



INSTALLATION TRAINING

Rev 2 21-07-2021

INTRODUCTION

The Specwall Training Presentation has been designed to demonstrate how to construct the Specwall system to the best quality, ensuring the installers are not compromising the performance of the system during installation.



INTRODUCTION

An electronic copy of the presentation will be provided and you will be kept informed of all Specwall development updates through the contact details you have provided.



CLASSROOM TRAINING SECTIONS 7-17

7	Panel delivery, storage and transportation to the working area.
8	Spectech Introduction.
9	Familiarisation of the installation method and procedures.
10	Tips and Spectech detailed installation.
11	Approved fixings, grouts and sealants.
12	Tools and Access equipment.
13	Health & Safety.
14	Specific project Drawings and design.
15	Quality and sign off.
16	Inspection of individuals work.
17	Certificates and handouts.



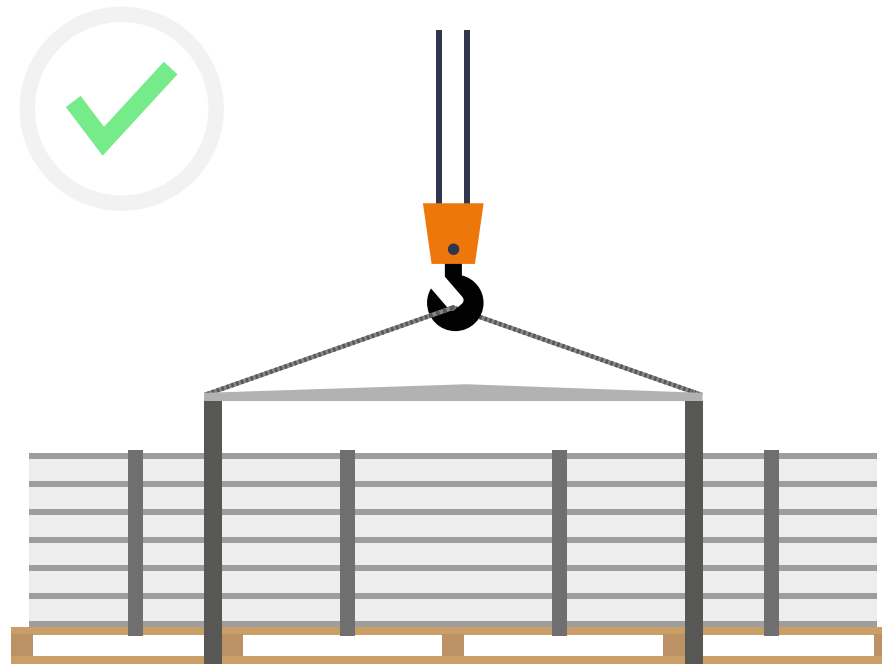
SECTION 7

**PANEL DELIVERY, STORAGE AND
TRANSPORTATION TO THE WORKING AREA.**

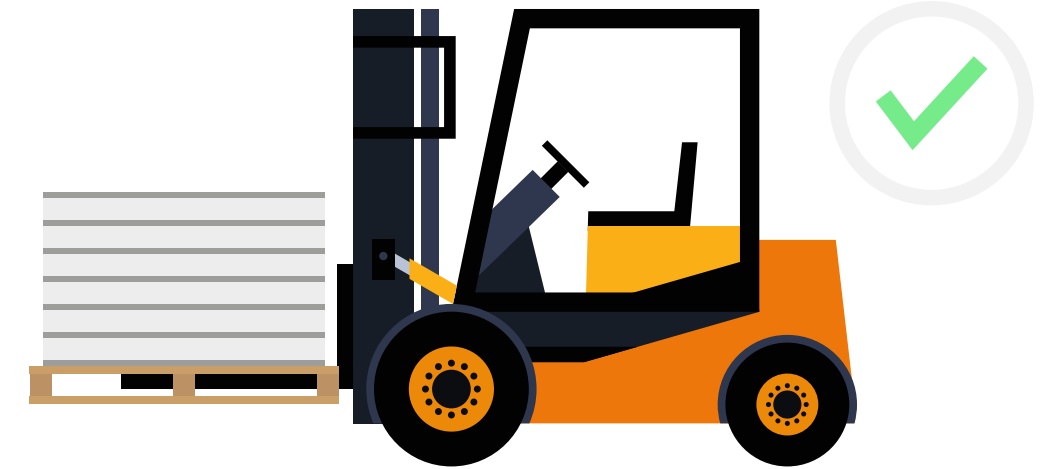
Standard site delivery is on a flat bed with full pallets. These will require a FLT, crane or other means of offloading at delivery point. Part pallets, Moffett offload or any other requirements should be identified at order.

- Pallet must be handled one at a time
- Maximum two high
- Lifted only, never pushed or pulled

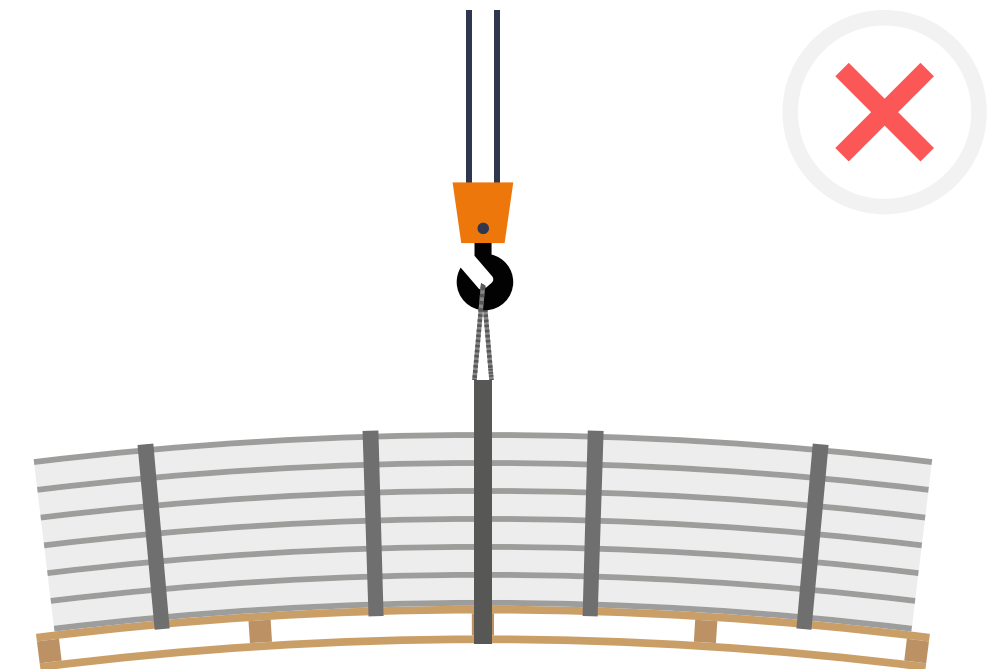
Lifting straps or forks should be set at one third the length of the boards



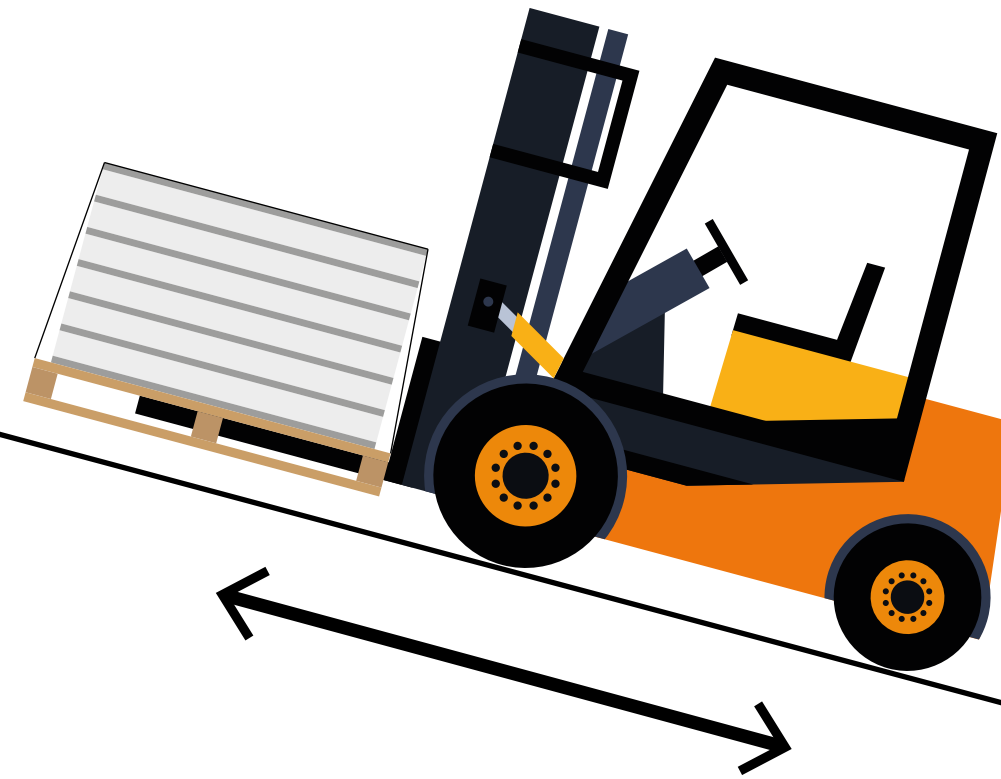
Using lifting beam with panels over 3m long



Using forklift with panels under 3m long



All sites must have a specific risk assessment and method statement for off-loading.



If using FLT for transportation, ensure the load is always falling onto the forks.

All sites must have a specific risk assessment and method statement for off-loading.

RISK

ASSESSMENT &

METHOD

STATEMENT

Once off loaded, Pallets should be stored on an even surface.



Distribution of individual boards should be undertaken with the aid of suitable board trolleys, with the boards on edge. Boards must not be transported flat as this could cause cracking and affect the structural integrity of the product. Your risk assessment and method statement should identify this.





SECTION 8

**SPECWALL TECHNICAL HANDBOOK
INTRODUCTION**

The Spectech manual provides all the current standard details and demonstrates the simplicity of the product and its uses.



Panel types, joints, corners and interface with other structures are all captured in the document.

It is important that all these details are followed in order not to compromise the systems structural, fire, acoustic, thermal and other properties.



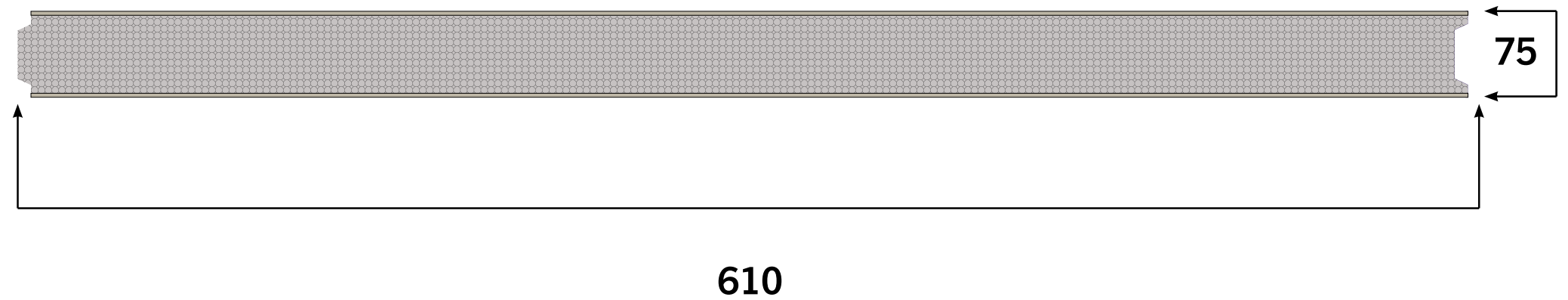
You will be updated with new details and developments of the product through your provided contact details and your employer.



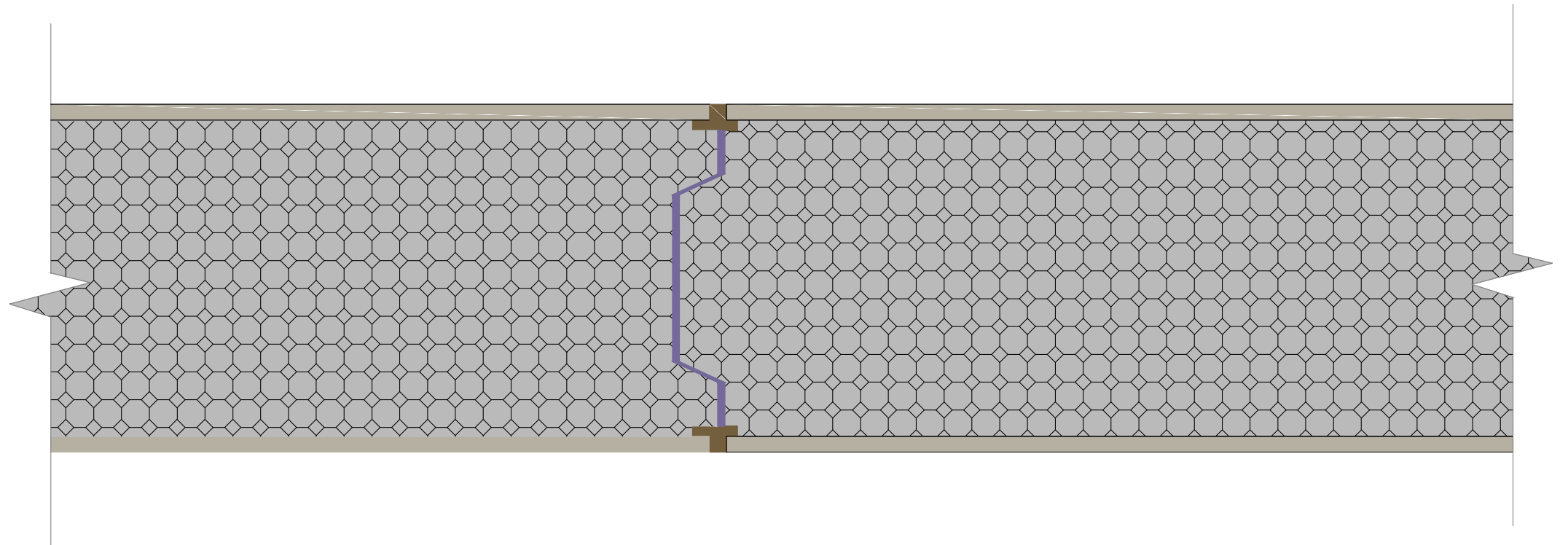
SECTION 9

**FAMILIARIZATION OF THE PRODUCT,
INSTALLATION METHOD AND PROCEDURES.**

The walling system comprises of a solid cement mix core with 4.5mm fibre cement board bonded to the outer face and a soft inner core mix of cement and EPS.



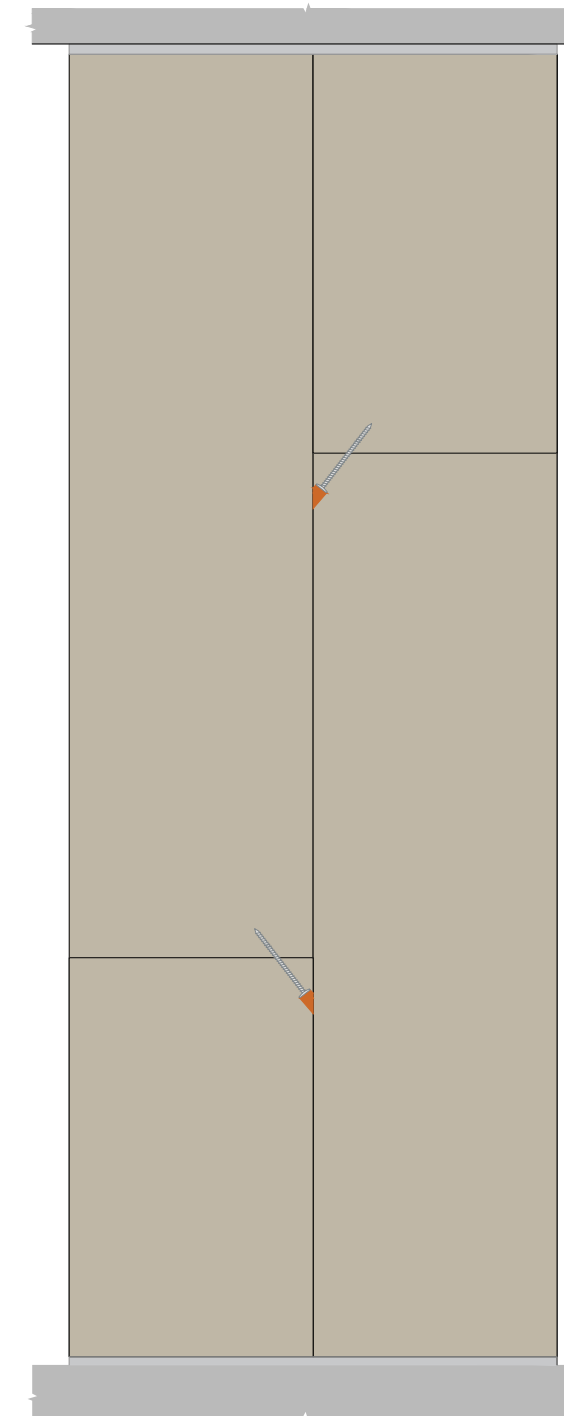
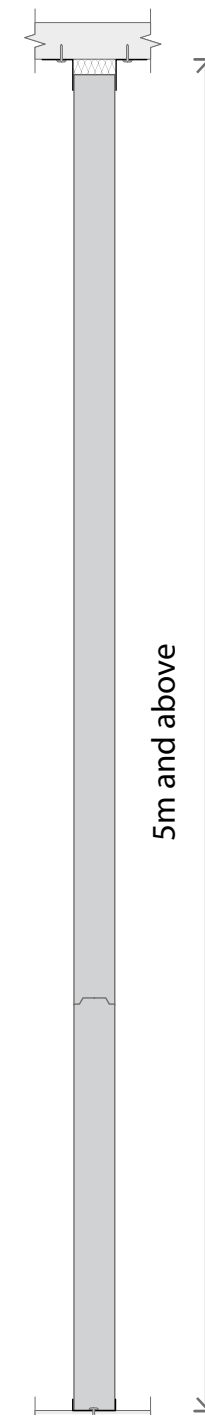
The panel joints are made with a tongue and groove key along the edges.



The panel sits in a U section channel on the base and is secured at the head by angles.

Vertical connections to existing structures are made with concealed dowels or tracks.

Screws or spikes set diagonally are required when double stacking or over one board high.



TYPICAL STAGGERED BOARD LAYOUT

SURVEY THE WORKING AREA

Check drawings and materials on site are correct for the installation.



SETTING OUT

Ensure your working area is clear and clean. Check any walls and columns you are fixing to are plumb, and that floors and soffits are level and suitable for fixing too. Undertake dimensional check to confirm the drawings you are working to are correct.



MEASURING FOR TRACK

Base track or channel should be the full length of the walls location



CUTTING THE TRACK

Track and head angles should be cut with a chop saw or angle grinder.



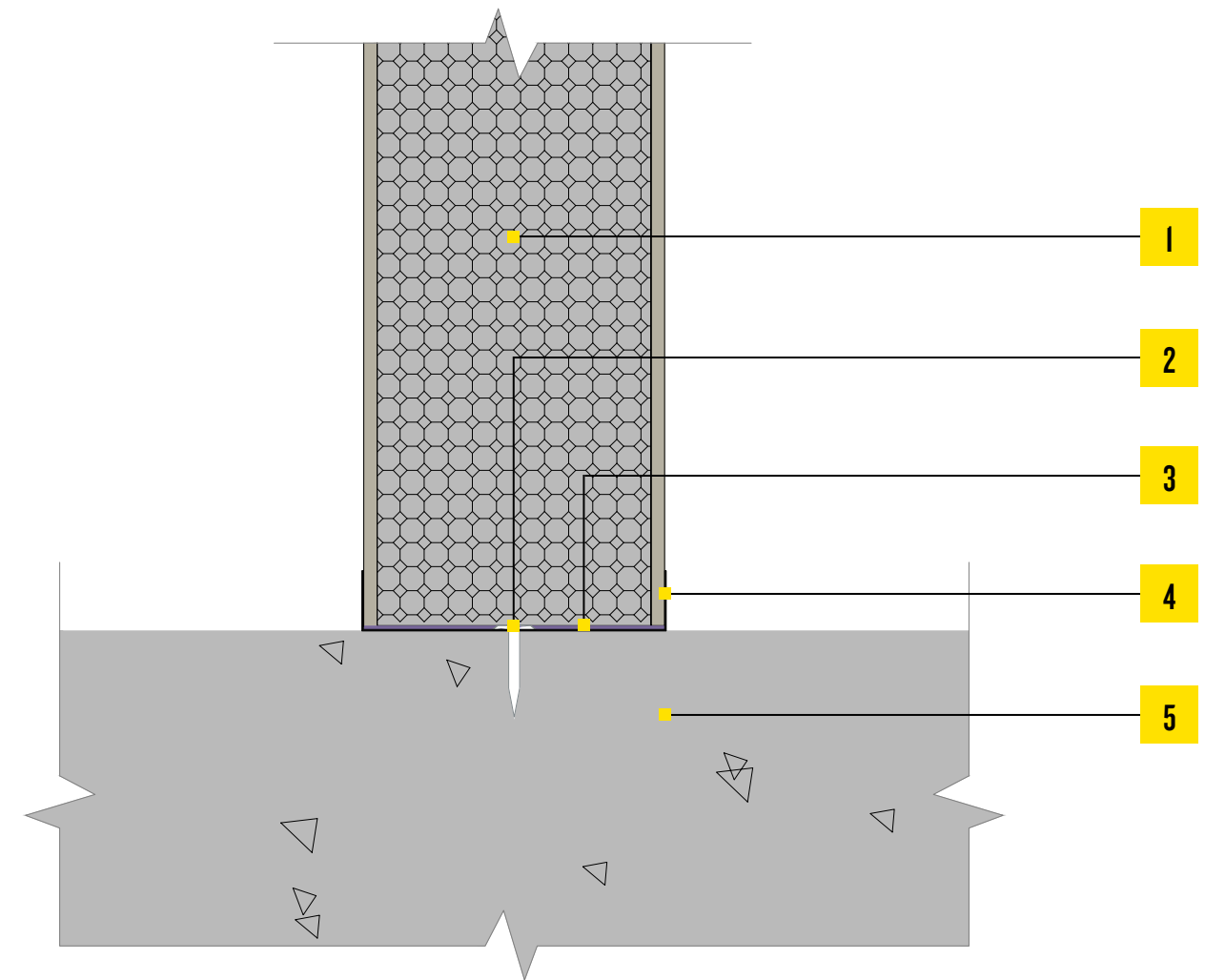
TRACK INSTALLATION

Fix the base track to the floor using suitable fixings for the material. Ensure your track is straight by checking with the laser line.



TRACK INSTALLATION

Place a bead of fire mastic beneath the track for final fixing.



Key

- | | | | |
|----------|--|----------|---|
| 1 | Specwall Panel (75/100mm Panel Thickness) | 4 | 'U' Base Channel - 77x20x20mm for 75mm Specwall; 102x20x20mm for 100mm Specwall |
| 2 | Fixings suitable for substrate at 600mm centres and within 50mm of the start / end | 5 | Structure |
| 3 | PU Adhesive both in and under the track | | |

TRANSFER LINE FROM BASE TO HEAD TRACK & INSTALL FIRST ANGLE

Transfer the inside line of your base track to the soffit for the first section of the head track.



HEAD TRACK & PANEL INSTALLATION

Fix the track to the soffit with suitable fixings for the material.



BOARD MEASURING

Measure the required board height, ensuring you account for the deflection head.



BOARD CUTTING

Panels can be provided cut to size, but with differing soffit heights and uneven floors, this is better done on site for more accurate fitting. Panels are cut down using 110v and cordless circular saws or hand saws.



BOARD CUTTING

If the floor is out of level, cut the bottom of the panel to the angle of the floor to ensure the panel sits fully in the track, this will ensure your panel is fitted plumb.

Panels can be cut to suite angles for walls which are not square.



ADHESIVE

Apply PU adhesive to both male and female sections of the joint, brush applied and a full bead of PU, gun applied to one side of the joint.



FIRE MASTIC

Run a full bead of fire mastic inside the base to allow for full seating of the panel in the track. This should be applied as the panel is lifted into its final position.



HEAD TRACK & PANEL INSTALLATION

The fire mastic bead should continue through all joints and junctions.



HEAD TRACK & PANEL INSTALLATION

Offer the panel, up to the head track ensuring it is fully against the track and plumb both ways.



HEAD TRACK & PANEL INSTALLATION

Push the key joint together ensuring it is tight and plumb before temporary fixing to allow the adhesive to set.



HEAD TRACK & PANEL INSTALLATION

Install the fire rated, compressible mineral wool to the gap at the head of the board.



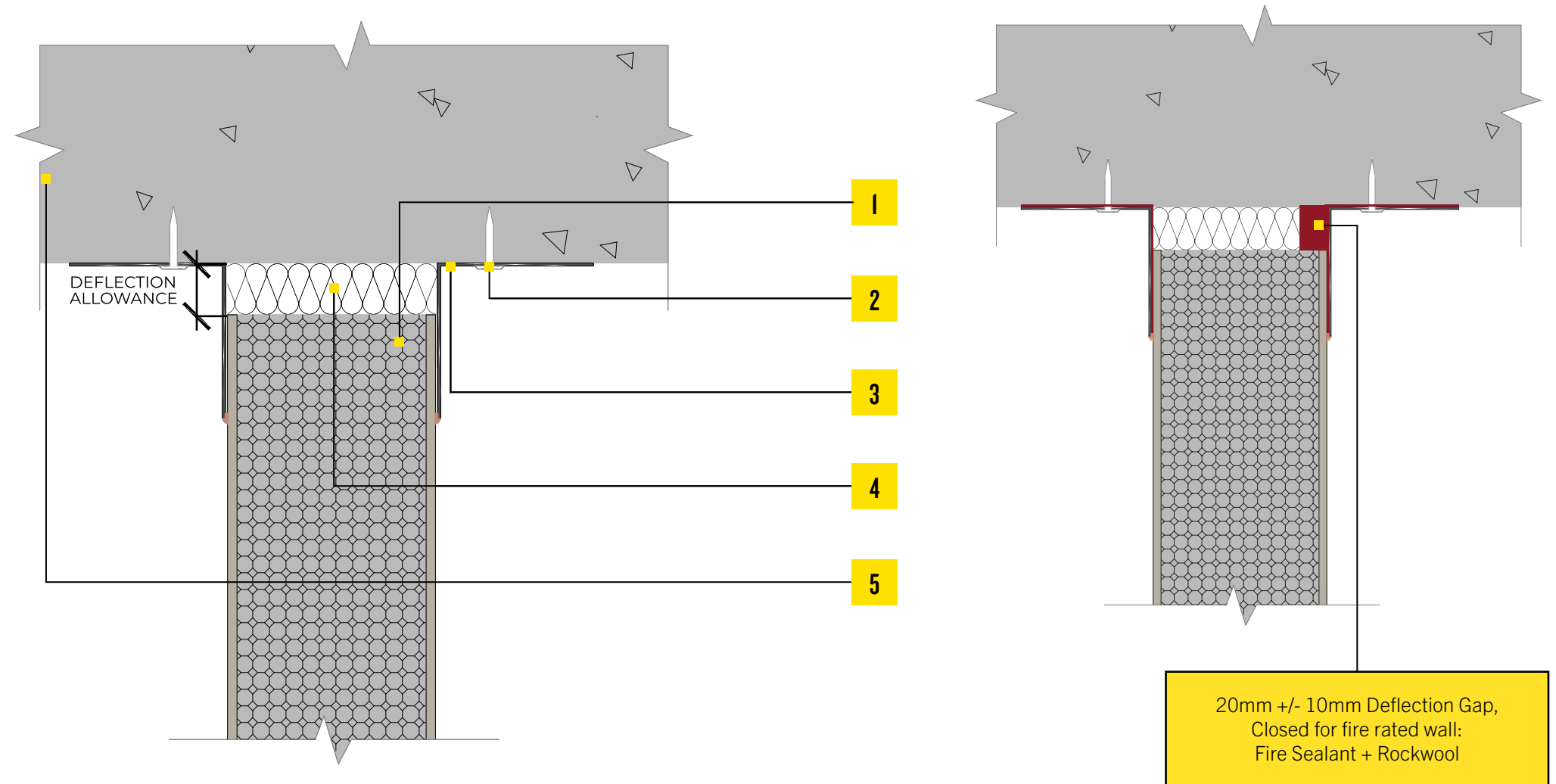
HEAD TRACK & PANEL INSTALLATION

Finally, apply the fire mastic to the head and install the second angle to the soffit with a suitable fixing.



HEAD TRACK & PANEL INSTALLATION

The head track consists of 2 galvanized, 50x50 angles which trap the Specwall board. Insulation is installed at the head for fire and deflection.



Key

- | | | | |
|---|--|---|--------------------|
| 1 | Specwall Panel (75/100mm Panel Thickness) | 4 | Stone mineral wool |
| 2 | Fixings suitable for substrate at 600mm centres and within 50mm of the start / end | 5 | Structure |
| 3 | 50x50mm or 75x75mm Angle Section, to suit specification | | |

WALL ABUTMENT

Install dowels to the existing structure, in center line of panel location ensuring they are plumb



WALL ABUTMENT

Transfer dowel locations to the board and pre-drill the board before cleaning out as per manufactures instructions.



WALL ABUTMENT

Install the specified compressible insulation to meet the fire, acoustic and expansion requirements of the project.



WALL ABUTMENT

Apply the PU adhesive to track and any adjoining panels, offer the panel up to its final position



WALL ABUTMENT

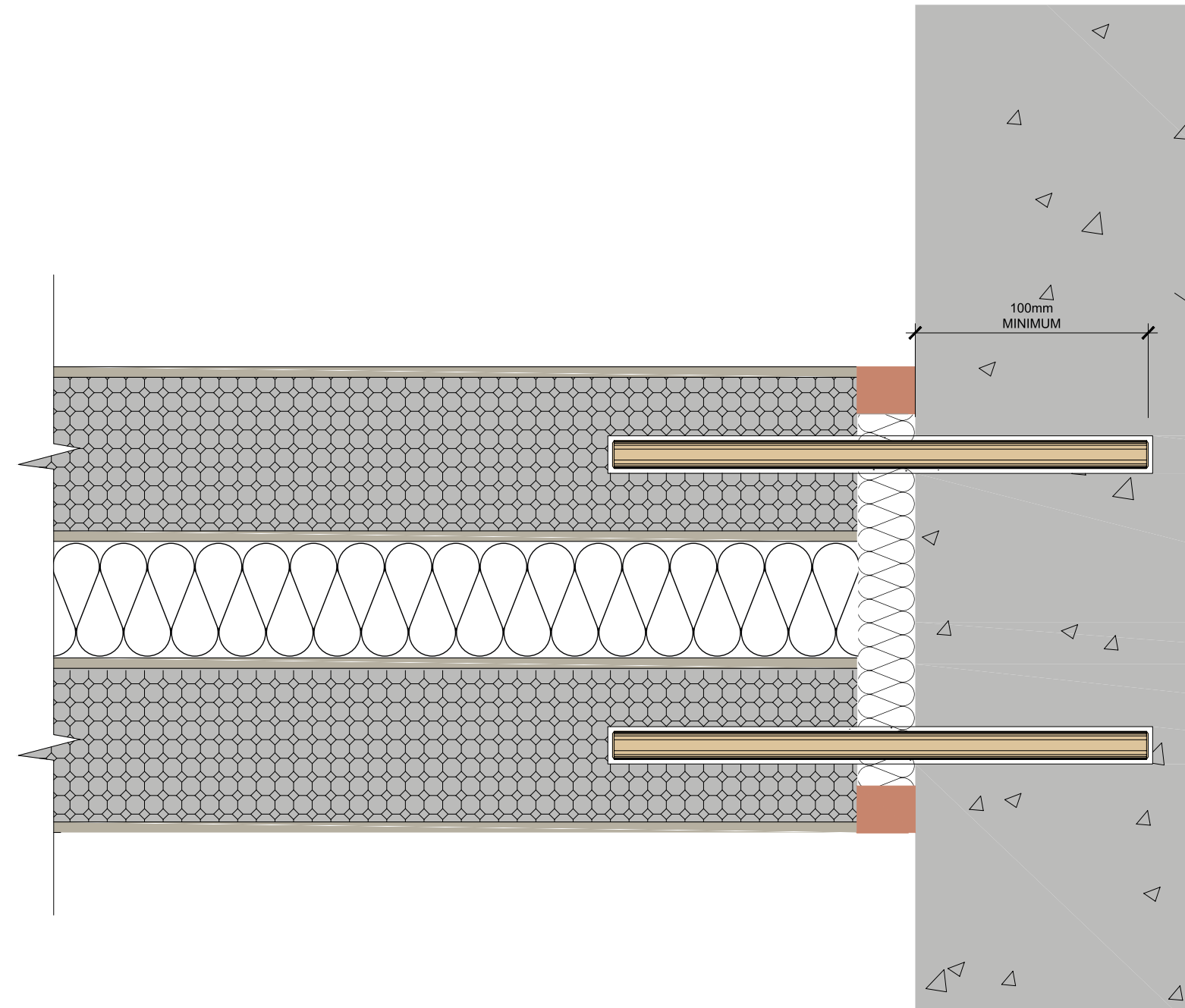
Temporary fix the panel until the adhesive / resin has set.

Mastic joints or fine filling form part of the finishes.



WALL ABUTMENT

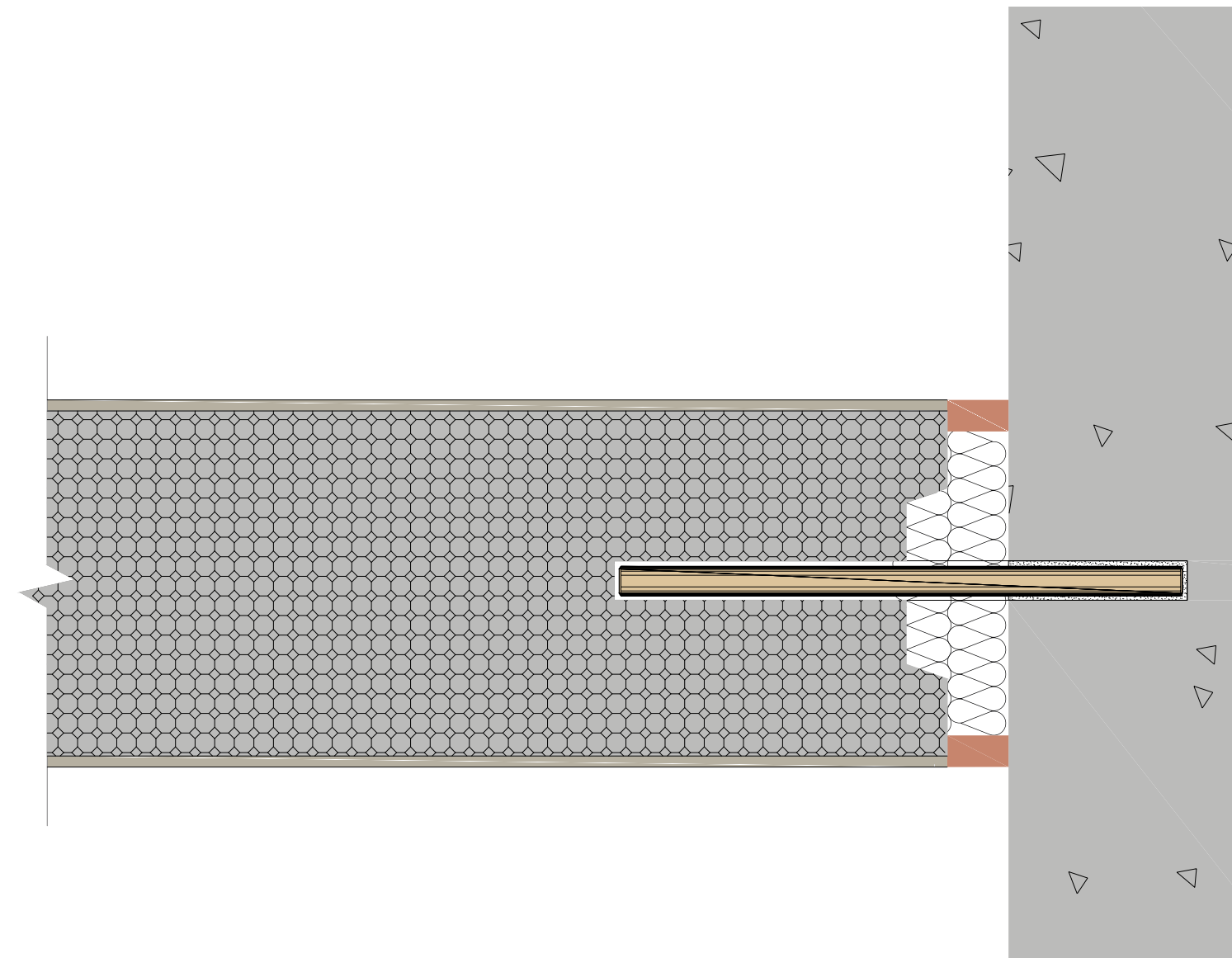
In fire walls and walls requiring expansion joints, site specific details may be added.



WALL ABUTMENT

Concealed fixing, mainly used on wall abutments on the vertical joint.

This is regularly undertaken with use of dowels, resin anchored into the walls and panels.



GROUTING

Grout application is part of the fire and structural integrity of the system and must be installed.



GROUTING

Data sheets for this and other material will be provided in your installer pack.



GROUTING

Deviation from the specified materials, without confirmation of the replacement being acceptable, from Specwall, may invalidate the warranty.

This completes the installation of the standard wall.



EXPANSION JOINT OR SUPPORT TIE

Set out the locations of any joints or ties as per drawing.

Install the C section, angle, or Specwall returns by fixing back to the structure behind, ensuring these are plumb.



EXPANSION JOINT OR SUPPORT TIE

Install the second section
ensuring the expansion joint is
set at the correct size.



EXPANSION JOINT OR SUPPORT TIE

Install the first side of the expansion joint panel ensuring the PU bead is in place and panel is fixed to the return.



EXPANSION JOINT OR SUPPORT TIE

Install the 2nd panel with the
expansion joint clear.



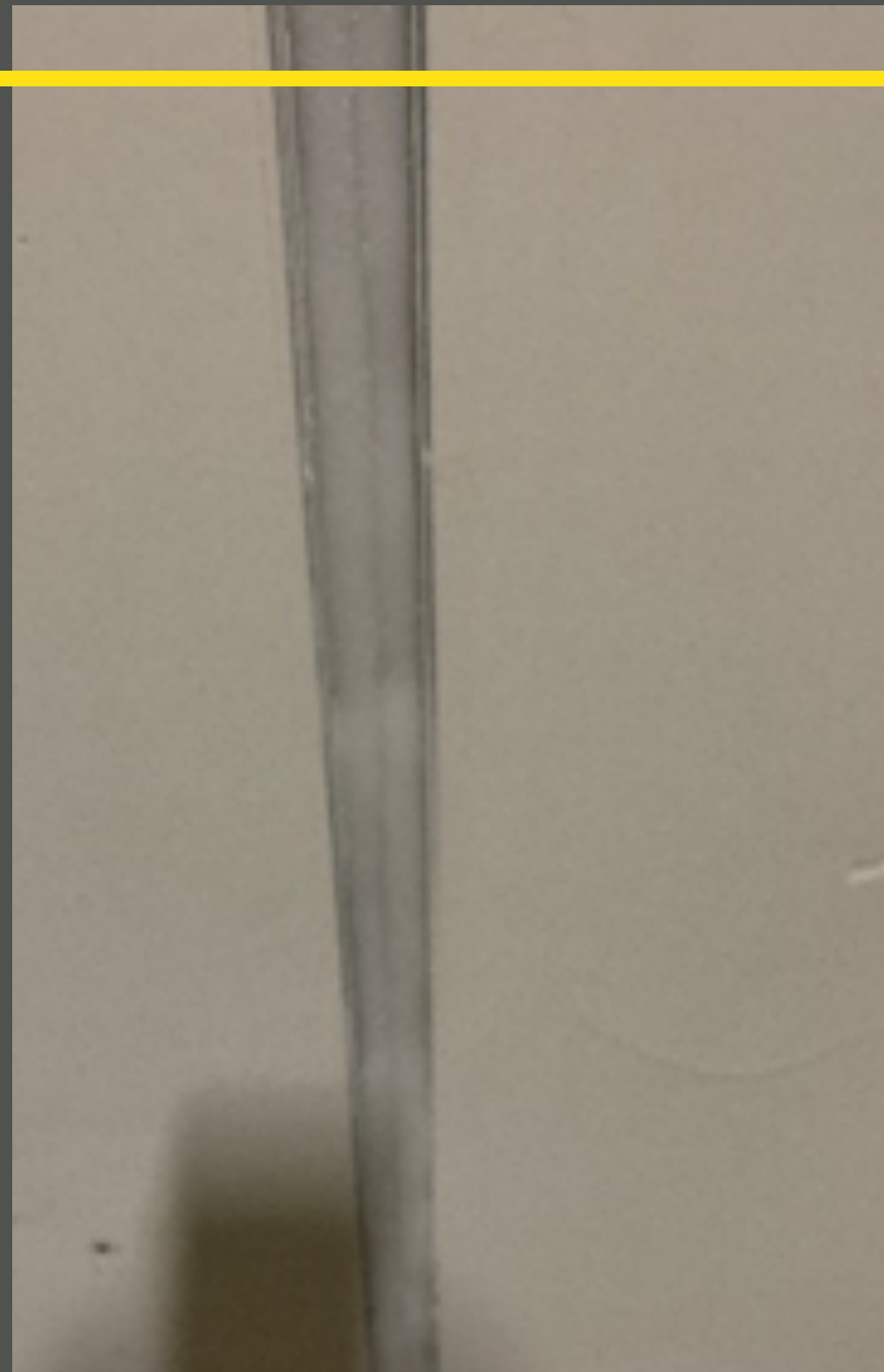
EXPANSION JOINT OR SUPPORT TIE

Following the grout application, finishes can be added with skim bead, expansion foam and flexible joint filler.



EXPANSION JOINT OR SUPPORT TIE

Insert foam into joint and apply
flexible joint filler



EXPANDING FOAM



FLEXIBLE JOINT FILLER

SERVICE INSTALLATION TO PANELS, SOCKETS & SWITCHES ETC.

M&E SERVICES CAN BE INSTALLED USING A NUMBER OF OPTIONS.

1. Conduits can be pre-cast into the panels.
2. Pre-drilled containment routs can be included in the panels.
3. Chasing of the panels can be undertaken on site.
4. If twin wall is being used, services can be installed in the cavity.
5. Surface mounted services.

PRE-CAST & PRE-DRILLED PANELS

Mark out the location of your services on the panel. Ensure your cut out is going to run through one of the conduits for feeding the cables. Fix or cramp your template to the panel and router out for the switch or socket back box.



PRE-CAST & PRE-DRILLED PANELS

Open up the conduit for the cable feeds. Some service panels do not require conduits and the service run will be open.



PRE-CAST & PRE-DRILLED PANELS

Back boxes can be fixed with
standard screw fixings



PRE-CAST & PRE-DRILLED PANELS

Fire rated putty pads must be installed to prevent spread of fire through the containment runs to voids.



CHASING OF THE PANELS ON SITE.

Guidance for restrictions of on-site chasings are set out in the following sections. For extensive chasings, sign off from a structural professional or Specwall representative, will ensure the structural integrity of the installation is not compromised.



CHASING OF THE PANELS ON SITE.

Following the installation of services, filling of the chases must have a minimum of 10mm cover and filled with Mapefill GP ME grout and finished with fine filler.



CHASING OF THE PANELS ON SITE.

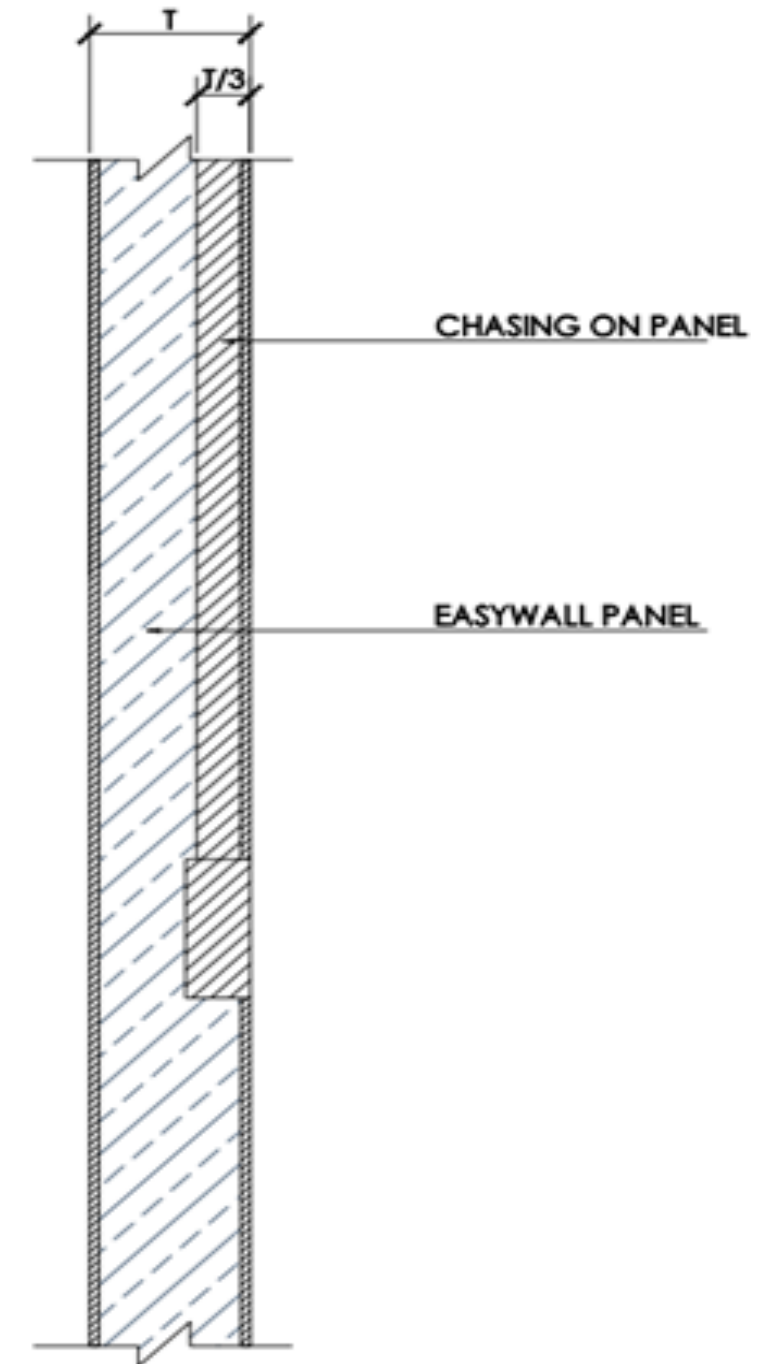
All chasings, must follow, the Standard requirements for electrical and mechanical installations for location, direction, depth and protection of the containment to the current regulations.

Chasings can be made using a Wall chasing machine, Circular Saw, Router, Grinder, Multitool or a combination of the same. Some small chases and cleaning out of the runs and box cut outs, can be undertaken with hand saws, chisels and brick hammers.

The standard chasing depth must not exceed $1/3$ of the thickness of the board.

Standard chasing length should not exceed 50% of the length or width.

Any chasing requirements exceeding these must be signed off by a structural professional or a Specwall representative.



SERVICE PENETRATIONS / BUILDERS WORKS OPENINGS.

Form the holes with a reciprocating saw, circular saw, jig saw or Hand saw- then trim or file the edges with a rasp or sandpaper.



SERVICE PENETRATIONS / BUILDERS WORKS OPENINGS.

Ensure your penetrations are not in an exclusion zone (close to other openings).

Check the Specwall drawings, if you are not sure ask the designer for advice.



SERVICE PENETRATIONS / BUILDERS WORKS OPENINGS.

Mark out the location of the cut out.

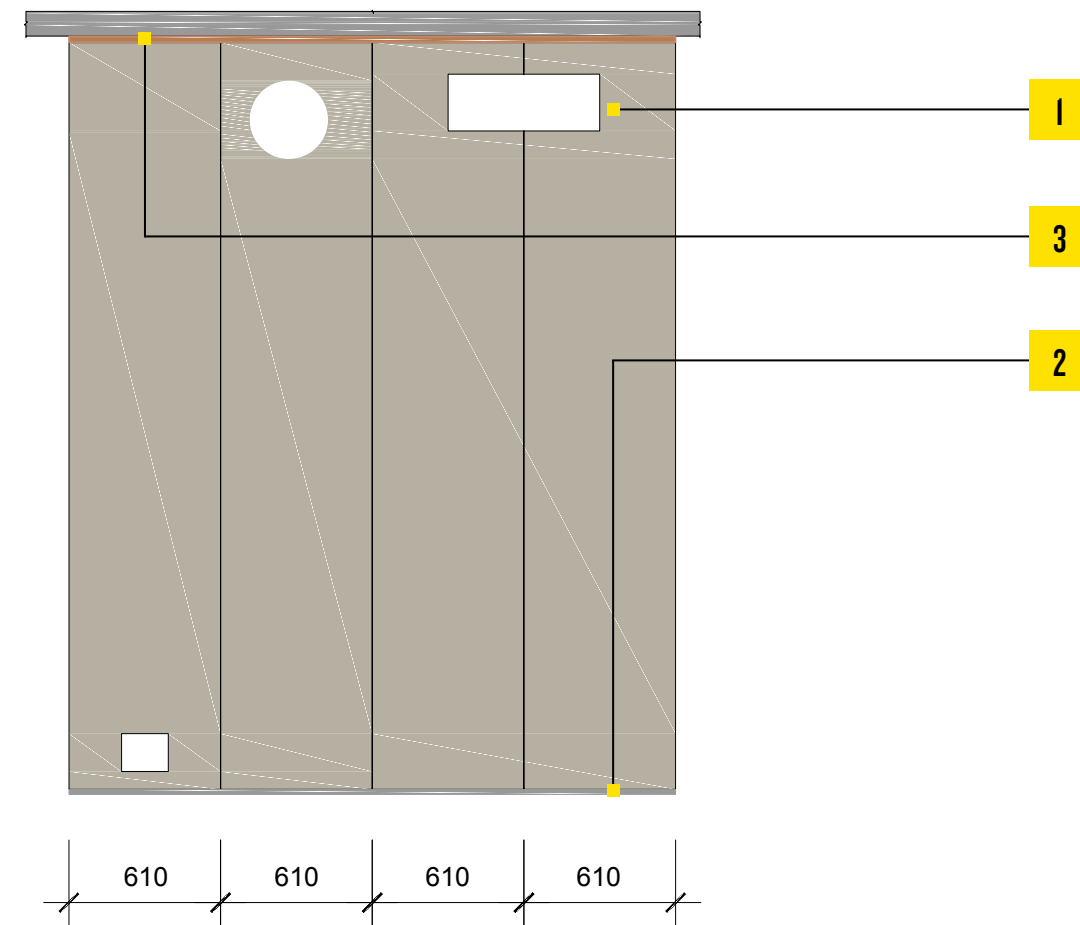
Drill holes at the internal corners of the cut out.

Cavity walls may need the cavity closing off the keep the integrity of the system intact.



SERVICE PENETRATIONS / BUILDERS WORKS OPENINGS.

Due to the solid construction of the Specwall panel, builders work openings and penetrations can be cut with minimal restrictions to location and size



Key

- 1** Specwall Panel (75/100mm Panel Thickness)
- 2** 'U' Base Channel - 77x20x20mm for 75mm Specwall; 102x20x20mm for 100mm Specwall
- 3** 25mm Deflection Head

DOOR & WINDOW OPENINGS.

When increasing the seating, boards can continue to be used horizontally until the bond has reach the required height. The key lock must always be maintained or dowels installed.



DOOR & WINDOW OPENINGS.

The head of openings must be constructed with the keylock section. This often requires the female section to be formed in the panels forming the opening legs.



DOOR & WINDOW OPENINGS.

This is undertaken by cutting the required seating (minimum 200mm) and then forming the female mold with the router or a hand saw and chisel, then smoothing the finish with a section of the male profile.



DOOR & WINDOW OPENINGS.

Any straight joints must be reinforced with dowels or fixings to prevent the joint from slipping.



DOOR & WINDOW OPENINGS.

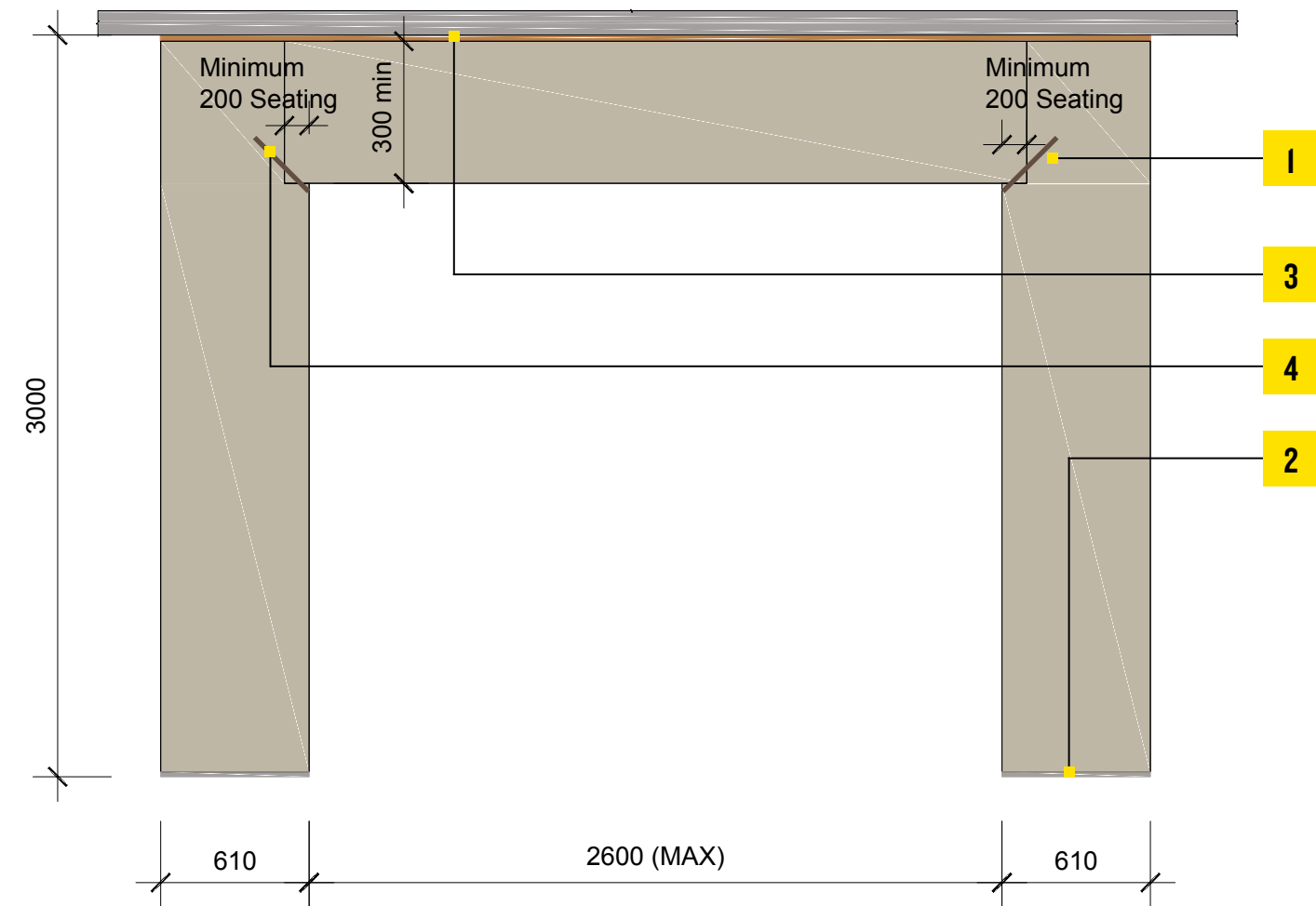
In situations where the 200mm seating cannot be achieved, the 200x200 angle can be installed, fixed to the structure and underside of the board.



DOOR & WINDOW OPENINGS.

Apertures can be constructed to provide a clear opening of up to 2800mm without the requirement of additional supports.

The head or lintel is formed using a standard panel turned on its side with a minimal seating of 200mm.



Key

- | | | | |
|----------|---|----------|---|
| 1 | Specwall Panel (75/100mm Panel Thickness) | 3 | Deflection Head |
| 2 | 'U' Base Channel - 77x20x20mm for 75mm Specwall; 102x20x20mm for 100mm Specwall | 4 | Spike is required if the joint is not Tongue & Groove |



SECTION 10

TIPS AND OTHER DETAILED INSTALLATION.

WIND POSTS

The wind post can be installed through the wall or to one side depending on the finished requirements of the project.



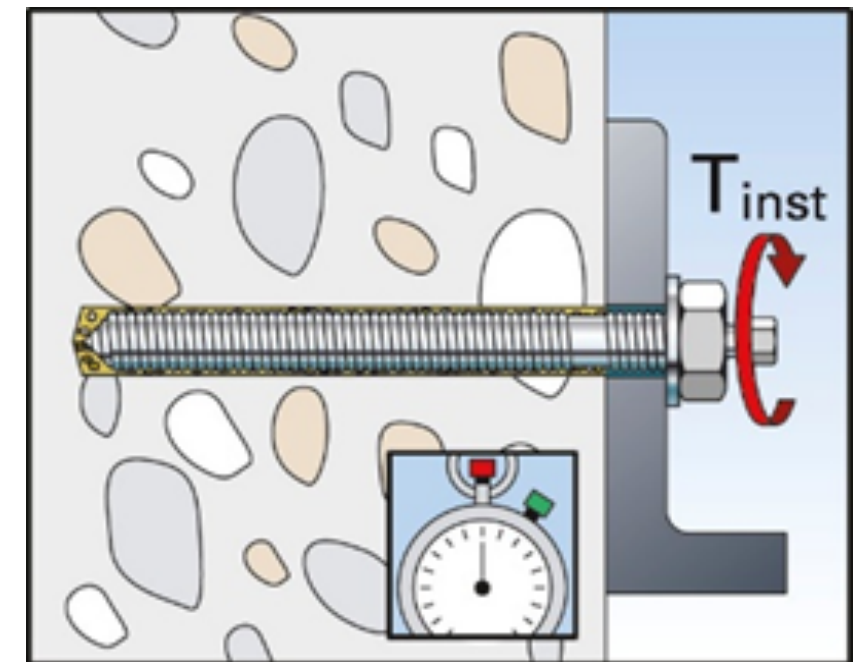
WIND POSTS

Both methods will be bolted at the base and installed with deflection bracket at the head.



WIND POSTS

Posts installed on one side will be bolted through the wall with resin and threaded bar.



FORMING THE MALE & FEMALE KEY LOCK.

This can be undertaken using a router bit, or, for the female section, the board can be cut along the length with a hand saw to form 2 grooves and then the core removed with a chisel or brick hammer



FORMING THE MALE & FEMALE KEY LOCK.

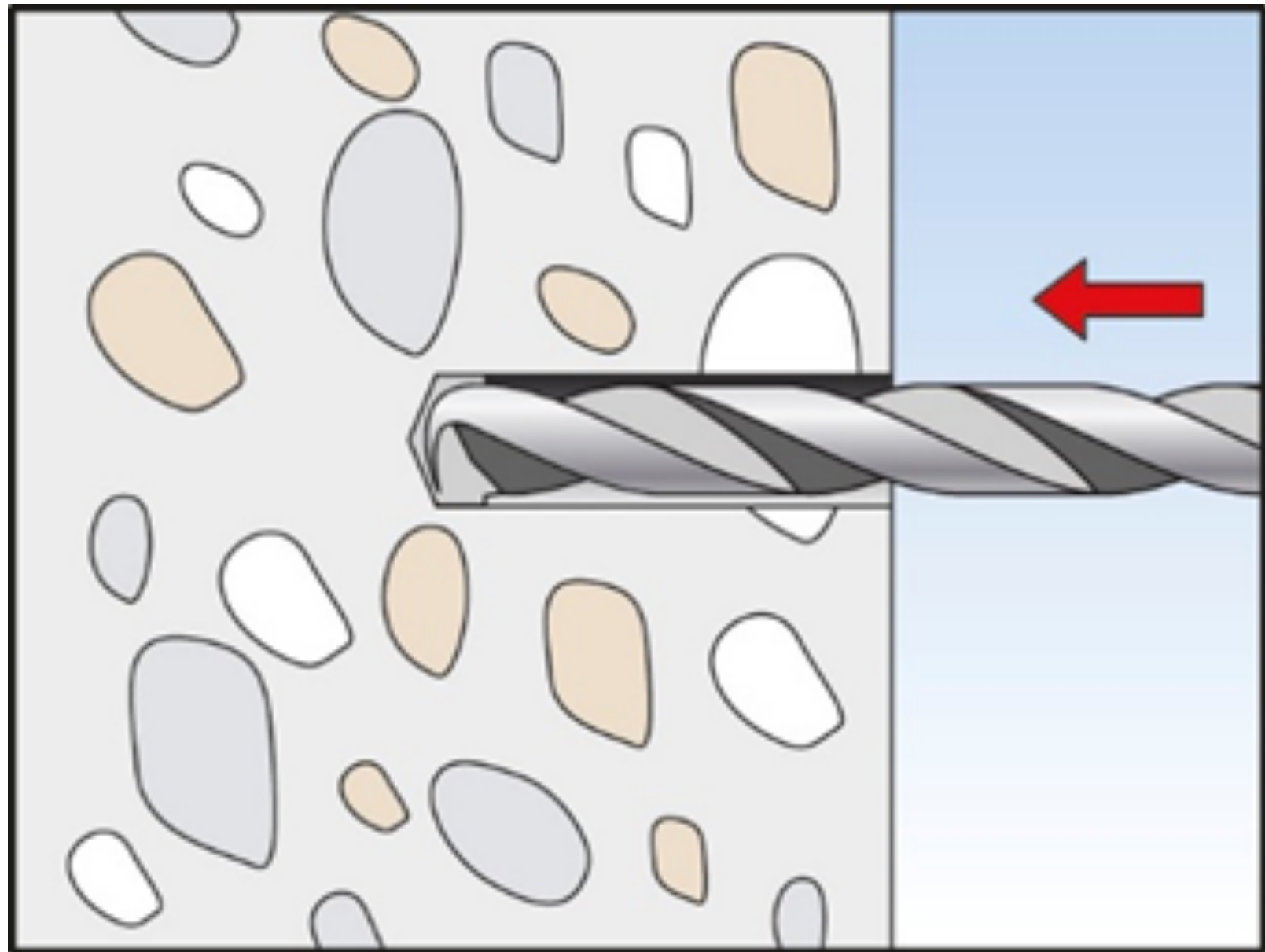
This can be undertaken using a router bit, or, for the female section, the board can be cut along the length with a hand saw to form 2 grooves and then the core removed with a chisel or brick hammer



RESIN & STUD INSTALLATION

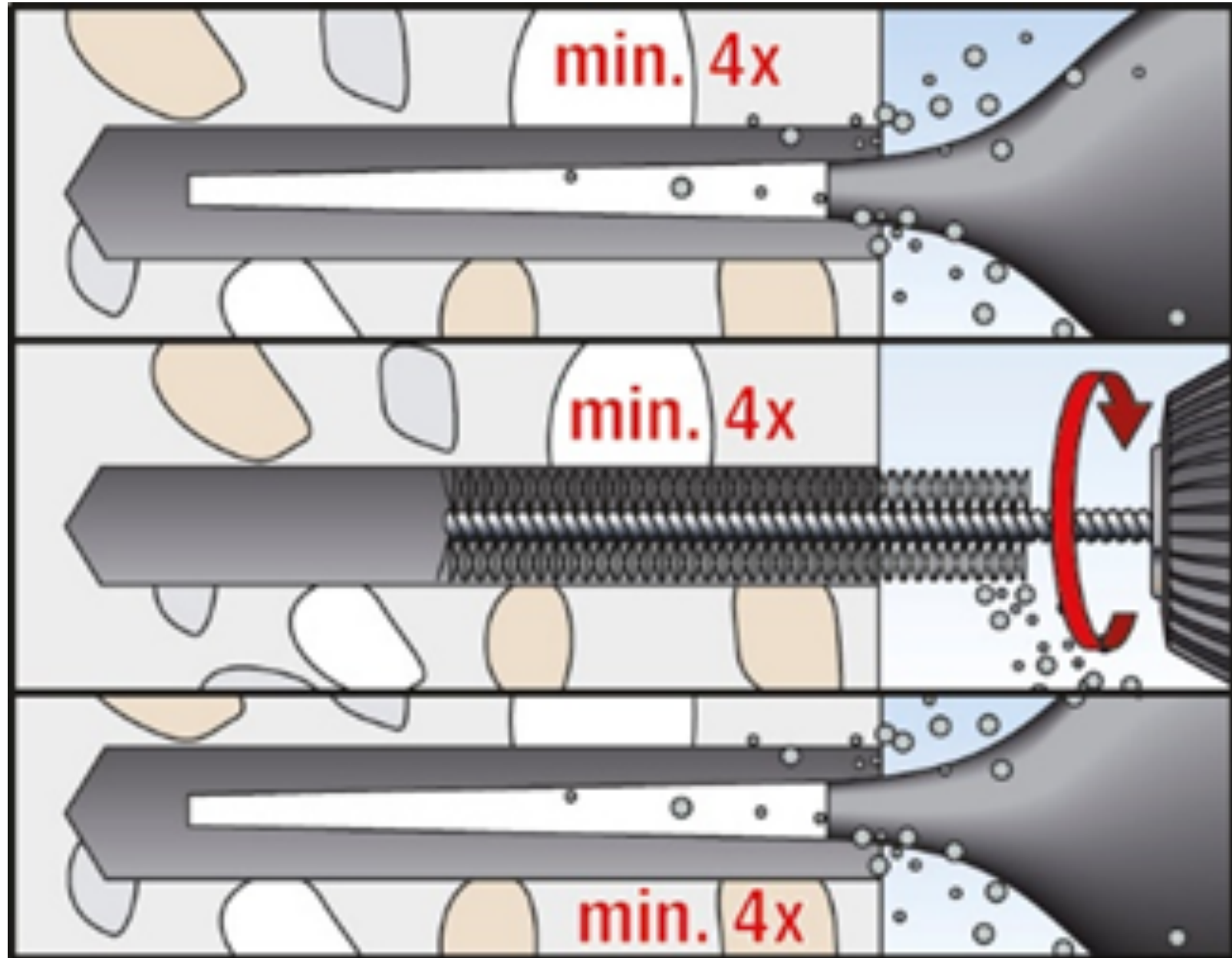
Following the manufacturer's procedures is essential to the structural integrity of the installation.

Only drill to the depth of the specified stud.



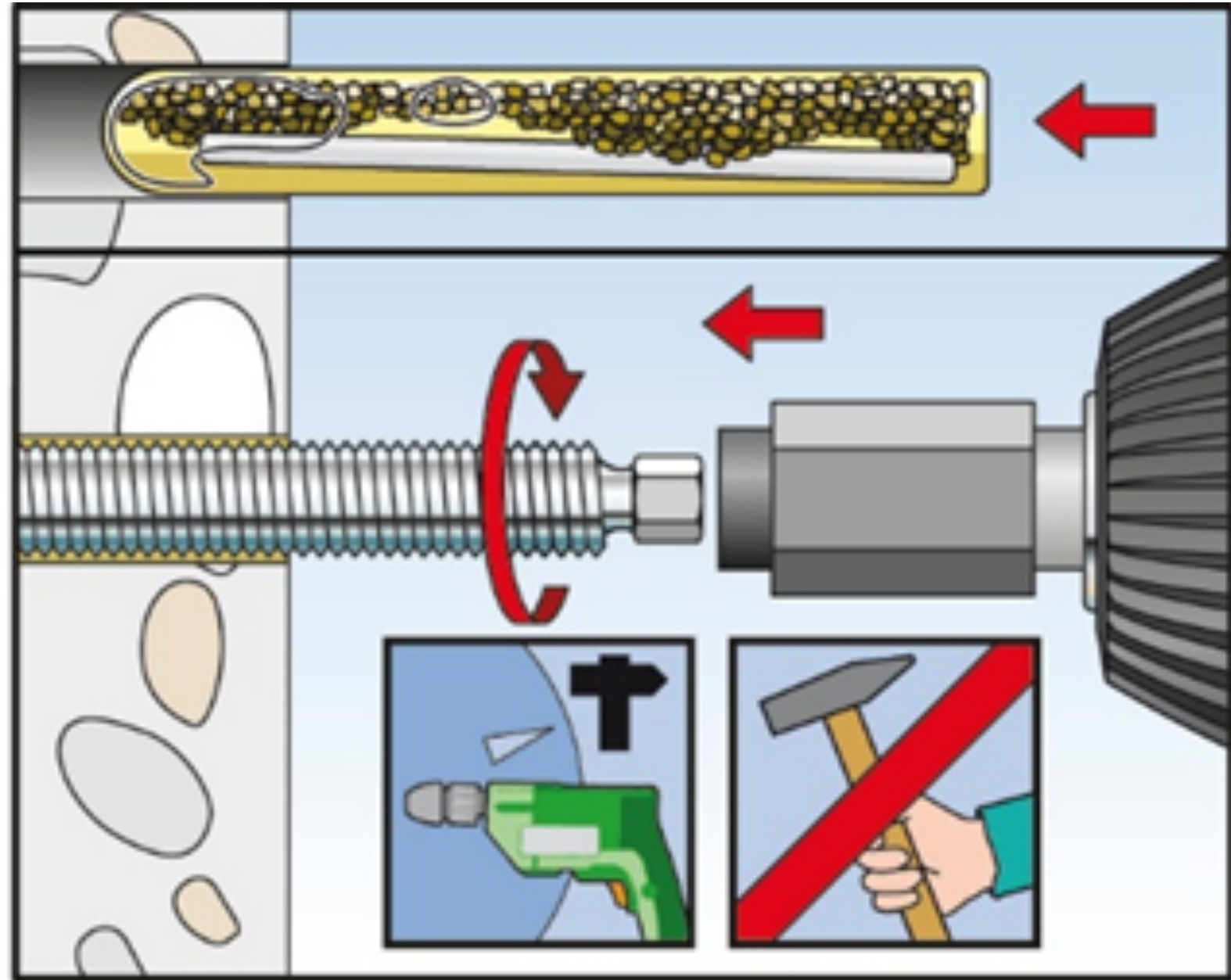
RESIN & STUD INSTALLATION

The hole should be clear of all dust and loose material.



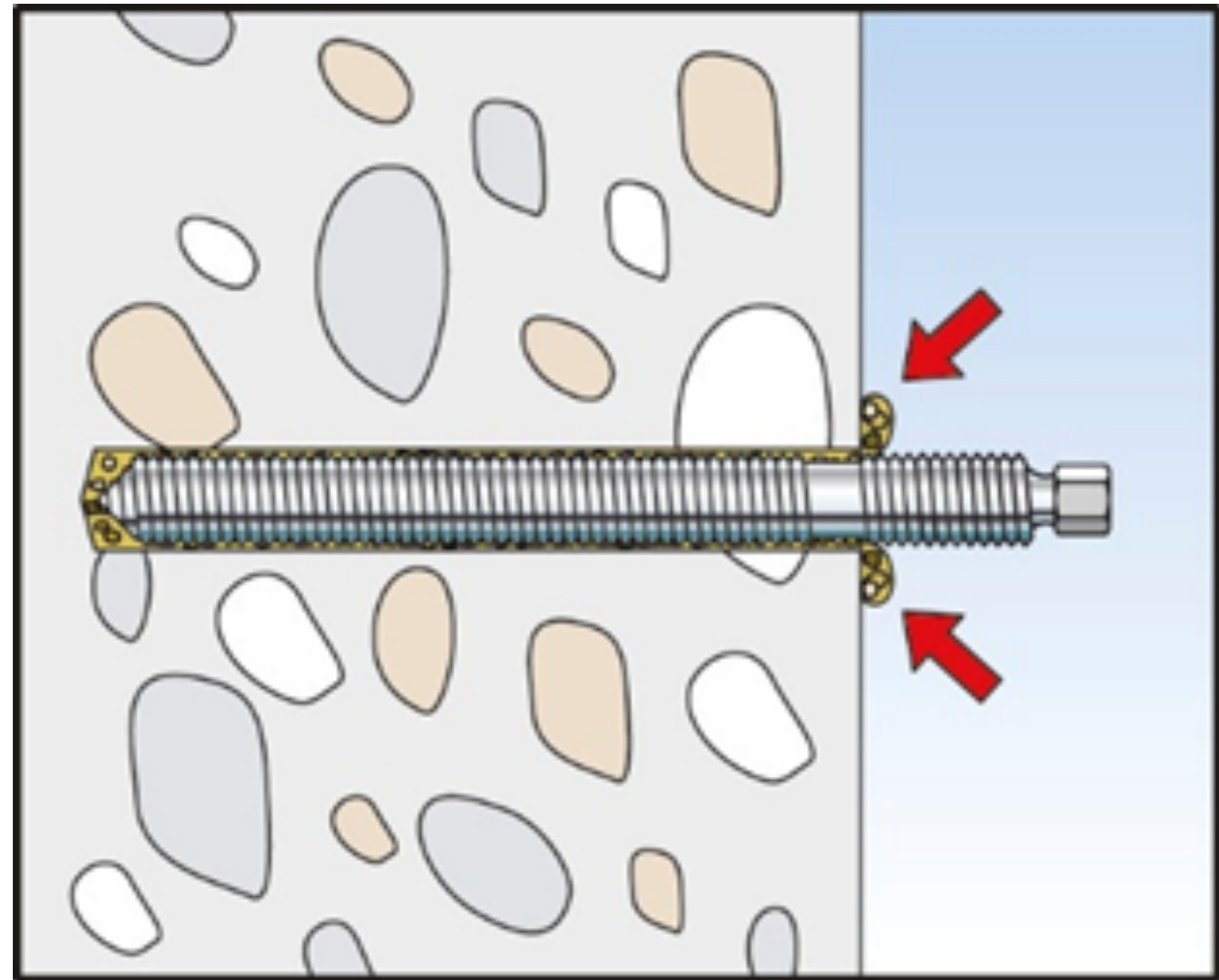
RESIN & STUD INSTALLATION

Place the capsule and break,
or inject through resin gun.



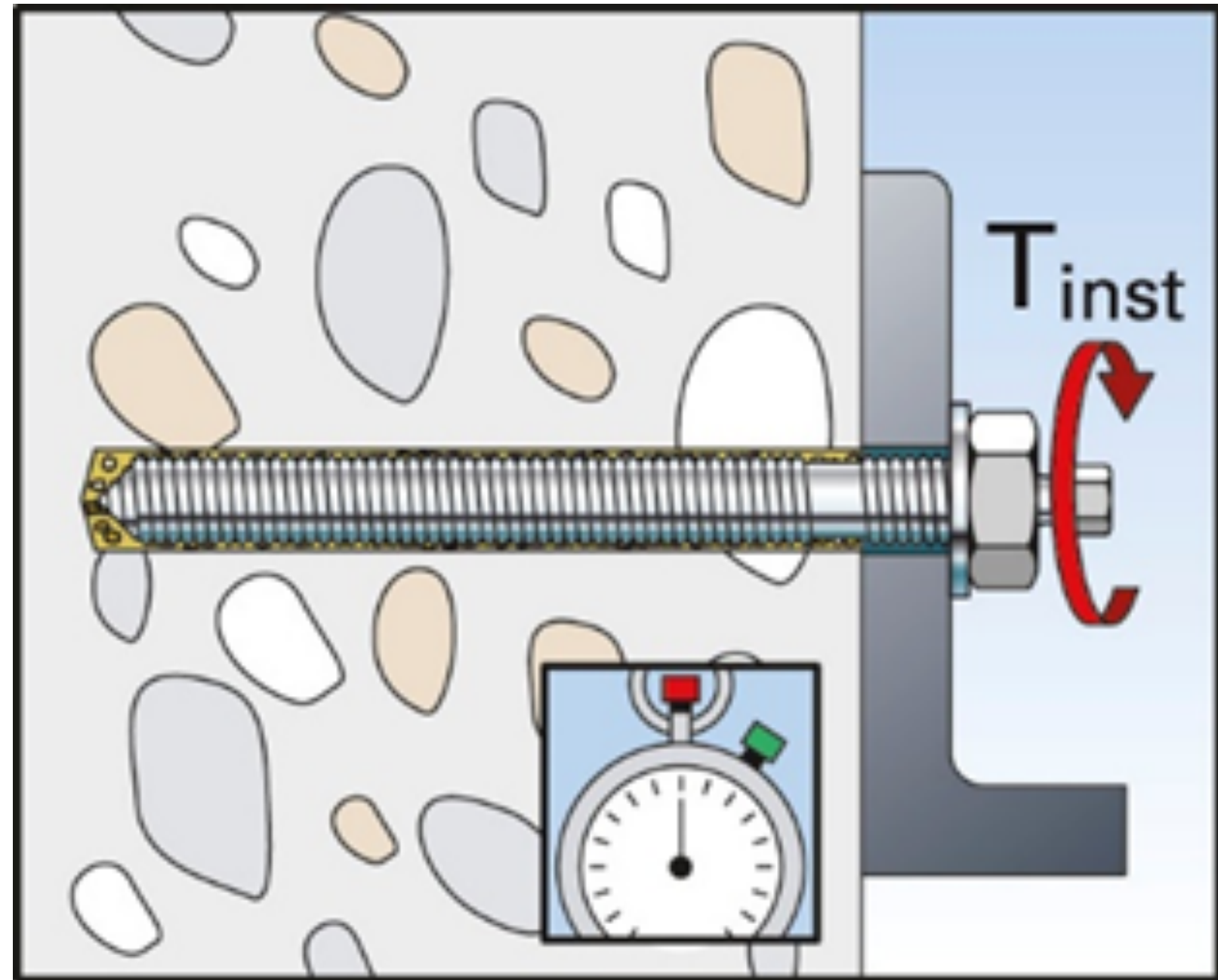
RESIN & STUD INSTALLATION

Insert the stud or bar ensuring the resin covers the whole of the stud and oozes out around the stud.



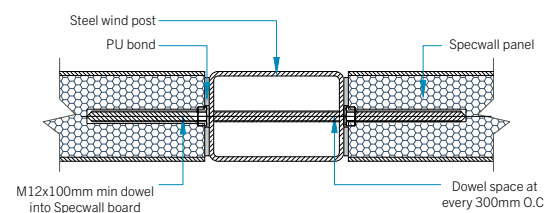
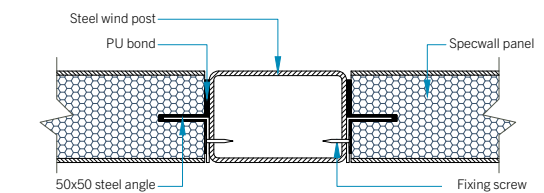
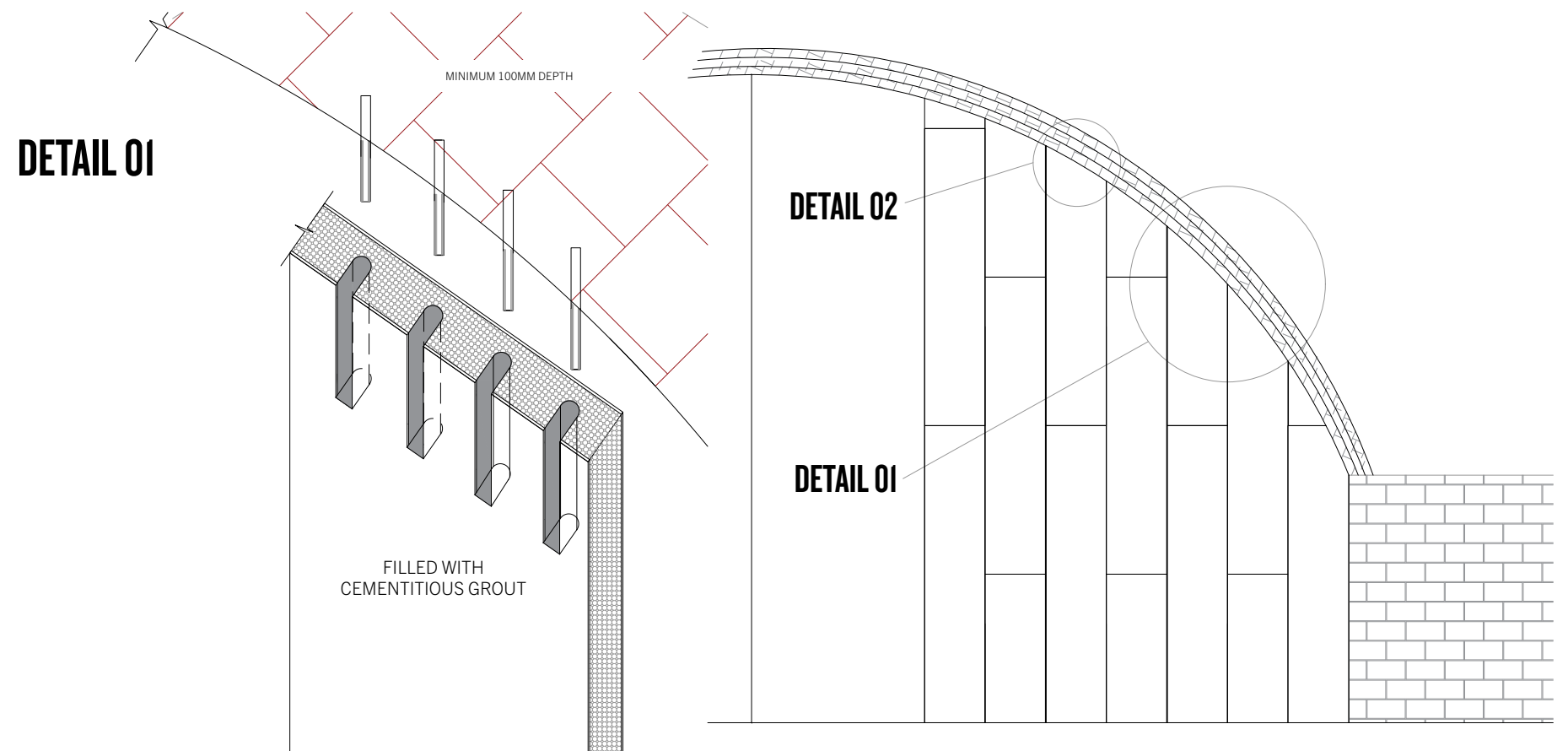
RESIN & STUD INSTALLATION

Allow the resin to cure before applying the correct torque to tighten the fixing

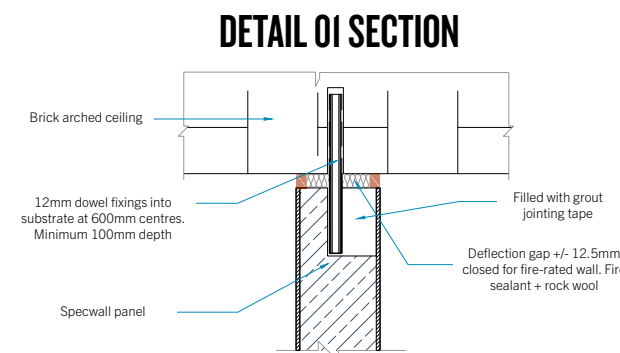


ARCH DETAIL

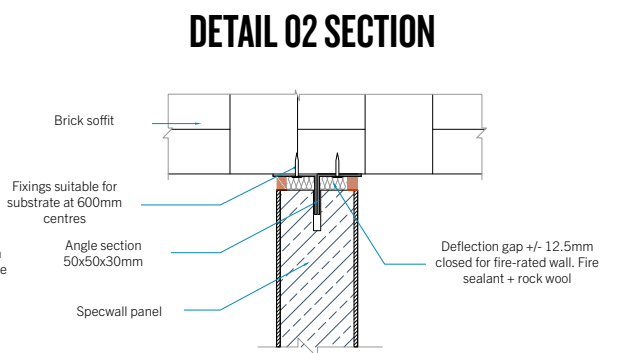
As with the last panel installation, dowels should be installed to the adjoining wall or roof / arch and slots cut into the Specwall panel to take the dowels. This is then filled with non-shrink grout



OPTIONS FIXING FOR SINGLE PANEL SYSTEM FIXED ANGLES/WIND POST (SECTION DETAIL)



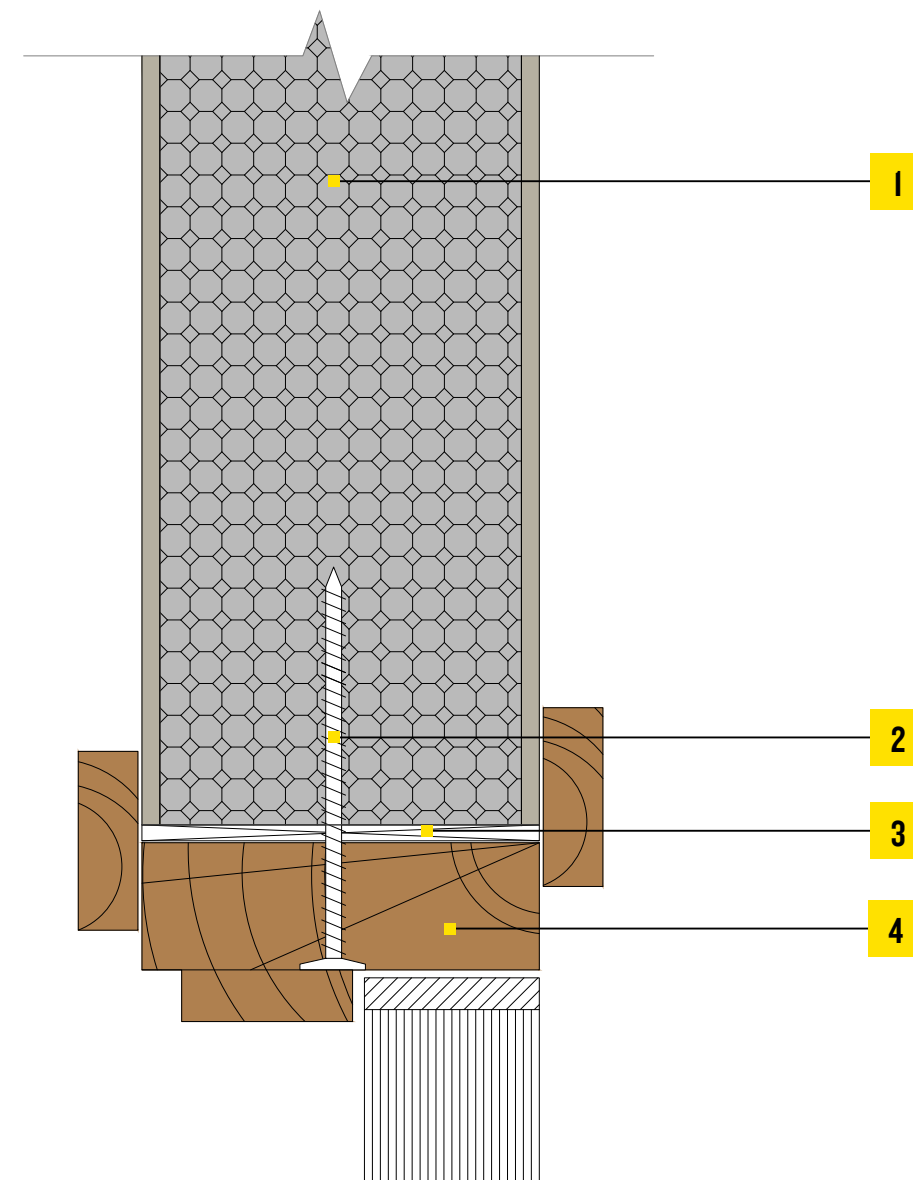
HEAD DETAIL FIXING FOR SINGLE PANEL SYSTEM FIXED DOWELS (SECTION DETAIL)



HEAD DETAIL FIXING FOR SINGLE PANEL SYSTEM FIXED ANGLES (SECTION DETAIL)

DOOR CASINGS

door casings and other fittings can be secured with standard fixings. a full range of tested fixings will be provided in your pack.

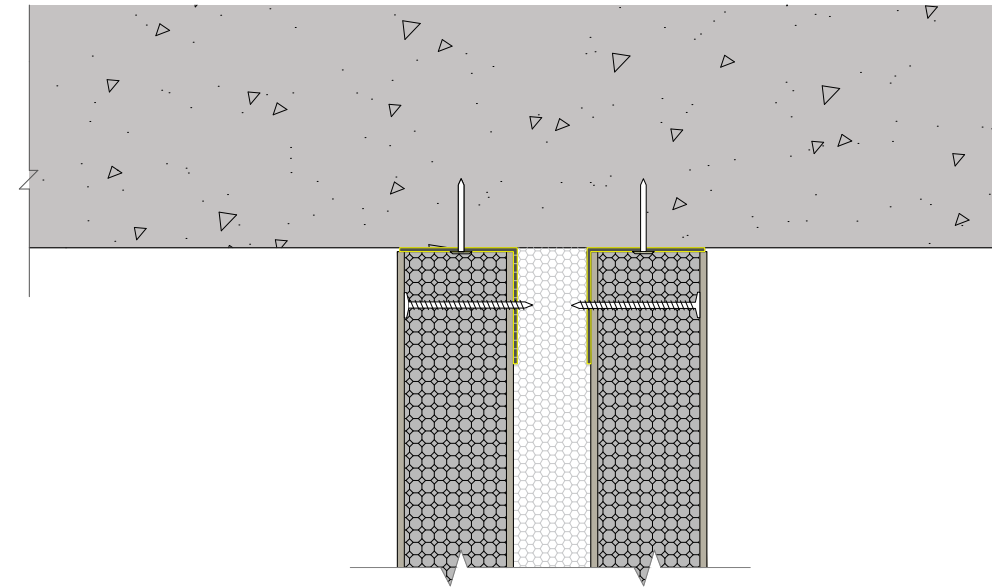


Key

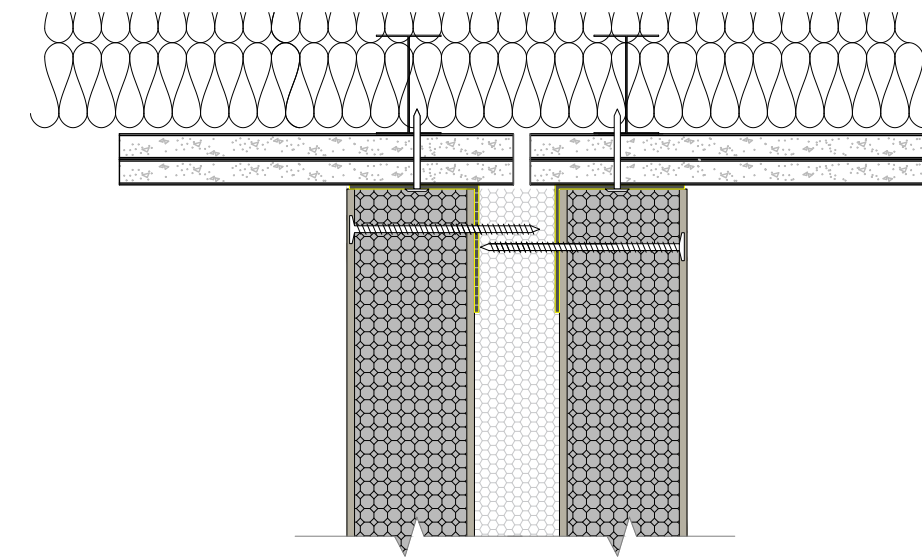
- | | | | |
|----------|--|----------|------------|
| 1 | Specwall Panel (75/100mm Panel Thickness) | 3 | Packer |
| 2 | Suitable screw fixing to secure door system to Specwall panel. | 4 | Door frame |

ABUDMENTS TO OTHER STRUCTURES

Two of the most common wall abutments are shown. Site specific details can be developed.



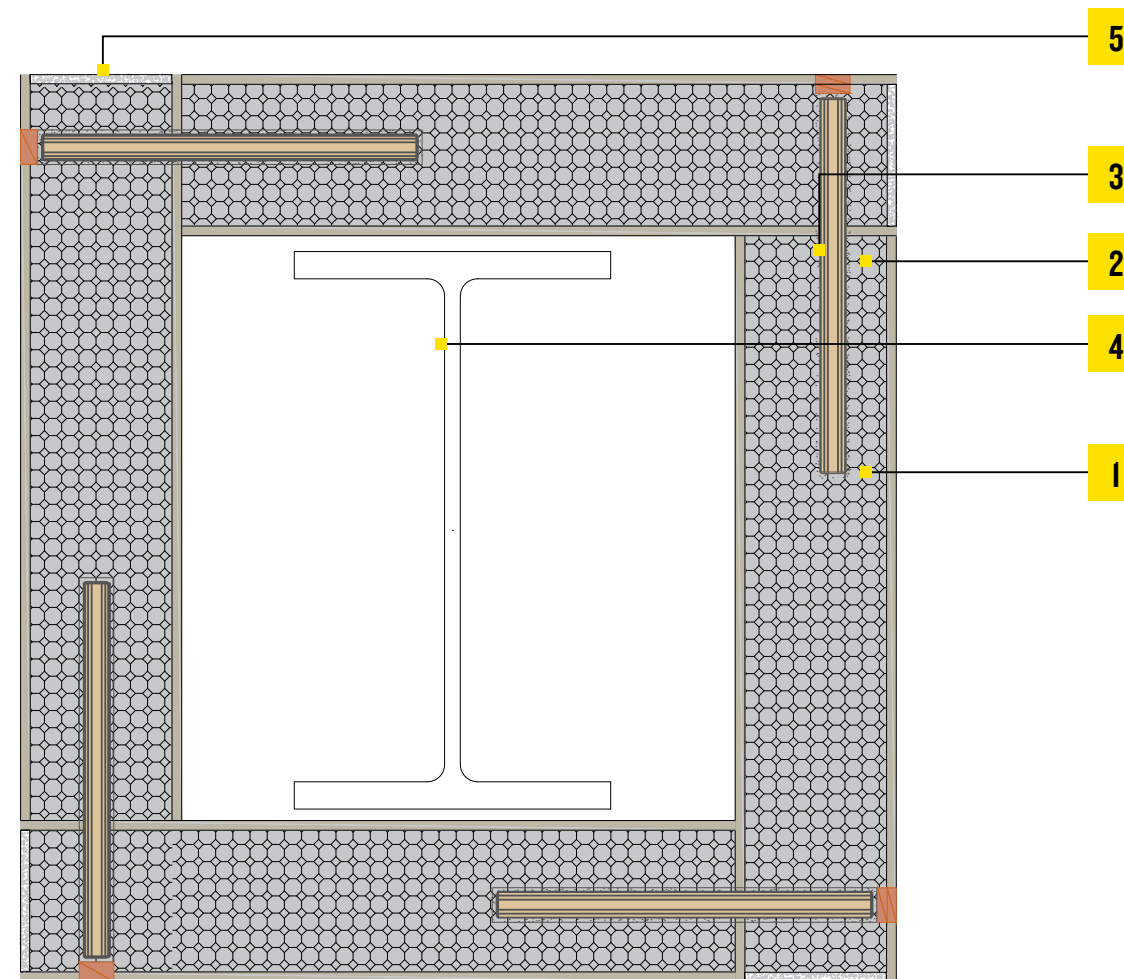
SPEC PARTY WALL TO CONCRETE STRUCTURE



SPEC PARTY WALL TO SPANDREL PANEL

COLUMN ENCASEMENT

Fire rated column encasements can be constructed from Specwall panels.



Key

- | | | | |
|---|---|---|---------------|
| 1 | Specwall Panel (75/100mm Panel Thickness) | 4 | Structure |
| 2 | PU Adhesive | 5 | Grout Filling |
| 3 | 12x200mm Dowel Resin bonded | | |



ANY ISSUES? CONTACT US.



THANK YOU FOR YOUR ATTENDANCE!

**WE WILL SEE YOU DURING ONE OF YOUR INSTALLATIONS
TO SIGN OFF & COMPLETE YOUR TRAINING.**