

FULL VEIN PORCELAIN SLABS

EPIC
ROMA

STONESOURCE

STONESOURCE

Epic Roma Full Vein Porcelain Slabs

These 20mm full vein porcelain slabs are an excellent choice for countertops and vanities, offering both durability and aesthetic appeal. Their through-body design ensures realistic edge details, providing a seamless and high-end look that enhances any space.



Combining cutting-edge technology with timeless elegance, it sets a new industry benchmark providing an authentic, high-performance, and sophisticated porcelain solution that captures the depth, texture, and organic essence of natural stone with unmatched precision bridging the gap between nature and innovation.

BIANCO VAGLI



BLACK PASSION



CALACATTA BORGHINI

Bianco Vagli evokes the timeless elegance of marble with a contemporary edge. The soft, sweeping veining creates a sense of movement and depth across the expansive surface. The bold scale and refined palette make a striking visual statement in any space.

Bianco Vagli Full Vein Porcelain Slab

127"x65" | Thickness: 20mm

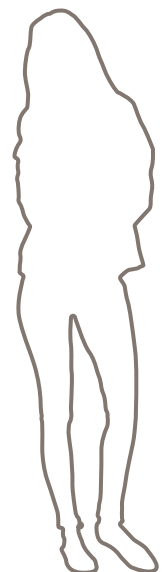
In polished and soft finishes.

See availability on page 9 for more details.

A



B



Black Passion makes a bold visual statement with its deep black base & vivid white striations. The dramatic contrast and fluid veining evokes a sense of movement and intensity, adding depth and character to any space. These slabs offer a bold, sophisticated aesthetic, ideal for creating a statement.

Black Passion Full Vein Porcelain Slab

127"x65" | Thickness: 20mm

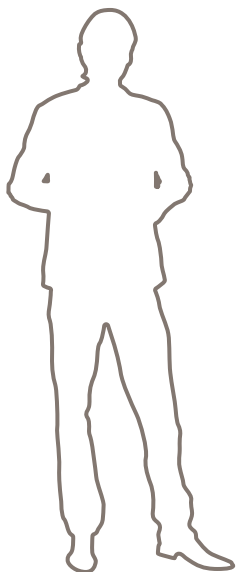
In polished and soft finishes.

See availability on page 9 for more details.

A



B



Calacatta Borghini is essence of luxury featuring an elegant off-white base that exudes timeless sophistication. Its striking gold and beige veining flows gracefully across the surface, mimicking the natural beauty of high-end Italian marble. An ideal slab for both modern and classic spaces.

Calacatta Borghini Full Vein Porcelain Slab

127"x65" | Thickness: 20mm

In polished and soft finishes.

See availability on page 9 for more details.

A



B



Statuario Select starts with a smooth off-white base, traced by graceful grey veining. It invites the eye to wander, offering a sense of openness and understated drama. Balancing elegance and artistic flair, Statuario Select brings a touch of refined character to any setting.

Statuario Select Full Vein Porcelain Slab

127"x65" | Thickness: 20mm

In polished and soft finishes.

See availability on page 9 for more details.

A



B



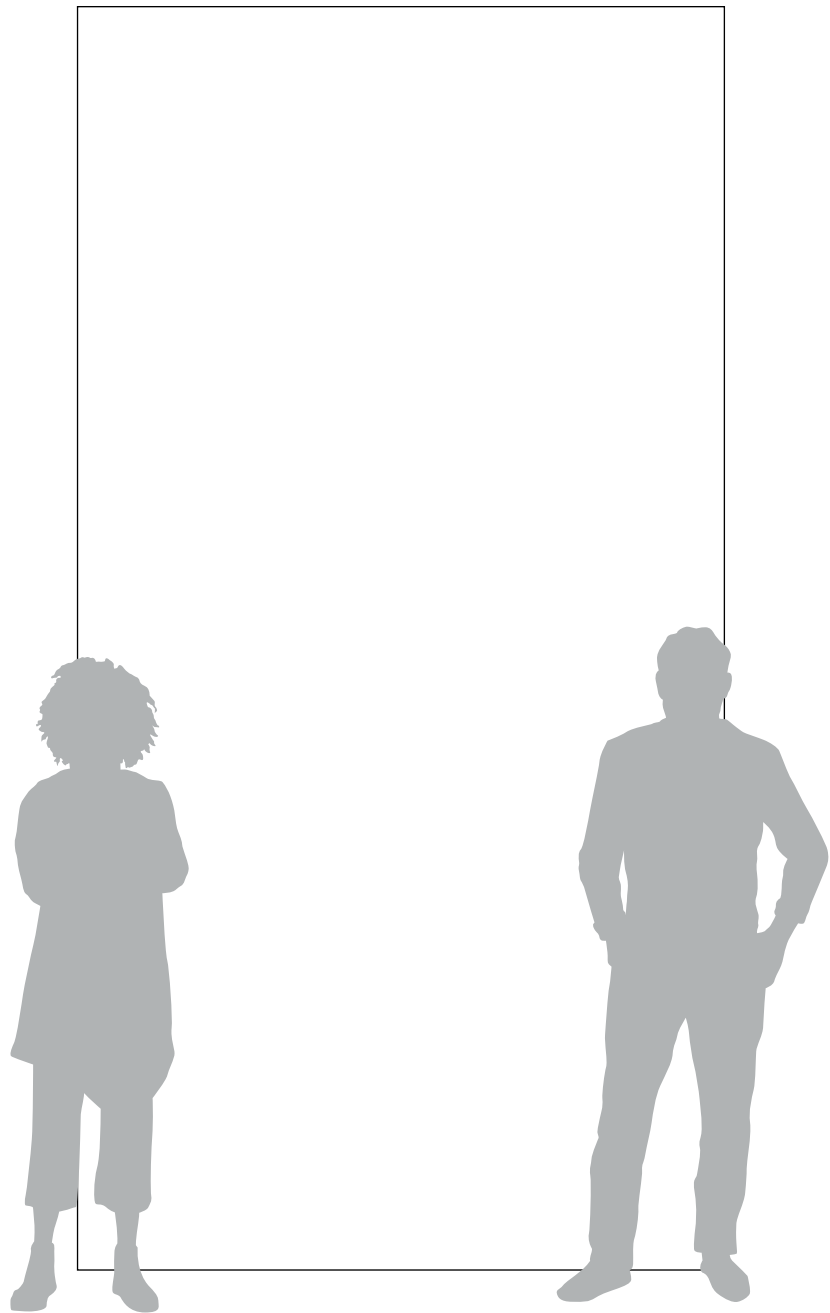
Size Availability

127"x65" 20mm Full Vein Slab	POLISHED	SOFT
BIANCO VAGLI	•	•
BLACK PASSION	•	•
CALACATTA BORGHINI	•	•
STATUARIO SELECT	•	•

D.C.O.F

POLISHED
n/a

SOFT
n/a



Size is nominal, not actual.

Epic Roma

Installation & Maintenance Guide

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Foreword

These surfaces, made with high quality raw materials, dry compaction technique sand firing in latest generation ceramic kilns, lend themselves well for use even in the most extreme settings due to their high resistance. In addition to the possibility of installation in damp and outdoor environments, Stone Source slabs are perfect for creating kitchen countertops, thanks to its parameters of resistance to impact, scratches and heat, as well as those that measure the vulnerability to attacks by chemical agents. This is why Epic Roma, even in the worktop setting, is a choice that perfectly combines style and practicality.



NON - ABSORBENT



EASY TO CLEAN



STAIN RESISTANT



CHEMICAL RESISTANCE



HYGIENIC



SCRATCH RESISTANT



RESISTANT TO BENDING



HIGH RESISTANCE TO
BREAKING LOAD



HEAT RESISTANT



FROST RESISTANT



COLORS UNAFFECTED BY UV RAYS



ECOLOGIC

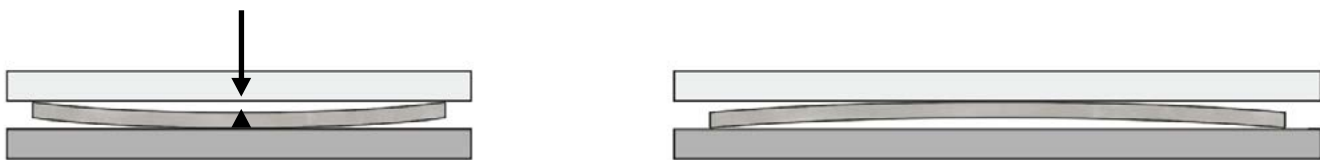
Surface appearance

The selection of raw materials and state of the art technological procedures allow the production of slabs with excellent quality standards. However, some occurrences are possible and fall within the acceptability of the product: Occasional impurities on the slab and of modest size. Dots of color in contrast or in line with the graphics approximately 2 mm. Relief lumps in general with a low contrast of color indicatively 3 mm in diameter.

Slight depressions and regular/irregular micro holes of approximately 2 mm in size. The above do not alter the quality and characteristics of the product and are occasionally visible on the surface, rarely repeated on the same plate. In case of clear defects, the slab must not be handled unless authorized by the Producer.

Slab flatness

It is possible to determine whether a slab is concave or convex through a perfectly even and horizontal support plane by placing a linear bracket on the slab with the tolerances indicated in the diagram. Flatness checks carried out with vertical slabs are not reliable for an assessment of the lack of flatness.



	Length	Width
Tolerance	$\pm 2 \text{ mm}$	$\pm 4 \text{ mm}$

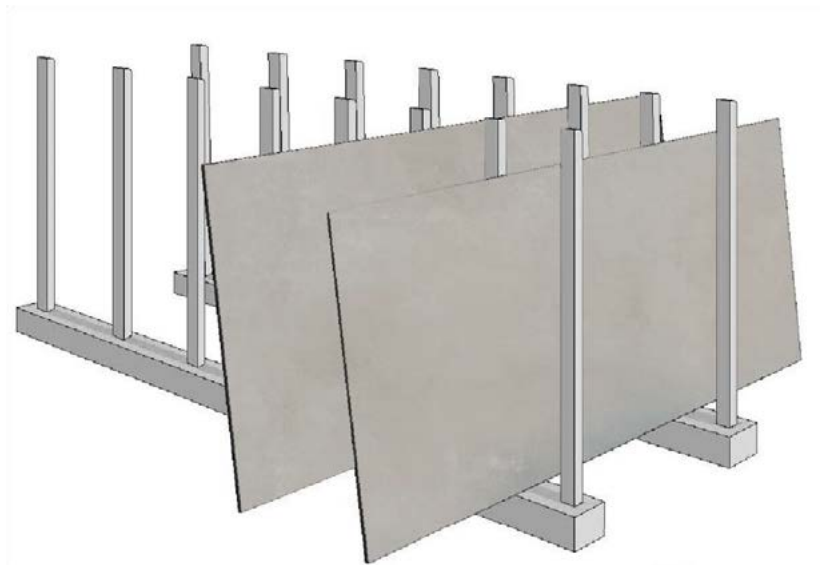
Label

The Label allows to have production traceability with indications of the Production Lot, Tone and Choice. Keeping the Label can be useful in case of completions and/or integrations for the verification of the Tone/Color. However, slight color differences are possible even within the same Lot and Color Tone. The Label is also essential for reporting any criticalities detected and will be needed along with the additional documentation when filing the Report Form.

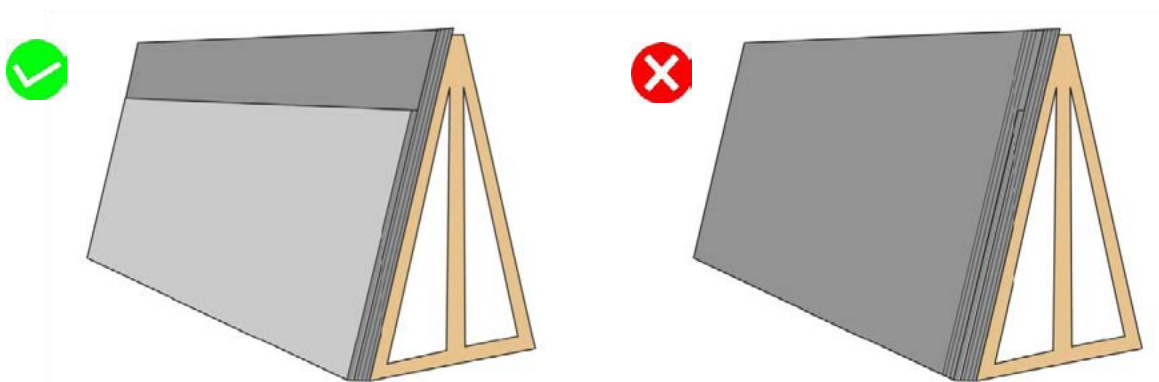


Slabs storage

The slabs can be stored on Aframe or traditional racks for stone and quartz material. The recommendation, for the safety of both slabs and operators, is to check that the slabs are held with belts and protections. It is recommended to apply wooden, rubber or plastic protections on the racks in order to avoid breakages and chipping. Sometimes the racks have support columns towards the inside of the slab, for this reason the most extreme parts of the slab do not find support on the columns and this leads to a natural curvature that generally disappears when positioning the slab on the workbench. However, as it is not possible to know how long the slab will remain with no back complete support, in order to avoid an accentuated curvature which could become hard to return to planarity, it is recommended to use racks for ceramic slabs that allow a complete support of the slab; an alternative is to use a granite or marble slab (do not use wooden ones) with larger dimensions on which to place the ceramic slabs so as to guarantee the tightness even for a prolonged time, facilitating the workability of the slab.



We also remind to place the cutout pieces in front of the entire slabs in order to avoid imbalances of the support both vertically and horizontally: larger dimensions behind and lower ones in front.



Cutting suggestions

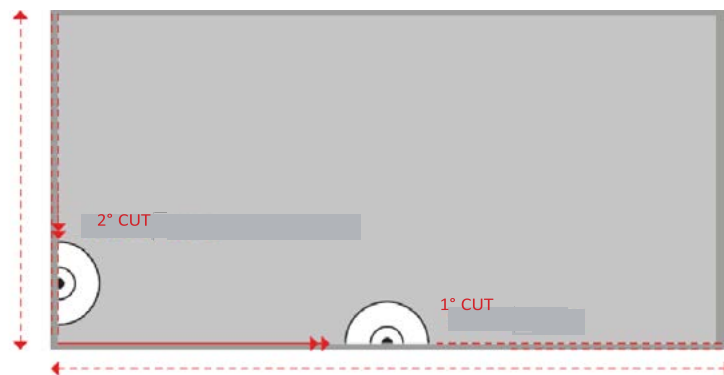
The Stone Source slabs can be cut and machined on traditional cutting machines for natural stone, marble and quartz agglomerations such as bridge milling and CNC machines, CNC contouring machines and waterjet machines.

In the case of machining using a tool, it must be suitable for cutting 20 mm porcelain stoneware. Information and parameters are provided in this manual for cutting on: Waterjet machine Bridge and CNC milling machines/CNC Contouring machines.

In order to achieve optimum machining, it is good standard practice to verify the perfect flatness of the work table/ grid plate on which the slab will be placed, as well as the absence of scraps and debris from previous operations.

The flatness of the work table/grid plate, combined with that of the slab, is important for the good quality of the cut because it reduces vibrations.

Before carrying out any type of machining on the slab, Stone Source always recommends doing a trimming cut. The trimming cut consists in cutting 1 cm more than the thickness of the material being machined on a long side and a short side; cutting on all 4 sides is recommended.

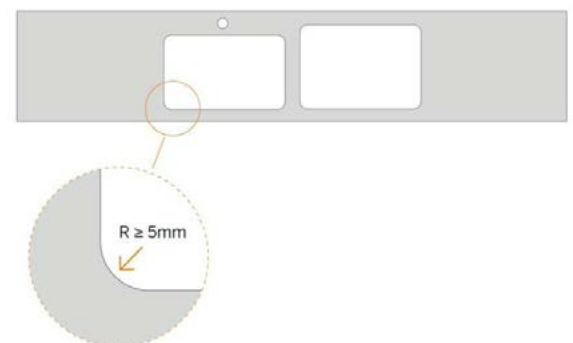
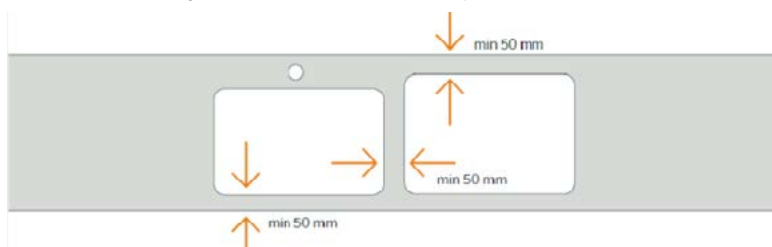


In drilling holes and making internal cuts, We recommend leaving no less than 5 cm between two adjacent cuts/holes and between a cut/hole and the edge of the slab itself.

Moreover, in carrying out quadrangular holes, Stone Source advises against carrying out 90° angles.

Set out a radius in correspondence to these corners, with radius of curvature greater than or equal to 5 mm. If the geometry of the hole allows, use wider radii (8-10 mm).

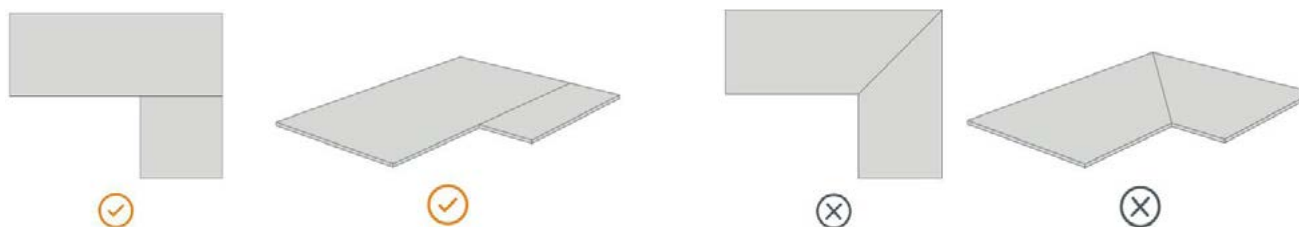
In any case, as a general rule, you should remember that the sturdiness of the finished surface increases with the increase of the internal radius of curvature of the holes and with the increase of the distance between two adjacent cuts. Surfaces with large holes are intrinsically more delicate.



If possible, carry out the holes on the surface in the portion of material closest to the centre of the original slab.



In the event of "L" shaped kitchen countertops, provide a wide radius on the internal corner.



Nevertheless, for greater sturdiness of the surface, we recommend dividing the piece into two parts.

In this case, we recommend studying the most suitable cutting scheme for the aesthetics of the composition.

At the end of each cutting operation, it is advisable to rinse the slab with abundant water jets in order to remove debris, dust or abrasives consumed during the machining.

Cutting with water jet

In creating surfaces using waterjet machines, We recommend carrying out the operations in the following sequence:

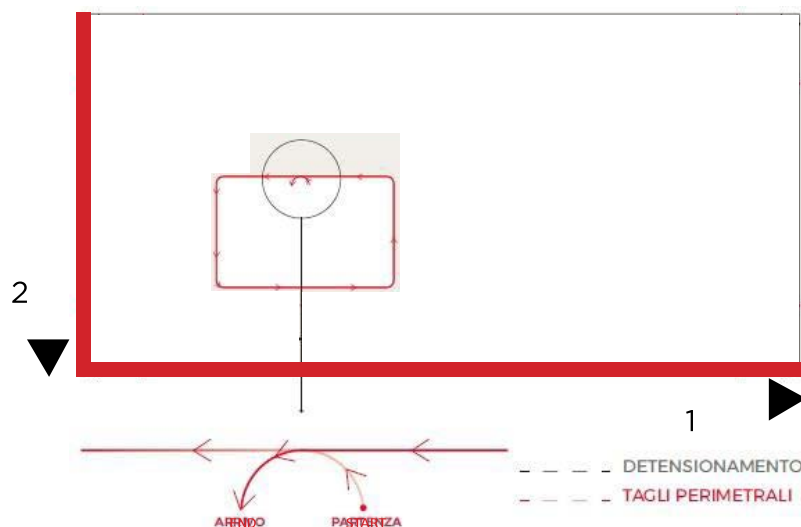
Trimming cuts

Any internal holes

In carrying out internal holes, we recommend beginning the cut from a point inside the perimeter of the hole (at least 2 cm, if possible) and then proceed toward the perimeter with a curved trajectory (curled).

Once the cut is complete, we also recommend removing the nozzle with a curved trajectory, toward the inside of the hole.

We recommend a nozzle feed rate of 1000-1500 mm/min for straight perimeter cuts and a feed rate of 500-800 mm/min to carry out internal holes.



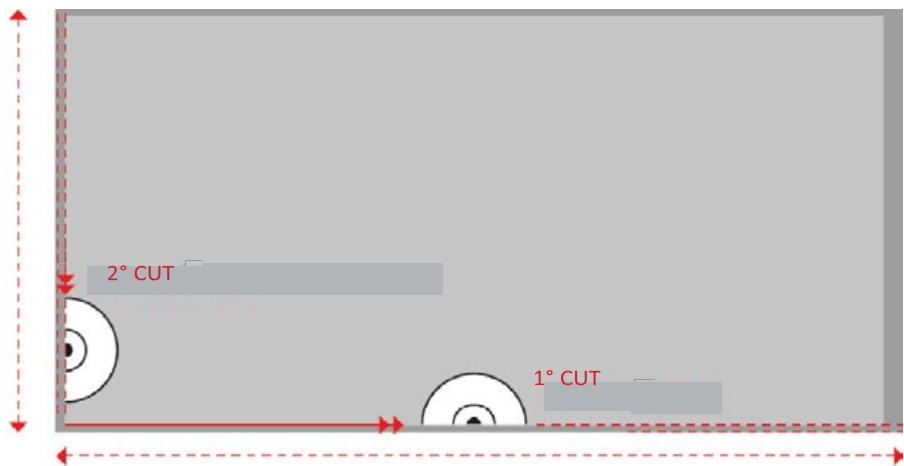
The pressure of the jet must be between 3000 and 3500 bar and the abrasive consumption about 0.35 kg/min. In the event of carrying out internal holes, we recommend reducing the jet entrance pressure to 600-800 bar, to then increase to 3000-3500 when the jet has completely penetrated inside the thickness.

Should the machine allow 45° waterjet cutting, we recommend a feed rate equal to half of the feed rate used for straight cuts.

Disk cutting with bridge milling machine

In carrying out surfaces using bridge milling cutters, we recommend carrying out the operations in the following sequence:

Trimming cuts



We recommend using specific diamond disks for porcelain stoneware and 6 12 20 mm thickness. Diamond disks for granite (soft, hard), marble and quartz agglomerations are not suitable for cutting ABK GROUP porcelain stoneware. For this type of cut, we recommend using sectorised or resin diamond disks.

Disk cutting on bridge milling machines must be carried out damp, ensuring an abundant jet of water directed precisely at the cutting area, from both the front and the side.

The rotation direction of the disk must be consistent with the feed direction of the same. We recommend using diamond disks with 30- 35- 40 cm diameter depending on the machine used, ideal for cutting a thickness of 6-12- 20 mm. The rotation speed depends on the diameter of the disk. The ideal tangential speed of the crown is generally about 4045 m/s.

Diameter (MM)	Rotation Speed (RPM)
300	2100-2300
350	1600-1800
400	1400-1600

For the optimum parameters calibrated on the single disk, please see the manufacturer's technical data sheet.

The optimum feed rate of the sectorized disk is 12001600 mm/min (6 12 20mm) for linear straight cuts, whereas in the event of a 45° cut, it must be reduced by 40%. For linear cuts using a resin disk, the speed of 2500 mm/ min is reached. In the case of a 45° cut, it is important to reduce the feed rate of the disk because it is subject to greater vibrations.

In order to reduce the vibrations in the cutting phase (linear and inclined), it is important that the optimum feed rate is reached with the entire disk is completely inside the material, not just entering, but also, and above all, when exiting. For this purpose, should the machine allow it, We recommend reducing the feed rate by 50% until the disk is completely inside the material.

This distance therefore depends on the diameter of the disk.

It is important that the disk descends below the level of the slab by 12 mm so that the cooling water can also evacuate from below.



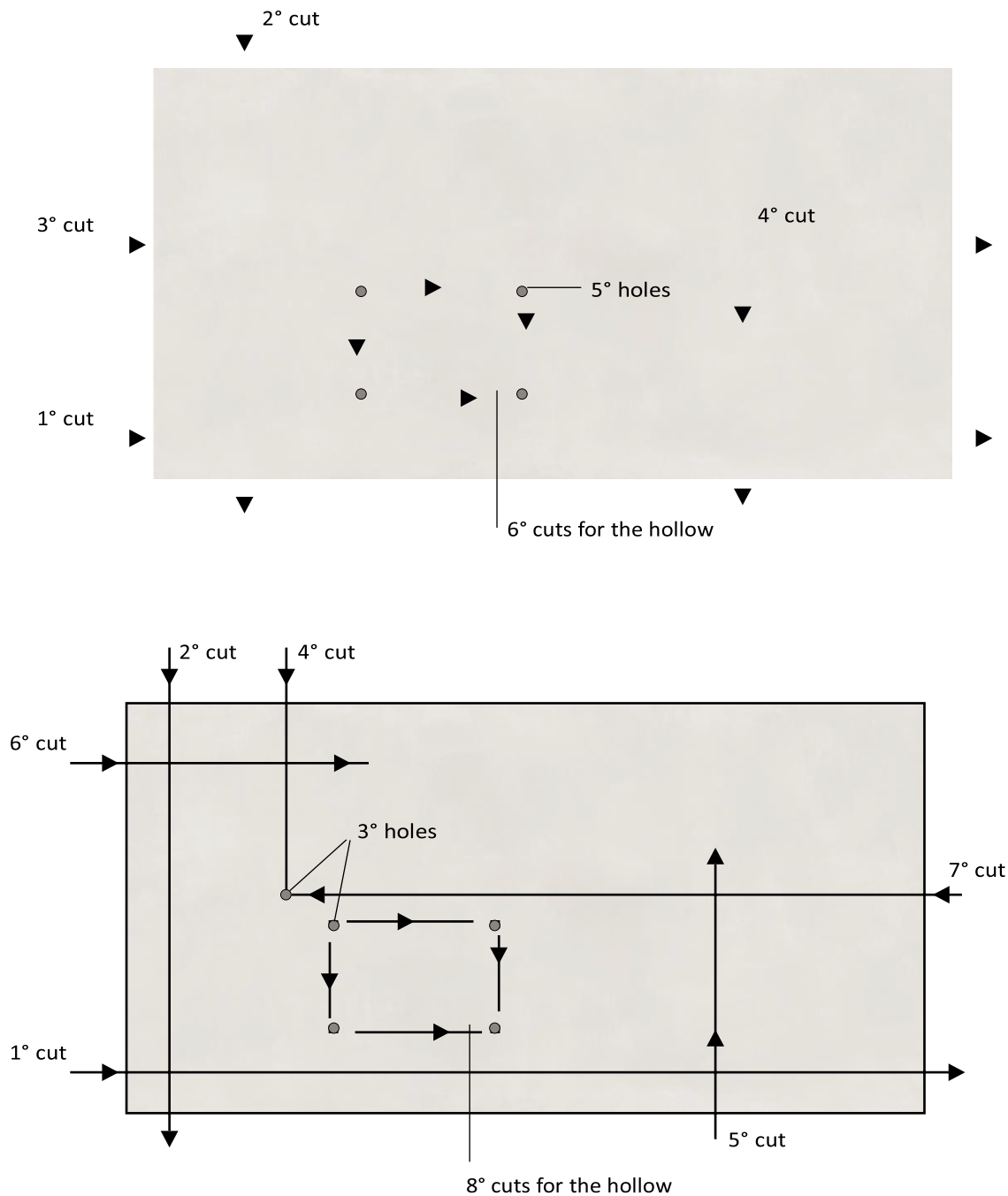
As support material for the slab during the cut, We recommend specifically designed vulcanised rubber sheets, expanded polymer material (XPS), slabs of granite or quartz agglomerations.

We recommend against using marine plywood sheets because they absorb water and can be deformed. Should the diamond of the disk be dirty, we recommend sharpening it by cutting open sandstone sheets, quartz agglomeration slabs, sand/cement based bricks or sharpening stones sold for this specific operation. If the work table allows, a strop of abrasive material can be provided up against the slab being cut so that the disk follows its travel postcut, cutting into the abrasive material and sharpening itself.

Hole drilling

Once the perimeter cut in the bridge milling machine has been carried out, We recommend against using the bridge milling machine to carry out the internal rectangular holes as well. To carry out the holes, a waterjet or CNC contouring machine must be used.

Cutting scheme



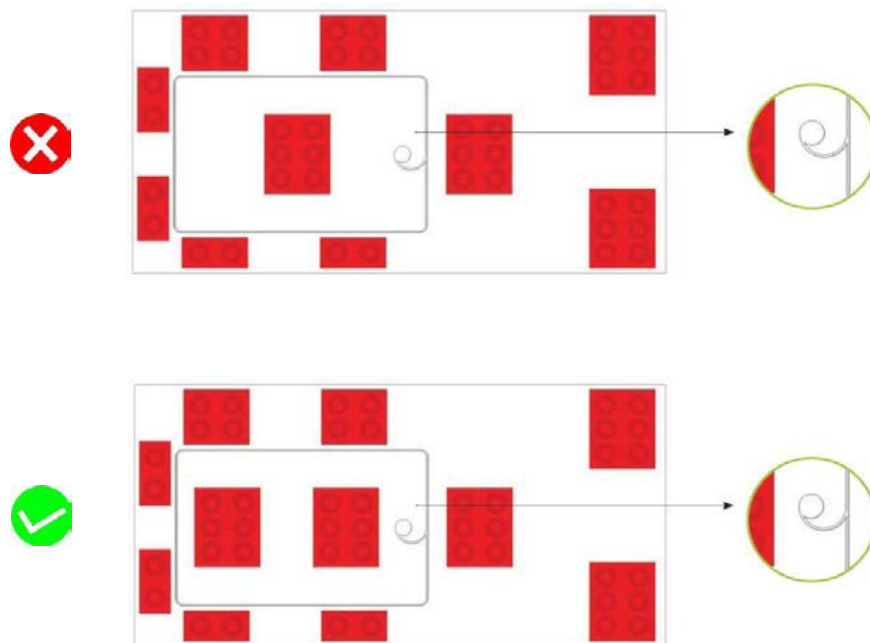
Cutting and machining with CNC machine (contouring machine)

In the case of carrying out machining, cuts and holes using CNC contouring machines, arranging suction cups on the bottom part of the slab is indispensable. The suction cups must be distributed evenly under the slab in such a way so as to reduce vibration and bending during the cutting operations. In the case of carrying out holes and cuts of portions of material, the suction cup(s) must be positioned in the area of the cut material so that it is supported and it does not fall at the end of the cut.

Ensure that the suction cups have a perfect grip on the back of the slab.

Circular holes

The circular holes, both those which will house the mixer tap and those made ahead of time in the corners of the quadrangular holes, are carried out damp using diamond drill bits.



Provide abundant water flow both inside and outside the cutting circumference.

Router bits of all diameters are available on the market. The recommended rotation speeds range from 1800 to 3000 RPM, depending on the diameter of the router bit, with a feed rate in the thickness of 20 30 mm/min.

If the machine allows, for the 2 mm entering and 2 mm exiting, it is good practice for the router to have a lower feed rate of about 5 mm/min*.

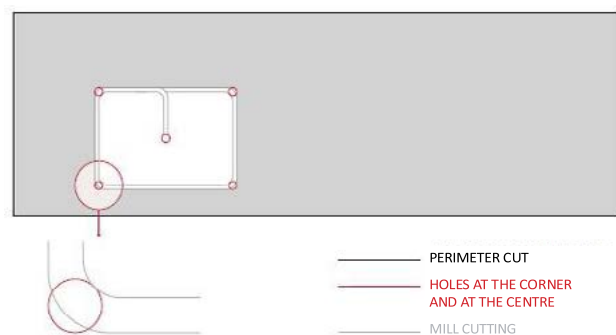
This way, the risk of chipping on the lower part of the slab is minimised.

Quadrangular holes

In the CNC machine it is possible to carry out the quadrangular holes by means of the technique of boring in the corners using a diamond router bit (remembering the general radius indications) and then carrying out the cut using a diamond mill cutter. In this case, a circular hole is carried out ahead of time using a diamond router bit inside the perimeter of the quadrangular hole. If possible, this circular hole must be carried out at the centre of the quadrangular hole at the greatest possible distance from the perimeter of the hole.

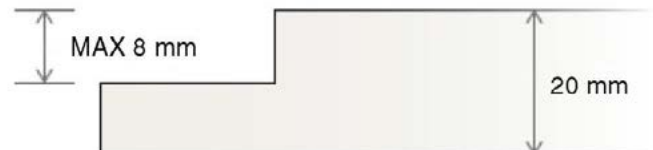
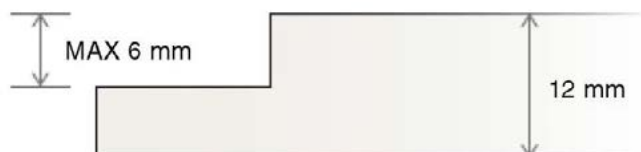
The diamond mill cutter, smaller in diameter than the circular hole, enters into the hole that has just been bored and moves toward the perimeter of the quadrangular hole with a broad circular trajectory, proceeding with the cut. The typical feed rate for this type of operation is 200 300 mm/min, with a rotation speed of 4500 5000 RPM.

It is preferable for the mill cutter to move in such a way so as not to touch the corners of the hole, where the circular holes have been made: this way applying pressure on the corner is avoided.



Flush hole

In the case of carrying out a hole with flush hole recessing, We recommend carrying out the recess before the actual hole. The recess is carried out using a mill cutter capable of removing material from the lower surface as well. Generally, the mill cutter is unable to remove all the material in a single pass. Repeat the passes until reaching the desired recess depth: We recommend against using recesses greater than half the thickness of the slab.



Cutting Operations with Disk

28 November 2019 and 13 February 2020 Machining Tests

Nominal Size: 3200 X 1600 mm

thickness: 20mm



Trimming of Slab and Obtaining Pieces for Kitchen Top

Machine: Donatus Echo

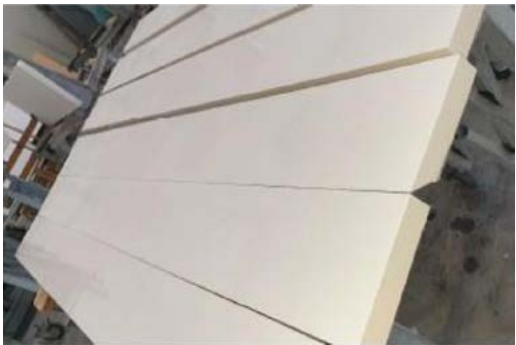
Vertical Cut with Sectored Disk

ADI code	Descriptions	RPM	FEED (mm/min)
MTS64034	Sectored Metal Disc Ø 400 x 3.4 x 10 Bore 60mm COMPACT ITALO	1500	1000-1200
MTS64035	Sectored Metal Disc Ø 400 x 3.4 x 10 Bore 50mm COMPACT ITALO	1500	1000-1200



Cut with High Performance Sectored Disk

ADI code	Descriptions	RPM	FEED (mm/min)
MTS64012	Sectored Metal Disc Ø 400 x 3.5 x 7 Bore 50mm COMPACT RATIO	1450-2000	1000-1500
MTS64013	Sectored Metal Disc Ø 400 x 3.5 x 7 Bore 60mm COMPACT RATIO	1450-2000	1000-1500



Vertical Cut with Resin Disk

ADI code	Descriptions	RPM	FEED (mm/min)
CA02202	Resin Metal Disk Ø 350 x 2.6 x 8.5 Bore 50mm COMPACT AMBRA	2200	1000-2000
CA02203	Resin Metal Disk Ø 350 x 2.6 x 8.5 Bore 60mm COMPACT AMBRA	2200	1000-2000
CA02205	Resin Metal Disk Ø 400 x 2.6 x 8.5 Bore 50mm COMPACT AMBRA	1800	1000-2000
CA02206	Resin Metal Disk Ø 350 x 2.6 x 8.5 Bore 60mm COMPACT AMBRA	1800	1000-2000



Cutting Operation With Waterjet Cutting

Sink Internal Cut for Kitchen Countertop

Machine: Waterjet

ADI code	Descriptions	RPM	FEED (mm/min)
CA02205	Resin Metal Disk Ø 400 x 2.6 x 8.5 Bore 50mm COMPACT AMBRA	-	800
CA02206	Resin Metal Disk Ø 350 x 2.6 x 8.5 Bore 60mm COMPACT AMBRA	-	800



Sink Internal Boring for Kitchen Countertop

Machine: Breton NC 300



ADI code	Descriptions	RPM	FEED (mm/min)
MT81135	Router Ø 35	1800	30



Kitchen Countertop Sink Size Cut

Machine: Breton NC 300



ADI code	Descriptions	RPM	FEED (mm/min)
MT74030	Sectored Milling Machine Ø 22	4500	300



Kitchen Countertop Internal/External Profiling
Machine: Breton NC 300

ADl code	Descriptions	RPM	FEED (mm/min)
MT90016	Profile Milling Cutter Position 1 Ø 20	6000	400
MT90017	Profile Milling Cutter Position 2 Ø 20	6000	1000
MT90018	Profile Milling Cutter Position 3 Ø 20	6000	1000
MT90019	Profile Milling Cutter Position 4 Ø 20	5800	800



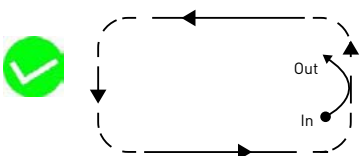
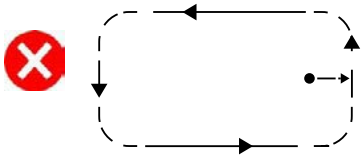
Flush Machining for Sink Mounting
Machine: Breton NC 300

ADl code	Descriptions	RPM	FEED (mm/min)
MT75022	Continuous Mill Cutter with Grooves Ø 16	5500	1000

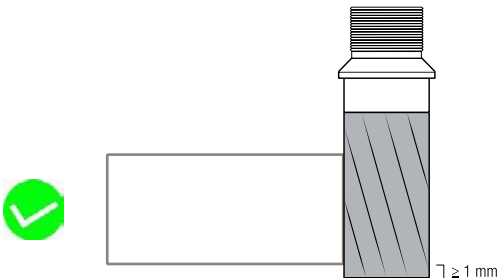
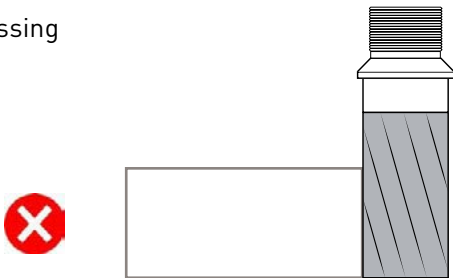


Removal: 2mm
Please note: The work parameters used are conservative.

Cutting scheme



Numerical control processing



Machining the edges

The edges of the Stone Source porcelain stoneware slabs can be machined in a CNC contouring machine in such a way so as to obtain various profiles. We recommend against leaving the slabs with a sharp edge and carrying out a 1 mm minimum chamfer or a rounded profile with a 1 mm minimum radius of curvature. The edge of the slab can subsequently be subjected to grinding, including by polishing grinders.

Below are a few examples that can be obtained using a CNC contouring machine.



The perimeter profile of the slabs, but not that of the inside of the holes, can also be contoured using a straightline contouring machine like the ones used in the glass industry. In this case, without a CNC contouring machine, the edge of the hole must be machined with a manual diamond backing pad.

The straightline contouring machine is also able to carry out the 45° cut of the edge on the perimeter of the surface.

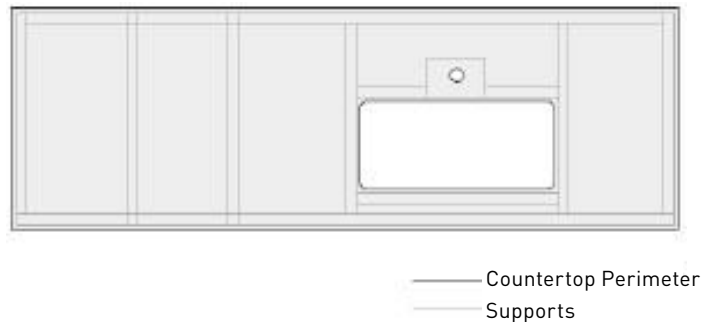
Installing The Countertop

Stone Source suggests handling the cut surface in a vertical position. In the event that the holes are arranged closer to one side, it is advisable to keep that side upward.

Supports

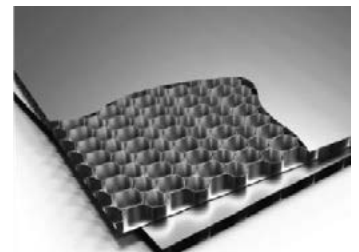
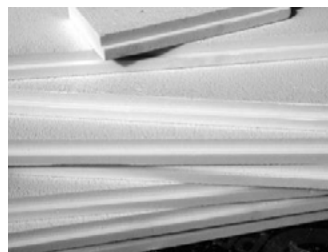
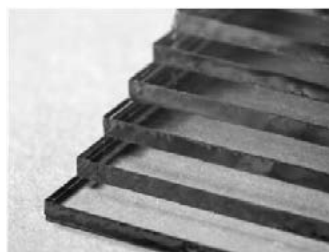
The Stone Source slabs can be glued onto a full support as well as on reinforcements. In both cases, using elastic and deformable adhesives capable of overcoming the different thermal expansion of slab and support is advisable. Spreadable adhesives are also available on the market which guarantee adhesion on any type of support and good deformability. Gluing the slabs onto quartz agglomeration reinforcements is absolutely inadvisable.

In the case of gluing on reinforcements, ensure the optimal arrangement of the reinforcements in the most delicate points of the surface, such as the internal perimeter of the holes (sink, cooking surface, water mixing tap) and along the entire external perimeter.



The following is a list of the main types of existing supports.

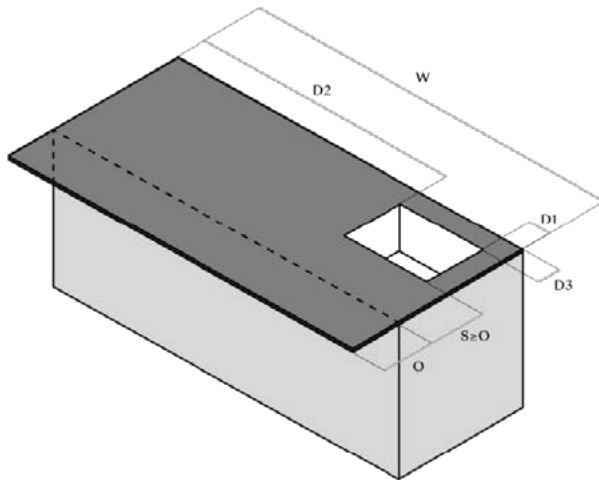
- wood
- glass & crystal
- high density polystyrene
- extruded polystyrene
- marine plywood panels
- honeycomb aluminium sandwich panels
- stone



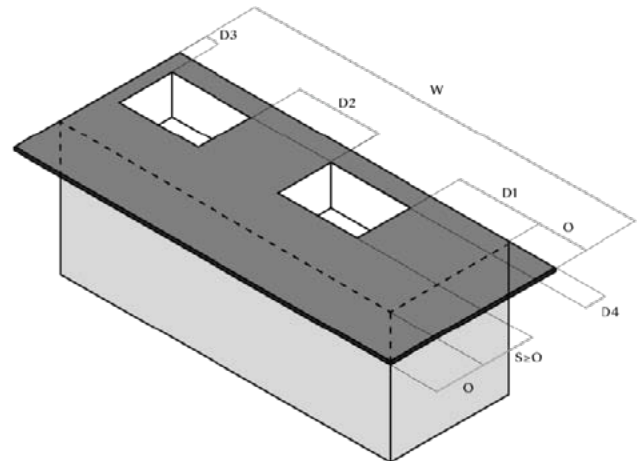
Overhang parameters

Thickness: 20 mm.

The maximum overhang the surface can sustain without having to provide an adequate support is 15 cm. The entity of static capacity (sustainable weight) is subordinate to whether or not there are holes in the immediate vicinity. We always recommend a specific assessment in that excessive weight near the holes can cause the surface to break. For overhangs greater than 15 cm, up to a maximum of 30 cm, an adequate support must be provided.

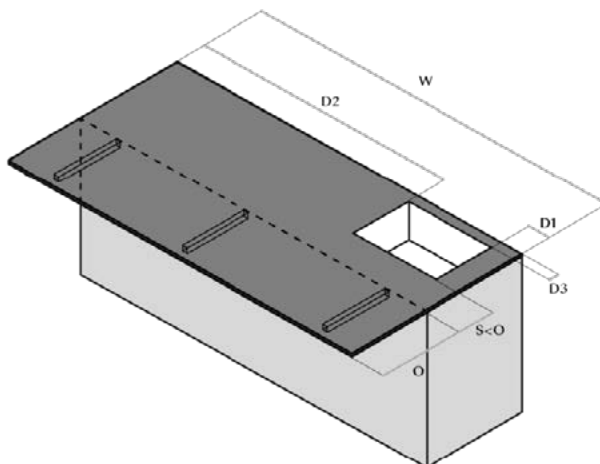


$W \geq 600 \text{ mm}$
 $O = \text{Protruding wall}$
 $S = \text{Area with substrate}$
 $D1 \geq 100 \text{ mm}$
 $D2 \geq 100 \text{ mm}$
 $D3 \geq 100 \text{ mm}$
 $D1 + D2 \geq O$



$W \geq 600 \text{ mm}$
 $O = \text{Protruding wall}$
 $S = \text{Area with substrate}$
 $D1 \geq 600 \text{ mm}$
 $D2 \geq 600 \text{ mm}$
 $D3 \geq 100 \text{ mm}$
 $D4 \geq 100 \text{ mm}$

For standard lengths that exceed an overhang of 30 cm, an adequate support must be provided from the bases, at least every 60-62 cm.



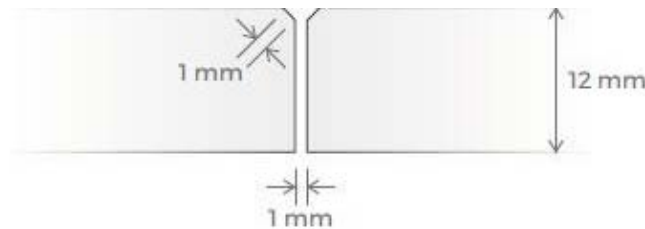
$W \geq 600 \text{ mm}$
 $O = \text{Protruding wall}$
 $S = \text{Area with substrate}$
 $D1 \geq 100 \text{ mm}$
 $D2 \geq 100 \text{ mm}$
 $D3 \geq 50 \text{ mm}$
 $D1 + D2 \geq O$

Coplanar slabs

If two or more coplanar slabs are to be placed next to one another due to the design of the kitchen countertop, as in the case of "L" shaped or "U" shaped kitchens, We recommend making a 1 mm chamfer on the coupled edges in order to avoid possible chipping when placing them next to one another.

In any case, levelling the support is indispensable also to guarantee the flatness of the upper surface of the two slabs.

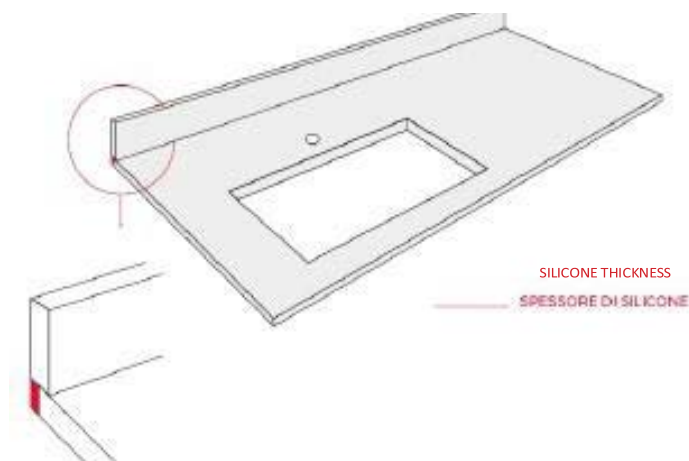
Always provide a minimum joint (1 mm) in silicone or epoxy grout in a colour to match the slab, taking care to adequately clean the two surfaces that will come into contact with one another before applying adhesive.



We recommend to make a slight bevel on the edge also on the side that goes to the wall because it allows a better elasticity of the material in case of thermal expansion.

We recommend always leaving a margin of at least 2 mm between the slab of the countertop and the wall in order to avoid any problems of flatness of the wall and thermal expansion of the countertop.

This margin can be covered using a riser.



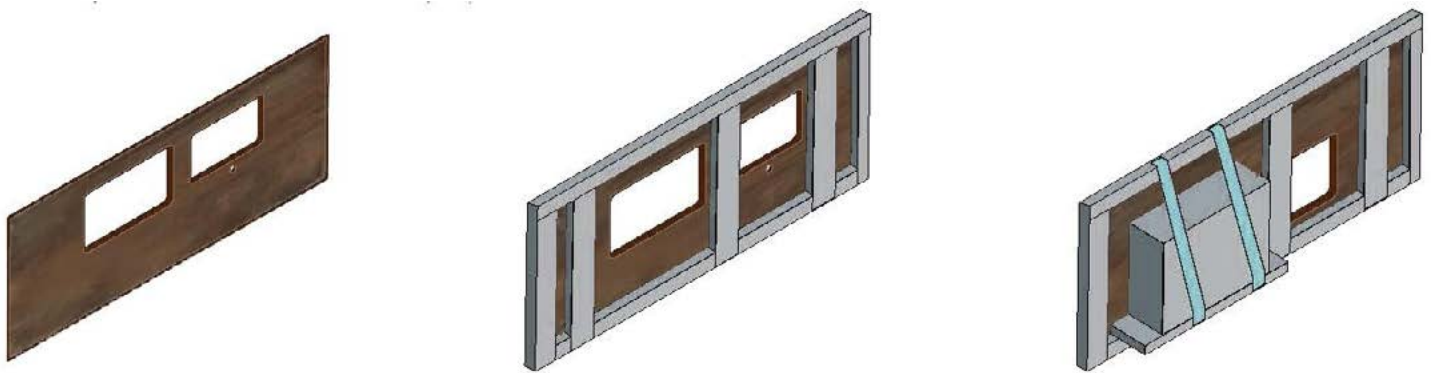
Slabs handling

During transport it is fundamental to avoid shocks of the slabs, especially on the edges of the top.

We suggest to move the slab vertically without using the holes as support points in order to avoid cracks or breakages in these more delicate points.

We also suggest to cover the slab during the transport with wooden boxes or special tarpaulins, paying attention to properly protect edges and corners.

If the top includes the preassembled bathtub, it will have to be provided with a wooden box that has a support able to sustain the weight of the washbasin, so that it does not generate a torsion of the top.

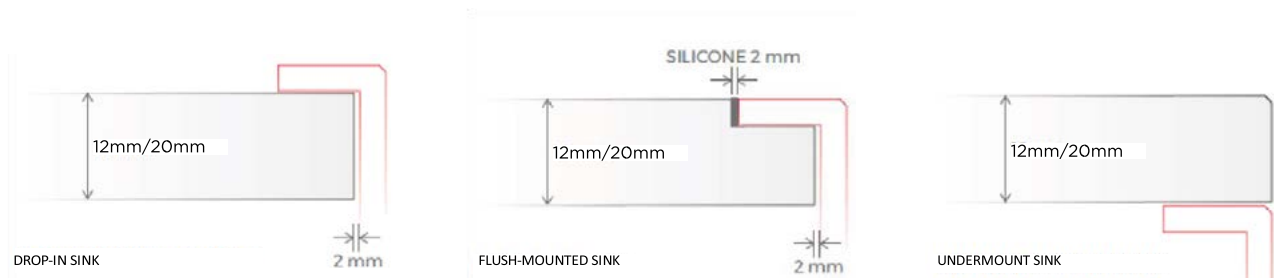


Sinks

The Stone Source slabs can be combined with different types of sinks, such as dropin sinks, undermount sinks and flushmounted sinks.

We recommend following the sink manufacturer's installation suggestions.

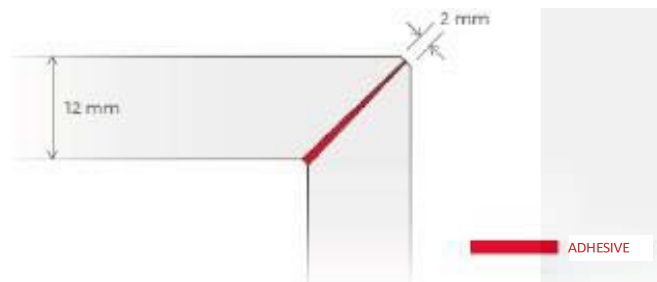
In the case of an undermount sink with a basin larger than the countertop hole, in order to reduce the risk of chipping, we recommend carrying out a 1 mm minimum chamfer or radius on the lower edge as well. In the case of a flushmounted sink, follow the cutting suggestions and provide a margin of at least 2 mm between the sink and the recess. In the case of medium and large size sinks, we recommend always using support brackets under the sink.



45° Joint

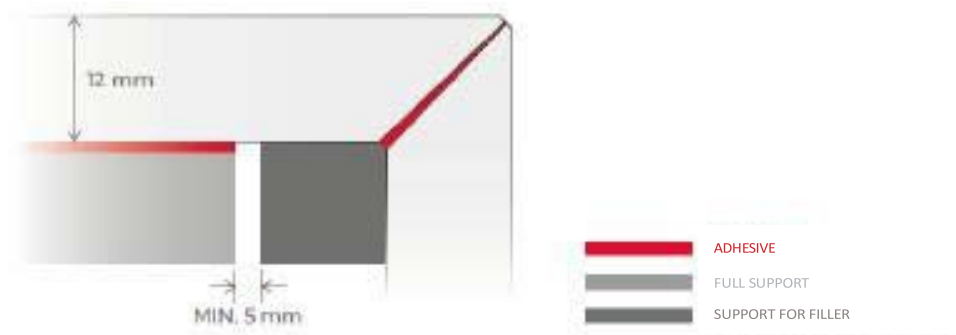
In the event that the project requires a filler or side, the slabs machined with a 45° cut are glued using specific adhesive, after which, the joint must be chamfered in order to reduce the sharp profile of the edge. However, it is also possible to carry out a slight chamfer on the two edges before gluing.

Before applying the adhesive, it is advisable to clean the edges and possibly treat them with acetone.



The ideal adhesives for 45° gluing are the two component epoxy type. The catalysis of these adhesives is the chemical type and requires a certain hardening time. The atmospheric temperature, as well as the temperature of the slabs, has an impact on the hardening time. It is advisable to carry out gluing at a temperature above 10°C. In any case, Stone Source suggests that you read the recommendations of the specific adhesive manufacturer carefully. It is important to remove excesses of adhesive before it hardens. Please see the cleaning and maintenance manual for cleaning tips. To create invisible joints, we recommend cutting each edge at an angle slightly greater than 45° in order to leave more space for the glue in the rear part of the joint.

In the case of a 45° joint between slabs intended for outdoor use, and therefore subject to a different thermal expansion between the Stone Source surface and the support, we highly recommend using a support for the filler separated from the horizontal support by at least 5 mm. This cavity allows differential expansion between surface and support. Use suitable adhesive for outdoor applications, resistant to thermal shock, water and yellowing.



Cleaning and Maintenance

Cleaning after installation

Stone Source products have a surface that's resistant to stains, hygienic and easy to maintain; to preserve these characteristics, thorough cleaning must occur as soon as installation is completed, eliminating any residues that may create a film on the surface of the product capable of retaining more dirt. Insufficient or late removal of grout, silicone and adhesive residues may leave stains that are difficult to remove.

Initial cleaning must therefore take place immediately after installation, using acidbased products, rubbing hard and rinsing well with plenty of water.

This will permit the elimination of adhesive, cement, silicone residues, etc. All detergents available on the market may be used with the sole exception of products containing hydrofluoric acid (compounds and derivatives) as per the EN 14411 standard.

Take care to follow the instructions provided by the producer on the pack of the product used. Before cleaning the surface installed, it is always best to test the cleaning agents first on a sample of the material which has not been installed, or on a small, not very visible area.

Routine cleaning

For routine cleaning, it is enough to follow a few simple precautions which are mainly common sense once the material's characteristics are borne in mind.

Use neutral, waxfree detergents diluted in water, always following the instructions on the packs.

Clean water may be sufficient for frequent washes.

Do not use acidic products or abrasive tools, which may make the surface of lapped materials matt, and compromise the cementbased materials used for sealing.

All possible care should be taken to prevent the presence of material from outdoors which may cause scratches, quartz sand and other materials, since they may cause abrasion of the surface and reduce its shine.

Ventilated Facades

The insulation installed behind the slab covering is most effective when perfectly dry; do not use violent water jets.

We recommend the use of a neutral cleaner (e.g.: FILACLEANER - filasolutions.com) NB: Waxes, oily soaps and impregnating materials (water and oilrepellents) should not be used on porcelain stoneware.

Extraordinary Cleaning

If the product requires extraordinary cleaning due to particularly stubborn stains, action should be taken as soon as possible, using the specific detergents recommended in the table below:

Cleaning and Maintenance

Stain For Removal	Type Of Detergent	Recommended Cleaners
Oil And Grease	Alkaline Cleaners	FILA PS87 PRO
Beer		
Chewing Gum		
Vinyl Glue		
Tyre Marks		
Silicone	Alkaline Stain-Removers or Solvents	FILA ZERO SIL
Polyurethane Foam	Alkaline Stain-Removers or Cleaners	FILA PS87 PRO - FILA SR95
Adhesive Tape Residues		
Wax Pastel Marks		
Ink		
Nicotine		
Urine And Vomit	Alkaline Cleaners	FILA PS87 PRO - FILA CR10
Marker Pen Stains		
Hair Dye		
Coffee		
Wine		
Blood	Acid Cleaners or Rust Converters	DETERDEK PRO - FILA NO RUST
Coca Cola		
Suction-Cup Marks		
Rust		
Cement-Saltpetre	Acid Cleaners or Acid Descaler	DETERDEK PRO - FILA PH ZERO
Limescale		
Aluminium - Metal Marks		
Pencil		
Epoxy Filler	Alkaline Cleaners	FILA CR10
Varnish - Paint	Alkaline Paint Strippers or Solvents	FILA NO PAINT STAR
Graffiti		
Dirty Grout Lines	Alkaline Cleaners	FUGANET
Bitumen	Solvents	FILA SOLV
Candle Wax		
Routine Maintenance	Neutral Cleaners	FILA CLEANER
Scratch Remover Wax	Alkaline Stain-Removers or Solvents	FILA SOLV - FILA ZERO SIL

NB: On polished products, do not use acid cleaners at high concentrations. They should be diluted in water to 10 15%. Before any use of cleaners, it is important always to test them on part of the surface, especially on polished products. All cleaning products should be diluted with water.

Technical Characteristics

Technical Characteristics	Standard	Description Of Test Method	Test Results
Breaking Strength In N (Thk ≥ 7,5 Mm: 1300 N Thk. < 7,5 Mm: 700 N)	ISO 10545-4	Application of a load to the midline of the panel until breakage is obtained	Average Value 20 Mm: 20000 N
N/Mm2 Flexural Strenght Test (≥ 35 N/Mm2)			Average Value 20 Mm ≥ 50 N/Mm
Fire Reaction	UNI EN 13501-1	Floor radiant panel test UNI EN ISO 9293-1	Classe A1fl+A1
Impact Resistance	UNI EN ISO 14617-9	Resistance to dropping a 1 kg steel ball on a sample placed on a bed of sand.	Compliant
Coefficient Of Return	UNI EN ISO 10545-5	Measurement of 28 g steel ball rebound height.	Compliant
Volatile Organic Compound Emission Tests	UNI EN ISO 16000-9	28 Days length-test	Compliant
Compression Strength	ASTM C170M-16	Breaking load on 12x12x12 mm samples	Compliant
Static Load For Raised Floors	UNI EN ISO 12825	Application of increasing load until sample until breakage is obtained	Compliant
Cadmium And Lead Release In Mg/Dm2	ISO 10545-15	Request for gl surfaces for work tops	None
Resistance To Damp Heat	UNI EN 12721:2013	55° To 100° cycles	Compliant
Resistance To Dry Heat	UNI EN 12722:2013	55° To 100° cycles	Compliant
Resistance To Cold Liquids	UNI EN 12720:2013	Period of contact 10s to 24 h	Compliant
Tendency To Retain Dirt	UNI 9300:2015	Carbon black staining agent	No Visible Change
Scratch Resistance	UNI EN 15186:2012 MET.B	Load > 10n	Compliant (Nat. + Soft Surface)
Fungi Resistance	ASTM G 21-15	Contact for 28 days with a variety of fungal strains	Compliant
Light Reflectance Value Lrv	In-House Test Method	Illuminant d65	Based On The Color: Available On Request
		Illuminant a	
		Spectrophotometer at 10°	
Colors' Resistance To Fading	DIN 51094	Evaluation of the color changes following a 28 day exposure to ultra violet light.	Compliant

Technical Characteristics	Standard	Standard Requirements	Test Results
Admitted deviation, in %, of the average thickness of each tile from the production dimensions	ISO 10545-2	± 5%	± 5%
Flatness (curving in the middle, corner and warping)	ISO 10545-2	±0,5% ±2 mm	±0,5% mm
Surface quality	ISO 10545-2	At least 95% of the tiles must be free from visible flaws.	Compliant
% Water absorption	ISO 10545-3	< 0,5%	< 0,5%
Resistance to deep abrasion of unglazed tiles	ISO 10545-6	<175 mm3	Compliant
Thermal shocks resistant	ISO 10545-9	Available testing method	Resistant
Resistance to staining	ISO 10545-14	See manufacturer's certificate	Classe 5 (Nat. + Soft) Classe 3-4 (Lux)
Resistance to low concentrations of acids and alkalis	ISO 10545-13	See manufacturer's certificate	ULA-ULB (Nat + Soft) UB (Lux)
Resistenceto domestic chemical products and additives for swimming pools		MIN B	UA
Frost resistance	ISO 10545-12	Required	Resistant

Comparative Table

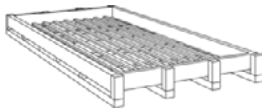
Porcelain slabs are a smart and safe choice for kitchen worktops. They have outstanding qualities and meet the most common parameters of durability and resistance used to evaluate materials in general.

	Nat/Soft	Lux	Quartz Agglomerates	Laminates And Wood	Solid Surface	Natural Stones	Steel
Hygienic	***	***	***	*	***	*	***
Non Porous	***	***	***	*	***	*	***
Suitable For Use Outdoors	***	***	*	*	**	**	**
Resistant To Heat & High Temperatures	***	***	**	*	*	**	***
Resistant To Mould, Mildew, & Fungus	***	***	***	**	***	*	***
Stainproof	***	**	**	**	**	*	***
Detergent-Resistant	***	**	**	**	*	*	*
Chemical Resistance	***	**	**	*	**	*	**
Resistance To Thermal Shock	***	***	**	*	**	***	***
Frost Resistance	***	***	***	*	*	**	***
Dampness Resistance	***	***	***	*	***	*	***
UV-Resistant							
Scratchproof & Abrasion-Resistant	***	**	**	*	*	**	*
Easy To Clean	***	***	***	**	**	*	*

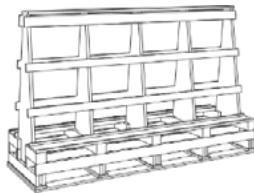
Packaging

Packing Type	Slab Size*	Thickness	Slabs/Packing	Sqm Total	kg/slab	Kg/Packing	Kg total
Crate	127"x65"	20mm	5	25.6	246	139	1369
Container Rack Pallet Wood A-Frame	127"x65"	20mm	10	51.20	246	180	2640
Container Rack Pallet Metal A-Frame	127"x65"	20mm	10	51.20	246	180	2640
Bundle	127"x65"	20mm	12	61..44	246	60	3012

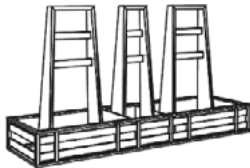
* Size is nominal, not actual.



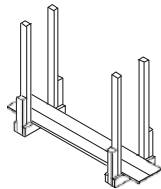
Crate
174x345x27.5



Container Rack Pallet
Wood A-Frame
75x330x201



Container Rack Pallet
Metal A-Frame
75x330x201



Bundle
54x330x223

Packing Type	Thickness	Packaging Quantity	Slabs Total	Sqm Total	Kg/Slab	Kg/Packing	Kg Total
Container 20"	20mm Nat/Soft/Lux	#3 Container Rack Pallet Wood A-Frame	30	153,60	250	540	8.040
		#5 Crates	25	128,00	250	695	6.945
		8 Bundles	96	491,52	250	480	24.480
Container 40"	20mm Nat/Soft/Lux	#9 Container Rack Pallet Wood A-Frame	90	460,80	250	1.620	24.120
		#15 Crates	75	384,00	250	2.085	20.835
Camion	20mm Nat/Soft/Lux	#9 Container Rack Pallet Wood A-Frame	108	552,96	250	1.620	28.620
		#12 Crates	60	307,20	250	1.668	16.668



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