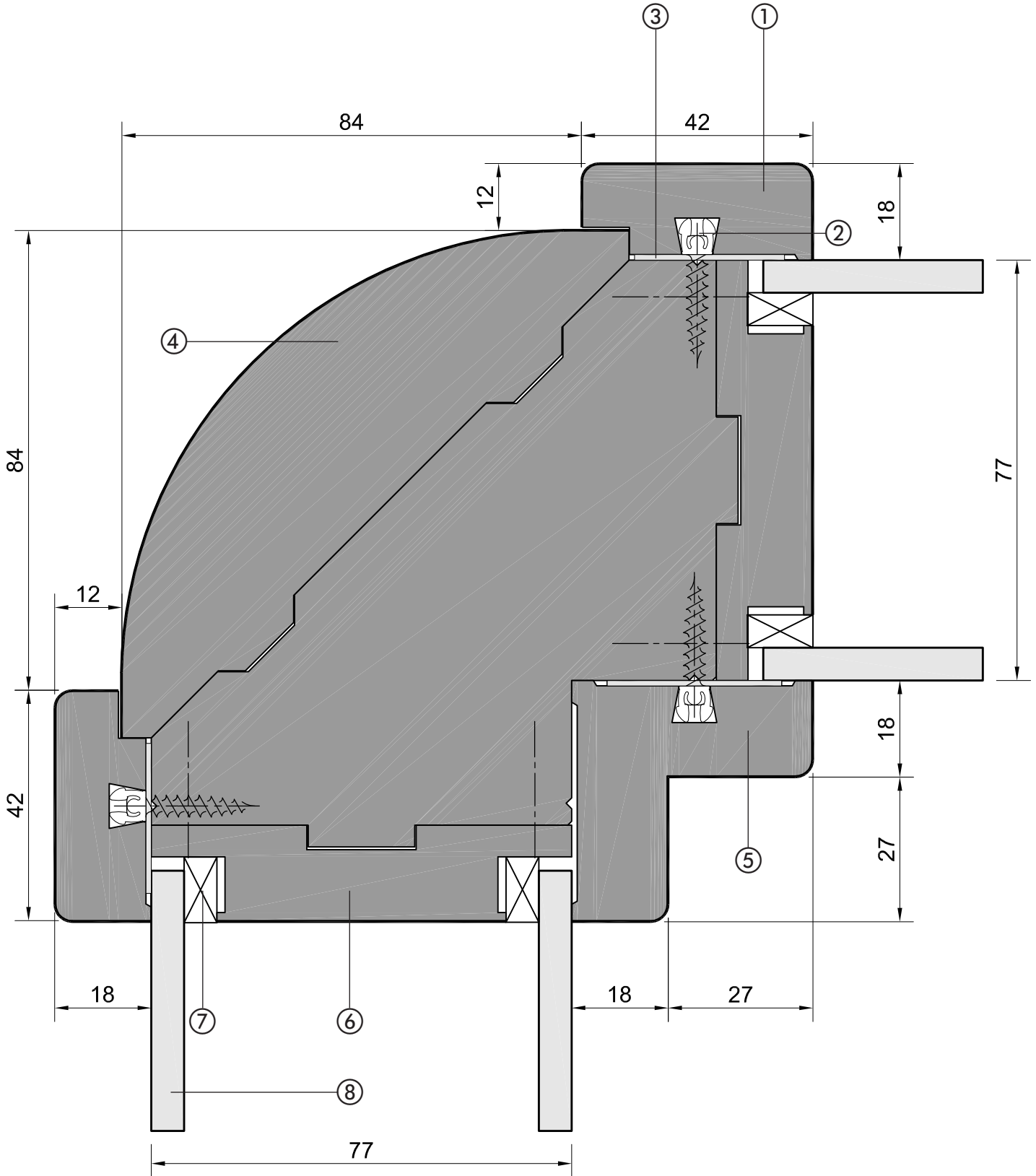
- | | | | |
|---------------------------|--------------------------|--------------------------|--------------------|
| 1) 18mm Corner cover bead | 2) Clip & screw | 3) Steel retaining strip | 4) 90° Corner post |
| 5) Small chair | 6) 90° Corner inner trim | 7) Door frame and seal | 8) Plasterboard |



system 5000 90° corner – solid / 90° corner post / door frame

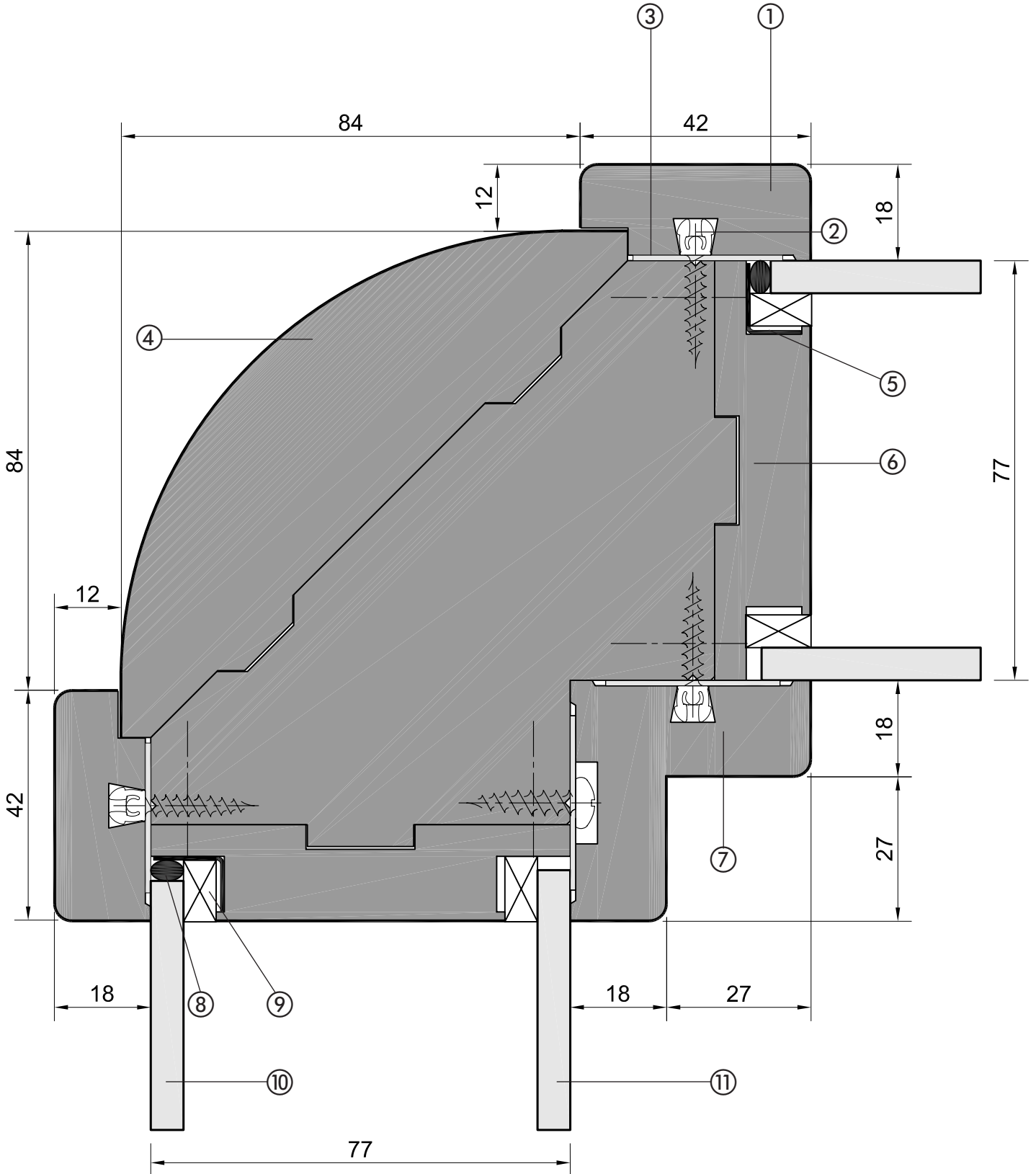
Drawing no: 5237

- 1) 18mm Corner cover bead 2) Clip & screw
- 5) 90° Corner inner trim 6) Small chair
- 3) Steel retaining strip 7) Foam gasket
- 4) 90° Corner post 8) Glass



Drawing no: 5238

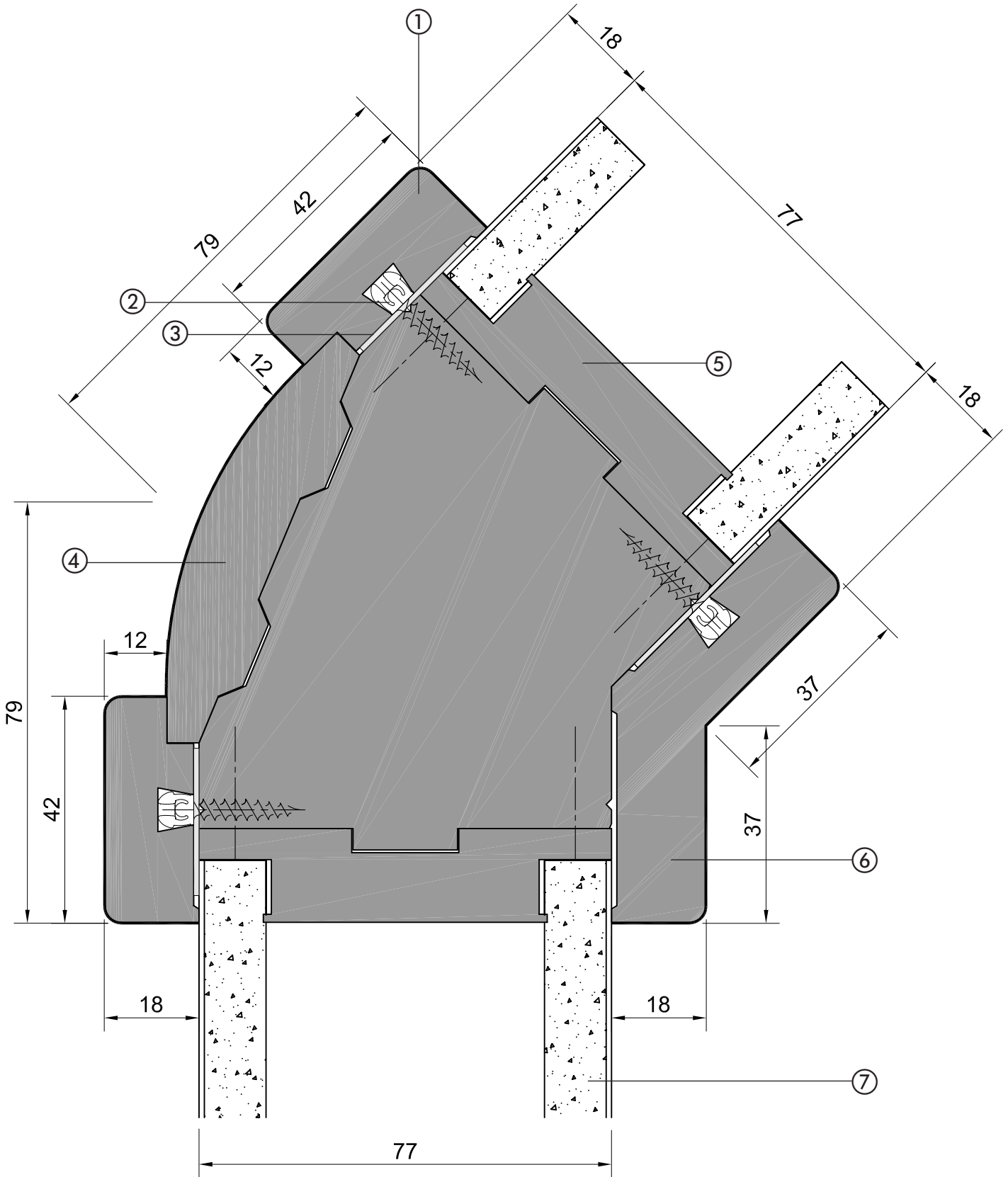
- | | | | |
|-----------------------------|----------------------|--------------------------|-----------------------|
| 1) 18mm Corner cover bead | 2) Clip & screw | 3) Steel retaining strip | 4) 90° Corner post |
| 5) Fire-rated glazing liner | 6) Small chair | 7) 90° Corner inner trim | 8) Intumescent mastic |
| 9) Foam gasket | 10) Fire rated glass | 11) Non-fire-rated glass | |



system 5000 90° corner – double glazed / 90° corner post / double glazed (30min FR)

Drawing no: 5239

- 1) 18mm Corner cover bead 2) Clip & screw 3) Steel retaining strip 4) 135° Corner post
- 5) Small chair 6) 135° Corner inner trim 7) Plasterboard

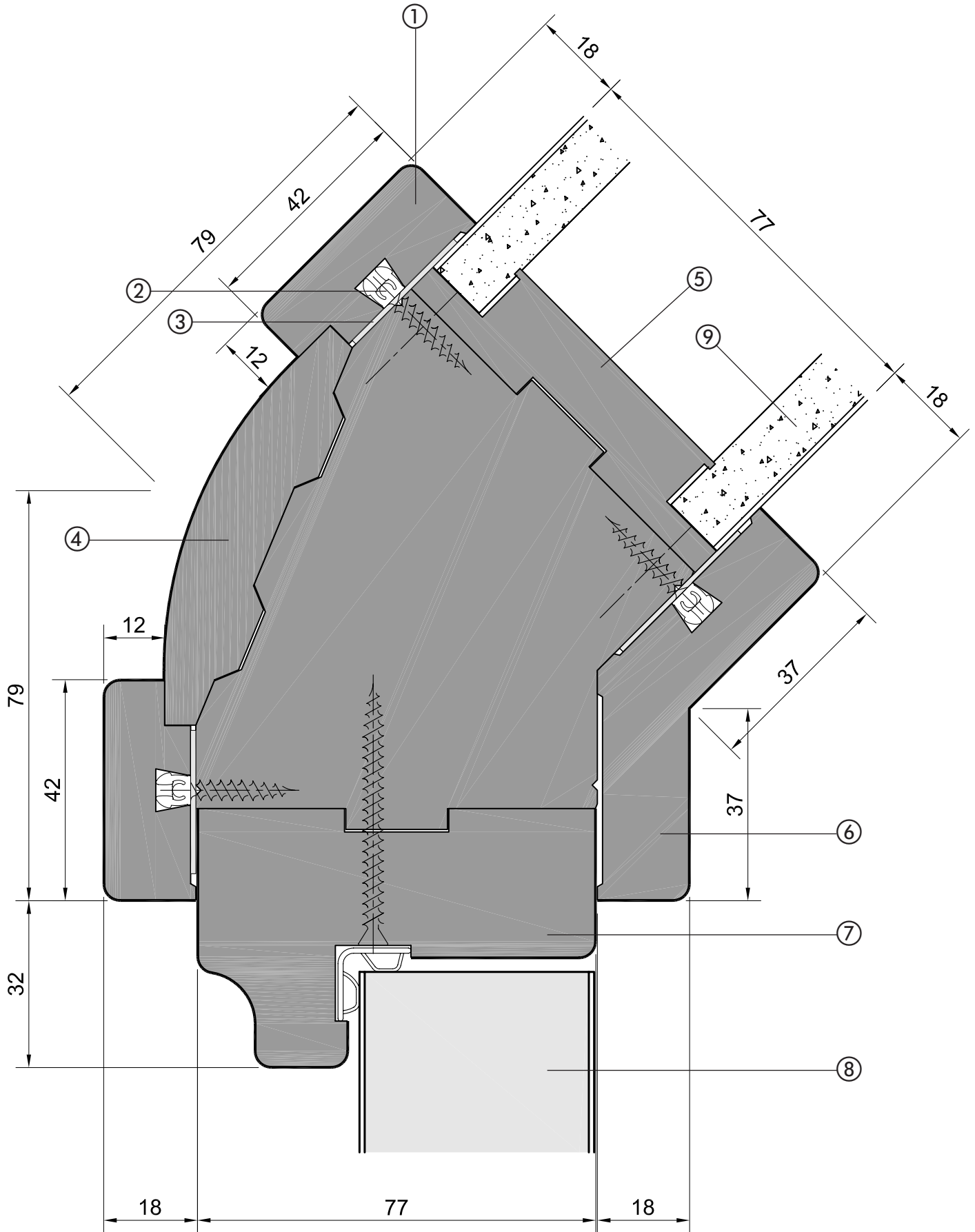


system 5000 135° corner – solid / 135° corner post / solid

Drawing no: 5241

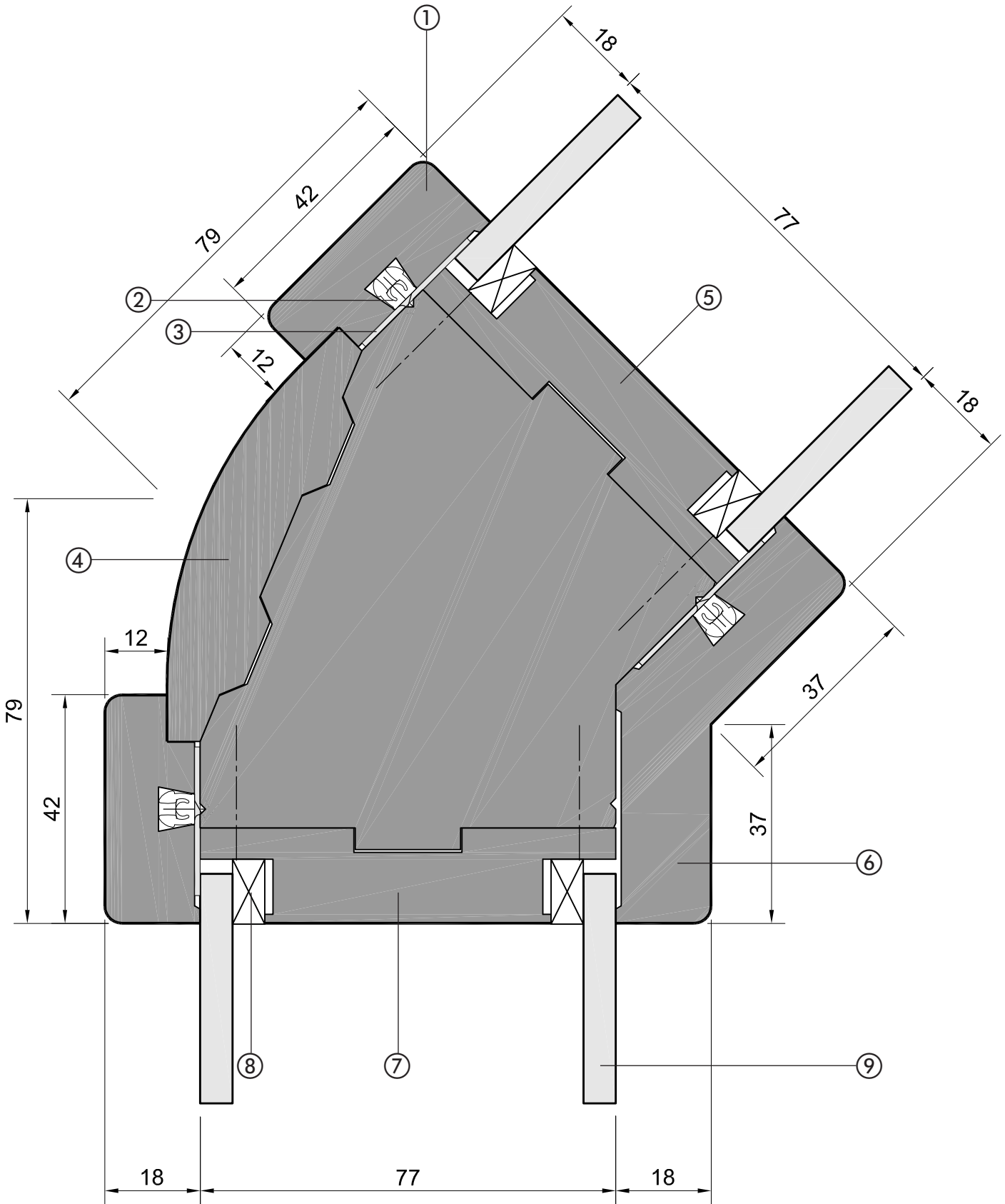
system 5000 135° corner – solid / 135° corner post / door frame

- 1) 18mm Corner cover bead 2) Clip & screw 3) Steel retaining strip 4) 135° Corner post
- 5) Small chair 6) 135° Corner inner trim 7) Door frame and clip 8) Door
- 9) Plasterboard



Drawing no: 5242

- 1) 18mm Corner cover bead 2) Clip & screw 3) Steel retaining strip 4) 135° Corner post
- 5) Small chair 6) 135° Corner inner trim 7) Small chair
- 8) Foam Gasket 9) Glass

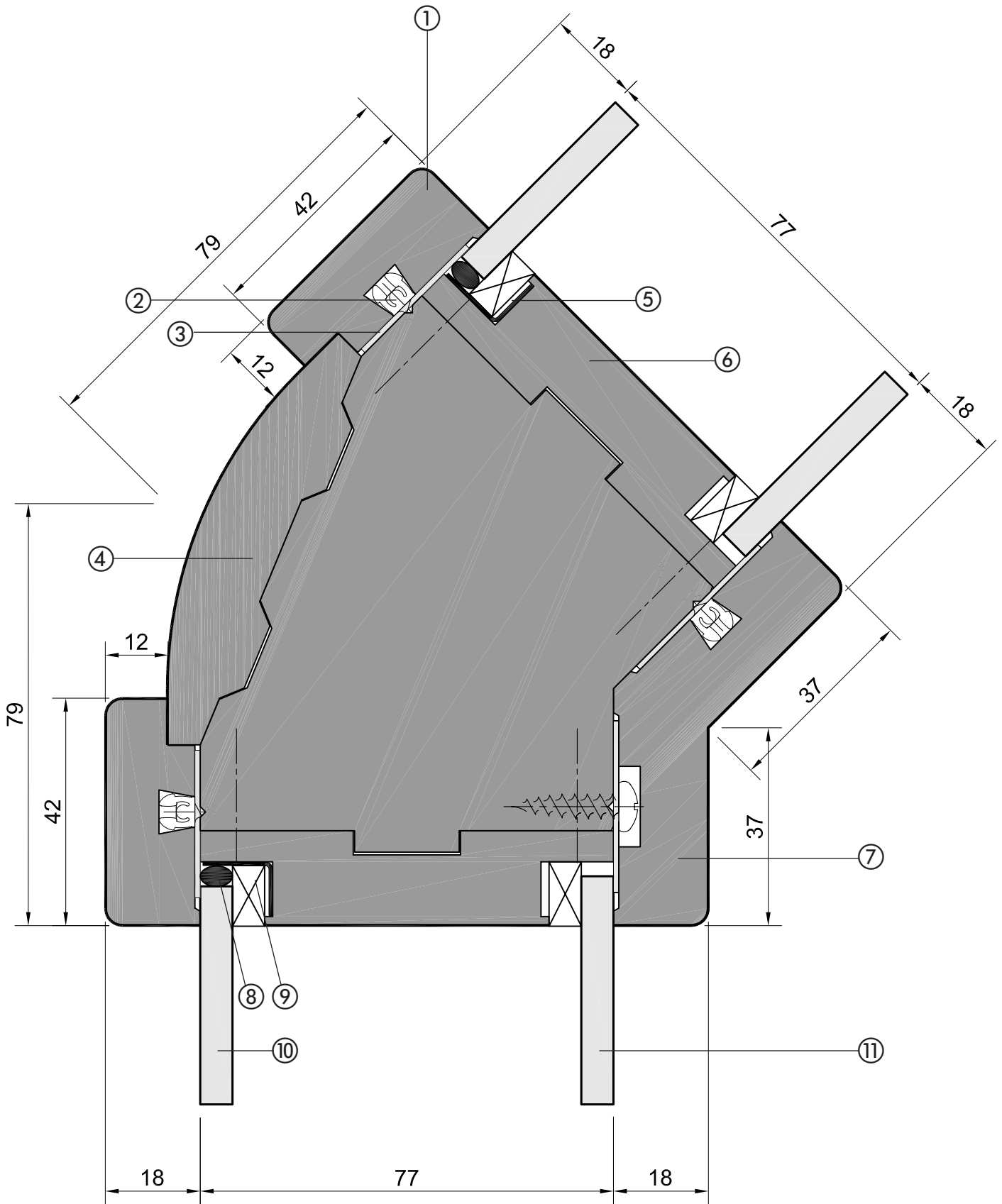


system 5000 135° corner – double glazed / 135° corner post / double glazed

Drawing no: 5243

system 5000 135° corner – double glazed / 135° corner post / double glazed (30min FR)

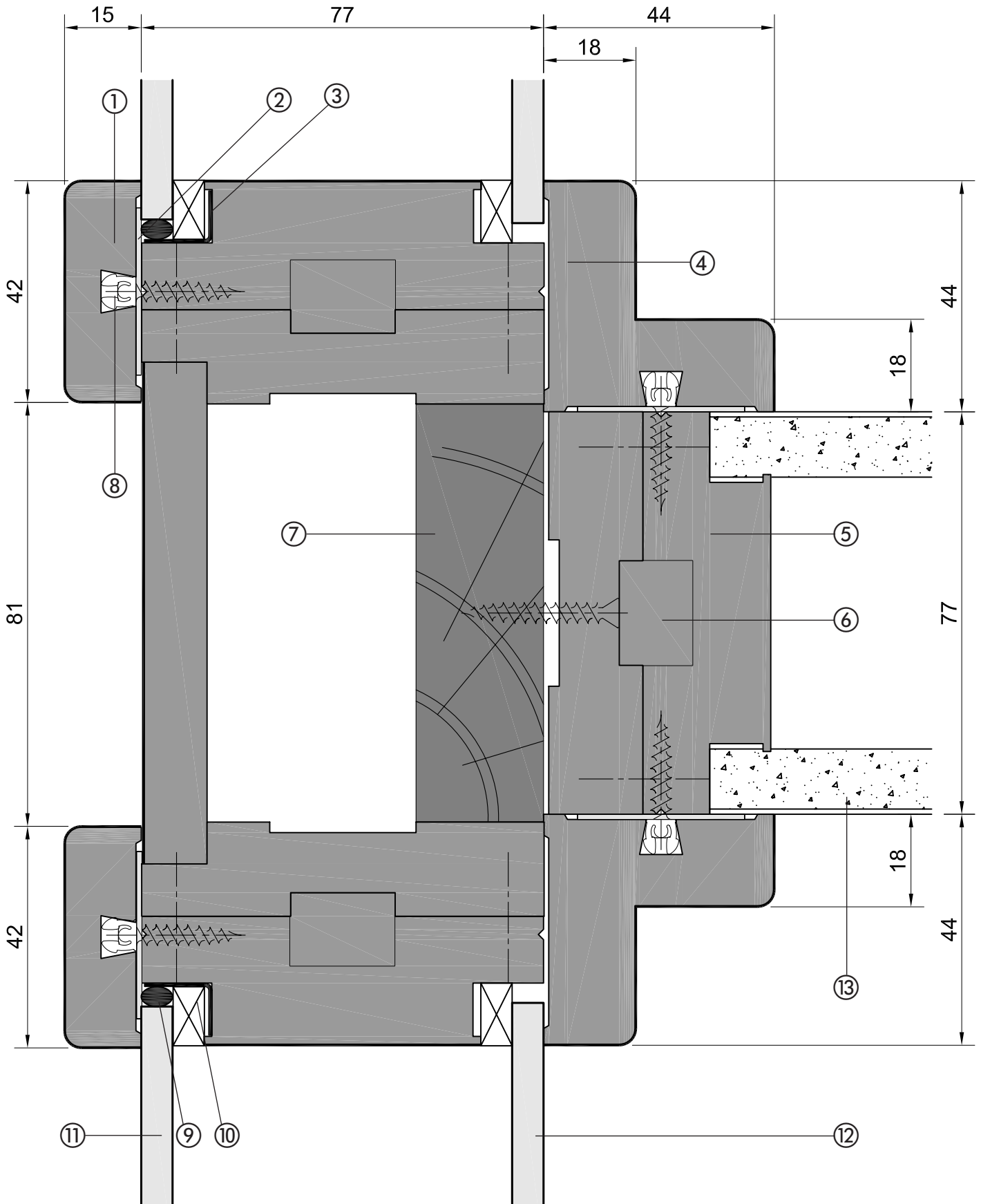
- | | | | |
|-----------------------------|----------------------|---------------------------|-----------------------|
| 1) 18mm Corner cover bead | 2) Clip & screw | 3) Steel retaining strip | 4) 135° Corner post |
| 5) Fire-rated glazing liner | 6) Small chair | 7) 135° Corner inner trim | 8) Intumescent mastic |
| 9) Foam gasket | 10) Fire-rated glass | 11) Non-fire-rated glass | |



Drawing no: 5244

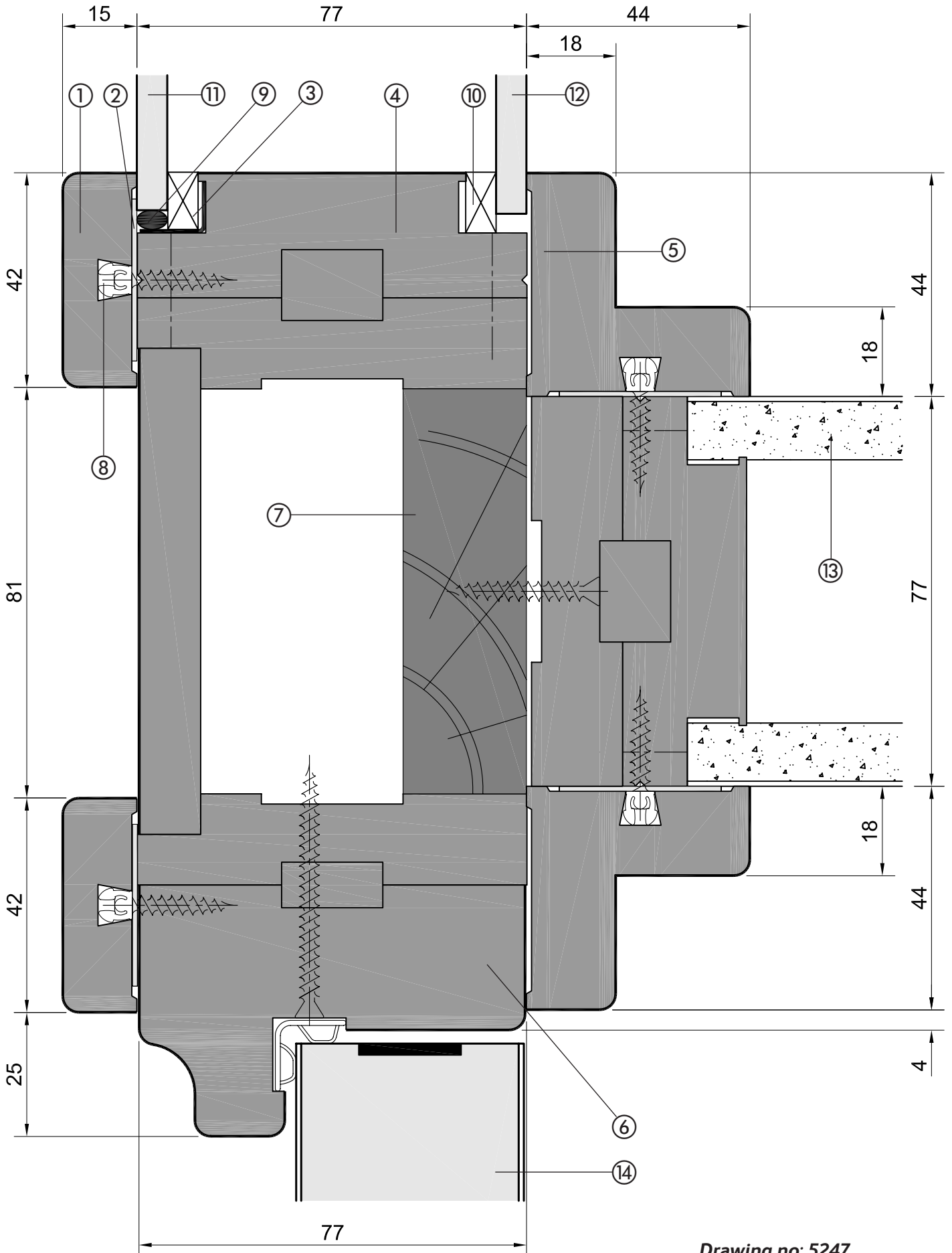
system 5000 3 way junction – solid / double glazed / double glazed

- | | | | |
|-----------------------|--------------------------|-----------------------------|--------------------------|
| 1) 15mm Cover bead | 2) Steel retaining strip | 3) Fire-rated glazing liner | 4) 90° Corner inner trim |
| 5) Large chair | 6) Fire-rated MDF infill | 7) 3 Way post assembly | 8) Clip & screw |
| 9) Intumescent mastic | 10) Foam gasket | 11) Fire-rated glass | 12) Non-fire-rated glass |
| 13) Plasterboard | | | |



Drawing no: 5246

- | | | | |
|--------------------------|--------------------------|-----------------------------|--------------------------|
| 1) 15mm Cover bead | 2) Steel retaining strip | 3) Fire-rated glazing liner | 4) Large chair |
| 5) 90° Corner inner trim | 6) Door frame and seal | 7) 3 Way post assembly | 8) Clip & screw |
| 9) Intumescent mastic | 10) Foam gasket | 11) Fire-rated glass | 12) Non-fire-rated glass |
| 13) Plasterboard | 14) Door | | |



system 5000 3 way junction – solid / double glazed / door frame (30min fire-rated)

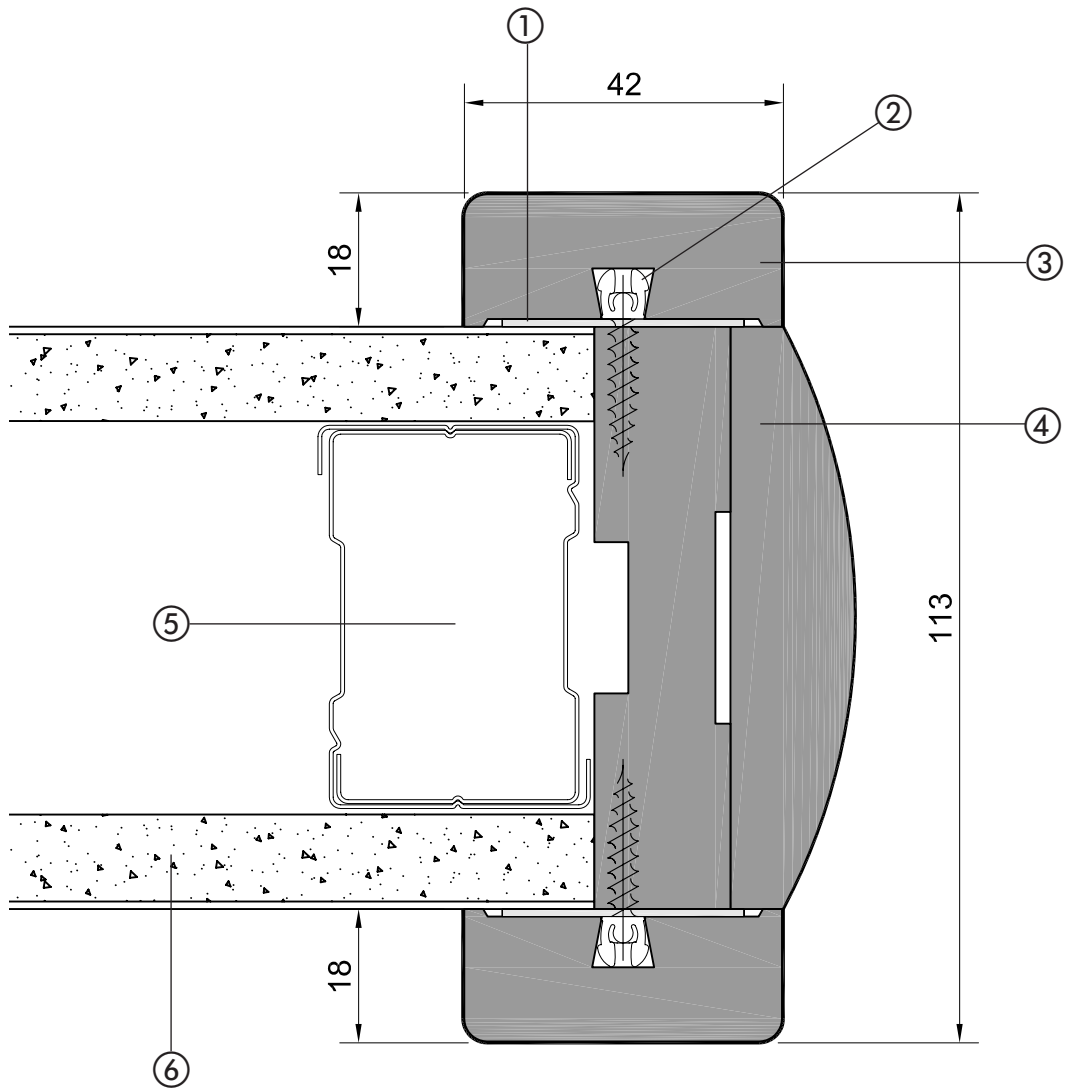
Drawing no: 5247

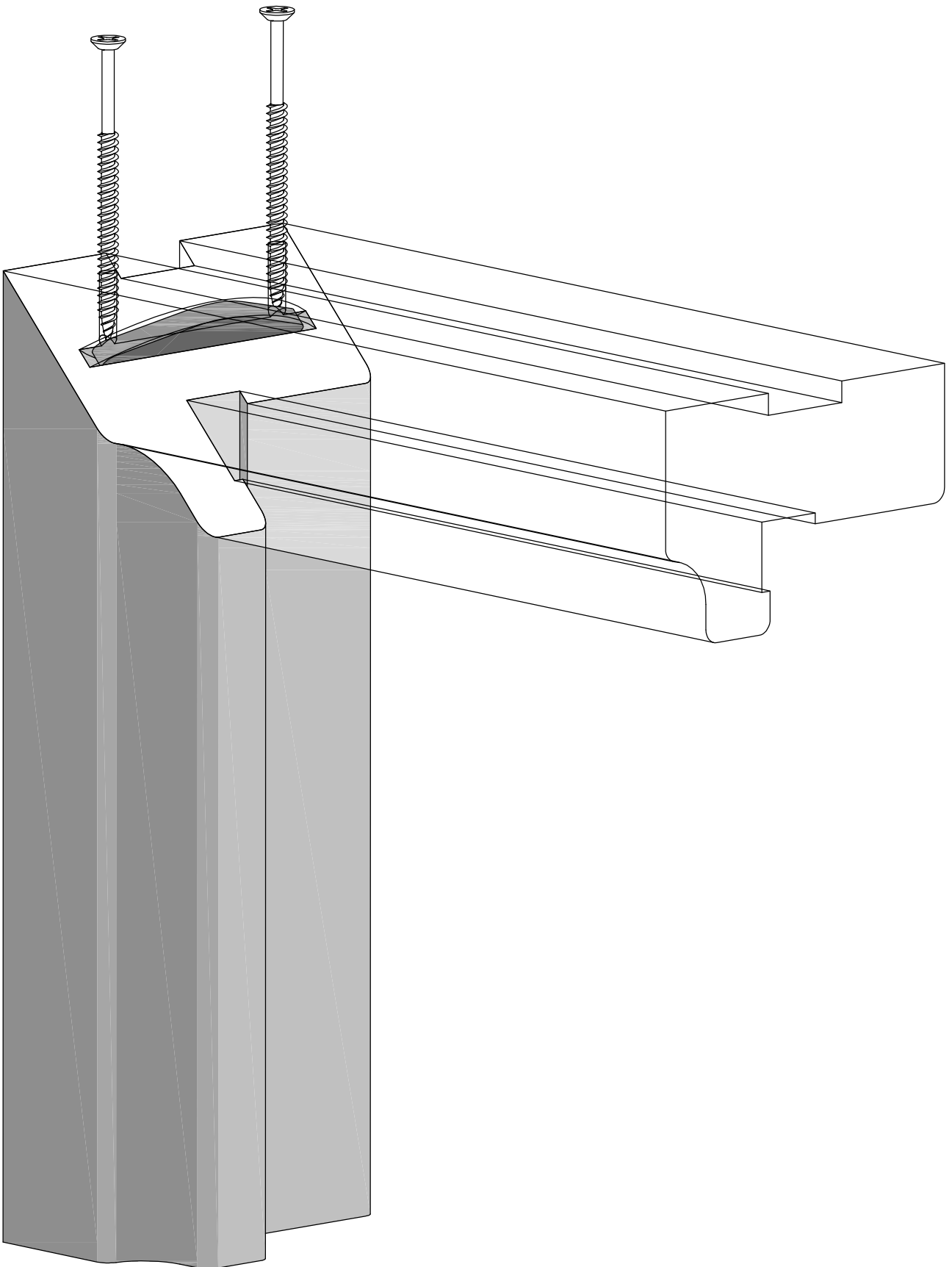
1) Steel retaining strip
5) Boxed stud

2) Clip & screw
6) Plasterboard

3) 18mm Cover bead

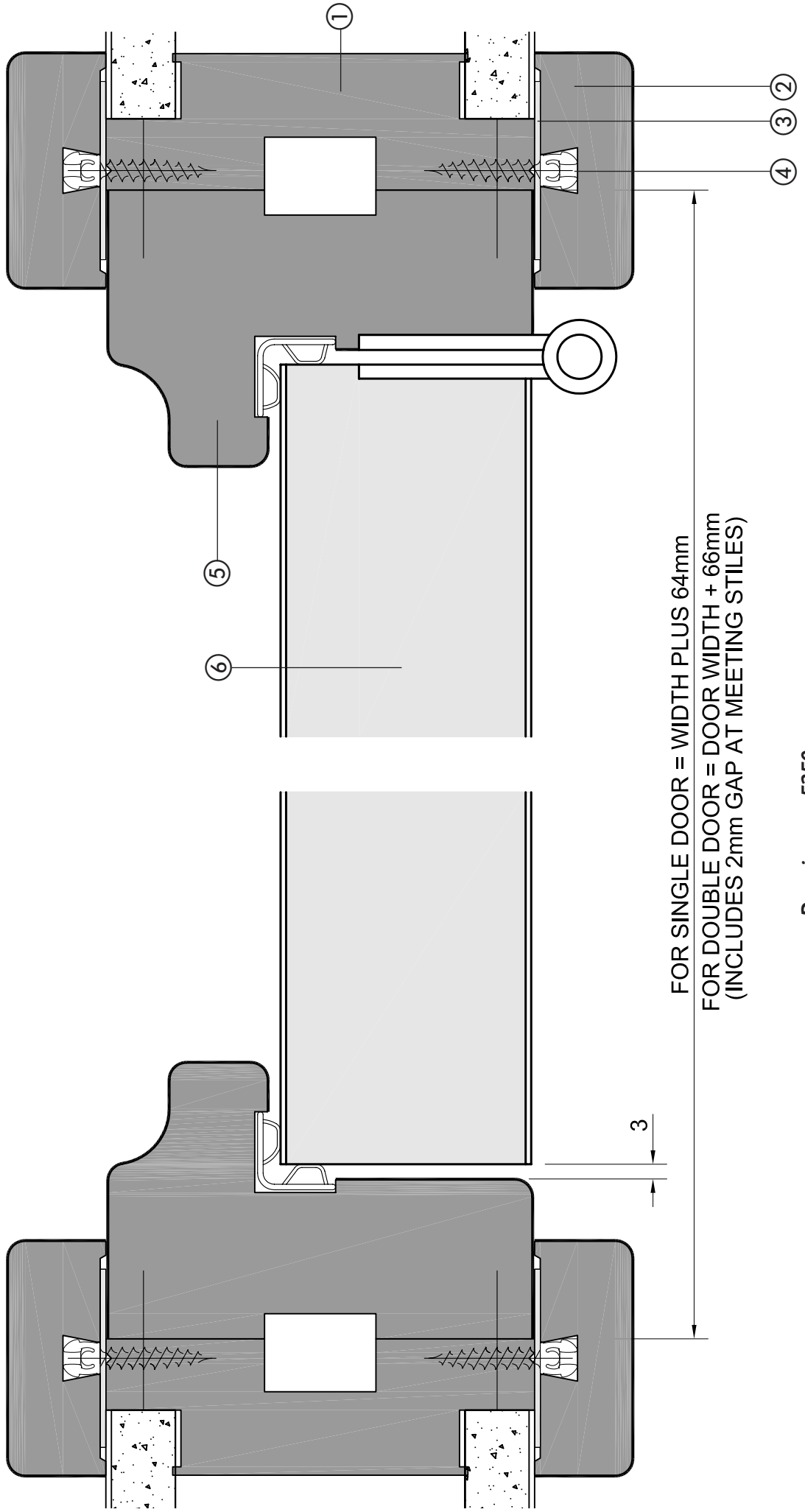
4) Stop end



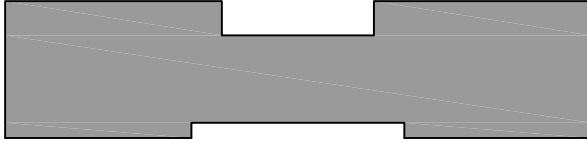


Drawing no: 5249

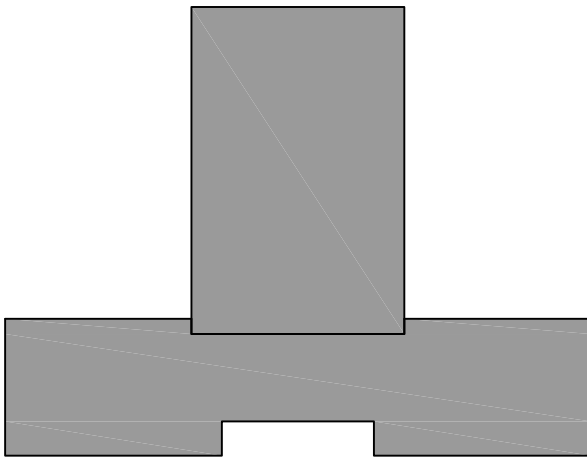
- 1) Large chair
- 2) 18mm Cover bead
- 3) Steel retaining strip
- 4) Clip & screw
- 5) Door frame and seal
- 6) Door



18mm base assembly top section /
head packer / non fire wall abutment



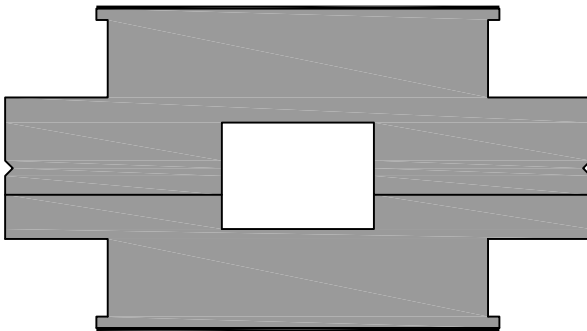
Base track 'T' section



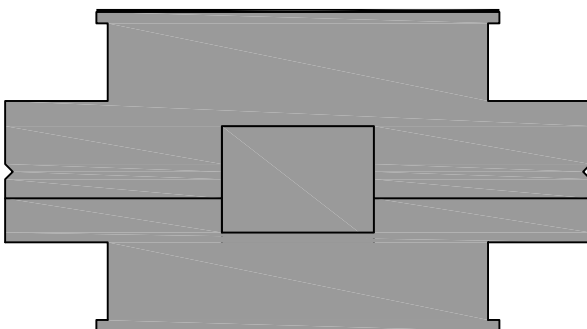
6mm MDF abutment fillet



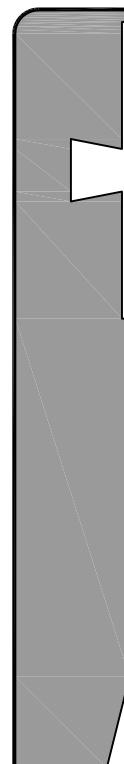
Mullion (non fire rated) / transom



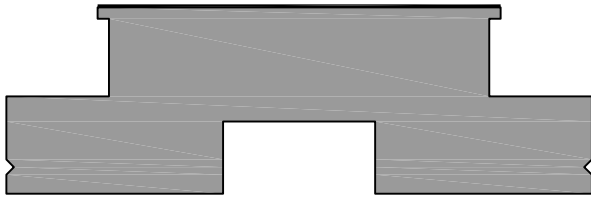
Mullion (30 mins fire rated)



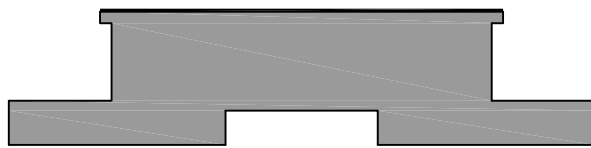
Skirting



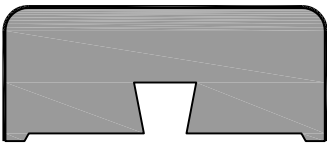
Large chair



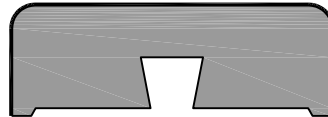
Small chair



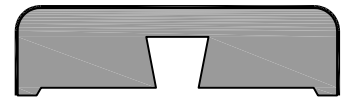
18mm cover bead



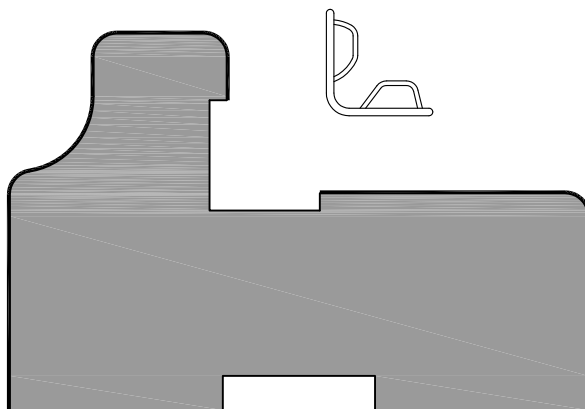
15mm cover bead

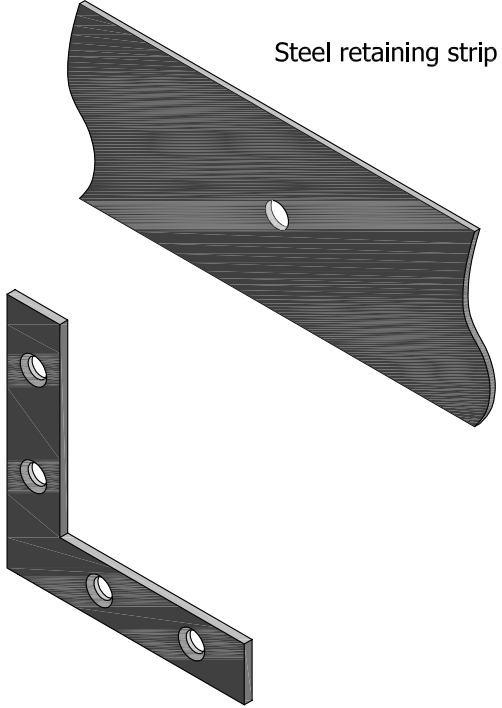
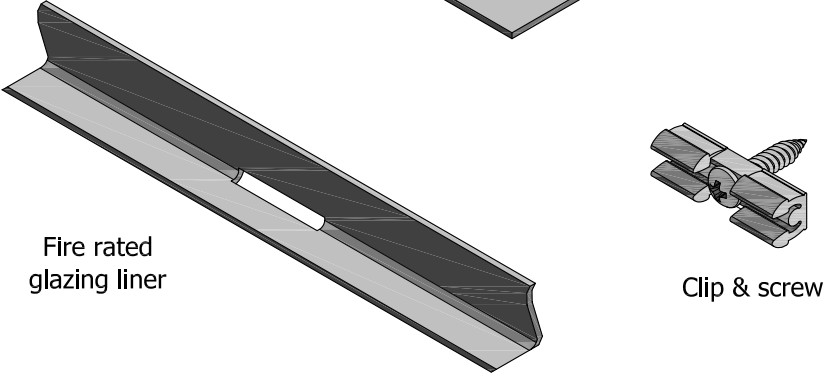
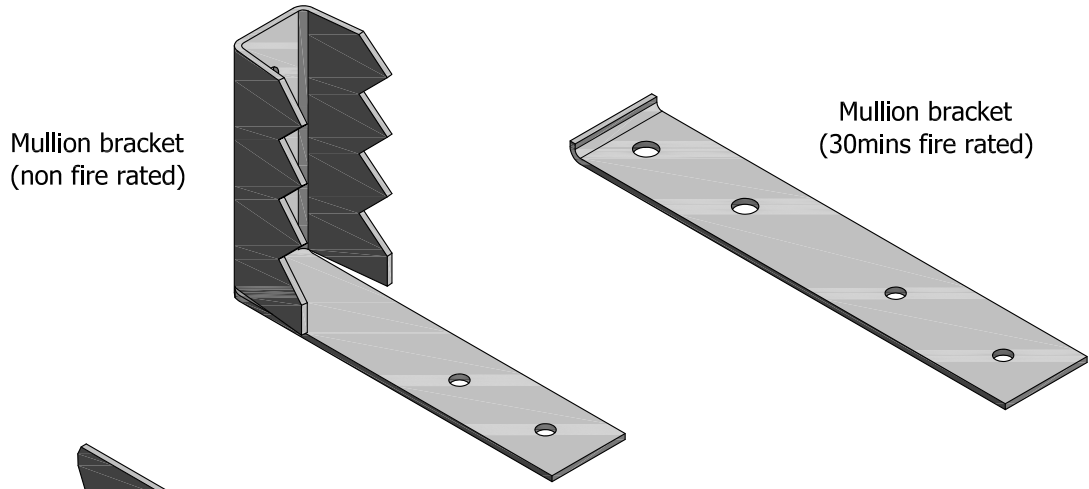


12mm cover bead

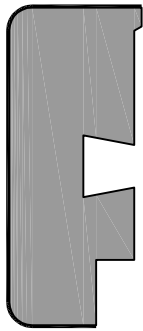


Door frame (& seal)

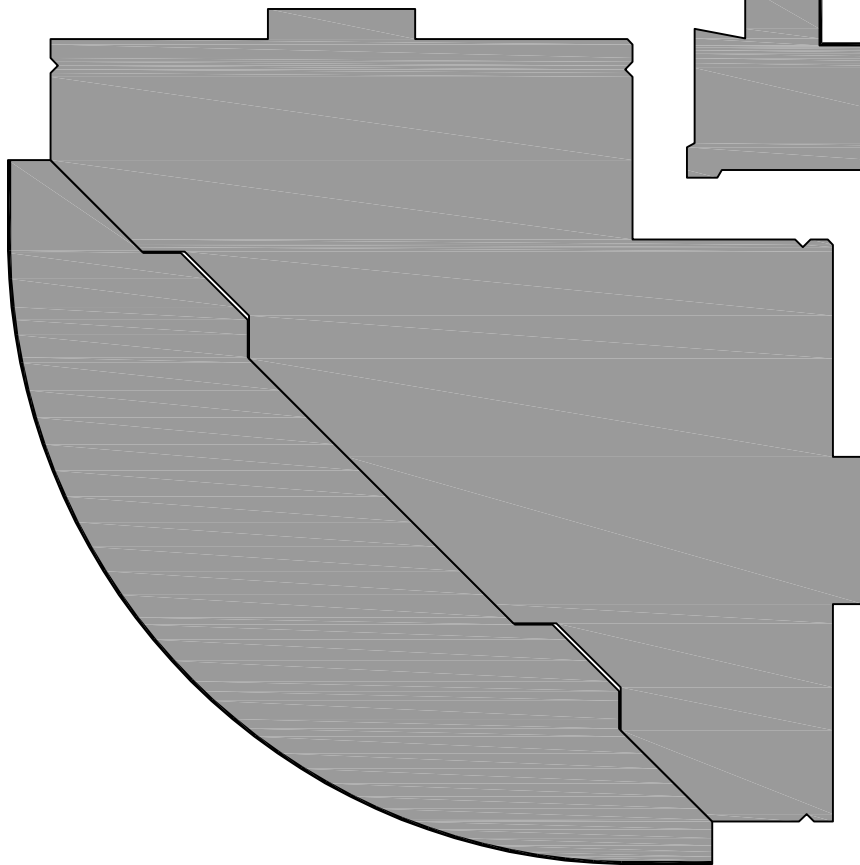




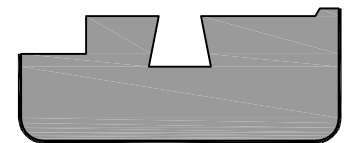
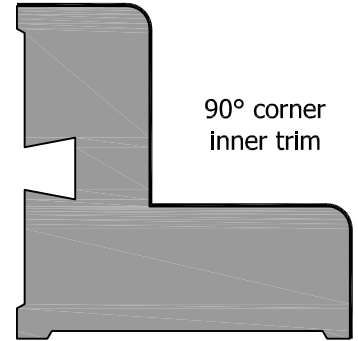
18mm corner cover bead



90° corner post

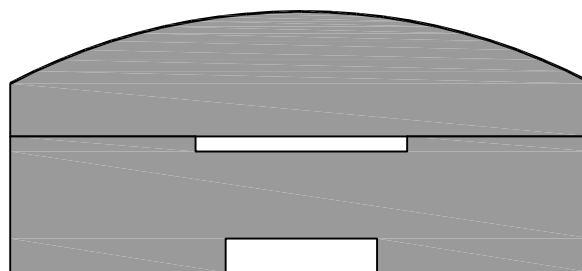


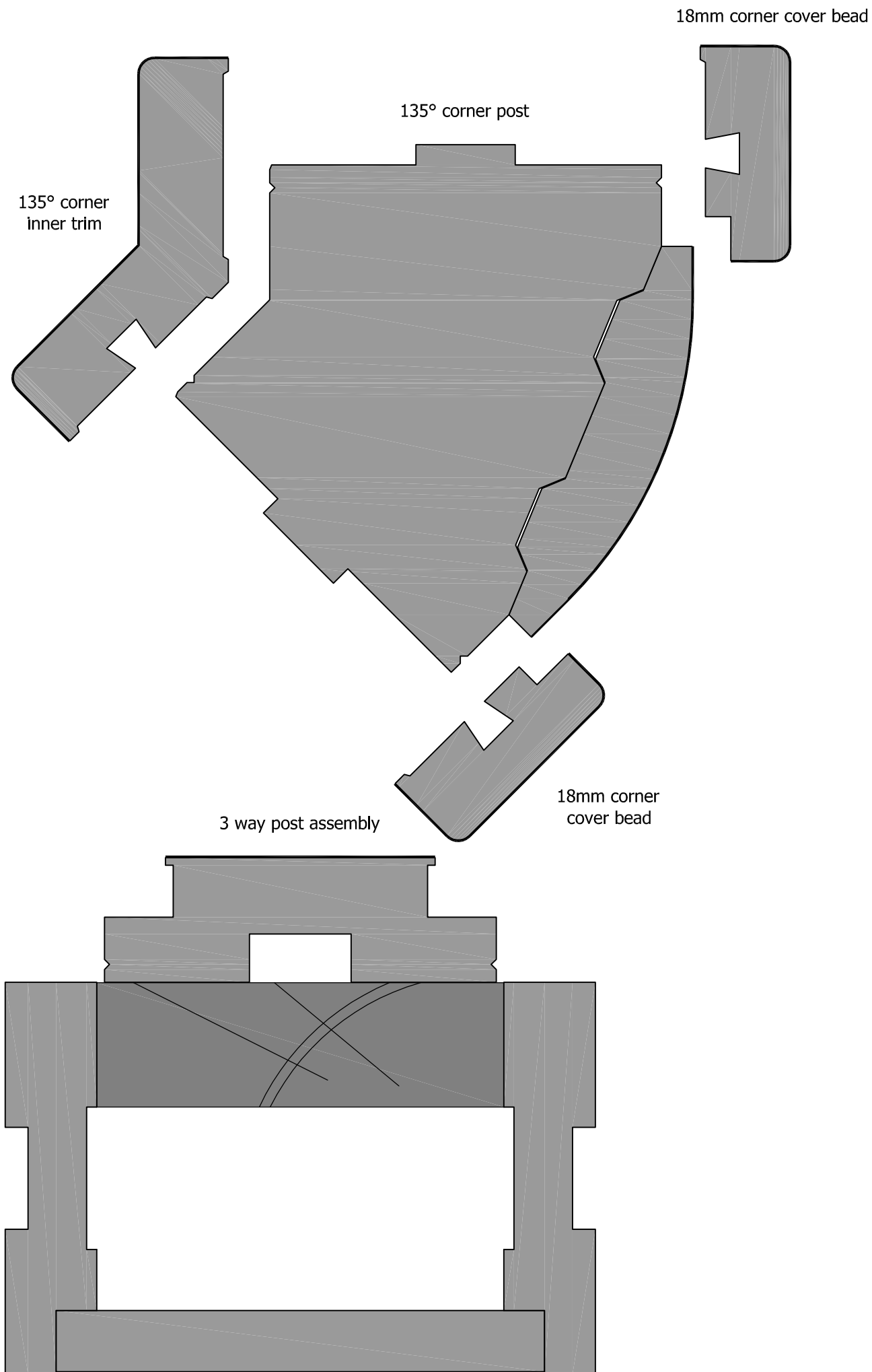
90° corner inner trim

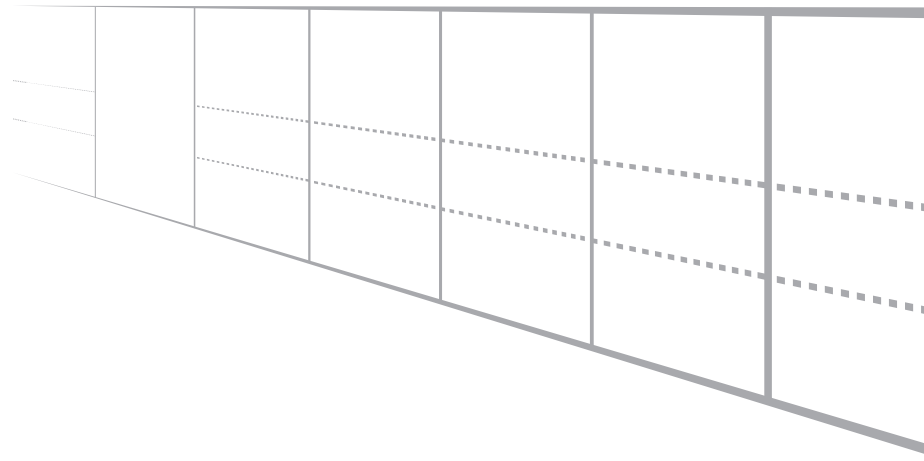


18mm corner cover bead

Stop end







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