Slab Fabricator's Guide.

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FIBONACCI STONE | No Lead Time.

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About this Guide.

This Guide is intended to share with our customers our knowledge and experience associated with our products and the use of our products. It contains recommendations and technical information to help you when fabricating and installing our slabs.

It is not meant to replace the skills or experience of a qualified stonemason. The processes and recommendations in this Guide should be considered as a guide only.

The fabrication and installation process of our slabs is carried out by independent stonemasons. Please keep in mind that the exact procedures used will vary between stonemasons and the stonemason will make the best choice of fabrication and installation methods to suit the application to which these slabs will be used.

Methods of fabrication and installation are to be in accordance with the latest relevant standards and/or “best practice” industry standard. Information provided in this document must be read and interpreted in conjunction with relevant industry codes and standards. If there are conflicting recommendations in this guide to that specified in a code or standard please contact Fibonacci Stone for further clarification and support.

We cannot and do not dictate how a qualified stonemason can use our slabs, although following our recommendations will help to minimize problems before and after installation.

This Guide is not intended:

- **To be used for any other purpose, nor is it legally binding in any way. It is not meant for dispute resolution between Fibonacci Stone, stonemason or any other party.**
- **For use by unqualified or unskilled workers. It assumes that the reader is a suitably skilled professional as this Guide does not cover the basic skills and knowledge that a stonemason should possess.**

Always refer to the latest guide and contact us for support.

About the Product.

Slab Data.

Slab data provided here is nominal only and is provided for storage and transportation purposes only.

The actual usable slab surface is less per side due to the raw edge/ unfinished perimeter. It is important to properly check the slabs prior to cutting as the condition of the slab perimeter varies on each slab.

When measuring/ordering we recommend factoring less 50mm of the slab perimeter however this can vary +/–. If you need to use the maximum width and length of the slab you must inspect the slab perimeter for colour, polish, aggregate dispersion, transportation damage or any other defect that may be visible before cutting.

Length	**3050mm +/– 10mm**
Width	**1250mm +/– 5mm**
Thickness	**20mm +/– 2mm**
Weight	**20mm = 200kg; (52 kg/m^2)**

Slab Composition and Appearance.

Slabs are made up of natural stone and cement and the variance in these raw materials is noticeable in the finished product and is a feature of the slab design. The texture of the honed finish is designed to endure wearability which over time, the surface will patina, responding to the application environment.

It's the balanced perfect imperfections in each Fibonacci Stone Slab that makes each slab unique even though they will share the same common structure, colour and overall look. They are not identical, however, match and would work harmoniously within the application that they will be used for.

Batching is used to identify slabs from the same batch. This process, however, is subjective and care needs to be taken when inspecting the slabs even if they are from the same batch.

Handling, Transport & Storage.

Handling & Transportation of Slabs.

Care must be taken at all stages of handling, transportation and storage. Slabs must be loaded, unloaded and transported by means of a forklift, overhead crane or other suitable lifting device balancing the slab at its centre of gravity. Ensure that all the lifting tools and equipment are in good working order, and that they are suitable for the purpose and the weight of the load.

When more than one slab is lifted in one load, the slabs must be arranged face-to face and/ or back-to-back with no gaps. During unloading and transporting, adhere to all the relevant safety regulations regarding equipment and personnel.

Fibonacci Stone slabs are large and heavy. They must be transported in a safe and appropriate manner, securely attached to a truck with an appropriate frame to the truck for loading. A-Frames need to have a continuous bottom plate and backing board. When transporting interstate or long distances, stack the slabs in bundles of min 5 slabs.

The load must be fully supported and safely secured to the vehicle prior to leaving the premises.

In the interests of safety, Fibonacci Stone may refuse to load a truck, if we feel that it will be overloaded or that it is unsafe.

Receiving Your Slabs.

It is essential to perform a visual inspection for imperfections on the front and back of all slabs, including the perimeter, before cutting. The presence of impurities, pinholes, pit marks shall be deemed as being part of the natural stone/cement and variations may occur with particular types of aggregates that show a lot of texture and patterns. Pinholes need to be filled using colour matched epoxy.

Perform the following visual inspection checks for imperfections:

- Cracks or voids.
- Slab-to-slab colour match.
- Colour inconsistency within the slab.
- Irregular spots.
- Inconsistent gloss levels.
- Thickness tolerance ± 2mm.
- Ensure that you are able to inspect the slab under appropriate lighting, either natural of artificial.
- Check the surface of the slab from various angles to pick up any issues that are not apparent when viewing the slab top down.

When receiving your slabs you will notice moisture from production is still present in the slab and will dissipate during the fabrication process. However as the slab dries it can alter the surface tension which can temporarily increase warpage. This is not a defect and the slab flatness will return during processing.

Warping up to 5mm length and 3mm width when slab horizontal and fully supported. Check length warp using a full-length straight edge with the slab in a horizontal position.

Storing Your Slabs.

- Store slabs face to face and on a suitable A-Frame or Slab Rack.
- Store slabs in a dry secure warehouse protected from rain or wet conditions.
- Do not store slabs in direct sunlight or in high temperatures.
- Protect from high levels of dust.
- Stack slabs face to face.

Fabricating.

The fabrication and installation process of Fibonacci Stone Slabs is carried out by independent stonemasons. Please keep in mind that the exact procedures used will vary between stonemasons.

Methods of fabrication and installation are to be in accordance with the relevant standards and/or “best practice” industry standard.

Keep Your Material Dry.

Slabs contain residual moisture from their production, but are also porous and will absorb moisture when cutting. Air-dry the slab and cut pieces during the fabrication process. During cold weather, heating the workspace using a gas flame heater may be necessary however strict care must be taken not to heat the slab directly which may cause cracking.

Fabricating, joining, laminating, transporting and installing must only be carried out when the material is dry.

Fixing Materials.

It is important to select the right materials for the fabrication/installation, ensure you are using proprietary materials and check their compatibility in accordance with the manufacturer’s recommendations.

The final selection is up to the stonemason based on their experience and supplier relationships.

Plan Your Cutting.

Consider the final outcome when planning your cutting, each slab will vary and extra care is needed to ensure the cut pieces used from the slab are suitable.

Optimising your cutting to maximum efficiency should not override the aim to achieve the best possible outcome for the project. If you need to use the maximum width and length of the slab you must inspect the entire slab for colour, polish, transportation damage or any other defect that may be visible before cutting.

Colour Matching.

Slabs are made up of approximately 75% natural stone and 25% cement. This may result in slight colour variations between production cycles. Use slabs from the same batch for each individual job - this should ensure the best possible colour match.

Always perform a visual colour match before cutting to confirm consistency in shading. Variations can show considerable difference in joins and careful planning of join locations and which section of the slab will be used is needed to avoid large contrasts.

When cutting slabs, try to keep ends cut from adjoining sections of the same slab butted up together and position in the same orientation to achieve best match for aggregate distribution and colour pigmentation.

Placement of Joins.

It is recommended that there are joins at every change of direction in the benchtop. Although these countertops can be cut as one piece from a slab, it is important to consider the risks of cracking that can happen after installation. Cracking does not indicate a material fault or even a fault with the fabrication or installation. It is the result of externally induced, mechanical stress on the benchtops.

Cutouts.

Cutouts are usually created in countertops for the installation of sinks, cooktops and other accessories. Fabricate cutouts according to the instructions of the manufacturer of the item to be installed and allow room for expansion.

Fabricate a minimum radius of 15mm for all corners in cutouts. The larger the radius, the stronger the corner. Do not do square corners or cross cut corners. Damage to the area may lead to the formation of hairline cracks which can grow over time.

The distance between a cutout and an edge or join must be no less than **150mm**. The greater the distance, the stronger the area. All cutouts must be reinforced and supported.

If a cutout will leave front and back rails of less than **150mm**, consideration should be given to making these rails from separate pieces to avoid problems with cracking. Where this is likely to occur, the joinery should be made with extra depth, but if this design consideration has not been implemented then you have limited options. Either take the risk with the smaller rails or advise the joinery manufacturer and/or customer that separate rails should be used.

The installation is dependent on the quality of the structure that the benchtops are being placed onto. If the structure is not adequate this should be discussed with the other parties involved.

This is really an issue for the joinery manufacturer to consider, however the stonemason installing the tops and in these situations could be held responsible if a crack does occur.

Edges.

All exposed edges should be fabricated to the same finish as the surface. The top and bottom of edges must be rounded or beveled. Do not create square aris edges. All edges should have a minimum aris/bevel of 3mm for the edge more resistant to chipping.

Filling, Cleaning and Finishing.

Slabs will contain small holes created from the production process which should be filled with a suitable coloured epoxy.

Clean the surface with a PH Neutral Cleaner using a variable speed polishing machine fitted with a cleaning pad/brush suitable for the surface finish of the slab.

For typical situations we recommend **Aquamix Nanoscrub. aquamix.com.au/products/problem-solvers/nanoscrub/**

Transportation of Fabricated Surfaces.

Correct racking is essential for transporting fabricated pieces to the site in good condition. Ensure that there is a backing board with a protective layer between the rack and the fabricated pieces to prevent scratching or other surface damage during storage or transit. Load the fabricated pieces onto a vehicle fitted with an A-frame rack with bottom plate and cross-braces suitable for the size and weight of the slab.

Each piece must be fully supported by the adjacent piece. Place pieces with cutouts in the centre of the stack for protection by solid pieces. Strap the pieces securely to the rack to prevent movement during transportation. All pieces should always be transported vertically.

Substrate, Base Units/ Joinery Adequacy.

Fabricated slabs are installed on a continuous level substrate support made from a stable material to the perimeter of the slab. Verify that the slab is sufficiently supported and reinforced in areas of joins, cutouts and over spaces for accessories, appliances such as dishwashers, ovens, washing machines, etc.

Before installing, ensure that joinery is complete, stable, level and suitable for bearing the weight of the surface. This support structure is out of the control of Fibonacci Stone and the stonemason. It is very important that it is fit for purpose as any failure here will result in failure in the benchtops.

Preparation for Installation.

Place all the fabricated pieces of the surface in their final position on the cabinets without adhesive. Check that all the pieces are the correct size, shape and direction in relation to the cabinets and the walls.

Perform a final visual inspection to ensure that the surface is to your satisfaction. Any major variations may need to be re-cut.

Joins.

Ensure that the join is clean of debris and is filled with a suitable coloured adhesive. Close, secure and straighten the join with a professional joining clamp to create a smooth, flush surface.

After the adhesive is completely dry, remove the clamps. Remove any excess adhesive with a scraper. Perform final cleaning with alcohol on a clean white cloth.

Adhesive Application.

To fix the tops to the carcasses, apply enough flexible silicone adhesive to secure the tops. Do not over-glue the tops, as even silicone, when used in abundance, is extremely strong and will restrict the slabs from moving due to expansion and contraction. Use the minimum amount required to do the job. Large pieces will not move easily due to their weight, as such minimal adhesive is required.

Sealing Between the Surface and the Wall.

Clean the space between the surface and the wall. Fill the space generously with a flexible adhesive such as neutral 100% neutral cure silicone. **maxisil.com** The silicone adhesive prevents water from entering the cabinet. For visible joins between the Caesarstone surface and a different material, use Caesarstone coloured silicone. If the cabinets are supported on adjustable legs, ensure that all legs are evenly tensioned to ensure stability.

Overhangs.

Overhangs are not recommended and in instances where and overhang is requested, the dimension must be determined by a professional. It is dependent on a number of factors, such as:

- The complete length to width ratio of the surface relative to the length and width ratio of the overhang.
- Whether the overhang is supported on one or more sides by a wall or other supporting fixture.

Alternatively, using a steel substrate (3-5mm) set back 50mm from the edge can achieve a similar look.

Installing and Finishing.

Ensure the slabs/surfaces are protected during and immediately following installation and appoint a reputable sealing contractor carry out all cleaning and sealing applications. This is also an integral part to the handover process to the client:

- Protect installation from construction damage. Following trades must take care, particularly plumbers when installing sinks, quite often clamps are used to hold sinks in place whilst adhesives/ sealants cure which can cause cracking.
- Protect the slab surface from acid and alkaline
- Protect the slab surface from stains and abrasions
- Clean with a PH Neutral Detergent using a variable speed polishing machine fitted with a cleaning pad/ brush suitable for the surface finish of the slab.

Fibonacci Stone partners with leading companies specialising in a range of products and services and we are always seeking to provide our customers with high quality information and company referrals to assist with your on-going care and maintenance of your Fibonacci Stone surfaces.

For care and maintenance products and services we recommend leading industry specialists:

aquamix.com.au

lithofin.com/en-au/

tenax.it/eng

drytreat.com/

Care & Maintenance.

Fibonacci Stone recommends using water and a PH Neutral Detergent or a high-quality spray and wipe-type cleaner on a microfiber cloth or non-abrasive sponge for routine cleaning of slab surfaces.

For care and maintenance products and services we recommend leading industry specialists:

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tenax.it/eng

drytreat.com/

Routine Daily.

- Clean spills ASAP and avoid contact with acidic foods or liquids.
- Remove large grit particles that may scratch the surface.
- Clean surface with a PH Neutral Detergent using a microfiber cloth.
- Do not use cleaning products that contain acid or alkaline as this will etch the surface.

Most marks can be easily removed with a little effort and a recommended cleaning product. For tough stains, gently rub the area with the cleaner and a mildly abrasive pad.

Extended Life.

Due to the fact that the materials contained in our slabs are somewhat more sensitive to dirt and damage, surfaces can be repolished and rejuvenated. For best results we recommend a reputable stone restoration contractor mechanically clean the surface, removing stubborn stains and repairing any scratches or blemishes returning the surface back to its original condition.

Heat Resistance.

Fibonacci Stone slabs are non-flammable however surfaces can tolerate moderately hot temperatures for brief periods of time. Prolonged exposure may result in discolouring or other types of damage. Excessive localized heat may damage the surface or cause hairline cracks.