

# artedomus

Artetech & Maximum Fabrication Guide

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Introducing: Artetech & Maximum Slabs

This guide is intended for use by qualified and experienced architects, stonemasons, joiners, fabricators, tilers, engineers, contractors and builders.

The authors, publishers and distributors of this manual, sample specification and the associated drawings do not accept any responsibility for incorrect, inappropriate or incomplete use of this information.

It is the responsibility of all parties that intend to use recommended systems within this guide to ensure that all engineering, design and installation compliances are met in accordance with specific project requirements.

This guide is to be used in conjunction with the manufacturer's installation guide (any components of the chosen system). Any discrepancies should be resolved before commencing work.

Manufactured from 100% all natural minerals such as clay, quartz and feldspar, and up to 40% recycled content.

Artetech and Maximum slabs are free from harmful elements such as sealants, waxes, epoxies, petrochemical binders or artificial colouring agents. Slabs are available in 6mm, 9mm, 12mm and 20mm thicknesses.



Applications

Artetech and Maximum slabs can be applied to external wall cladding, internal floor and wall linings, shower recesses, kitchen benchtops and splashbacks, vanities, and applications over existing floors or walls.

Contact Artedomus to learn more about how most of these slabs are approved for use in conjunction with Invisicook technology.

- Suitable for all domestic, commercial, retail, multi-residential and refurbishment projects
- Artetech and Maximum slabs are made from 100% natural material with up to 40% recycled content
- No chemical binders or resins
- UV resistant and can be used externally
- High strength and scratch resistant
- Thermal shock resistant
- Stain and mould resistant
- Environmentally and industrially accredited





Finishes & Thicknesses

Artetech and Maximum slabs are avaiable in a variety of colours and finishes. Please refer to the Artedomus website (artedomus.com) for the current range. Other custom types for larger projects may also be ordered.

Finishes:

- Honed
- Natural
- Polished
- Flamed
- Bush Hammered
- Raw
- Brushed
- Matt

Thicknesses:

|   |   |   |   |
|---|---|---|---|
|  |  |  |  |
| 6mm<br>14.67kg/sqm  | 9mm<br>22kg/sqm   | 12mm<br>29kg/sqm  | 20mm<br>49kg/sqm  |



Fire  
retardance

Porcelain stoneware surfaces are resistant to high temperature as the slabs are fired at over 1200 degrees Celsius. This feature is extremely important in a range of applications: from the kitchen surfaces to the cladding of buildings.



Resistance  
to scratches

In their natural finishes, the slabs are the hardest materials available on the market, and thanks to its inherent resistance, it is an excellent choice for a wide range of applications.



Resistance  
to stains and  
corrosion  
and ease of  
cleaning

An important characteristic of the slabs is its extreme density, which makes it an ideal choice for such areas such as internal and external walls, floors and joinery. Stains can be easily removed—not only oil, wine, sauces, and coffee, but also acidic substances such as lemon, vinegar, or detergent residues. The minimal need for chemical cleaning products reduces the environmental impact and helps preserve the surface's original beauty over time.



Maximum  
Active  
Surfaces®

Maximum Active Surfaces® are beneficial in a wider range of applications than countertops alone; including external cladding, flooring and walls. Countertops feature antibacterial and antiviral properties, making them hygienic, virtually non-absorbent, and suitable for direct contact with food.



# Inspecting the Slab

## Inspecting the Slab

Before starting to carry out any work, such as cutting, laying or installing on cabinets, we recommend meticulously cleaning and examining the slab to check for any issues such as:

- bubbles, cracks and splits;
- bends, deformations;
- de-shading;
- any other fault that may be considered a defect.

Slight light-dark shading or variations in colour tone or gloss on the top are due to the manufacturing process and therefore should not be considered a defect. In respect of any replacements, it should be noted that there may be slight differences between new and old large format slabs.

Please refer to our terms and conditions provided at order for more information relating to the notice period provided for notification to us in writing of any concerns identified in your examination of the material.



A close-up photograph of a marble countertop with a brass pull. The marble has a white base with dark grey and reddish-brown veins. The brass pull is a small, oval-shaped handle. The countertop is set against a white wall.

# Safety Measures

## Safety Measures

### Respiratory Protection

Always use proper protection, i.E., Osha approved gloves and respirators.

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### Ventilation

Dust levels must be kept below recommended exposure level with proper equipment. Do not inhale dust.

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### Protective Gloves

Proper osha leather or cotton gloves.

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### Eye Protection

Safety glasses with side shields or dust proof goggles.

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### Other Protective Clothing or Equipment

If special circumstances are required, then special equipment and clothing must be designed to meet the needs and requirements.

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### Hygienic Practices

Wash your hands with soap and water after handling.

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### Cutting and Drilling

Always use wet methods of cutting and drilling to reduce generation of dust.

# Handling & Storage

## Handling & Storage

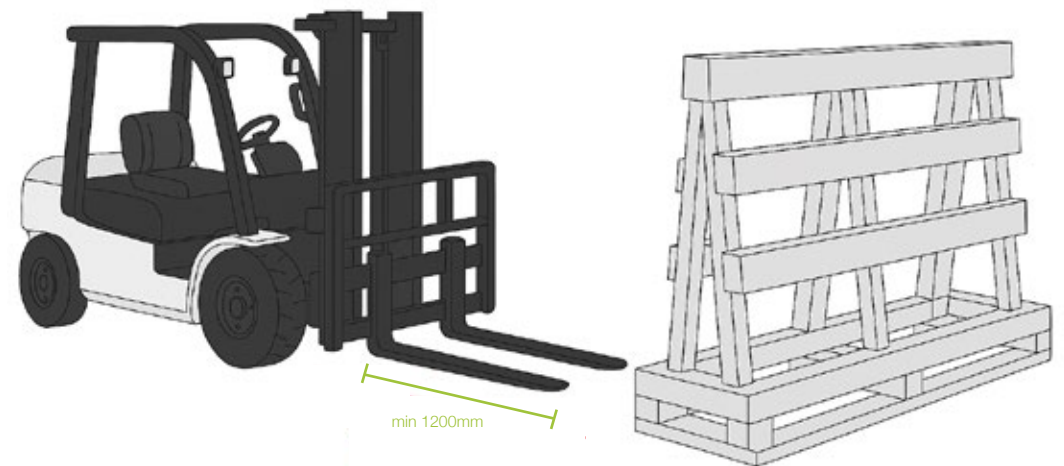
Artetech and Maximum slabs can be packed flat in timber crates (dimensions are approx. 3200 x 1640mm) or on A-frames.

### Handling A-Frame

A fork lift truck with adequate loading capacity is essential for handling A-frames. It should be equipped with forks not less than 1200mm / 1400mm in length for handling on the long side.

### Handling Rack - A-frame on the long side

We recommend inserting the forks into the rack in the holes provided for this, using a fork lift truck of adequate load capacity equipped with forks at least 1200mm in length, at the maximum obtainable width position. Before lifting, insert the forks all the way under the load.



### WARNING: TIPPING HAZARD

Do not handle the A-frames with forklifts after removing the plastic guards, strapping, and other anti-tip locking systems.

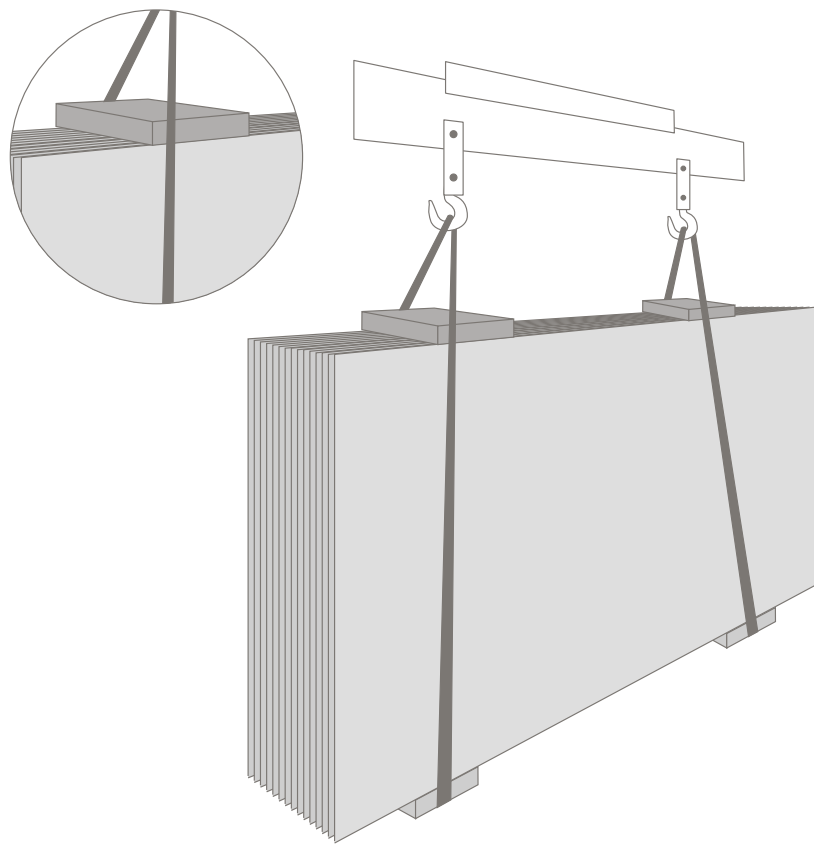
If any of the anti-tip systems is removed, be sure to secure the load with appropriate systems, such as strapping or clamps, to prevent the large porcelain panels from tipping over.

Artedomus disclaims all responsibility for injury or damage to persons, property or to the slabs due to handling of A-frames without adequate safety guards in place.

Artedomus recommends that, at all times, at least two, trained, workers handle any movement of the slabs.

Handling Large Format Slabs Singly

During unloading, it is essential to remove the slabs one by one from alternate sides of the A-frame in order to ensure the load is stable, balanced and can be handled safely. Suction cups should not be used on textured surfaces.



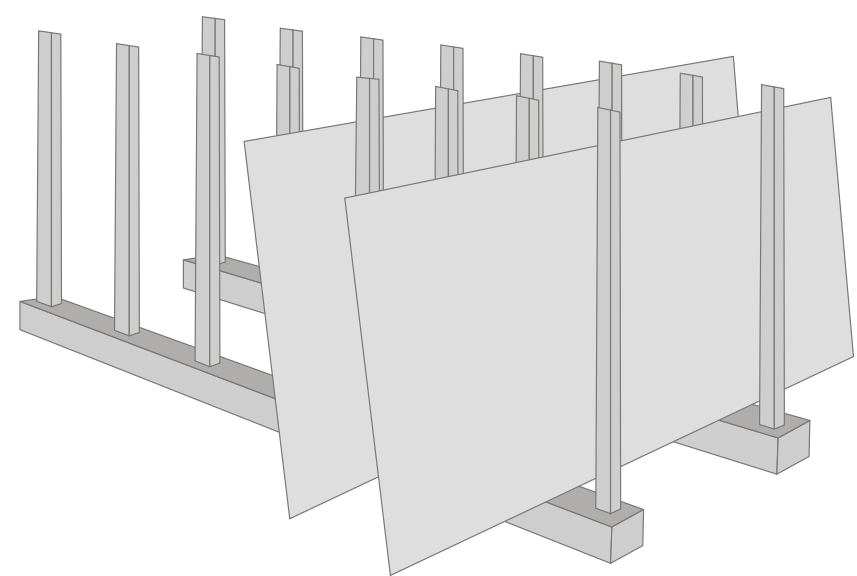
Handling Multiple Large Formats

Use specific equipment with adequate load capacity. For example forklift with extending arms and sling straps, or overhead crane with jib and suitable straps. Steel cables, chains or anything that could damage the slabs in any way should not be used. We recommend protecting edges when lifting or moving slabs. Always check the maximum lifting capacity of the equipment is suitable for the weight of the load to be lifted.

Instruments Required

The instruments for lifting and handling the slabs can be chosen according to the size of the slab and the activities to be performed on the site, in particular:

- Fork lift truck with tines 1600mm long;
- Frame with suction cups for handling large format slabs;
- Suction cup system needs to be suitable for every requirement of the lift including; load, size, weight and cup seal. Please note the finish can affect the performance of the cup seal. More textured surfaces may not achieve a suitable seal for lifting or handling.



Storage

After picking up large format slabs always ensure they are secured with straps or clamps, to prevent them possibly toppling over. Alternatively, large format slabs can be stored upright on suitable metal racks that must be covered with rubber on any parts in direct contact with large format slabs. Stored slabs can be expected to flex to some extent on any unsupported area of the slabs. The slabs will straighten once supported by a straight substrate.



Handling Crates

See video link: [http://www.youtube.com/watch?v=RNn\\_B75EUk0](http://www.youtube.com/watch?v=RNn_B75EUk0)

Approximate weight for crate containing twelve 6mm panels is 980 kgs. Forklift extenders must be used when moving crates.

For the correct handling of the crates, a forklift must be used with at least 1.8m long forklift extenders with the forks positioned in the maximum width position (see Figure 1). Under normal conditions, the forks are positioned in the middle of the long side of the pallet, as they must grip the whole depth of the pallet (see Figure 2).

If 2.5m forklift extenders and correct forklift are available the crates can also be moved as shown in illustration (see Figure 2).

When removing crates from containers, it is recommended to move only 1 crate at a time. Removal either by crane lifting with slings out of top load containers or by using correct forklift blades.

To allow the extraction of the panels easily and safely, it is recommended to position the crates in a suitable area where the fork lift can be moved around all sides of the crate.

Care should be taken to avoid sudden upward or downward movements by the forklift.

Propriety Crates: Crates are designed to stack to a maximum of 6 crates in height.

Crate Capacity: Crates are designed to contain a maximum of twelve 3000x1500x6mm panels or equivalent in other dimensions.

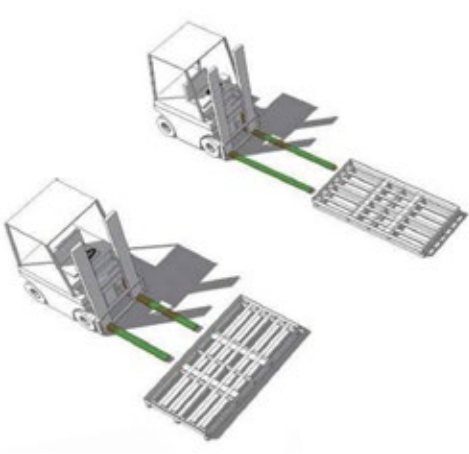


Figure 1

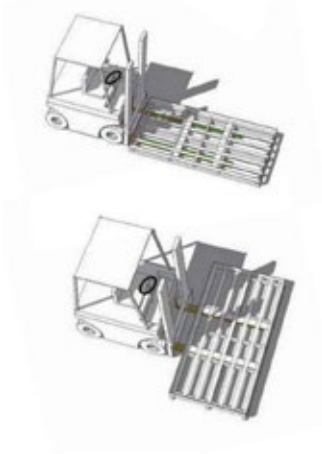


Figure 2

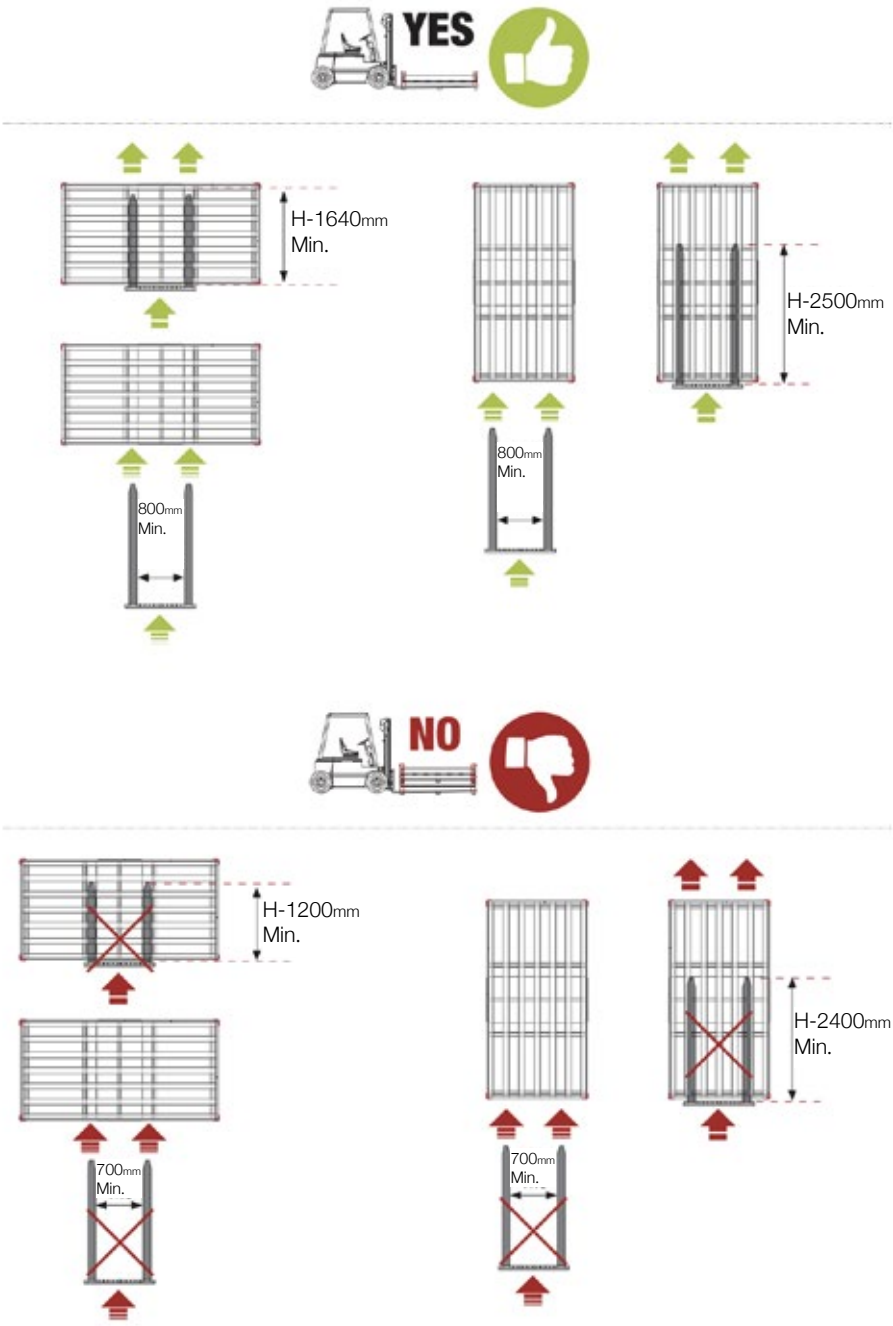


Figure 3

# Fabrication



## Handling Benchtops or Splashbacks

When transporting to site, in particular benchtops with cut-outs, always lay bench against a solid substrate such as MDF or similar. Ensure that backing support is at least 20mm wider than the benchtop, strap or tape both together, so handling will be easier and will avoid potential damage to panels in particular to cut-outs. Always carry panels vertically not horizontally.

## Manual Handling

For manual handling and intended application of the slabs it is strongly recommended to use a frame with suction cups to consider the installer's safety and the integrity of the panels.

The full frame is particularly suitable for larger-dimension slab formats, whereas on smaller formats (e.g. 1500 x750mm) two double suction cups are sufficient.

## Preparation Stages

1. Position the frame with suction cups on the panel and make sure that the cups adhere to it perfectly.
2. For horizontal handling (on the surface), put the panel into a vertical position and use the wheels applied to the handling frame.

## Instruments Required

1. The instruments for lifting and handling the panels can be chosen according to the size of the panel and the activities to be performed on the site.
2. Suction cups only work effectively on the face of panels and not the rear.
3. A backing slab should always be applied directly against the A-Frame prior to loading the slabs.



# Processing with Machines

## Processing with Machines

### Tools And Equipment For Machine Fabrication

To achieve quality workmanship it is essential that the correct equipment and cutting methods are used.

### Basic Equipment

Conventional processing equipment that is used for solid surfaces is suitable for Artetech and Maximum slabs. Blades and milling tools must be suitable for wet-cutting porcelain.

### Basic Fabrication Method

Note: These tips are only suggested guidelines.  
Different methods can be explored depending on equipment available.

Notes for cutting using a bridge saw or water jet;

- Detensioning is not required for 6mm slabs.
- 12mm and 20mm slabs require detensioning by perimeter trimming with the exception of Artetech Beton 12mm slabs which have been detensioned already.
- Always wear approved eye, face, boot and hand protection when fabricating.
- Cut edges or shards of slab(s) can be very sharp.
- The whole slab should be supported during the cutting process.
- Continuous water flow.
- Waterjet nozzles should be regularly maintained and replaced.
- Garnet or other abrasives in the water source should be monitored, maintained and replenished as part of the machinery maintenance program.
- Only run slow cuts. Step cutting is an option, as well as first creating a small step cut at opposite end. Refer to the cutting diagrams in this section.
- Use a superior quality continuous porcelain blade.
- Use handling equipment as required.
- It can assist to weigh down the slab, to avoid any flex or vibration in product when cutting.
- When cutting smaller panels to use stone off cuts around perimeter edge of slab to minimise movement.
- Regular sharpening of the diamond blade is essential to maintain a quality finish on cut edges.
- Always cut and fabricate with wet diamond tools and take appropriate measures to provide efficient ventilation in the work area.

### Tips

Water Jet machine tips: Feed rate of approximately 600mm/min for 6mm slabs (subject to other cutting conditions).

Bridge Saw tips: For penetrations, always core drill corners and then complete cut-out with bridge saw.

Working Surface

Create a solid oversized and flat base to work on, such as stone.  
Set up a straight edge along one side to ensure straight cuts.  
For smaller pieces, position a piece of stone against one edge of the slab to prevent shifting.

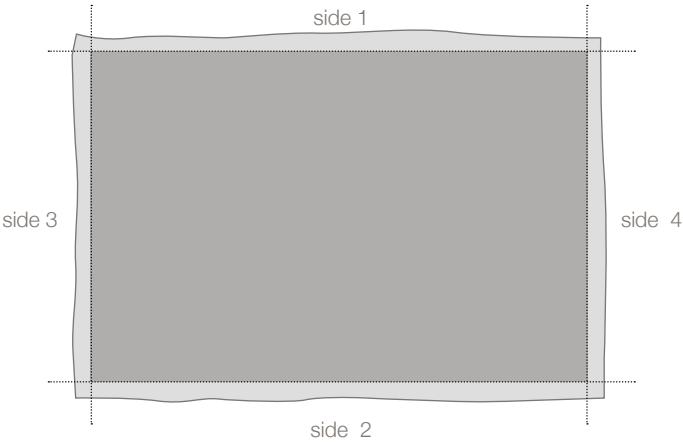
Example of a solid oversized and flat base is shown below.



Detensioning The Slabs

All 12mm and 20mm slabs (with the exception of Artetech Beton 12mm) must be detensioned, by making a perimeter cut-out on all four sides, before starting to carry out any other work.

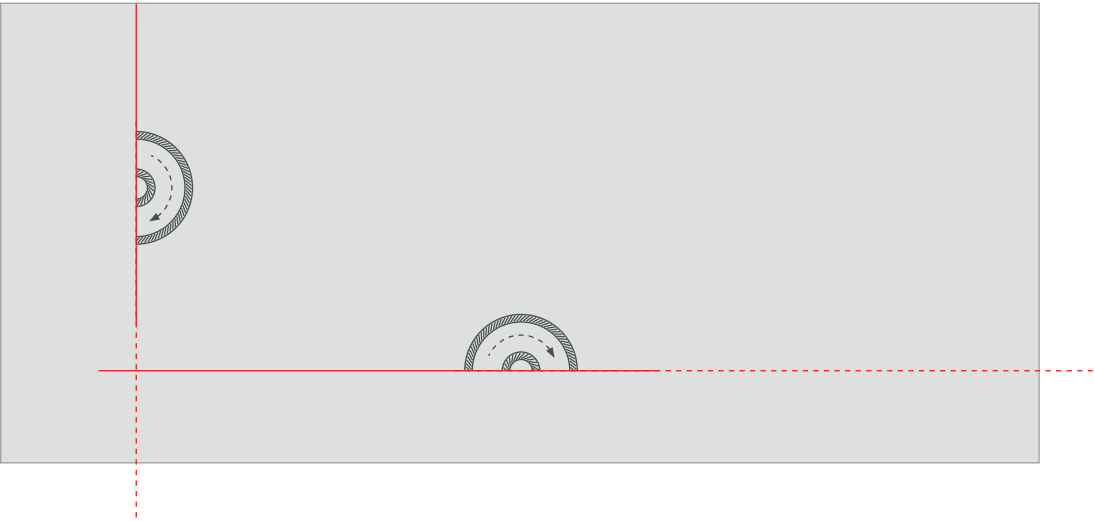
We also recommend making cuts on the long sides first (1 and 2) followed by the short sides (3 and 4).



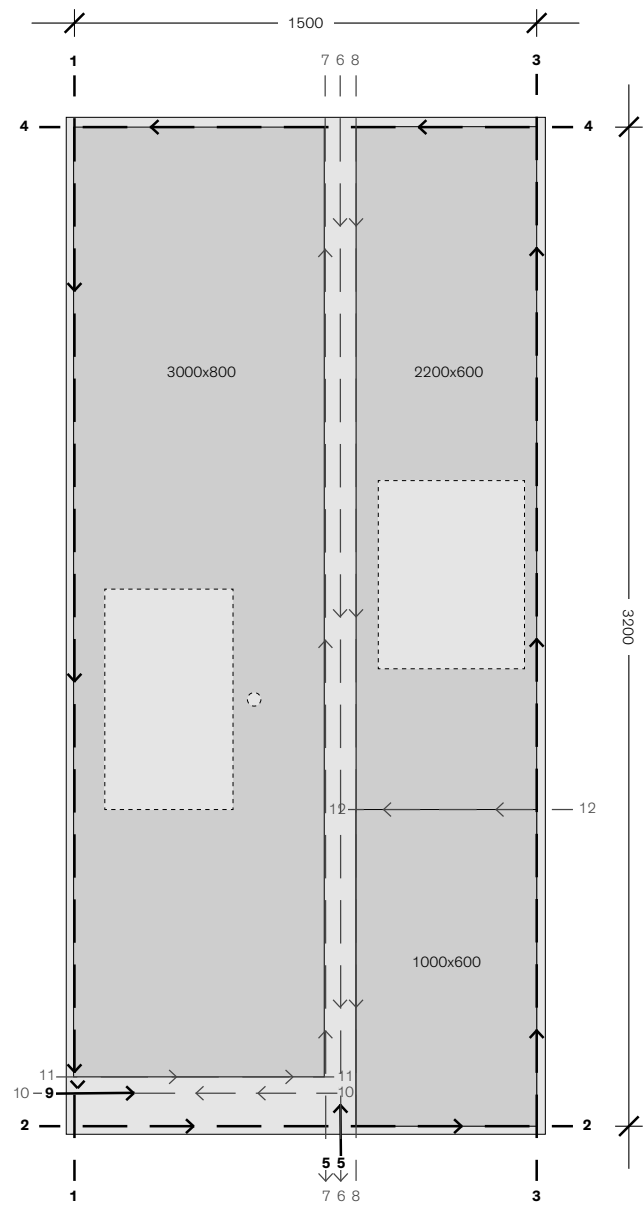
Disc Cutting

Check the work bench is stable and flat. Select an appropriate disc taking into account the type of material to be cut (PORCELAIN STONEWARE), thickness, angle and type of machinery used.

At the end of the cutting line, we recommend using a quartz agglomerate or abrasive stone to prevent any chipping when the disc exits.  
When cutting small pieces, it is good practice to fix them with an appropriate device to avoid any movement and consequent breakage. Reduce cutting speed to 50% at the beginning and end of cutting, for a length equal to the diameter of the disc used.



- For waterjet and blade cutting methods, commence cut slowly for the first 200mm (approx. 300mm/min) then speed up and finish the cut slowly for the last 200mm (approx. 300mm/min), particularly for mitres.
- For full length or full width cuts always commence with back-cut approximately 200mm. (See diagram opposite)
- Cut required panel sizes first using full width/length cuts before adding penetrations (ie. sinks, cooktops, tapholes, GPO's).



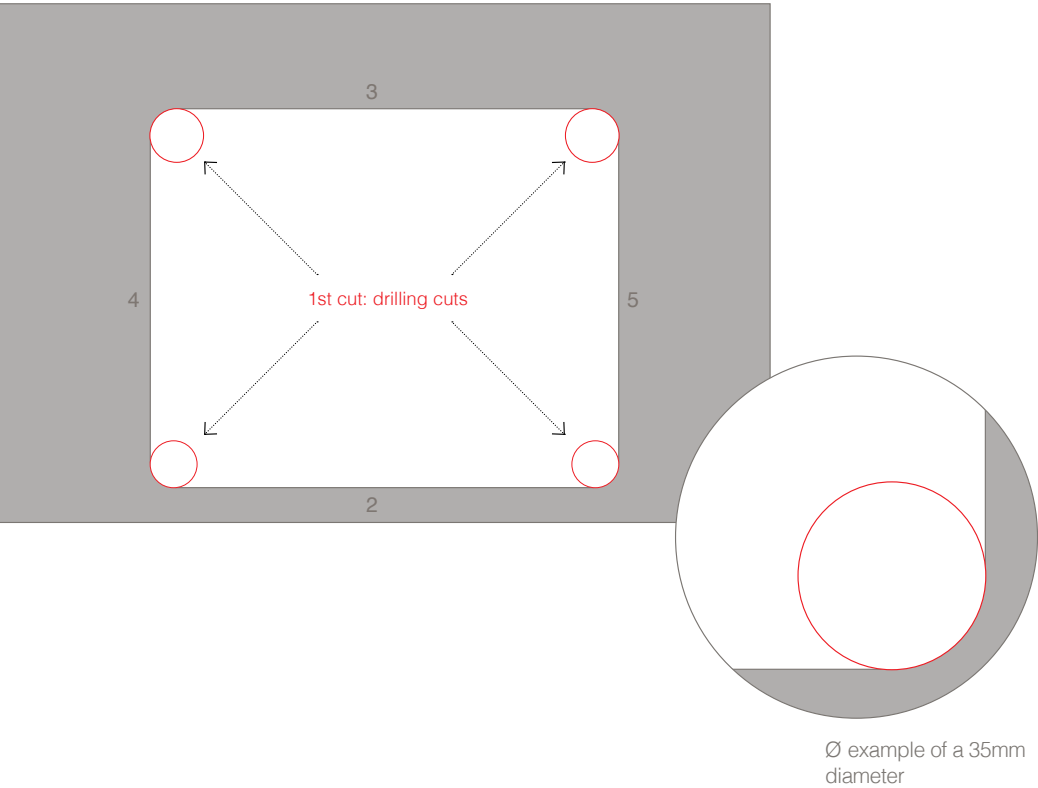
Internal Cuts with Disc Cutter for Basins, Cooktops, etc.

After having detensioned the slab around the entire perimeter, make holes in each corner initially. Greater than 12mm diameter holes are recommended.

Cuts closest to the perimeter of the slab should be prioritised for cutting first. The cutting sequence should allow cuts to the areas with most material last. Particular care should be taken to check the support under the cut-out area to ensure that there is no drop on release of the cut-out after the final cut.

The cut must be at a tangent to the circumference of the hole, without going beyond it.

An example of a cutting sequence is illustrated below.



The minimum distance between the cut and the edge of the slabs should not be less than 50mm.

IMPORTANT:

- Use a suitable porcelain blade for cutting slabs.
- Cutting speeds of the blade should be appropriate for the material.
- The blade must cut the entire thickness of the slabs, going beyond it by at least 1 mm.
- Check the work surface is straight, clean and stable.
- Cool the slabs and blade thoroughly during cutting.



The dimensions and guidance provided are indicative only and refer to an appropriate machine in good working order with adequate blades. For blade cutting, the operators expertise is vital in setting the parameters correctly, depending on the slabs to be cut and the result required.

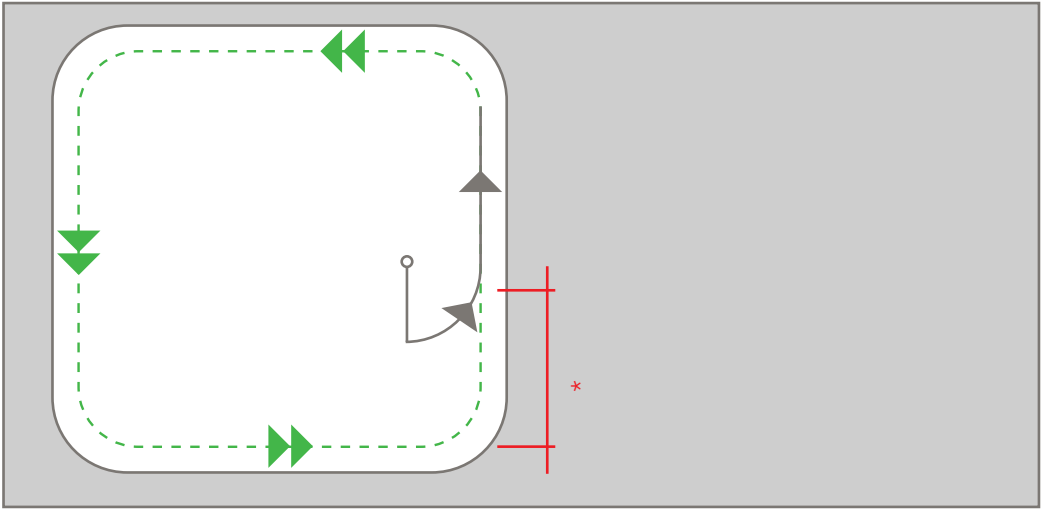
It is also important to follow blade manufacturer’s recommendations in selection and use.

Cutting Speeds

Water jet table slats should be in suitable condition, with as little distance as possible to give full support. The water level should be at the height of the slats. The distance between the nozzle and the slab should be 3mm. The abrasive used to cut slabs should be 300g/L (recommended grain 80 microns). Firstly start drilling at 700bar and continue with high pressure cutting at 3500bar (starting piercing for 10 seconds) (parameters depending on the machine).

As a guide only for cutting speeds pending equipment type, consider 600mm per min and 300mm per min for mitres. 1850 to 1900 RPM depending on specific equipment. Thicker material may reduce the cutting speed.

To avoid blow outs when cutting with a wet saw either cut a small step cut at the opposite end, and reduce the speed, or maintain a slow speed, and finish the cut with a slow speed. Always trial cuts from offcuts. Blades and CNC tools must be sharpened prior and between operations. Correct feed rates used as per CNC tooling parameters.



\*50% of cutting speed applied in the last 150mm

Waterjet Cutting

Artetech and Maximum large format slabs can also be cut using a waterjet cutter. It is advisable to set working parameters taking into account all factors such as: composition of material being cut, the thickness and type of machine being used. Cutting with a waterjet enables accurate shapes to be obtained with clean cuts.

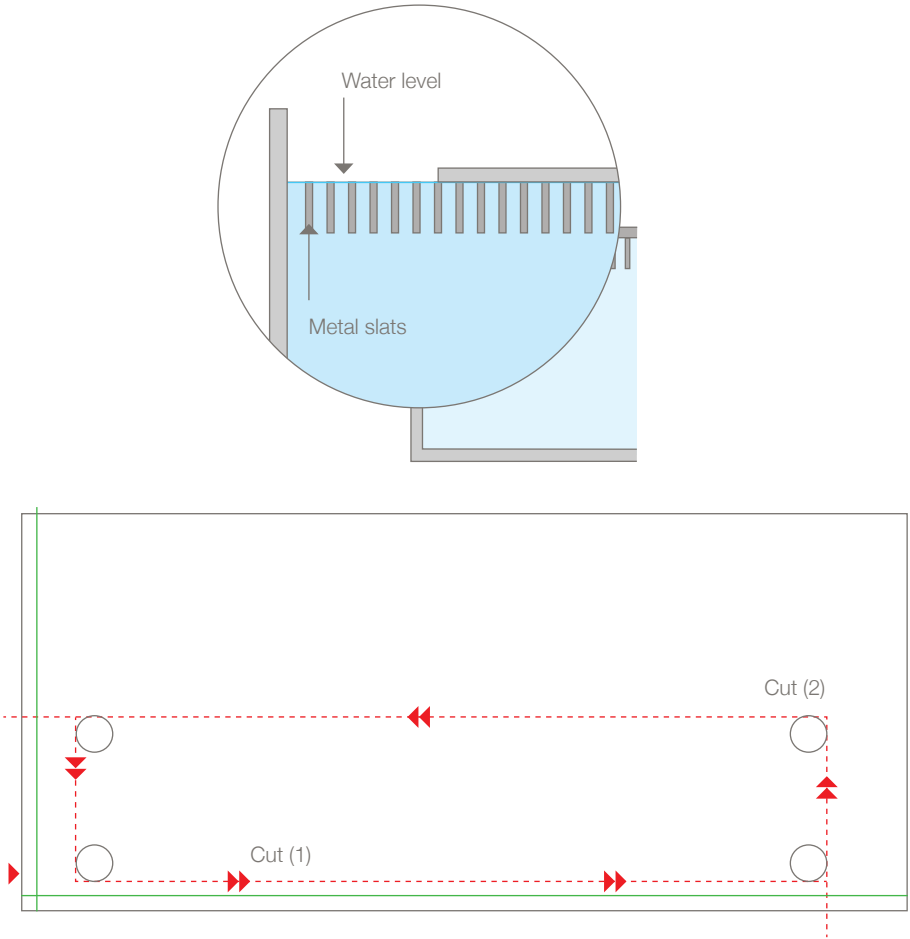
Before starting to cut, check the flatness of the workbench and condition of supports. We also recommend keeping the water level around 3 mm above the cutting surface supports.

When several openings need to be cut in large format slabs, always cut the largest first followed by the smaller (for example: first the basin then the mixer tap).

We recommend drilling holes in the corners before any cut-outs, in order to avoid excessive stress loading at the junction of cuts.

The minimum distance between cut-outs and outer edge or between cut-outs is as stated previously (min. 50mm).

Waterjet cutting requires detensioning before starting the actual cut.



Indications for Waterjet Cutting

| Ø Orifice | Ø Nozzle | H <sub>2</sub> O Pressure (high)<br>mpa | H <sub>2</sub> O Pressure (low)<br>mpa | Abrasive Flow<br>kg/min | Abrasive Type |
|-----------|----------|---|--|-------------------------|---------------|
| 0.3048 mm | 0.889 mm | 380                                     | 103                                    | 0.32                    | Grana #80     |

Speed mt/min

|                   |           |
|-------------------|-----------|
| Thickness / 12 mm | 0.7 - 1.0 |
| Thickness / 20 mm | 0.3 - 0.5 |

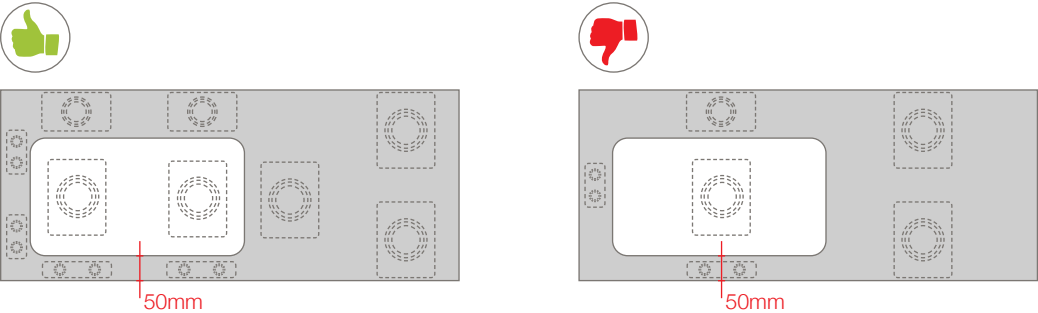
Reduce the speed by 20-30% for cuts other than at a 90° angle.

The figures shown are indicative only and refer to an appropriate machine in good working order with adequate equipment. For waterjet cutting, the operators expertise is vital in setting the correct parameters, depending on the slabs to be cut and the result required.



Positioning Suction Cups for Machine Cutting

- Check the working surface is straight, clean and stable.
- Position a suitable number of suction cups in order to give the best possible support to the slabs' surface. Positioning the suctions cups correctly and efficiently is essential for successful cutting. Distribute the suction cups evenly, including on the section that will be removed.
- Use plenty of water sufficiently directed onto the machine tool.



CNC Cutting / Diamond Blade Cutting

During CNC cutting, the operator's experience plays a key role in correctly setting the machining parameters, depending on the material being processed and the desired outcome. Full support of the slab before, during and after cutting is required.

Equally important are the tool manufacturer's recommendations, which should always be followed. We advise starting with more conservative settings.

CNC and diamond blade cutting should be considered as a stepped process subject to speed of cut, diameter of cutting tool, routed path and other considerations. Water jet cutting may also be staged later after some initial cutting by diamond or other method to the same cut. The selected method should be selected according to the tooling and machinery available, as well as the material being cut. Monitoring of electrical current load to machinery and other tool tolerances should be considered to govern cutting rates and depths.

# Processing with Hand- Powered Tools

## Cut-Outs and Core Holes by Hand-Powered Tools

Artetech and Maximum slabs can also be easily processed by using simple hand tools after the slabs have been detensioned. See section **Detensioning The Slabs** for information.

It is recommended to process the slabs on a flat work surface, at least 50mm longer than the slab from each side or double suction cup.

The material should never be cut dry.

Cutting instruments required - depending on the type of cut and process to be applied to the panel, the recommended tool types are listed below:

- Handling frame with suction cups or double suction cups
- Cutting guide with cutting carriage for linear cuts of up to 3300mm
- Wet core diamond drill bits
- Angle grinder with diamond blade
- Diamond buffer

### NOTE:

Do not dry cut using power tools during the installation process.  
Improper installation techniques could harm the installer.



Linear cuts and scoring only on 6mm thick material

1. Mark the portion to be removed at the ends of the slab (see Figure 4).
2. Position the cutting guide with cutting carriage so that the references on the guide coincide with the lines marked on the panel. Lock the cutting guide with the cutting carriage in place using the suction cups.
3. To guarantee correct scoring, the pressure and movement of the cutting carriage must be constant along the whole length of the cut.
4. Score one end of the panel by 150mm pushing the cutting carriage towards the edge of the panel (see Figure 5). Complete the scoring up to the opposite end of the panel.

Completing cuts

1. With cutting guide move panel until scoring line protrudes 50/100mm from work surface.
2. Release the cutting guide from suction cups and move towards the middle of panel.
3. Start cutting off process by positioning holding pliers in line with line scored on panel (see Figure 6).
4. Exert progressive pressure until you notice that cutting off process has begun.
5. Go to opposite side and position holding pliers in line with line scored on the panel.
6. Exert progressive pressure until you notice the cutting off process has begun.
7. To complete the cutting off process, one or more operators must grip the portion to be removed and exert progressive pressure downwards (see Figure 7)
8. The finishing of the edges on the cut side can be carried out using the special diamond buffer or a ceramic polished pad.

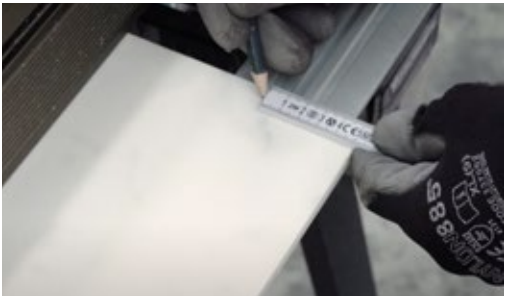


Figure 4

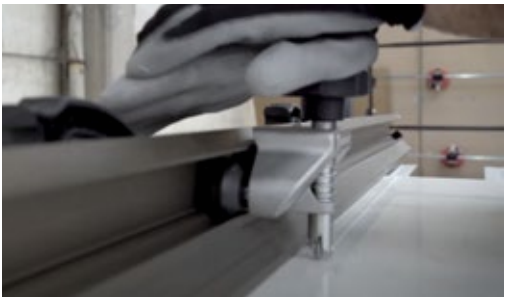


Figure 5



Figure 6



Figure 7

Small Cuts/Cut-Outs

For L-shaped cuts, (or holes for electrical boxes, internal corners) it is essential to create a radius at the internal angle by making a hole first with suitable wet core bits.



Rectangle or Square Cuts/Cut-Outs

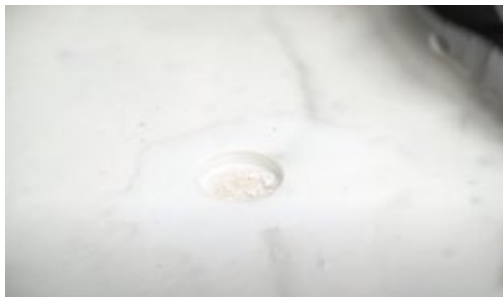
1. Mark the portion to be removed on the panel.
2. To limit the possibility of breakage, it is recommended to make a hole in-line with the point where the two lines marked on the panel meet.
3. With an angle grinder equipped with a diamond blade, follow the marked lines. All square cuts at any size require a radius hole at every corner before commencing cuts.



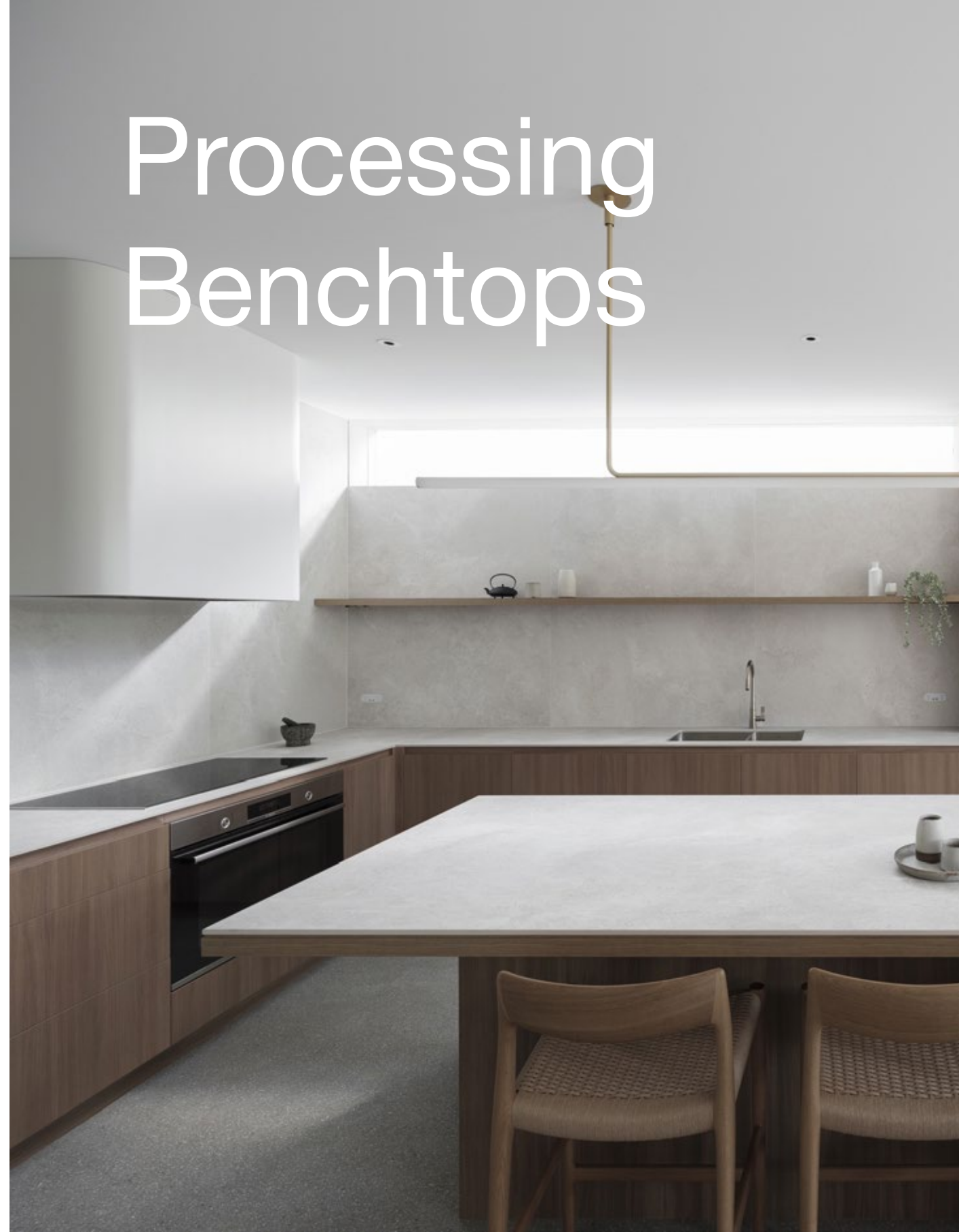


## Round Holes

1. Position the slabs on a solid, non-slip surface (e.g. wood or concrete). To avoid drill bit slipping whilst drilling, a pre cut round template could be used as a guide. Secure the template so it does not move during cutting.
2. Using a diamond core bit (hole cutter), spray water onto the area where the hole is to be made.
3. Start to make a hole at an angle of 75°-85° and penetrate into the panel with a depth of about 1-2 mm.
4. Keep the drill/screwdriver at a 90° angle and make circular movements with an angle of about 5°-10°.
5. Do not exert too much pressure.
6. Do not push straight downwards. Make sure there is enough water to wet the cutter. Clean up the scraps once the hole has been made.



# Processing Benchtops



# Processing Benchtops

## Quick Tips

Panel Inspection prior to fabrication ensure that panels have no visible defects such as blemishes, surface markings or damage.

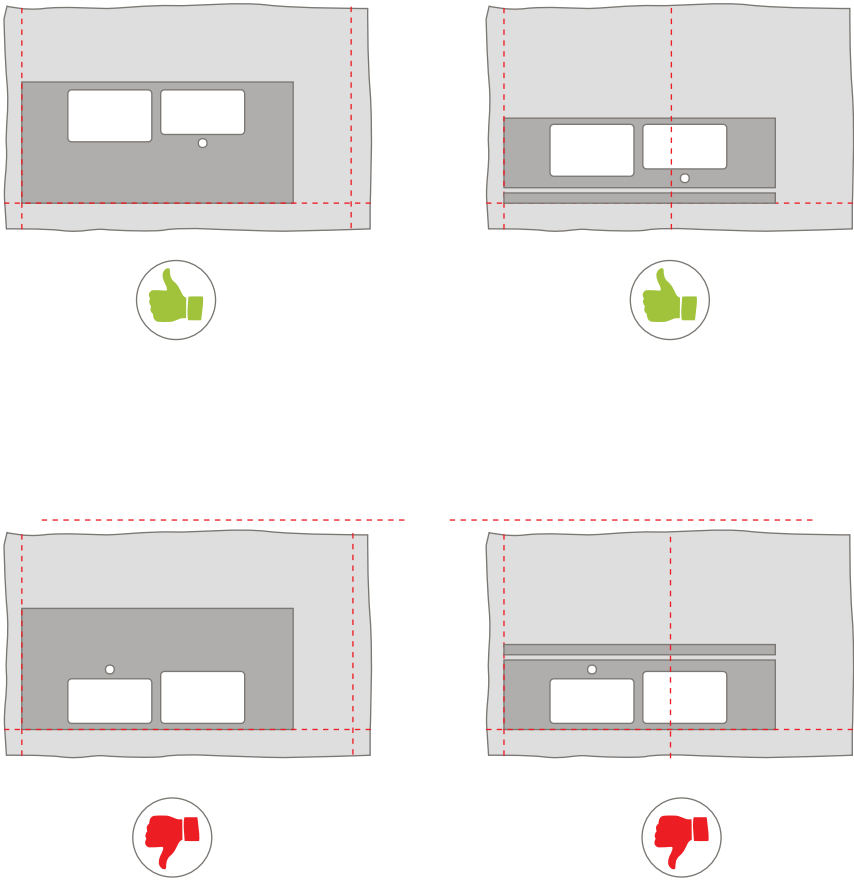
Sharpen blades using a pumice or sandstone block and resharpen every 4-5 cuts.

Honing edges and arris.  
Abrasive Grit with water.  
Matt finish: 120, 220  
Polished finish: 120, 220, 400  
This is a guide only and higher grits can be applied if required.

## Mapping the Cut

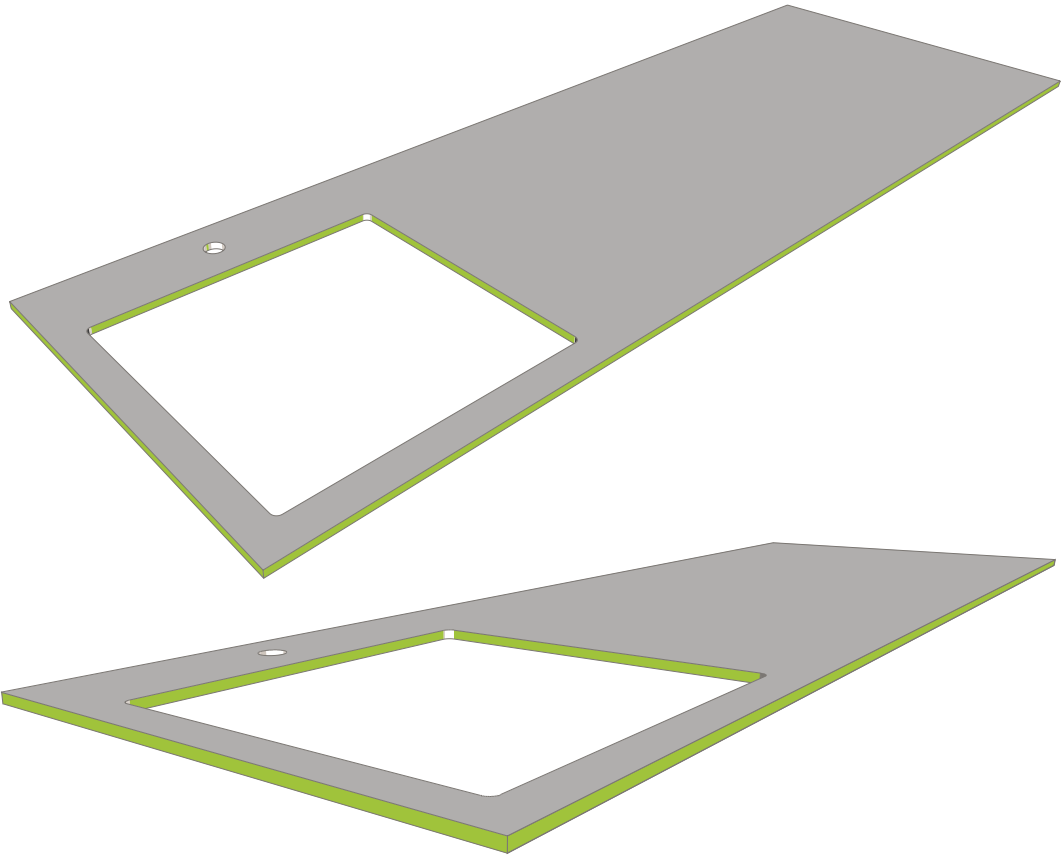
Whenever possible, always position cuts and cut-outs in the middle of the slab. Example of correct cutting management on the top two diagrams.

The same result is obtained by turning the project 180° as below, but resulting in less weight on the slab and greater cutting margins.



Edge Treatment

Examples of treated edges by either honing or polishing can be seen in the diagram above, highlighted in green. Abrasives can be used to achieve a range of profile options to the top and/or bottom arris.



Internal Cutting: Recommendations for 12mm and 20mm

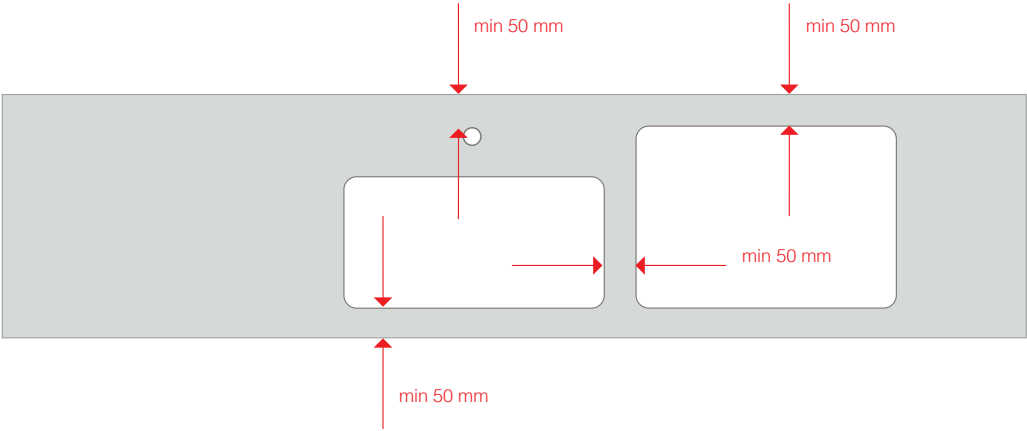
When cutting, the minimum distance recommended between the outer detensioned edge of the slab, and the cut-out should not be less than 50mm.

A minimum distance of 50 mm is recommended between each cut-out, for example between openings for taps and basin.

Edge Distance to a Circular Core Cut-Out

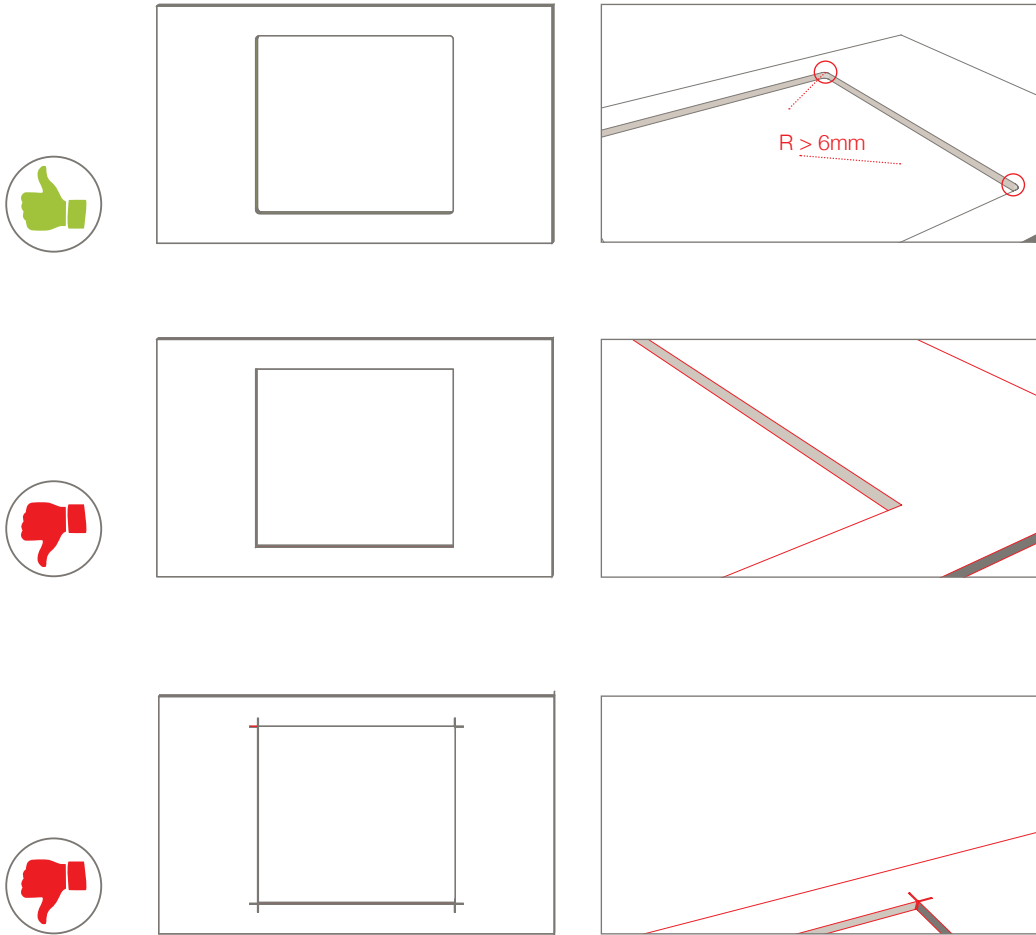
We recommend a minimum 50mm to any edge, pending cook-top or sink sizes and hole for the tap, and cut-out a minimum of 50mm to any edge of core hole from back wall and edge of sink.

Please contact us prior to cutting if you are using slabs less than 12mm thickness to discuss your design layout and other factors specific to the project installation.



Internal Corner Cut-Outs

Cut-outs, such as for sinks and cook tops, should have rounded internal corners (min 6mm radius). The internal corners should be supported in the same way as all of the slab.



Cut-Outs and Penetrations (includes taps, sinks, cooktops and other penetrations)

- Do not adhere sinks or any other fittings to the underside of the slab only.
- Ensure that sink lip is rebated to substrate.
- Do not overtighten tap fittings directly on to the slab.
- Ensure that the slab sits flush to edge of substrate and that slab and substrate both support tap base and fixing.
- The basin sink or other vessel should be supported underneath by a suitable structure e.g. joinery shelf or brackets.

Best solution for fitting taps is to fix the tap base housing directly to the substrate. A rubber gasket between the tap base and the slab can address any undulation on the surface of textured or smooth slabs. Only use silicon to adhere the vessel flange (e.g ceramic basin or stainless steel sink) to the slab and the selected adhesive to fix the slab to the substrate.

Diagrams shown on the following page for sinks also applies to cooktops and other penetrations.

Top Mounted Sink or Basin

Ensure that the slab sits flush to the edge of the substrate and that the slab, substrate and shelf support the sink's weight. It should be remembered that the vessel will become heavier when it is more full.

Flush Mounting

Flush mounting details should be considered with caution with respect to the aesthetic join that is intended. The degree of control that is achievable with your tooling and template will dictate the accuracy of the rebate.

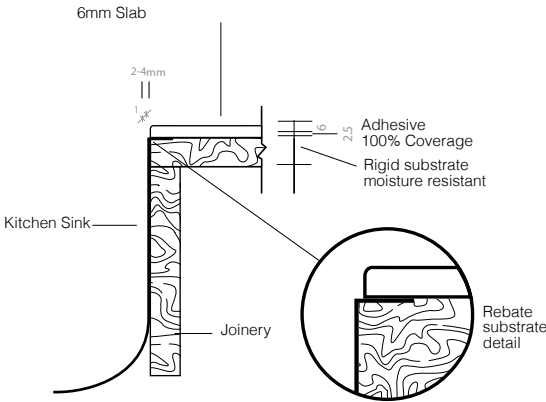


Figure 8  
Rebated Under Mounted Sink Detail

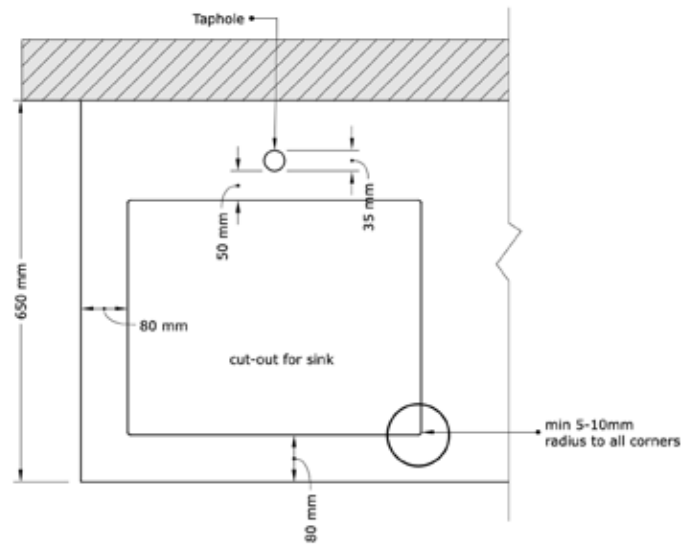


Figure 9  
Dimensions for sink cut-out

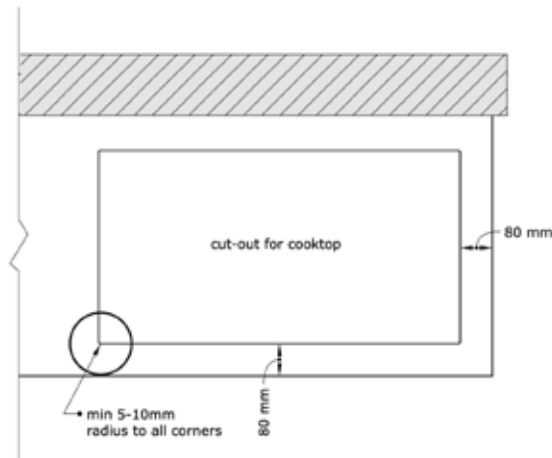


Figure 10  
Dimensions for cooktop cut-out

## Joint Edge Treatment and Recommended Adhesives

### Joint Treatments

We recommend all joints be taped prior to application of any joint fill such as silicon or colour matched resin. No joint sealant should be allowed to remain on the finished surface of the slab. Do not work on the face of the panel with pads or buffers.

### Edge Treatments

The ariss is the point of which the horizontal and vertical surfaces meet. The cutting process can create a sharp or 90° ariss. Shape the ariss profile with a minimum pencil round, bevel or other details to reduce potential for chipping, which can occur with any solid surface material.

### Mitred Edges

A mitred edge should commence cutting from the finished face. Aprons can be bonded to the mitred cut prior to profiling the ariss.

### Adhesives for Substrates and Mitres

The adhesive selection will depend upon your project conditions. Some suitable products we suggest which might be relevant to some applications include: T-Rex Power, Kerakoll, Mapei Keralastic T, Polyurethane G19 or others. Follow the product manufacturers recommendations.

### For Mitre Joints

Akemi Akepox 5010 epoxy adhesive and other similar adhesives offer excellent adhesion to dry porcelain. Follow the manufacturers recommendation for suitable pigments to be added to achieve the design intent.

### Repairs

Understanding the need for repairs is important in the process of a lasting repair. For repairs to the slab's surface Konig Repair System or Akemi Akepox 5010. Akemi colouring paste is available or the Akelux stone repair system



Edge examples:



Squared edge at 45°



Rounded edge at 45°



Concave edge



Straight squared edge



Rounded straight edge



Convex edge



Double straight squared edge



Double straight rounded edge



Rounded edge



Mitred bevelled edge



Mitred rounded edge



Triple rounded edge

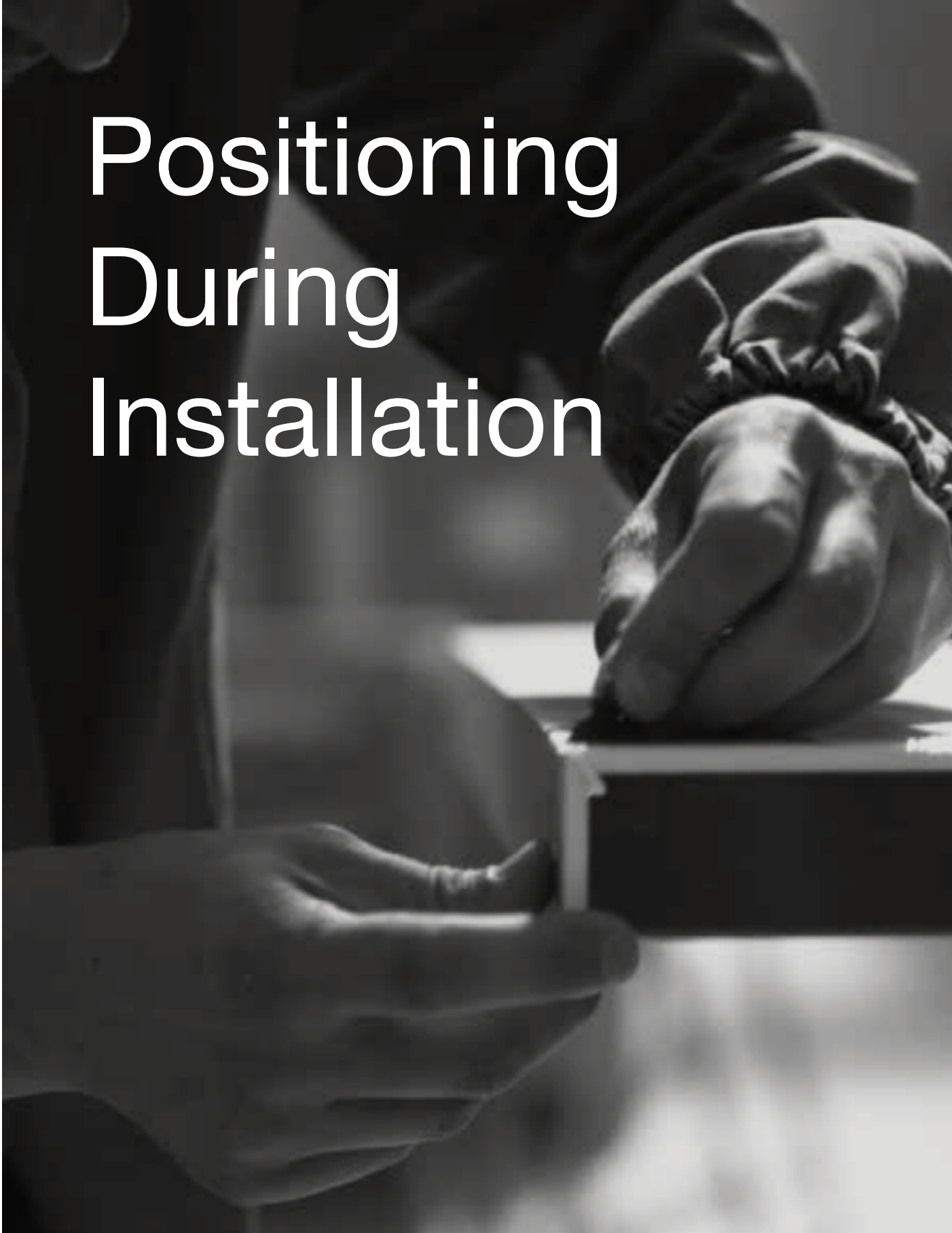
Edge examples:



Mitred Apron Edge



# Positioning During Installation

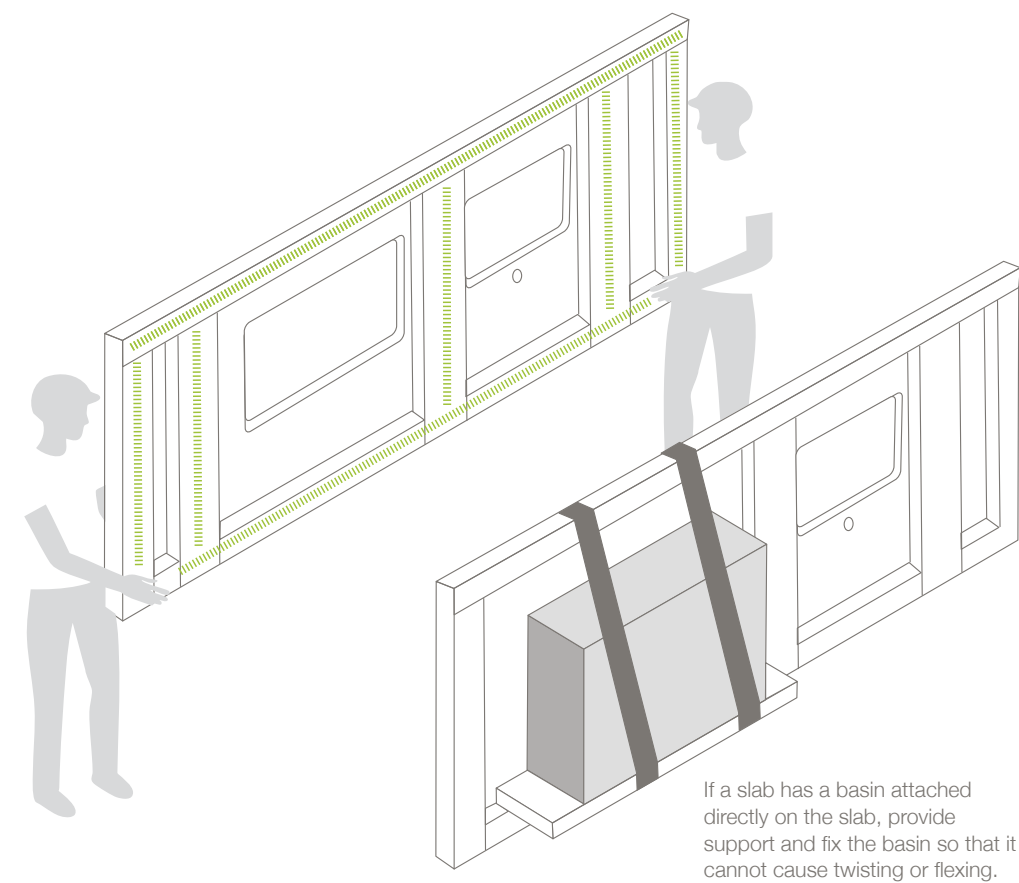


Positioning During Installation

Handling After Cutting

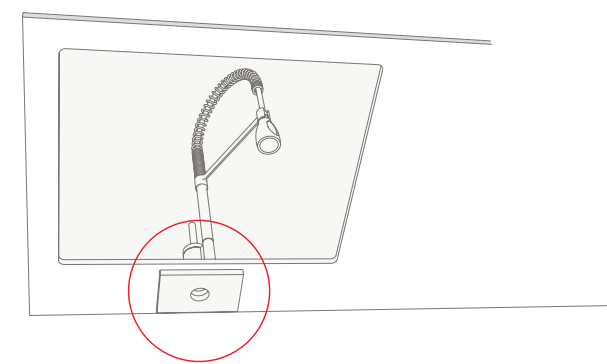
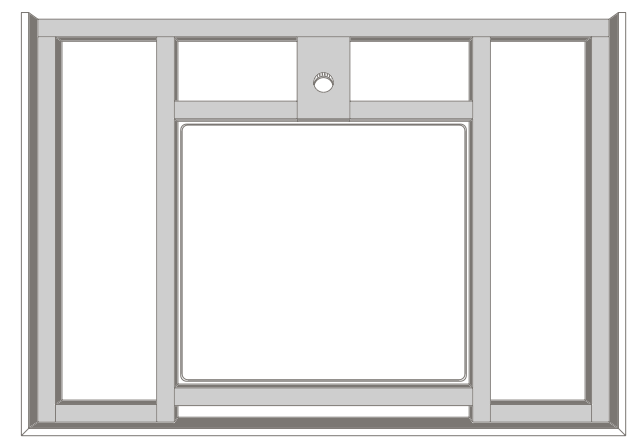
After completing all work on slabs, take special care during handling, transport and installation. Damage to the slab can occur during these phases, caused by flexing, twisting or impact on edges and corners. We recommend installing support bars (approx. 50 x 30mm) along the entire length of the slab, and also crossways.

The diagram below illustrates how to reduce the possibility of flexing.



Joinery for Slab Installation Less Than 20mm Thickness

1. It is recommended to build reinforcements within the joinery in intervals not exceeding 600mm.
2. Positioning of the reinforcements should be designed to suit the project's requirements whilst maintaining continuous and rigid support of the slab at all times.
3. The support material needs to be moisture resistant e.g. marine grade plywood or other material prepared with a suitable waterproofing treatment.



### Tap Cut-Out for Minimum 20mm Thick Slabs

If the taps are to be installed directly on top, it is advisable to add a reinforcing pad to the underside of the slab in the point where the hole has been drilled. Clearance should remain around the pad.

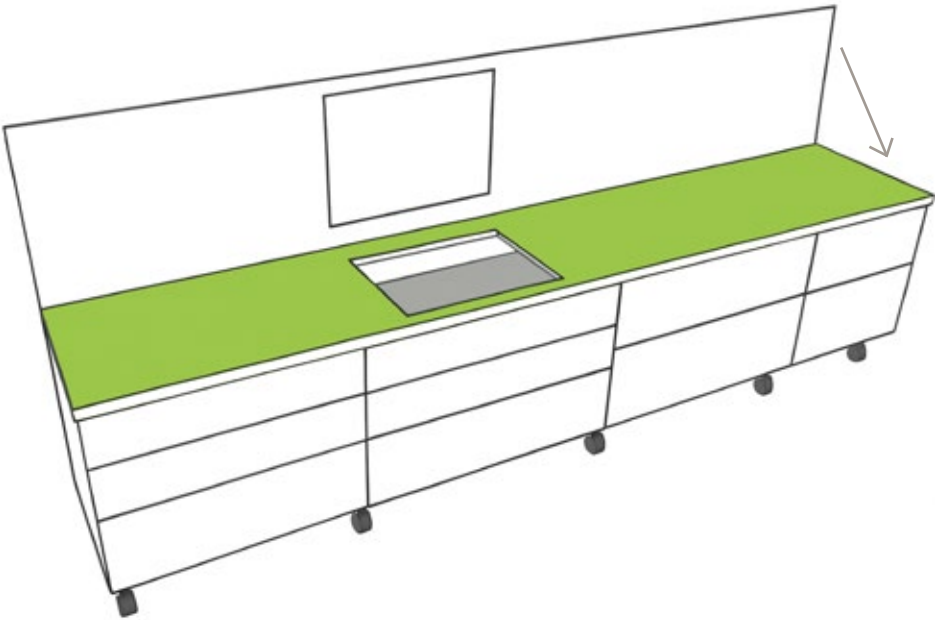
### For Less Than 20mm Thick Slabs

A similar support is achieved by the substrate on thinner slab installations.the point where the hole has been drilled. Clearance should remain around the pad.



### Positioning the Pieces for Slabs Less Than 20mm Thickness

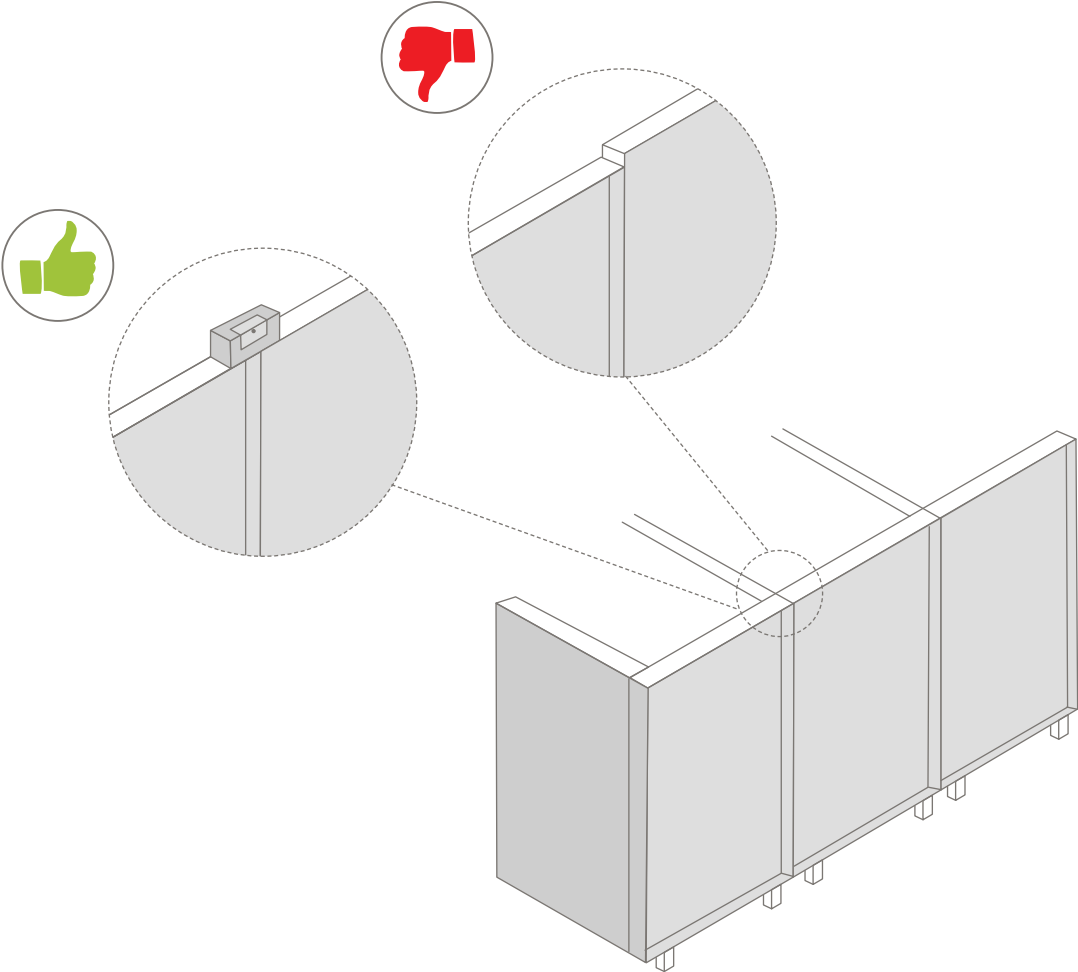
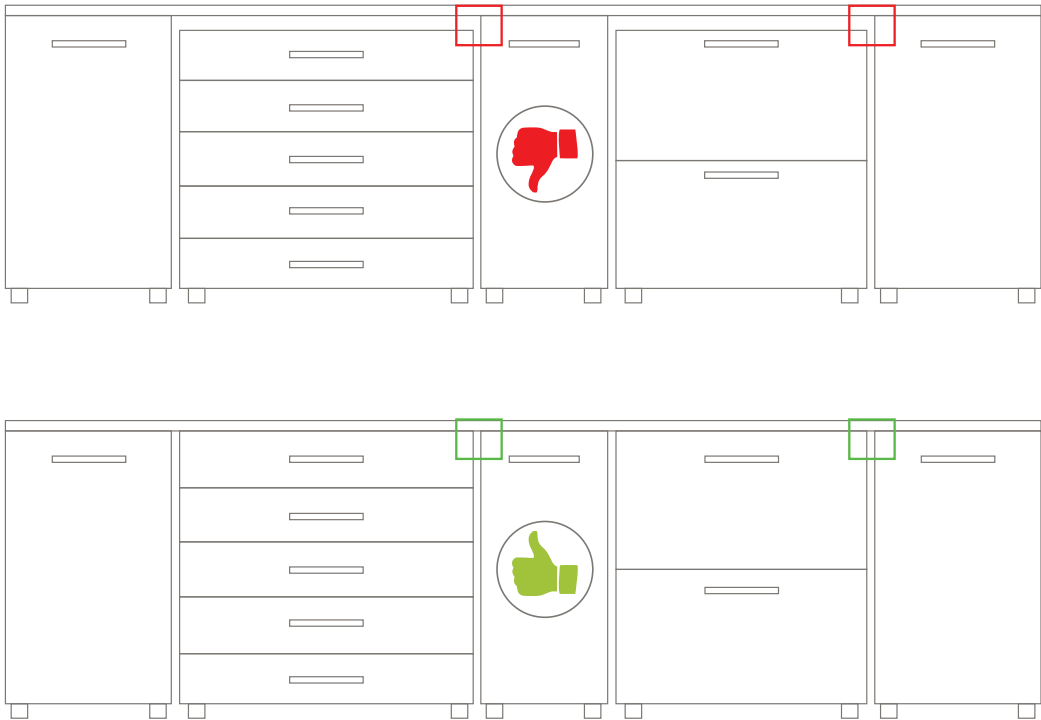
1. Check the substrate is continuous and rigid before installation for slabs.
2. Handle the slabs carefully, with special attention to protect the edges.
3. Make sure that the substrate is levelled and perfectly flat, otherwise adjust or adapt using levelling wedges.
4. Check that any joint edges are matched for profile and thickness.
5. 100% coverage of adhesive as shown in green in diagram below.
6. Additional adhesive to the back of the slab, paying particular attention to corners and cut-outs.
7. Spacers can be inserted to prevent collision of the adjacent slabs whilst the joint position is being manipulated.
8. The spacers and wedges should not be left in the installation permanently as a support tool. Spacers and wedges can be applied temporarily during positioning. Final support of the slab should be provided consistently by the adhesive, substrate and structure.



IMPORTANT: Apply the adhesive evenly, ensuring full (100%) coverage of the substrate.

Countertop Support Substructure

Before installing the top ensure that all parts of the cabinet structure are stable, level, clean and are able to support the load.drilled. Clearance should remain around the pad.



The structure and the overall build may settle slightly over time. We recommend periodically checking the level of the cabinet supporting the top, and adjusting the support at the base of the cabinet if necessary.

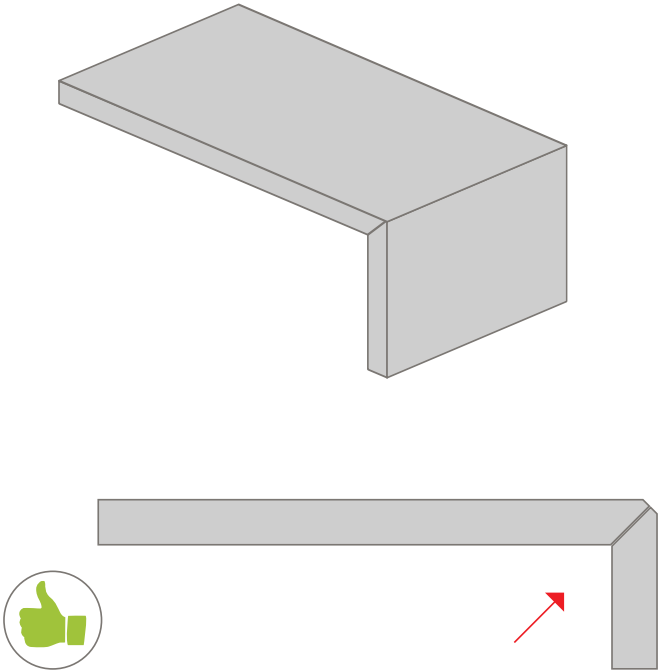


Bonding The Top

To bond porcelain slab parts (i.e. joints between vertical and horizontal pieces), use a two-part epoxy resin in the preferred colour. Remove any excess two-part resin before it hardens.

Bonding of the top to the structure, or bonding of fittings or other appliances, should use an adhesive with suitable flex.

Refer to colour options provided by Integra and other similar flexible sealant manufacturers.



# Overhangs



Overhangs

Overhangs with Cut-Outs

During the design phase it is very important to specify a mechanical or adhesive (epoxy adhesive) fixing to negate any leverage. Incorrect fixing could cause cracking especially for basin and/or cooktop cut-outs, and is also dangerous for the user.

If you are unsure of the overhang that would be suitable for your joinery design, contact us for more material test reports before commencing installation.

Basic rules to follow for overhangs with cut-outs:

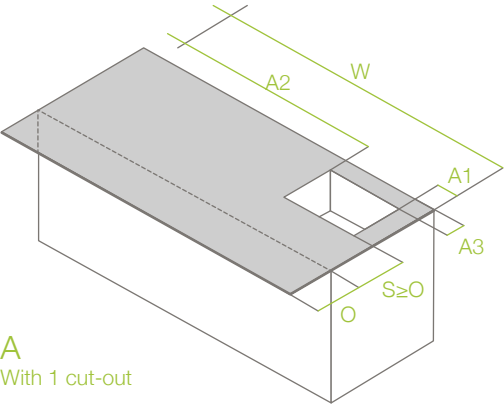
- 1. The supported section must be equal to or greater in extent than the overhanging section.
- 2. For overhangs, the minimum distance between the outer edge and cut-out must be equal to or greater than 100 mm.
- 3. For double cut-outs, adjacent to an overhang, keep a minimum distance of 600 mm between one cut-out and another.

Disclaimer: Installing any overhang should be acknowledged to increase the risk of damage to the unsupported material during use. The election of overhangs in the design of the installation should consider the implications of the use of the countertop.

Overhang Extent

- 6mm slabs should not exceed a 5mm unsupported overhang.
- 9mm slabs should not exceed a 8mm unsupported overhang.
- 12mm slabs should not exceed a 18mm unsupported overhang.
- 20mm slabs can include an unsupported overhang. See diagrams below.

20mm Overhang Examples:

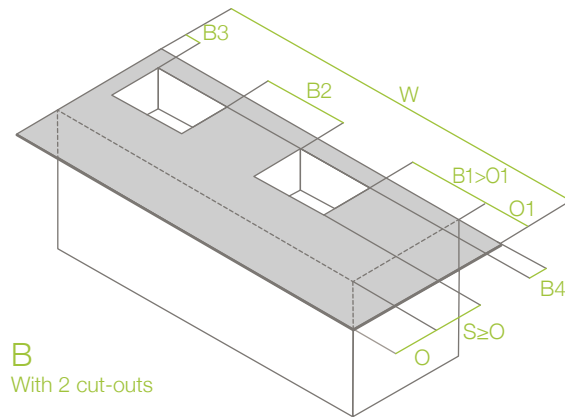


A  
With 1 cut-out

O = Overhang

S = Supported section must be  $\geq$  O

A1, A3  $\geq$  100 mm  
A2  $\geq$  600 mm

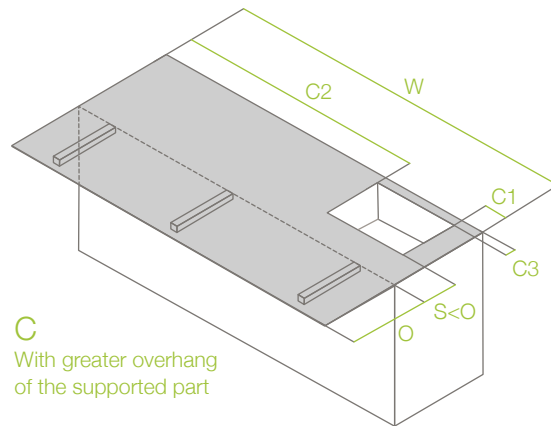


**B**  
With 2 cut-outs

O, O1 = Overhang

S = Supported section must be  $\geq O$

B1, B2  $\geq 600$  mm  
B3, B4  $\geq 100$  mm



**C**  
With greater overhang  
of the supported part

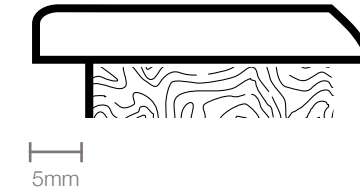
O = Overhang

S = Supported section  $< O$

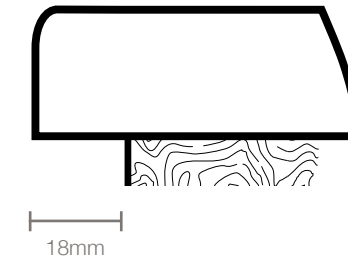
C1  $\geq 100$  mm  
C2  $\geq 600$  mm  
C3  $\geq 50$  mm

## Overhang Examples

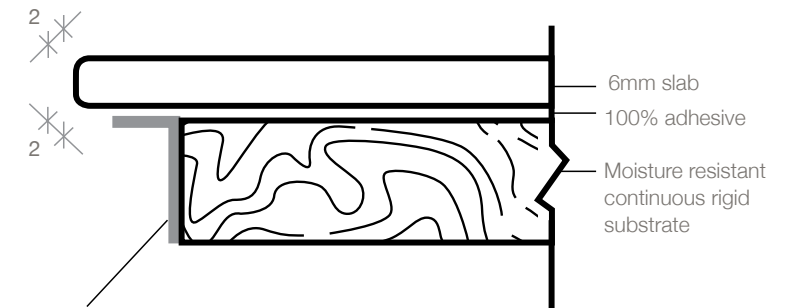
6mm  
unsupported overhang



12mm - max 18mm  
unsupported overhang



6mm  
with metal angle support



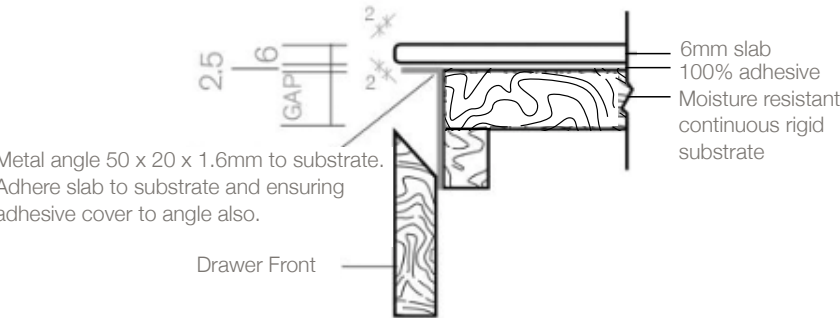
Metal angle 50 x 20 x 1.6mm to substrate.  
Adhere slab to substrate and ensuring adhesive cover to angle also.

Supports on Overhangs Examples

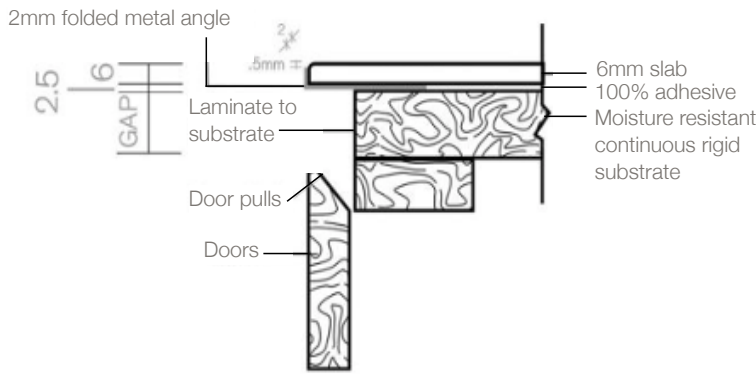
For thicknesses greater than 6mm, refer to previous section Overhang Extents.

- Note:
- 1. Ensure that the substrate is continuous and rigid.
  - 2. 100% adhesive coverage is required when applying slabs to substrate.
  - 3. Dimensions of angle should be selected in accordance with the design.

Joinery Finger Pull Option 1  
25mm continuous finger pull



Joinery Finger Pull Option 2  
We recommend the angle to be rebated into the substrate



Overhang Examples:





# Installation: Vertical Cladding

## Installation: Vertical Cladding

### Full Adhesive Method to Solid Vertical Substrates

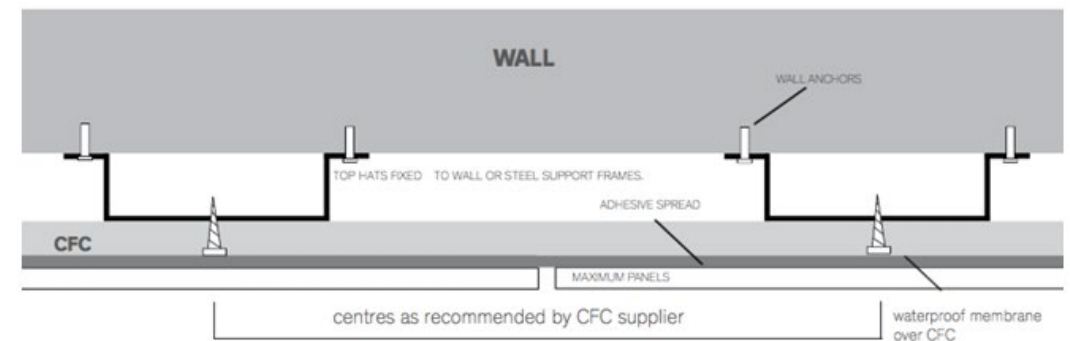
Adhesion method using an optional mechanical safety hook.  
Same method applies without safety hook.

### Bonding to Vertical Substrates

1. Ensure that the surface to be covered is solid, flat and free from dust.
2. Apply the selected adhesive to achieve full spread and adhesion in accordance with Australian standards. Artedomus recommends Kerakoll (<https://products.kerakoll.com/en-AU>) in consultation with a Kerakoll technical representative.
3. Spread the adhesive onto the surface to be covered with a 15mm round toothed trowel across an area of 50/100mm more than dimensions of the slab.
4. With slab in a vertical position on the handling frame, spread adhesive onto the back of slab with a 3 x 3mm square toothed trowel - buttering the panel.
5. Using the handling frame in a vertical position lay the slab.
6. Before releasing slab from handling frame, ensure adhesive holds it in place.
7. To guarantee complete bonding of slab and eliminating any air, gently tap from the middle towards the edges using a non-bounce plastic or rubber mallet.
8. Mechanical fixing - Before bonding the next slab, fix the hidden mechanical device to the substrate. Not all installations will require mechanical fixing.  
For exterior cladding where heights exceed minimum construction regulations, it is recommended that mechanical fixing is included as part of the system.

### Instruments required but not limited to:

- Handling frame with suction cups
- Suitable, selected adhesive
- 15mm round toothed trowel
- 3 x 3mm square toothed trowel
- Screwdriver





## Full Adhesive Method to Cement Sheet Substrates or Masonry Walls

Recommended fixing details - Internal or external wall applications.

1. Set out top hat centres as per builder's, engineer's and substrate suppliers recommendation. Ensure that the set out is 100% plumb.
2. Fix fibre cement sheeting with counter sunk screw system. Refer to engineer for thickness required. Ensure that substrate is rigid. Recommended substrates for exterior cladding are BGC Stonesheet, CFC or masonry walls. Waterproofing substrate may be required.
3. Adhere cladding panels to fibre cement using a full adhesive spread both sides (i.e. slab and substrate), using suitable adhesive.
4. This system is only suitable up to limited regulated heights.

## Vertical Cladding Examples:



# Installation: Floors and Walls



## Installation: Floors and Walls

### Description and Technical Features

Laying slabs requires similar laying conditions to those required for traditional smaller format tiles. Artetech and Maximum requires the adhesive to be applied with 100% coverage on both the setting bed and on the back of the slab.

#### Slabs require the following conditions for flooring:

- A flat surface, clean and free from dust and debris.
- The setting bed must be uniform and have already undergone the drying shrinkage process.
- Any uneven parts on the surface must be filled with suitable compounds.
- Any waterproofing or moisture-retarding applications should be applied and cured on the substrate prior to commencing tiling. Care should be taken to ensure any applications are compatible with the other components of the system.

#### Instruments required but not limited to:

- Adhesives; Kerakoll
- Grouts; Kerakoll
- Other suitable adhesives and grouts deemed suitable can be used
- 3 x 3 mm square toothed trowel and 15mm round toothed trowel
- Frame with suction cups for handling or double suction cups
- Non-bounce plastic/rubber white or black mallet 170 x 370mm (subject to material colour)
- Levelling system: base clip + wedge + pliers

### Processing Stages: Bonding to Floors or Walls

It is not recommended Artetech and Maximum to be installed into a wet sand cement bed.

1. Ensure that the surface to be covered is solid, flat and free from dust, grease and debris.
2. Use the selected adhesive mixed according to the specifications indicated in the technical data sheet.
3. Spread the adhesive onto the surface to be covered with a 15mm round toothed trowel across an area of 50/100mm more than the dimensions of the slab.
4. With the slab in a vertical position on the handling frame, spread the adhesive onto the back of the slab with a 3 x 3mm square toothed trowel.
5. Using the frame with suction cups, bring the slab into a horizontal position and lay it.
6. To guarantee uniform bonding of the slab, the special 170 x 370mm non-bounce plastic/rubber mallet must be used, gently tapping from the middle towards the edges so as to remove any air pockets between the back of the slab, the adhesive and the surface to be tiled.
7. Use the levelling system in accordance with the manufacturers guidance.

#### Note:

Floor laying should be to a thin bed method.

## Levelling System Guidance

The levelling system aims to is intended to eliminate any unevenness between tiles and/or slabs at the joins. Refer to the manufacturers guidance. Contact us prior to commencing works if you identify any difference between our guidance and the guidance of the supplier of the levelling system.

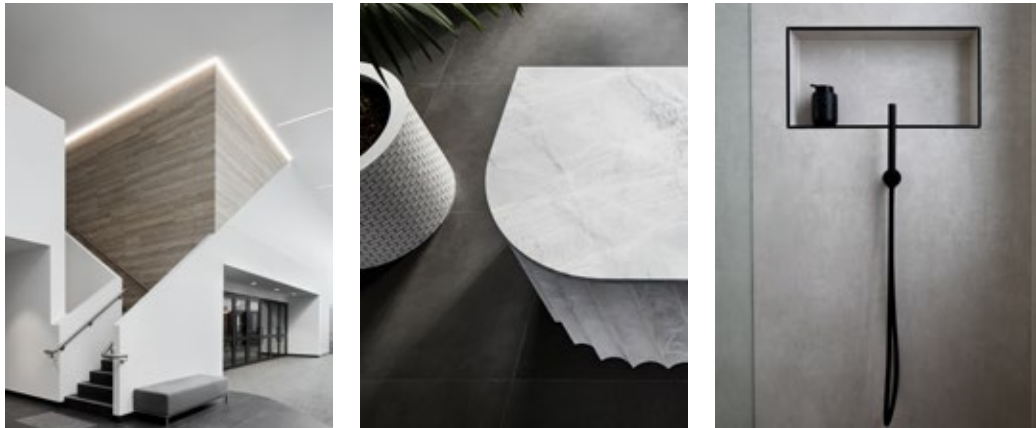
#### Instruments required may include, but are not limited to:

- Base clip
- Wedge
- Adjustable pliers for installing floors/wall tiles.

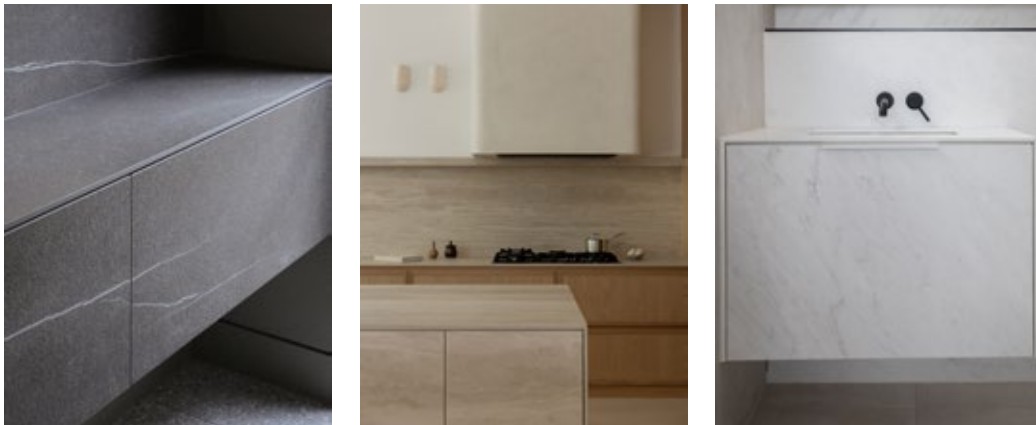
### Application of the levelling system

1. After spreading the adhesive, insert the base clip below the slabs on the 4 sides.
2. Depending on the format of the slab, position one or more supports for each side of the slab.
3. Position the tile/slab.
4. Inserting the wedge: Insert the wedge in the slot of the support, taking care not to exceed the breaking point.
5. To make inserting the wedge easier, it is recommended to use the adjustable pliers.
6. Once the adhesive has cured, the protruding part of the support can be removed.

Floors and Walls Installation Examples:



Splashback and Drawer Front Installation Examples:



# Cleaning and Maintenance



## Cleaning and Maintenance

### Cleaning After Cutting

Cutting/drilling slabs, whether by waterjet, disc or CNC, creates dust residues due to abrasion. This dust, when mixed with the water used during cutting, creates a mixture that tends to solidify when it dries. It is therefore essential to clean the slabs/tiles thoroughly afterwards. If not done correctly or at all, marks can be difficult to remove, especially on dark colors or polished surfaces.

To clean the material after cutting, use clean water and dry with a microfibre cloth or similar. Repeat until slabs/tiles are completely clean.

Do not store or stack cut slabs/tiles when wet or not completely cleaned of residues. It is essential to remove epoxy resin, or other residues when “fresh” using clean soft sponges, cloths and other suitable cleaning products.

### Cleaning and Maintenance

Any cleaning product to be used should be tested on a sample of the material prior to applying to the installation. It may be necessary to mask certain areas to prevent damage to adjacent materials e.g. grout, metals, carpet, timber, natural stones etc.

### Routine Cleaning

Use a microfibre cloth moistened with a neutral pH liquid detergent and clean water. Avoid the use of abrasive sponges and brushes, steel wool pads and detergents containing hydrofluoric acid. Also avoid detergents containing waxes and / or brighteners.

### Periodic Maintenance

Build of debris over time can be addressed by including more agitation in the routine cleaning process described above. Examples of agitation methods include the use of microfibre cloths, scouring pads and soft bristle brushes. In some circumstances it might be appropriate to use machinery to deliver the agitation.

### Removal Of Debris, Oil Or Grease

For unidentified debris begin with mild applications e.g pH neutral detergent to test the effect before applying stronger more aggressive acid, alkaline or solvent based treatments.

Professional cleaning services by others. These can be employed for isolated incidences and ongoing maintenance programs.

Please consult Actichem, Akemi, Aquamix, Construction Chemicals, Spirit or similar suppliers to provide more manufacturer guidance on alkaline, acid or solvent based cleaners. Please consider the types of debris below in consultation with your cleaning product supplier.

### Type Of Debris

Some examples commonly include these below whilst there are others.

- Final-site cleaning: cement grout, epoxy grout
- Beer, wine, coffee, soft drinks, most sauces, jam, mustard, cooking oils
- Make up, rubber, mechanical oils, silicon, bitumen, glue, suction cup imprints, tannins, etc
- Cement, plaster, efflorescence, metal residues, rust, oxides
- Graffiti, paints

### Information to Ensure Safe Use

Before using any detergent, carefully read the warnings regarding use on the product label or consult the manufacturer’s website as an example:

- <https://www.filasolutions.com/>
- <https://www.fabersurfacecare.shop/it/en/>

where you might consult and download safety data sheets, technical data sheets and information on the use of the products.

It is always advisable to carry out a preliminary test on a concealed area or unused part of the slab.

It is always good practice to remove all stains from the top promptly, especially particularly difficult stains such as coffee, red wine, juice, etc.

On polished or natural surfaces do not use abrasive powder or paste detergents, abrasive sponges or steel scourers.

In general, we recommend never using very strong acid or alkali cleaners.

For dirt that is difficult to remove with a sponge or microfiber cloth, we recommend using a melamine sponge (commonly called a magic eraser).






Slabs are resistant to thermal shock and scratching, however to maintain their appearance over time we recommend using trivets and chopping boards.



# Technical Information

## Technical Information

### MAXIMUM Range

| PHYSICAL PROPERTIES   | TEST METHOD<br>ISO 10545* / ASTM** | REQUIRED STANDARDS   | AVERAGE VALUE OF<br>PRODUCTION                    |
|---|------------------------------------|--|---|
|  Modulus of rupture<br>Resistenza alla<br>flessione                        | ISO 10545.4                        | $\geq 35 \text{ N/mm}^2$   | 50,9 N/mm <sup>2</sup>                            |
|   | ASTM C 648                         | > 275 lbf (1,22 kN)  | > 700 lbf   |
|  Water absorption<br>Assorbimento<br>d'acqua                               | ISO 10545.3                        | $\leq 0,5\%$   | 0,02%   |
|   | ASTM C 373                         |  |   |
|  Resistance to deep<br>abrasion<br>Resistenza<br>all'abrasione<br>profonda | ISO 10545.6                        | $\leq 175 \text{ mm}^3$  | 127 mm <sup>3</sup>                               |
|   | ASTM C1243                         |  | 130 mm <sup>3</sup>                               |
|  Stain resistance<br>Resistenza alle<br>macchie                           | ISO 10545.14                       | Unglazed tiles:<br>testing method available<br>Piastrille non smaltate:<br>metodo di prova disponibile | CLASS 5<br>Superficie naturale<br>Natural surface |
|   | ASTM C1378                         | As reported  | CLASS A   |
|  Chemical<br>resistance<br>Resistenza<br>all'attacco chimico             | ISO 10545.13                       | Minimum CLASS B  | Conforme  |
|   | ASTM C 650                         |  |   |

\* According to the EN 14411 Encl. G/ISO 13006 Encl.G for unglazed dry-pressed ceramic tiles of the group B1a.  
\*\* According to the ANSI A137.1 and ANSI 137.3 for glazed dry-pressed ceramic tiles with CLASS P1 water absorption.

Technical Information










Artetech Pietra Range

| TECHNICAL CHARACTERISTICS AS PER APPLICABLE STANDARD:                 | Reference standard | Required value               |                     | Obtained mean value*                 |
|---|--------------------|------------------------------|---------------------|--------------------------------------|
| PHYSICAL CHARACTERISTICS  |                    |                              |                     |                                      |
| Water absorption  | EN-ISO 10545-3     | E ≤ 0,5%                     |                     | E ≤ 0,1%                             |
| Bending strength (N/mm²)  | EN-ISO 10545-4     | > 35 N / mm²                 |                     | Surpasses required value             |
| Breaking strength (N)   | EN-ISO 10545-4     | 10mm / 12 mm / 20 mm         | > 1.300 N           | Surpasses required value             |
|   |                    | 6 mm                         | > 700 N             |                                      |
| Pendulum impact   | UNE-EN 12600       | 4mm                          |                     | Resistant                            |
| Linear thermal expansion  | EN-ISO 10545-8     | Method available             |                     | ≤ 9x10 <sup>-6</sup> K <sup>-1</sup> |
| Thermal shock resistance  | EN-ISO 10545-9     | Method available             |                     | Resistant                            |
| Frost resistance  | EN-ISO 10545-12    | Required                     |                     | Resistant                            |
| Crazing resistance  | EN-ISO 10545-11    | Required                     |                     | Resistant                            |
| Resistencia a los rayos UV  | DIN 51094          | -----                        |                     | No alterations                       |
| CHEMICAL CHARACTERISTICS  |                    |                              |                     |                                      |
| Resistance to low concentrations of acids and alkalis                 | EN-ISO 10545-13    | As indicated by manufacturer | Polished finishing  | Resistant (LB - LA)                  |
|   |                    |                              | Remaining finishing | Resistant (LA)                       |
| Resistance to household cleaning products and swimming pool additives | EN-ISO 10545-13    | Min. B                       |                     | Resistant (A)                        |
| Resistance to staining  | EN-ISO 10545-14    | Min. Class 3                 |                     | Class 5                              |

\* Results obtained from test samples.

Technical Information

Artetech Beton Range

|   | TECHNICAL SPECIFICATIONS   | NORMA ISO STANDARD | THICKNESS | INTERNATIONAL STANDARDS                |                        |
|---|--|--------------------|-----------|--|------------------------|
|    | WATER ABSORPTION<br>ASSORBIMENTO D'ACQUA   | ISO 10545-3        |           | ≤ 0,5%                                 | ≤ 0,1%                 |
|    | BENDING STRENGTH<br>RESISTENZA ALLA FLESSIONE  | ISO 10545-4        | # 4,8 mm  | ≥ 35N/mm²                              | ≥ 40 N/mm²             |
|   |  |                    | # 6 mm    | ≥ 35N/mm²                              | ≥ 40 N/mm²             |
|   |  |                    | # 12 mm   | ≥ 35N/mm²                              | ≥ 40 N/mm²             |
|   |  |                    | # 24 mm   | ≥ 35 N/mm²                             | ≥ 52 N/mm²**           |
|    | BREAKING STRENGTH<br>SFORZO DI ROTTURA   | ISO 10545-4        | # 4,8 mm  | S ≥ 700N (sp. < 7,5mm)                 | > 700 N                |
|   |  |                    | # 6 mm    | S ≥ 700N (sp. < 7,5mm)                 | > 700 N                |
|   |  |                    | # 12 mm   | S ≥ 1.300N (sp. ≥ 7,5mm)               | ≥ 4000 N               |
|   |  |                    | # 24 mm   | S ≥ 1.300N (sp. ≥ 7,5mm)               | ≥ 20000 N**            |
|    | RESISTANCE TO DEEP ABRASION<br>RESISTENZA ALL'ABRASIONE PROFONDA                       | ISO 10545-6        |           | ≤ 175mm³                               | ≤ 145 mm³              |
|    | COEFFICIENT OF LINEAR THERMAL EXPANSION<br>COEFFICIENTE DI DILATAZIONE TERMICA LINEARE | ISO 10545-8        |           | ≤ 9x10 <sup>-6</sup> 1                 | ≤ 7x10 <sup>-6</sup> 1 |
|    | RESISTANCE TO THERMAL SHOCKS<br>RESISTENZA AGLI SBALZI TERMICI                         |                    |           | AVAILABLE METHOD<br>METODO DISPONIBILE | RESISTANT<br>RESISTE   |
|  | FROST RESISTANCE<br>RESISTENZA AL GELO   | ISO 10545-12       |           | AVAILABLE METHOD<br>METODO DISPONIBILE | RESISTANT<br>RESISTE   |
|  | RESISTANCE TO CHEMICAL ATTACKS<br>RESISTENZA ALL'ATTACCO CHIMICO                       | ISO 10545-13       |           | min. UB                                | RESISTANT<br>RESISTE   |
|  | STAIN RESISTANCE<br>RESISTENZA ALLE MACCHIE  | ISO 10545-14       |           | AVAILABLE METHOD<br>METODO DISPONIBILE | RESISTANT<br>RESISTE   |

Technical Information

Artetech Marmi Range

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| QUALITY ITEMS       | TECHNICAL FEATURE  | STANDARD METHOD ISO | UNIT              | REQUIREMENTS<br>ISO 13006:2018(E) E <sub>v</sub> s0,5%<br>GROUP BIa       | VALUES   |                          |                |
|---------------------|--|---------------------|-------------------|---|--|--------------------------|----------------|
| PHYSICAL PROPERTIES | Water Absorption   | ISO 10545 - 3       | %                 | ≤ 0,5%, Individual 0,6%   | Avg. ≤ 0,08%, Individual 0,2%                          |                          |                |
|                     | Modulus of Rupture   | ISO 10545 - 4       | N/mm <sup>2</sup> | Min. 35, Individual Min. 32   | Min. 42  |                          |                |
|                     | Breaking Strength  | ISO 10545 - 4       | N                 | Not less than 1300  | Min. 1800  |                          |                |
|                     | Moisture Expansion   | ISO 10545 - 10      | mm/m              | -   | 0,02   |                          |                |
|                     | Surface Abrasion   | ISO 10545 - 7       | Class             | Minimum Class II<br>Report abrasion class and cycles passed               | Full Lappato<br>Lappato Matt                           | Other Surfaces           |                |
|                     | Resistance to surface abrasion of glazed tiles intended for use on floors  |                     |                   |   | Class III (>750 Cycles)                                | Class IV (> 2100 Cycles) |                |
|                     | Mohs Hardness of surface   | NA                  | -                 | -   | Full Lappato<br>Lappato Matt<br>Spazzolato             | Soft Naturale            | Other Surfaces |
|                     |  |                     |                   |   | 4  | 6                        | 7              |
|                     | Coefficient of linear thermal expansion from ambient temperature to 100 °C | ISO 10545 - 8       | K <sup>-1</sup>   | As declared by the Manufacturer   | 6x10 <sup>-6</sup> K <sup>-1</sup> max                 |                          |                |
|                     | Thermal Shock Resistance   | ISO 10545 - 9       | -                 | As declared by the Manufacturer   | No damage  |                          |                |
|                     | Crazing Resistance: glazed tiles   | ISO 10545 - 11      | -                 | Required  | No damage for Min. 50 Cycles                           |                          |                |
|                     | Bulk Density   | ISO 10545 - 3       | g/cc              | 2,2   | 2,2  |                          |                |
|                     | Impact Resistance  | ISO 10545 - 5       | -                 | As declared by the Manufacturer   | 0,55   |                          |                |
|                     | Frost Resistance   | ISO 10545 - 12      | -                 | As declared by the Manufacturer   | No change  |                          |                |
|                     | Slip Resistance  |                     |                   | As declared by the Manufacturer   | Full Lappato<br>Lappato Matt<br>Spazzolato<br>Textures | Soft Naturale            | Naturale       |
|                     |  | ANSI A137.1         | -                 |   | N/A  | DCCOF > 0,41             | DCCOF > 0,51   |
|                     |  | DIN 51130           | -                 |   | N/A  | R 09                     | R 30           |
| CHEMICAL PROPERTIES | Small color differences  | ISO 10545 - 16      | -                 | Plain colored tiles only where required<br>GL: ΔE < 0,75<br>UGL: ΔE < 1,0 | No change  |                          |                |
|                     | Resistance to staining   | ISO 10545 - 14      | Class             | Minimum Class 3   | Class 4  |                          |                |
|                     | Resistance to household chemicals and swimming pool salts                  | ISO 10545 - 13      | Class             | Minimum B   | Minimum A  |                          |                |
|                     | Resistance to acids & alkalis  | ISO 10545 - 13      | Class             | As declared by the Manufacturer   | Minimum B  |                          |                |



