

Processing manual

Vers. US-0/2022



LAPITEC



This manual has been designed to provide guidelines and helpful suggestions for the processing of Lapitec® slabs.

The information contained herein reflects the highest level of technical/scientific and operational knowledge in possession of the manufacturer at the time of publication. You are therefore invited to consult the latest updated version in the “catalogues” section of the website www.lapitec.com where the following documents can be found:

- Technical data sheet;
- Processing manual;
- Design and installation manual for kitchen countertops;
- Design and installation manual for claddings;
- Design and installation manual for ventilated facades.

Given that Lapitec is a natural sintered material, the user is advised not to limit themselves to the instructions provided in this document, but rather to consult the extensive technical/scientific and operational literature available on the subject, and to rely on professional experts for the various processing and installation phases.

Regarding the above, Lapitec S.p.A. shall not be held liable for any damage which may occur as a result of the application of the information and suggestions in this technical manual, insofar as considered information and suggestions that must always be checked in advance by the user.

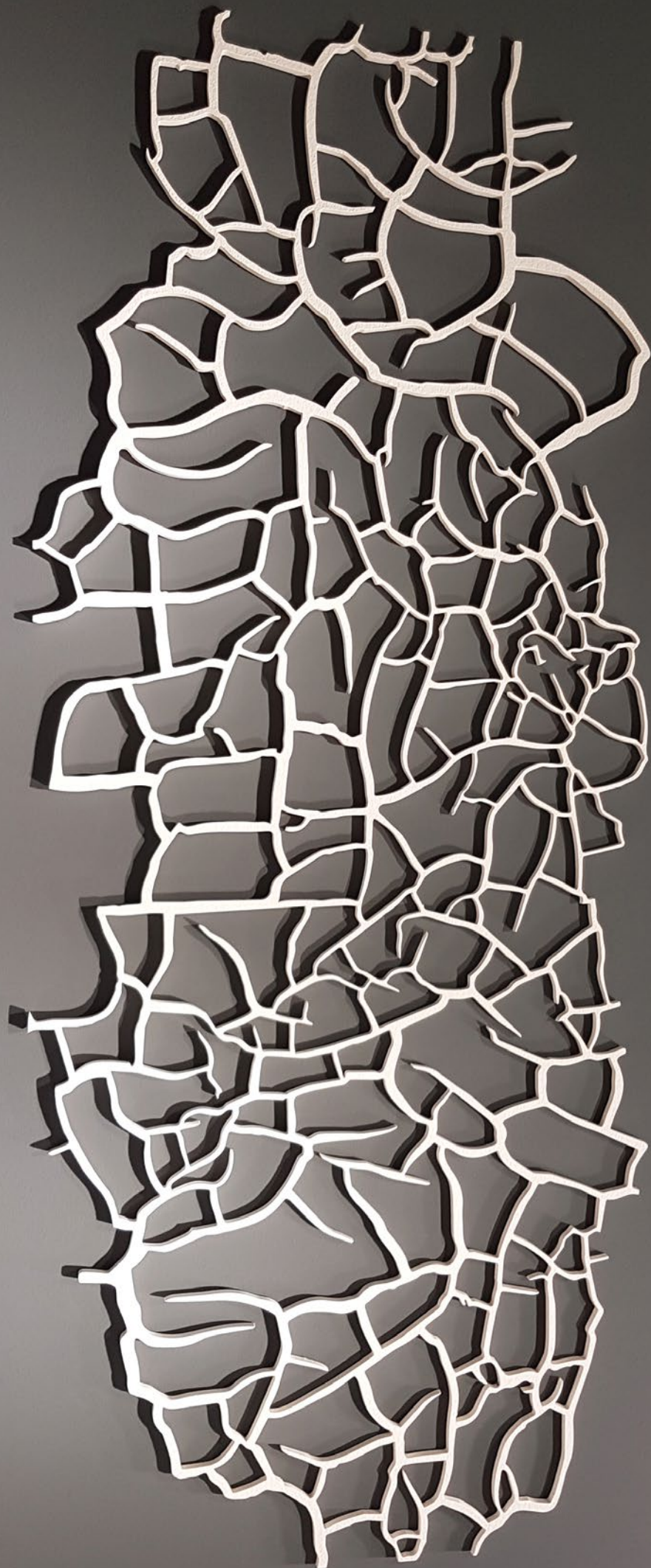
Moreover, Lapitec S.p.A. reserves the right to make technical changes of any kind without prior notice and without direct communication to any party.



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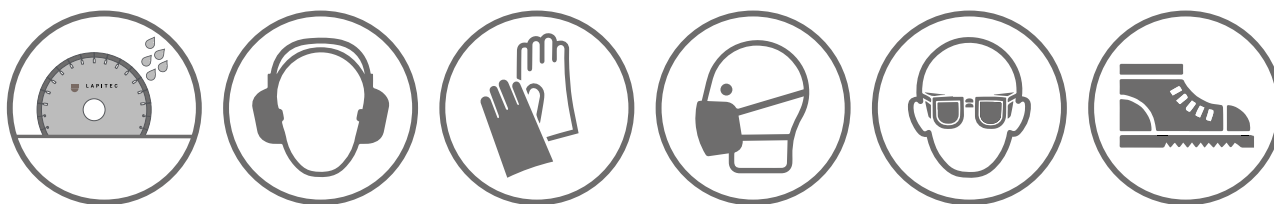
1. MANUAL PROCESSING

1.1. INTRODUCTION

Lapitec® is a sintered stone product supplied to the site ready for installation (cut, drilled and processed). A good design and accurate site survey enable processing to be carried out in the factory, therefore avoiding needless and critical adjustments on site.

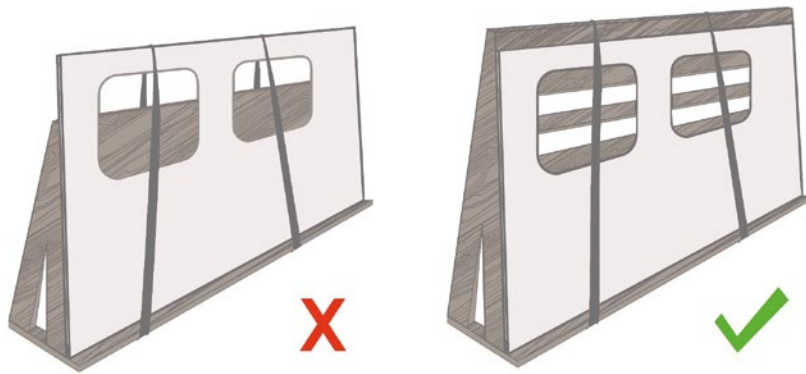
Should processing be necessary on site, it is recommended to strictly follow all the instructions provided in this manual, using the tools supplied and/or recommended by Lapitec S.p.A. If any processing becomes necessary, it is good practice to carry out preliminary tests for both cutting and drilling in order to acquire familiarity and avoid any problems. On request, the company can provide processing waste to use for this purpose.

For manual processing it is recommended to follow the health and safety regulations in force. Each worker must have specific PPE (Personal Protective Equipment) for the work to be performed. Our recommendations are as follows.



1.2. SLAB STORAGE

The slabs are packaged on stands and/or in crates. They must be transported individually with care and stacked on their side, regardless of their format, making sure to insert materials (e.g. wooden shims) between the different pieces and between the slabs and the support to prevent any breakages. The slabs should always be properly supported to avoid bending and stored in areas that are not subject to accidental impacts (workplace transport or manoeuvring areas).



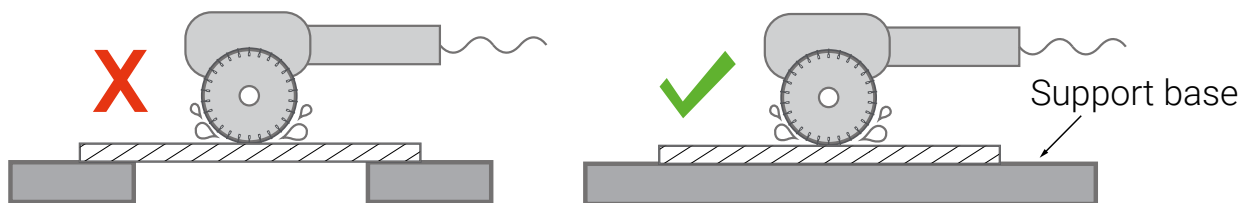
If stored outside, the slabs should always be protected from rain by a sheet, thus preventing any stagnation. If the slabs get wet during packaging, the packaging must be completely removed and the slabs must be arranged so that they can dry perfectly.

1.3. MANUAL CUTTING

The instructions provided in this paragraph refer to manual cutting only; for benchtop processing (saw, water jet or CNC), refer to the specific sections.

To proceed, the cutting tools supplied and recommended by Lapitec S.p.A. must be used, or, alternatively, tools whose full compatibility with those indicated has been checked. Always use plenty of water for cooling and dust suppression. Lapitec S.p.A. does not recommend resorting to dry cutting.

The slabs must be properly supported during any manual processing. The support should be sufficiently rigid, perfectly flat and in good condition. A wooden support is preferable to a metal one to prevent scratches from friction on the Lapitec surface.



Disclaimer

Always work from the finished surface towards the raw surface.

Square or rectangular holes (e.g. electrical installations) must have a rounded edge with a radius of $\frac{3}{16}$ " at all four corners.

Once the cut has been completed, it is recommended that the upper and lower edge of the newly cut edge is lightly sanded using 60/120 grain diamond sandpaper. This will prevent unwanted chippings and cuts (the hardness of Lapitec leaves rather sharp edges).

1.3.1 TOOLS – BLADES FOR CUTTING ON SITE

For processing on site, Lapitec S.p.A. supplies and suggests using specific tools that are tested and guaranteed. The approved tools are available at Lapitec S.p.A., which declares their suitability for use.

Continuous rim diamond blades for manual equipment (angle grinders, hoses, etc.)

Ø 4" Ø 7/8" connection (*) RPM from 11,000 to 13,000

Ø 5" Ø 7/8" connection (*) RPM from 11,000 to 13,000

Ø 6" Ø 7/8" connection (*) RPM from 9,000 to 11,000

(*) adapter for Ø 13/16" is also available.

Lapitec blades for manual cutting

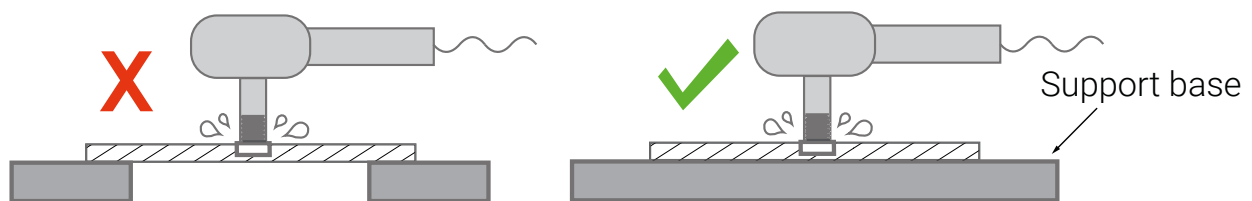
Diameters: 4", 5", 6".

The sequences are subject to variations due to ongoing research aimed at improving processing products. It is recommended to contact the supplier or the Lapitec Academy service for any clarifications.



1.4. MANUAL DRILLING

If it is necessary to drill holes (for piping, air vents, etc.), Lapitec can be drilled using the tools listed below in the manner indicated. The part to be drilled must be properly supported, as is the case when cutting; during drilling operations avoid any hammering to avoid breakage. When drilling, use water for cooling and dust suppression. Lapitec S.p.A. does not recommend resorting to dry cutting.



Disclaimer

Always work from the finished surface towards the raw surface.

Square or rectangular holes (e.g. electrical installations) must have a rounded edge with a radius of $\frac{3}{16}$ " at all four corners.

1.4.1 TOOLS – DRILL BITS AND HOLE CUTTERS FOR DRILLING ON SITE

For processing on site, Lapitec S.p.A. supplies and suggests using specific tools that are tested and guaranteed. The approved tools are available at Lapitec S.p.A., which declares their suitability for use.

Diamond bits and cutters for drilling with manual equipment (drills, disc cutters, etc.)

Holes Ø ¼" HEX connection 1,800 - 2,000 RPM (for drill)
Holes Ø ⅝" HEX connection 1,800 - 2,000 RPM (for drill)
Holes Ø ⅜" HEX connection 1,800 - 2,000 RPM (for drill)
Holes Ø ½" HEX connection 1,800 - 2,000 RPM (for drill)
Holes Ø ⅞" HEX connection 1,800 - 2,000 RPM (for drill)
Holes Ø ¼" M14 connection 1,800 - 2,000 RPM (for flex)
Holes Ø ⅝" M14 connection 1,800 - 2,000 RPM (for flex)
Holes Ø ⅜" M14 connection 1,800 - 2,000 RPM (for flex)
Holes Ø ½" M14 connection 1,800 - 2,000 RPM (for flex)
Holes Ø ⅞" M14 connection 3,000-11,000 RPM (for flex)
Holes Ø 1⅜" M14 connection 3,000-11,000 RPM (for flex)
Holes Ø 1" M14 connection 3,000-11,000 RPM (for flex)
Holes Ø 1⅜" M14 connection 3,000-11,000 RPM (for flex)
Holes Ø 1¼" M14 connection 3,000-11,000 RPM (for flex)
Holes Ø 1⅜" M14 connection 3,000-11,000 RPM (for flex)
Holes Ø 1⅞" M14 connection 3,000-11,000 RPM (for flex)
Holes Ø 2" M14 connection 3,000-11,000 RPM (for flex)

Workshop core drills diameter 1⅜" M14 1,500 -2,500



1.5. FINISHES

1.5.1 FINISH FOR COUNTERTOP AND EDGE - LUX

Supplier	Tool	Sequence used
Sanwa- Kenma - (Alpha Tools)	Dia Ceramica - Ex Ceramica Series	150R - 300R - 500R - 1000R - 2000R - 3000R
Weha	Es Wet Use - Ex Series - Hybrid Flash	1 - 2 - 3 - 4 - 5 - 6 - 7 50 - 100 - 200 - 400 - 800 - 1500 - 3000 H1 - H2 - H3
Italdiamant	Ds Series	50 - 100 - 200 - 400 - 800 - 1500 - 3000

1.5.2 FINISH FOR COUNTERTOP AND EDGE - SATIN

Supplier	Tool	Sequence used
Sanwa- Kenma - (Alpha Tools)	Dia Ceramica - TF Ceramica Series	150R - 300R - 500R
Weha	Es Series - Hybrid Flash	50ES - 100ES - 200ES - 400ES - 800ES H1 - H2
Italdiamant	Ds Series	50 - 100 - 200 - 400 - 800

Refer to the technical manual of the listed tool manufacturers to define the appropriate processing parameters.

1.6. ASSEMBLY USING ADHESIVES

This section focuses on the bonding together of Lapitec slabs to make elements such as edges, steps, suspended corners, etc. For instructions on how to bond Lapitec onto different supports, see the specific sections of the Cladding Manual.

Lapitec S.p.A. has performed bonding tests on numerous products, checking their technical performance as well as shade compatibility with the colours of Lapitec slabs.

Below are several proposals from the Tenax range of products, specifically made for Lapitec slabs and for our colour range, for which the technical specifications are provided.

1.6.1 GOOD PRACTICES FOR THE USE OF ADHESIVES

Before applying the adhesive, make sure that the surface to be bonded is clean, dry and free from any type of treatment. If you need to bond on a treated surface, you must sand it first with coarse grit sandpaper in the 60-80 range to remove the treatments and create a rough surface that guarantees secure and lasting adhesion.

For greater effectiveness on overhang bondings (45°), it is good practice to place a square or L profile of approximately 1¼" x 1¼" on the non-visible rear of the material, along the entire bonding length of the apron.

Where it is not possible to use Lapitec to support the finished piece, choose a material with the same expansion coefficient as Lapitec (e.g., granite).

NB:

When choosing the adhesive, the functionality and use of the workpiece should be considered in order to identify the suitable product.

1.6.2 STRONGBOND CARTRIDGE

Lapitec bonding mastic indicated for indoor and outdoor applications, including persistent exposure to UV rays.

The Strongbond cartridge provides excellent adhesion in very short times (1 hour, 1 hour and 15 minutes), allowing the cutting and polishing of bonded pieces. The hardened product has a smooth, glossy and polishable surface.

Instructions for use

The product is packaged in special twin cartridges containing 7,3 us fl oz at a ratio of 2:1. The two chambers of the cartridge contain pre-dosed resin and hardener. All surfaces of the support to be treated must be clean, dry and free of dust and grease. In the case of glossy and/or smooth surfaces, it is recommended to sand the support before applying the adhesive.

Remove the threaded end and pull out the stopper. Attach the mixer to the cartridge using the threaded nozzle. Before applying the adhesive, it is good practice to extrude about 0,2oz - 0,3oz of product (half a small cup of coffee), approximately 1¼" - 1¾" of edging. Repeat the operation each time the mixer is changed. Throw away the used mixer. Only use guns suitable for use with the 2:1 cartridge.

The product does not harden below 34°F.

Technical specifications	
Product	Epoxy resin
Type	Thixotropic paste
Areas of use	Indoor and outdoor (Guaranteed for 15 years)
Subject to yellowing	No
Colour	All shades
Product package	7,6 oz

Technical specifications	
Shelf life	24 months
Pot Life	45-60 minutes
Piece can be handled after	15 minutes
Max. operating temp.	140/-13°F
Trowel	Stainless steel or polished plastic
Gel time at 77°F	3-5 minutes



1.6.3 STRONGBOND A+B

New generation two-component adhesive with zero yellowing in the sun for Lapitec bonding, indicated for both indoor and outdoor use. Solvent-free paste product with medium reactivity. Good hardness. The adhesive hardens even at 32°F. The appearance of the hardened film is still glossy and dry even in poor humidity and temperature conditions. Recommended for use on white materials where it is necessary to ensure that the resin does not yellow in the sun. Does not leave streaks and does not alter the colour. Hardening of the resin is only marginally affected by temperature. Zero VOC product.

Instructions for use

The resin and hardener must be kept in their original containers. The hardener must be kept tightly closed to prevent hardening. Do not place in contact with other resins or hardeners, which even if dry may alter the properties of the product. In automatic dosing systems, avoid contact with metal parts unless they are in stainless steel. Take the required amounts by weight of the two components from the containers with respect to the usage ratio, mix vigorously and proceed with use. When mixing, use clean plastic or stainless steel tools. The use of non-stainless steel metal parts can damage the resin quality.

Never put back in the container any unused mastic that has already been mixed with the catalyst. If the colour of the mastic needs to be corrected, use appropriate Rainbow colouring pastes.

Make sure that the material on which the Strongbond resin is applied is completely dry and clean. Close the containers tightly after use and avoid prolonged contact with air.

Technical specifications	
Product	Epoxy resin
Type	Thixotropic paste
Areas of use	Indoor and outdoor (Guaranteed for 15 years)
Subject to yellowing	No
Colour	Beige
Product package	17 us fl oz
Catalyst package	12 us fl oz
Pigment packages	2,5 us fl oz

Technical specifications	
Catalyst	70% by weight
Pigment	1-2%
Shelf life	12 months
Pot Life	24 hours
Piece can be handled after	1 hour and 15 minutes
Max. operating temp.	140/-13°F
Trowel	Stainless steel or polished plastic
Gel time at 77°F	20-25 minutes



1.6.4 FROZEBOND A+B

Extra strong two-component epoxy adhesive in very soft and spreadable thixotropic paste, indicated for both indoor and outdoor use and particularly suitable for cold climates. Recommended for outdoor use. High adhesive strength on multi-materials and resistant to weathering. Can be applied even on damp surfaces. Also suitable for bonding different types of materials such as Lapitec-stone, Lapitec-glass, Lapitec-cement, Lapitec-honeycomb-type composite panels, Lapitec-wood panels or wood laminates. Surfaces to be bonded should be sanded beforehand.

Instructions for use

The resin and hardener must be kept in their original containers. In automatic dosing systems, avoid contact with metal parts made of copper, brass and similar alloys that may rust. Use plastics that are resistant to corrosive liquids, never use PVC. Take the necessary amounts by weight or volume of the two components A and B from the two containers at a ratio of 1:1. Mix vigorously and proceed with use.

Use clean tools when mixing. Never put back in the container any unused mastic that has already been mixed with the catalyst. If the colour of the mastic needs to be corrected, use appropriate Rainbow colouring pastes. Make sure that the material on which the Frozebond resin is applied is completely dry and clean. If using automatic dosing machines, we recommend checking the dose daily. When cleaning the equipment, use grease-free solvents such as acetone and butyl acetate. Always use protective gloves and goggles during use (see safety data sheet). Close the containers tightly after use and avoid prolonged contact with air.

Technical specifications	
Product	Epoxy resin
Type	Thixotropic paste
Areas of use	Indoor and outdoor
Subject to yellowing	Slightly over time on light colours
Colour	Beige
Product package	17 us fl oz
Catalyst package	17 us fl oz
Pigment packages	2,5 us fl oz

Technical specifications	
Catalyst	100% by weight
Pigment	3%
Shelf life	2 years
Pot Life	24 hours
Piece can be handled after	4 hours
Max. operating temp.	140/-58°F
Trowel	Polished plastic
Gel time at 77°F	2 hours and 30 minutes



1.6.5 FIREBOND

Mastic for bonding Lapitec. Indicated for indoor use. High resistance to heat and fast processing times. Excellent adhesion in very short times (60-90 minutes), with excellent workability, thus enabling the rapid processing of bonded pieces even at low temperatures. The hardened product has a smooth, glossy and polishable surface. Good sunlight resistance.

Instructions for use

Before applying the product, make sure the material is clean, dry and free of dust. Take the required amount of mastic from the container/can/tin, add 2-3% of hardener paste, mix vigorously and proceed with use. Never put back in the container any unused mastic that has already been mixed with the catalyst.

If the colour of the mastic needs to be corrected, use appropriate Rainbow colouring pastes. The colour must be added before the catalyst. Mix the required quantity to obtain the desired colour, before adding the catalyst for hardening. Excess colouring past or powdered pigments could alter the final characteristics of the mastic.

Close the containers after use. Store the mastic and catalyst away from light and the sun.

Technical specifications	
Product	Epoxy resin
Type	Thixotropic paste
Areas of use	Indoor
Subject to yellowing	Yes
Colour	Beige
Product package	2x17 us fl oz
Catalyst package	1,11 us fl oz
Pigment packages	2,5 us fl oz

Technical specifications	
Catalyst	2-3% in peso
Pigment	3%
Shelf life	6 months
Pot Life	40/50 minutes
Piece can be handled after	40/50 minutes
Max. operating temp.	248°F
Trowel	Plastic
Gel time at 77°F	2-3 minutes



1.6.6 RAINBOW

The systems described above can be coloured with universal Rainbow colourants in a range of colours aligned with Lapitec® colours. The colouring paste mixes very well with all mastics, making it easy to colour them.

In the section below we indicate colouring matching between the Lapitec® range and Tenax products.

Instructions for use

Add the colour or colours to the adhesive to obtain the desired shade. Mix thoroughly. More than one colour can be added. It is important not to exceed the maximum recommended amount of 2-3% by weight. An excess of colours may alter the qualities of the adhesive. Close the containers after use. Keep in the original containers. Store away from light and the sun.

Technical specifications	
Product	Coloured paste
Package	2,5 us fl oz
Dosage	2-3% by weight



1.6.7 LAPITEC RANGE CORRESPONDENCE

Lapitec Material	Strongbond cartridge colour and Rainbow colourant	Label description
Arabescato Corallo	BIANCO CREMA	ARAB. CORALLO - BIANCO CREMA
Arabescato Michelangelo	BIANCO ARTICO	BIANCO ARTICO - ARAB. MICHELANGELO
Arabescato Perla	BIANCO POLARE	ARAB. PERLA - BIANCO POLARE
Bianco Artico	BIANCO ARTICO	BIANCO ARTICO - ARAB. MICHELANGELO
Terra Avana	TERRA AVANA	TERRA AVANA
Avorio	AVORIO	AVORIO
Bianco Assoluto	BIANCO ASSOLUTO	BIANCO ASSOLUTO, VITTORIA, AURORA, ELETTRA, GIULIA
Bianco Crema	BIANCO CREMA	ARAB. CORALLO - BIANCO CREMA
Bianco Polare	BIANCO POLARE	ARAB. PERLA - BIANCO POLARE
Terra Ebano	TERRA EBANO	TERRA EBANO
Grigio Cemento	GRIGIO CEMENTO	GRIGIO CEMENTO
Grigio Piombo	GRIGIO PIOMBO	GRIGIO PIOMBO
Terra Moca	TERRA MOCA	TERRA MOCA
Nero Antracite	NERO ANTRACITE	NERO ANTRACITE
Nero Assoluto	NERO ASSOLUTO	NERO ASSOLUTO
Porfido Rosso	PORFIDO ROSSO	PORFIDO ROSSO
Sahara	SAHARA	SAHARA
Tabacco	TABACCO	TABACCO
Bianco Aurora	BIANCO ASSOLUTO	BIANCO ASSOLUTO, VITTORIA, AURORA, ELETTRA, GIULIA
Bianco Vittoria	BIANCO ASSOLUTO	BIANCO ASSOLUTO, VITTORIA, AURORA, ELETTRA, GIULIA
Bianco Elettra	BIANCO ASSOLUTO	BIANCO ASSOLUTO, VITTORIA, AURORA, ELETTRA, GIULIA
Bianco Giulia	BIANCO ASSOLUTO	BIANCO ASSOLUTO, VITTORIA, AURORA, ELETTRA, GIULIA

For the safety data sheets of Tenax products, refer to the website www.tenax.it.

1.7. BIO-CARE

Bio-Care is an innovative technology that gives Lapitec antibacterial properties, making the surface hygienic and easy to clean. The functions of Bio-Care can be reactivated at any time using the Bio-Care kit, which must be applied to the visible parts each time the material is processed (drilling, surface processing and cutting), to maintain the qualities attributable to Lapitec.

How to apply

Make sure the surface is clean, dry and free of dust. Spread the Bio-Care One product evenly using a solvent-resistant cloth. When the product takes on a more viscous consistency (due to the evaporation of most of the solvent after about 2 minutes), remove the excess Bio-Care One with a clean cloth, taking care to remove any stains or shadows.

Caution: any shadow or stain left on the surface will become permanent once the treatment has completely hardened.

Treatment	Quantity oz/ft ²	Post-treatment handling time
Bio-Care One	2 - 2.2	40 min

The surface can be handled 40 minutes after application. Wait 7 days for the treatment to be completely set before carrying out any tests. Manual application of the treatment can be carried out on smaller surfaces. Treatment on slabs must be applied with special machines. As the quantity of product is minimal, it is recommended to apply Lapitec Bio-Care One on several pieces to be treated in sequence.

Precautions

Do not turn upside down. Store in a cool, dry place away from heat sources.



1.8. REPAIR KIT

The repair kit is composed of a 395 nm UV torch, a coloured Lapitec filler, 1 trowel and 1 sheet of 400 grit diamond sandpaper (usable on all finishes except Lux).

Instructions for use

Using the trowel supplied, mix the filler thoroughly until all the internal components are completely blended, then apply in small quantities (drops) on the area to be repaired. Turn on the UV lamp and move it over the repair area to activate the solidification process (about 15-20 seconds). Manually check the compactness of the filler. Repeat the procedure until the chip has been completely filled. Next, protect the part of the Lapitec top that has not been repaired with masking tape to prevent the sandpaper from damaging the surface. Use the sandpaper supplied to remove any excess filler. Then apply Bio-Care only on the repaired area to prolong the aesthetic effect of the repair over time.

Disclaimer

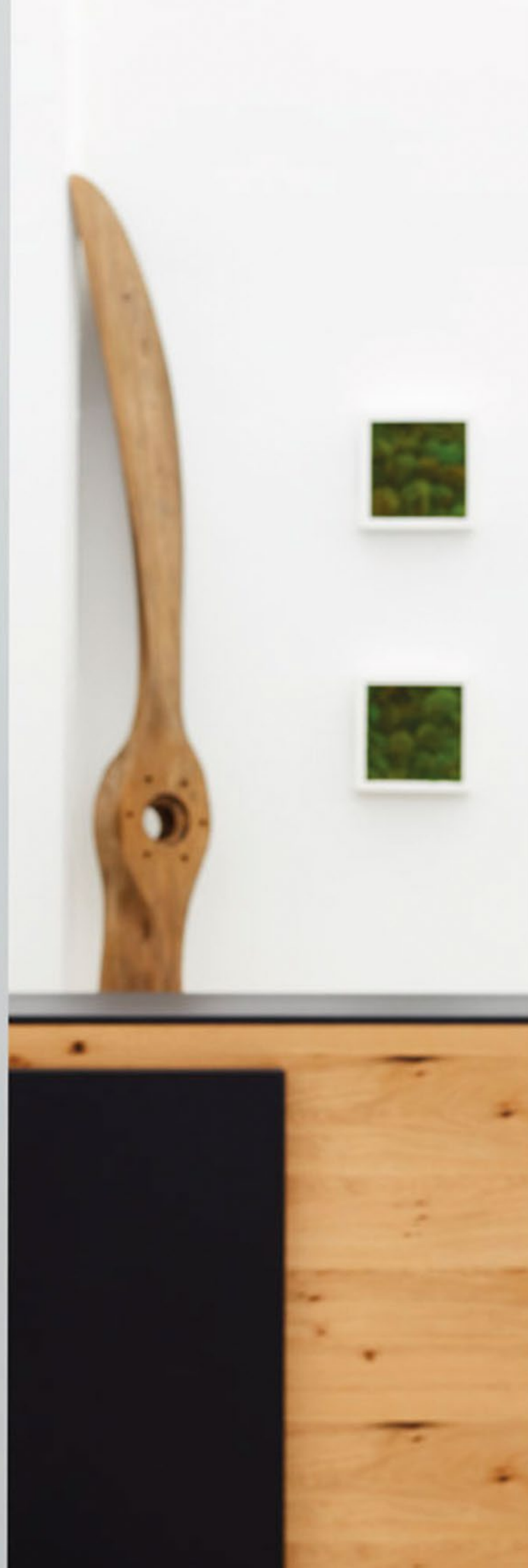
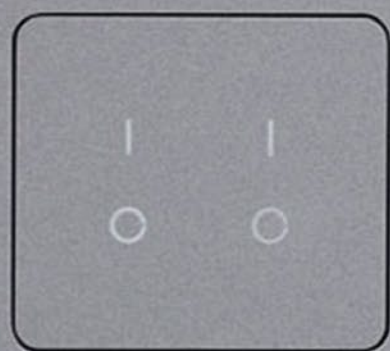
Failure to mix the filler may result in a different shade with respect to Lapitec. The characteristics of the UV lamp must be the same as those indicated by Lapitec S.p.A., otherwise the filler may not cure completely. For the Lux finish use polishing paper for granite up to 3000 grit. An inadequate chamfer on the edge of the workpiece may be the cause of the chipping. For more information see the specific sections in this manual.

Filler shelf life: 3 months in closed container.



Watch the
video tutorial

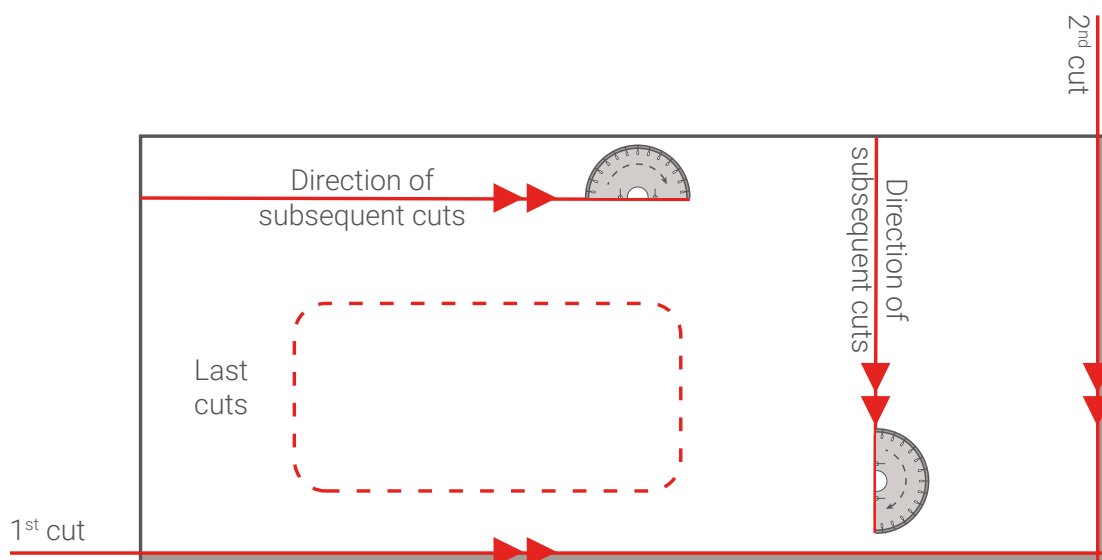




2. PROCESSING WITH MACHINES

2.1. BASIC PRINCIPLES

Before carrying out any processing, the slab must be trimmed with a longitudinal and transversal cut with incremental distance from the edge with respect to its thickness (see trimming diagrams). The subsequent cuts will be made starting from the rough side towards the previously trimmed side as indicated in the figure below. By trimming the 4 sides there will be no constraint on the direction of the subsequent cuts.

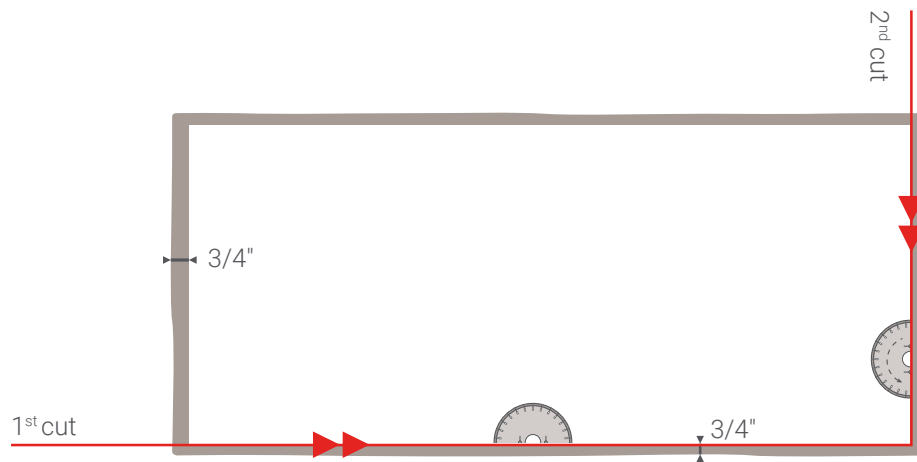


Warnings

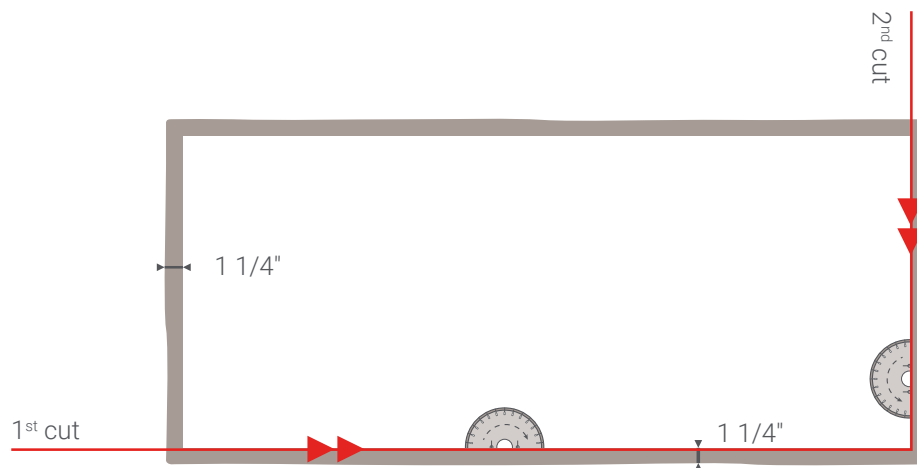
When using the machines it is recommended to follow the safety instructions. After each processing operation it is advisable to rinse the surface thoroughly with clean water before the workpiece is dry, even better if positioned vertically. The cutting direction must always be consistent with the rotation of the disc.

2.1.1 TRIMMING DIAGRAMS

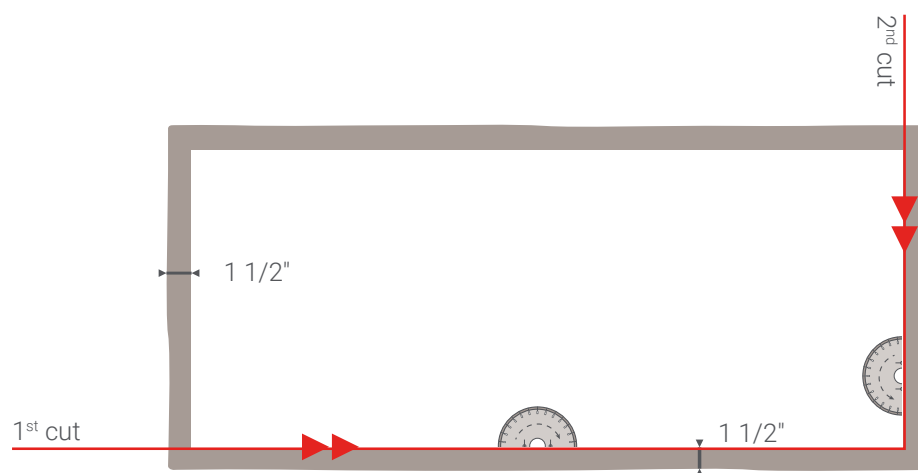
Thickness $\frac{1}{2}$ " – Minimum trimming $\frac{3}{4}$ ".



Thickness $\frac{3}{4}$ " – Minimum trimming $1 \frac{1}{4}$ ".



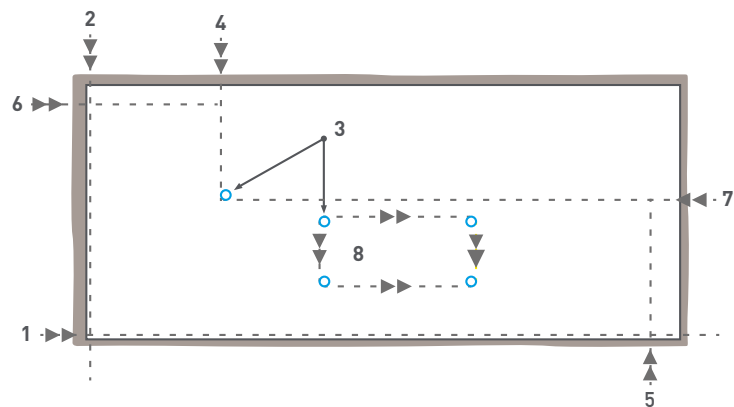
Thickness 1 1/4" – Minimum trimming 1 1/2".



2.2. PROCESSING WITH BRIDGE SAW

2.2.1 CUTTING DIAGRAM

Example of cutting diagram for bridge saw:



Order of processing phases:

- | | |
|---------|----------------------------|
| 1-2 | Slab trimming; |
| 3 | Hole drilling; |
| 4-5-6-7 | Countertop perimeter cuts; |
| 8 | Uninterrupted cuts. |

Warnings

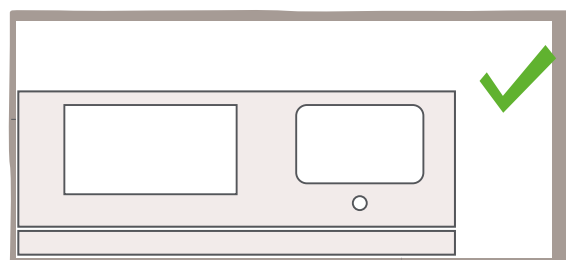
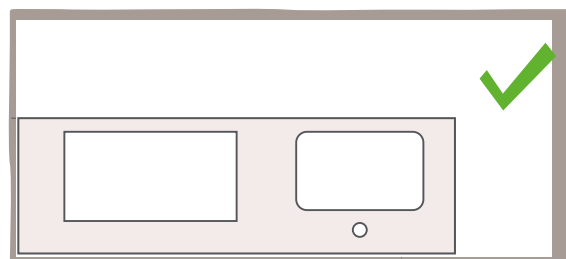
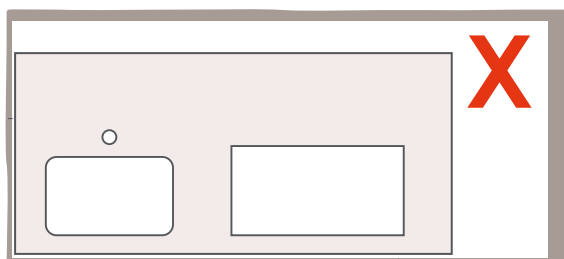
The cutting direction must always be consistent with the rotation of the disc.

2.2.2 WORKPIECE ORIENTATION

We recommend making the holes for sinks or cooktops towards the central part of the slab or the apron on the outer sides.

Incorrect processing

Correct processing



2.2.3 LAPITEC DISC TOOL

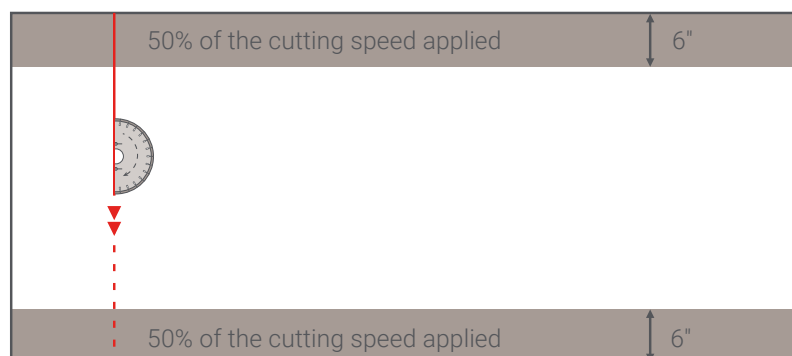
General instructions

Use plenty of water when cutting. The water flow must be directed to the front and side of the disc, as close as possible to the cutting area (as shown in the figure below).

Caution: insufficient water flow will cause the disc to overheat, compromising the success of the operation and the tool itself.



Make sure that the cutting bench is in good condition and flat. If the bench is not in good condition, it is recommended to insert a high-density technical rubber mat between the material and the cutting bench to reduce vibrations and improve the cut finish.



Slow the feed rate down to 50% for the first 6" and the last 6". When cutting small workpieces it is recommended to block the material with special stops to prevent movement during processing.

Attention: All data refers to Lapitec S.p.A branded discs.

Rotation parameters - Veloce blade

Ø Disco	Spindle revolutions rpm	Peripheral speed m/sec
350 mm	3000	55
400 mm	2600	55

Cutting parameters - Veloce blade

Type of cut	feed rate inch/min ½"	feed rate inch/min ¾"	feed rate inch/min 1 ¼"
Cut entering from above the slab	100 mm/min	100 mm/min	100 mm/min
Straight cut	2200-2500 mm/min	1600-1800 mm/min	1000-1200 mm/min
Inclined cut	1300-1400 mm/min	700-900 mm/min	500-600 mm/min

Requirements necessary for using the disc:

- Oversized flanges*;
- Abundant and well directed water on the disc*;
- Planar table*
- Speed reduction management at beginning and end of the cuts*;

* It is recommended to use the disc at 50% speed for the first 20 m/l of cutting.

Rotation parameters - standard blade

Ø Disc	Spindle revolutions rpm	Peripheral speed m/sec
12"	2100-2300	34-37
14"	1800-2000	34-37
16"	1600-1800	34-37
18"	1400-1600	34-37
20"	1260-1460	34-37

Note: If the number of spindle revolutions is fixed, you must choose the disc that requires a number of revolutions closer to those of the spindle.

Cutting parameters - standard blade

Type of cut	feed rate inch/min ½"	feed rate inch/min ¾"	feed rate inch/min 1 ¼"
Cut entering from above the slab	4	4	4
Straight cut	55	32	24
Inclined cut	32	18	12

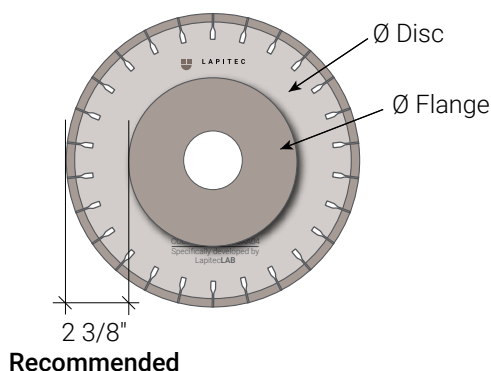
Warnings

Any increased spindle absorption indicates the need to sharpen the disc using a honing stone.

The parameters listed above are intended for machines with oversized flange, plenty of well-directed water, flat bench and decelerations. If these conditions are not met, reduce the feed rate to the minimum of the listed parameters listed (e.g. ½" feed rate 55inch/min). The disc must be chosen according to the machine's characteristics, the thickness of the material to be cut and the inclination angle. The exposed part of the disc must be as small as possible, with a minimum 1/32" of clearance over the material considered essential.

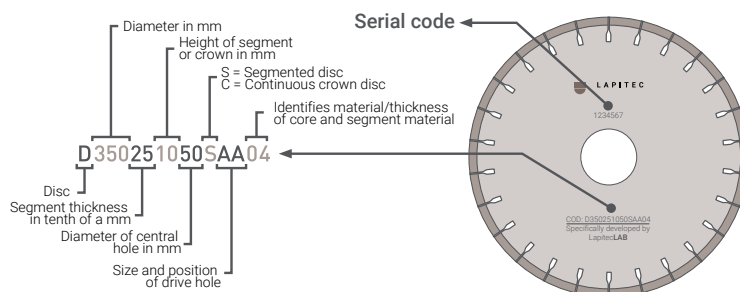
To reduce the diameter of the central hole, only use the rings supplied by the disc manufacturer that came with the disc.

Flange sizing



Lapitec® disk coding

All discs developed by LapitecLAB are marketed under the Lapitec S.p.A. brand and follow a coding system for identification and reordering. Only use Lapitec S.p.A. branded discs to cut Lapitec. The use of Lapitec S.p.A. discs for cutting other materials may cause damage to persons or things.



Lapitec disks

Diameters 12"-14"-16"-18"-20".



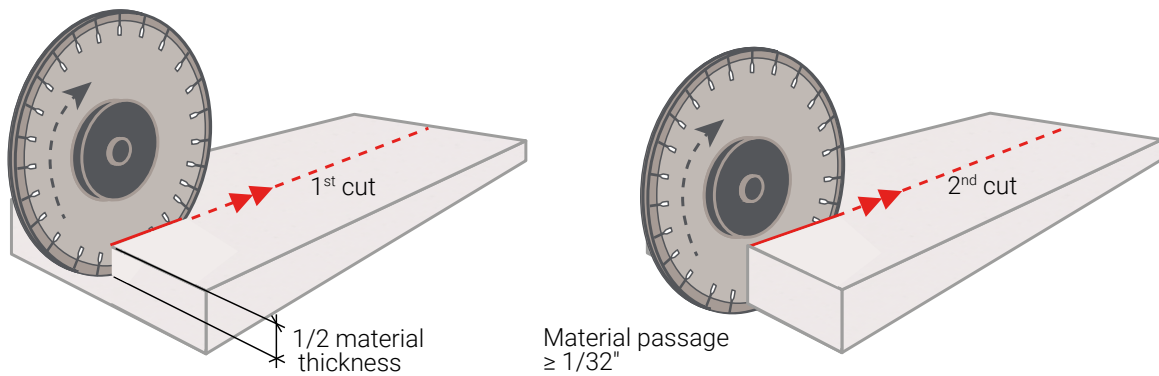
Note: Custom sizes are available on request.

2.2.4 CUTTING RECOMMENDATIONS FOR SPECIAL CONDITIONS

If one or more of the following conditions are present, step cutting or pre-cutting is advisable:

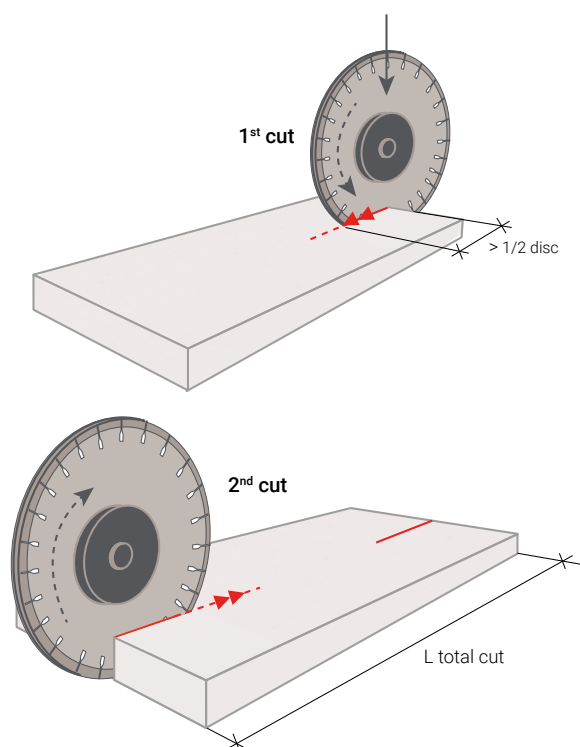
- no oversized flange is available;
- there is not plenty of water;
- the disc is in poor condition;
- the support base is not flat;

Step cutting diagram



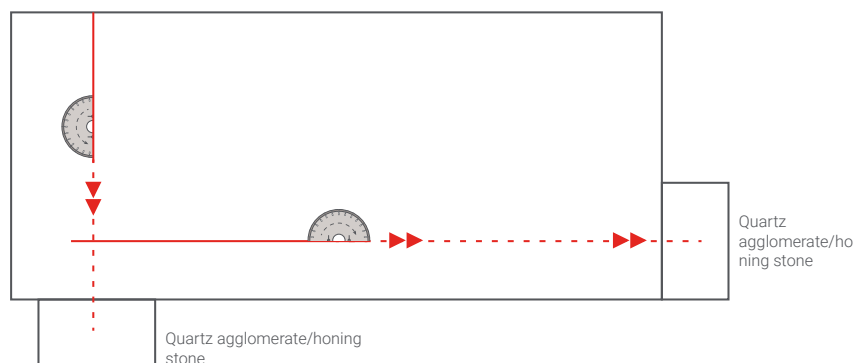
Type of cut	feed rate inch/min ¾"	feed rate inch/min 1 ¼"
Straight cut	63	47
Inclined cut	35	24

Pre-cutting diagram

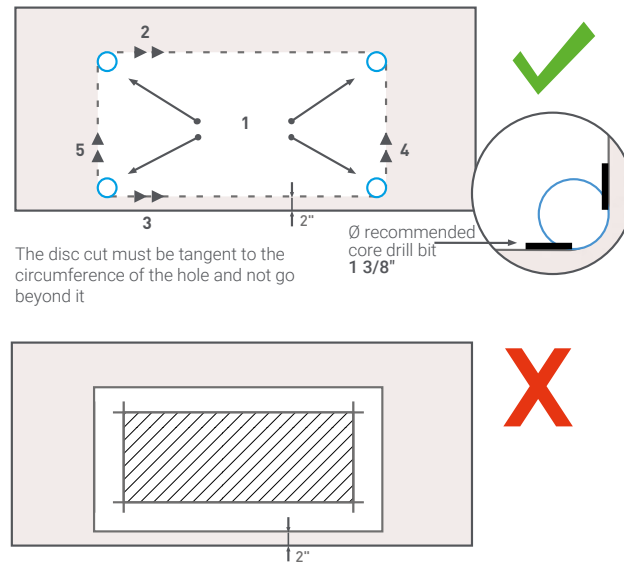


Quartz agglomerate/ honing stone

It is recommended to position a piece of quartz agglomerate/honing stone at the exit of the Lapitec S.p.A. disc cutting line. This will limit deviations of the disc as the material exits, avoiding unwanted chipping and also allowing the disc to be sharpened.



2.2.5 SINK CUT-OUT WITH DISK DIAGRAM



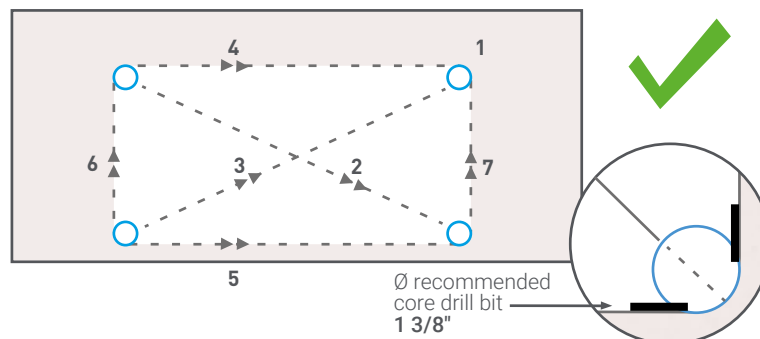
Order of processing phases:

- 1 Hole drilling;
- 2-3-4-5 Interrupted cuts.

Specific instructions

If one or more of the following conditions are present, it is recommended to follow the cutting diagram below:

- the support base is not flat;
- islands measuring more than 102" x 23 1/2";
- sinks measuring more than 22" x 19".



Order of processing phases:

- 1. Hole drilling;
- 2-3 Diagonal cuts;
- 4-5-6-7 Interrupted cuts.

2.3. PROCESSING WITH WATER JET

2.3.1 WATER JET PROCESSING PARAMETERS

Low pressure entry hole piercing parameters

Thickness	Minimum pressure Bar	Minimum pressure Psi	Abrasive 80 Mesh lb/min
1/2" - 3/4" - 1 1/4"	600	8700	0,77 - 0,99

Advice

When possible, make the entry hole on the outside of the slab. Alternatively, make the entry hole a few centimetres away from the cutting perimeter and never less than $\frac{3}{16}$ " from it.

High pressure cutting parameters

Thickness	Minimum pressure Bar	Minimum pressure Psi	feed rate inch/min	Abrasive 80 Mesh lb/min
1/2"	3600-3800	52200-55100	19,7 - 35,5	0,77 - 0,99
3/4"	3600-3800	52200-55100	15,7 - 19,7	0,77 - 0,99
1 1/4"	3600-3800	52200-55100	7,9 - 11,8	0,77 - 0,99

Advice

The data shown are the maximum recommended values. Lower the feed rate parameters to achieve a better finish.

For water jet cutting it is also recommended to carry out the trimming procedure described in the "Trimming diagrams" in section 2.1 BASIC PRINCIPLES.

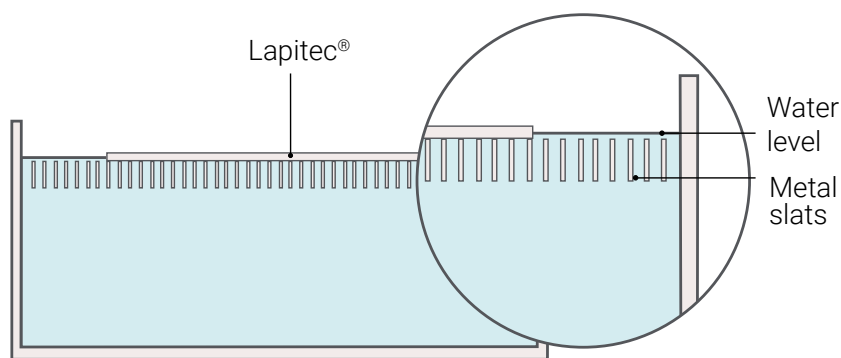
Make sure the workbench is in good condition and flat. The workpiece must rest perfectly without interference from processing waste or discontinuities.

For angles equal to or less than 90° it is recommended to round the corner with a radius $\geq \frac{3}{16}$ ".

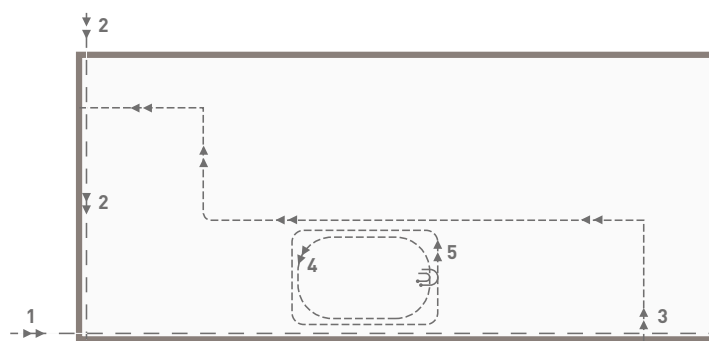
Remove any deep indentations using a diamond pad.

Water level in water jet tank:

To improve the finish on the underside of the workpiece, it is recommended to keep the water level higher than or at the same level as the bench surface.



2.3.2 CUTTING DIAGRAM



Order of processing phases:

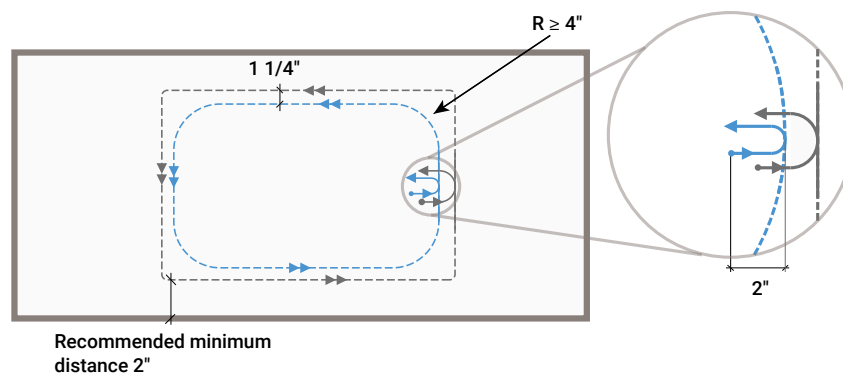
- | | |
|-----|-----------------------------|
| 1-2 | Slab trimming; |
| 3 | Workpiece shape cut; |
| 4 | Sink pre-cut, if necessary; |
| 5 | Sink cut. |

2.3.3 SINK CUT-OUT DIAGRAM

If one or more of the following conditions are present, it is recommended to follow the cutting diagram below:

- the support base is not flat;
- islands measuring more than 102" x 23 1/2";
- sinks measuring more than 22" x 19".

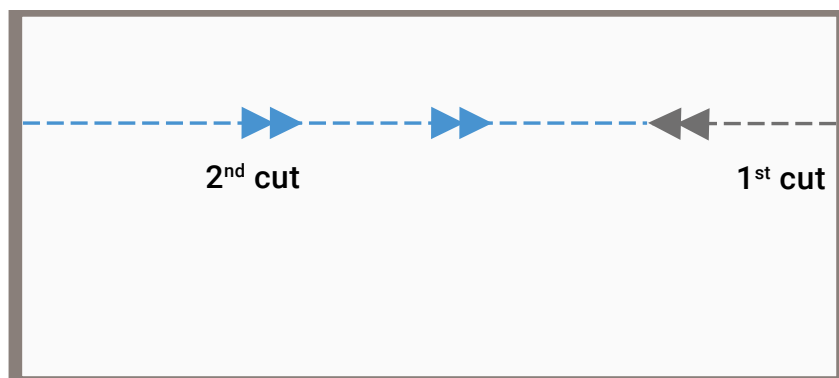
NB: the sink cut-out must begin inside the pre-cut as in the figure below.



2.3.4 CUTTING SUGGESTIONS

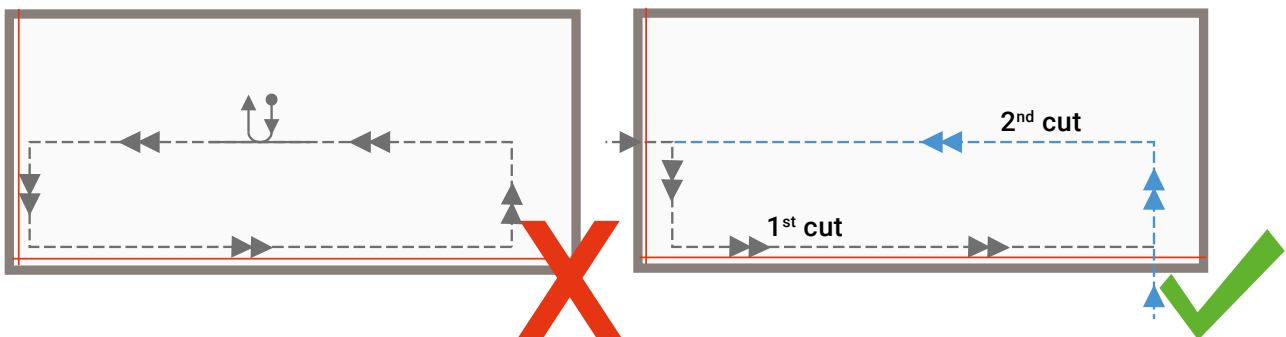
Pre-cutting diagram

Specific instructions: if the support base is not flat, a pre-cut is recommended.



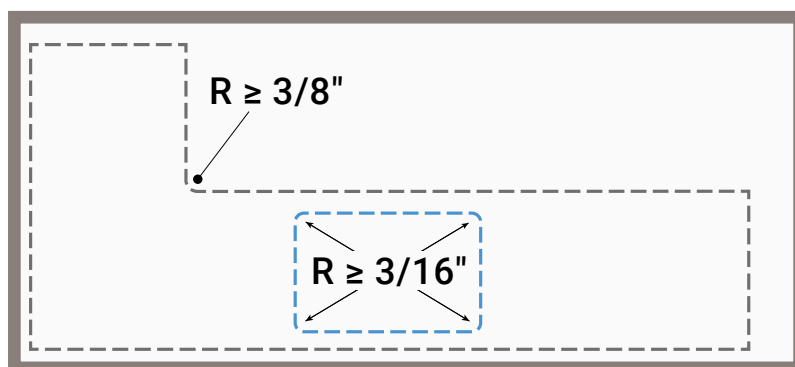
Cutting diagram

When you want to cut the shape of the countertop, it is advisable to divide the shape into two parts, always starting with the cuts on the outer side of the slab. Shape cutting should always be done after the trimming cuts.



2.3.5 RADII

All internal corners relating to a hole must have a radius of at least $\frac{5}{25}$ " while the internal angles relating to the general shape of the workpiece (e.g. L-shaped countertop) must have a radius of at least $\frac{10}{25}$ ". A superior radius gives greater structural resistance to the workpiece, whereas any non-radiused corner creates a stress point on the countertop.



2.4. PROCESSING WITH CONTOURING MACHINE

2.4.1 LAPITEC FINGER BIT TOOL

Parameters

Data refers to a $\varnothing \frac{7}{8}$ " Lapitec S.p.A. branded tool for through cuts.

Thickness	Spindle revolutions rpm	Feed rate inch/min
$\frac{1}{2}$ "	3800-4200	14-16
$\frac{3}{4}$ "	3800-4200	12
1 $\frac{1}{4}$ "	3800-4200	8-10

Do not make cuts with an oscillating tool. Excessive reduction of the cutting speed causes the cutting tool diamond to close, generating excessive force on the material and resulting in breakage of the workpiece.

During processing, use plenty of water well directed to the inside and outside of the tool (as shown in the photo below).



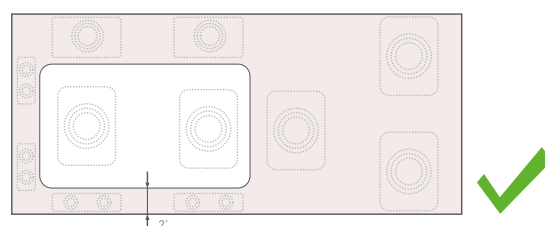
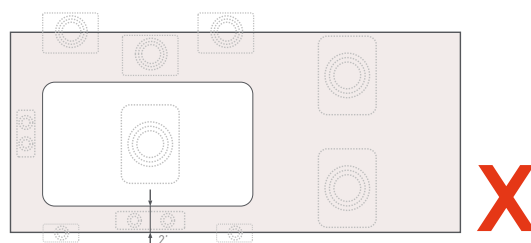
Sink cutting with contouring machine

Before starting processing with a contouring machine, make sure the work surface is properly set up to ensure correct execution.

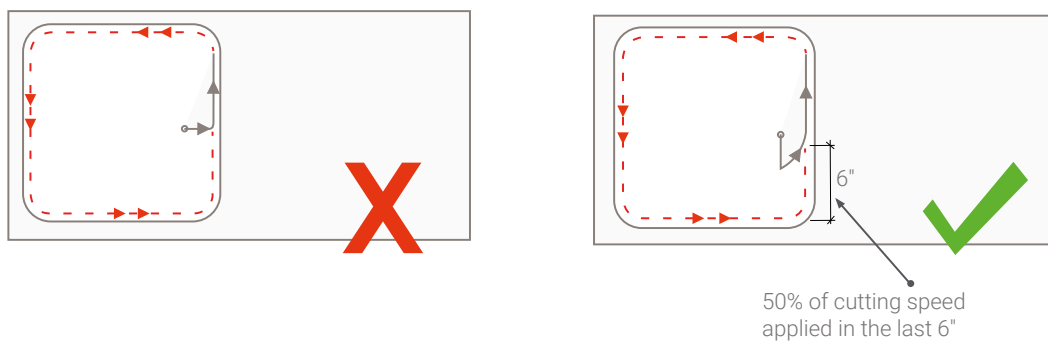
All work must be carried out in accordance with the instructions in the Technical Manual, without using supports other than the suction cup and Teflon positioning end stops. The use of devices that exert mechanical force on the workpiece may cause it to break.



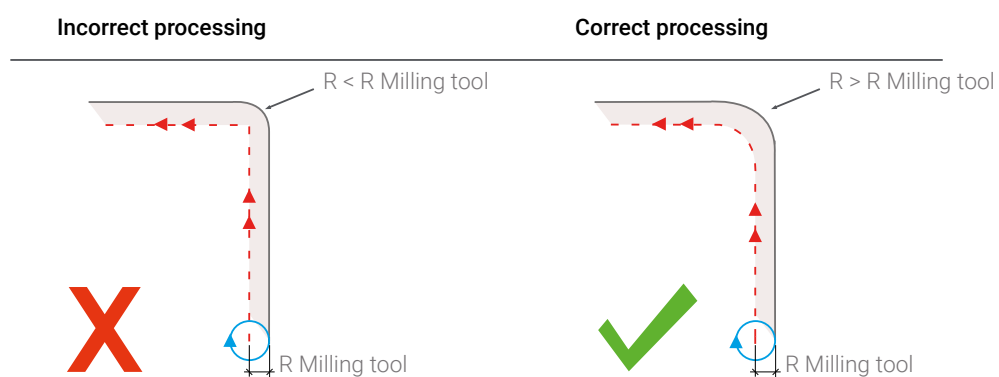
It is recommended to distribute the suction cups so that they support the most stressed areas of the workpiece during processing. Use suction cups suitable for supporting the narrower areas (as in the figure below). Before positioning the workpiece, make sure that the suction cups are clean and free of residues from previous operations, otherwise it is recommended to rinse them thoroughly with clean water before use.



The entry radius of the milling tool must be wide enough to facilitate exit of the tool at the end of processing and prevent any chipping that may compromise the workpiece.



It is advisable to make internal connections with a larger radius than that of the milling tool so that the machine performs a more fluid movement and puts less stress on the material.



When using the milling tool on thicknesses of $\frac{1}{2}$ " and $\frac{3}{4}$ ", it is advisable to centre the tool with respect to the thickness of the slab, in this way vibrations and the force exerted on the workpiece and the tool are reduced. Moreover, it is not recommended to oscillate the tool during cutting.



Processing advice

To reduce the risk of tool breakage, make sure:

- not to advance at too high a feed rate;
- that the number of revolutions is not much lower than the nominal revolutions of the tool;
- that there is enough cooling water.

To reduce the risk of breaking the workpiece, the part of the slab to be removed must also be supported.

Warnings

After each processing operation it is advisable to rinse the surface thoroughly with clean water before the workpiece dries.

2.4.2 LAPITEC DRILL FOR THROUGH HOLES

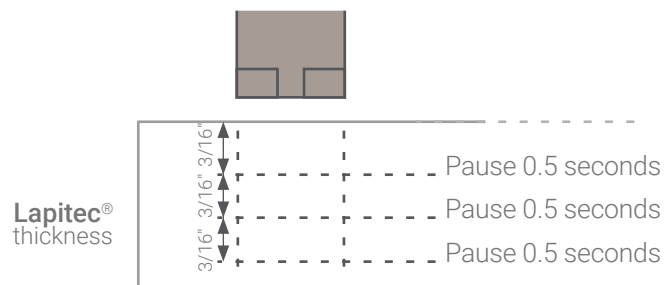
Parameters – Data refers to a Lapitec S.p.A. branded tool

Available diameters	Spindle revolutions rpm	Feed rate inch/min
Ø 1 1/4"	2000	13/16 - 1 3/16
Ø 1 3/8"	1800	13/16 - 1 3/16
Ø 2 3/16 / 2 1/4"	1200	13/16 - 1 3/16
Ø 2 3/4"	900	13/16 - 1 3/16
Ø 44"	650	13/16 - 1 3/16

Advice

During processing, use plenty of water well directed to the inside and outside of the tool.

To prevent chipping, it is not recommended to drill with an oscillating tool.



To avoid breakages from punching on the back of the workpiece, it is recommended to stop at 2/25" from the bottom and complete the drilling on the side opposite the hole.

Warnings

After each processing operation it is advisable to rinse the surface thoroughly with clean water before the workpiece dries.

For the tap holes it is recommended to place a suction cup near the holes so that the workpiece is properly supported so as not to compromise the final result.

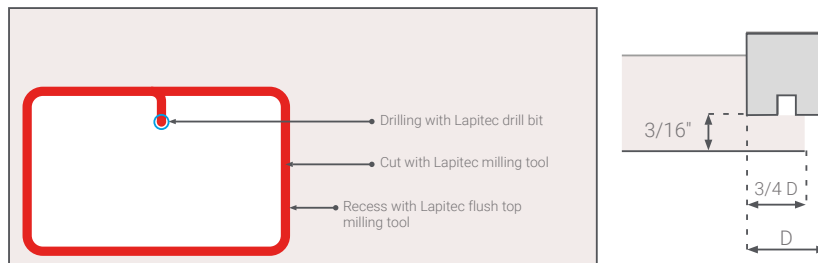
2.4.3 LAPITEC INCREMENTAL ROUTER FOR FLUSH TOP RECESSES

Parameters – Data refers to a Lapitec branded tool.

Available diameters	Spindle revolutions rpm	Feed rate inch/min	Removal inches
$\varnothing \frac{1}{4}"$	7500	4	$\frac{1}{32}$
		8	$\frac{1}{64}$
$\varnothing \frac{5}{16}"$	7500	8	$\frac{1}{32}$
		12	$\frac{1}{64}$
$\varnothing \frac{3}{8}"$	7000	12	$\frac{1}{32}$
		16	$\frac{1}{64}$
$\varnothing \frac{1}{2}"$	6500	24	$\frac{1}{16}$
		32	$\frac{1}{64}$
$\varnothing \frac{5}{8}"$	6000	32	$\frac{1}{16}$
		60	$\frac{1}{64}$

Advice

During processing, use plenty of water well directed to the inside and outside of the tool.



It is recommended to make the sink cut-out before proceeding with flush top processing. It is also advisable to make sure that at least $\frac{3}{16}"$ of material thickness remains after the recess.

Use tools $\varnothing \frac{1}{2}"$ and $\frac{5}{8}"$ to create the recess, and tools $\varnothing \frac{1}{4}"$, $\frac{5}{16}"$ and $\frac{1}{2}"$ to finish the corners.

Warnings

After each processing operation it is advisable to rinse the surface thoroughly with clean water before the workpiece dries.

2.4.4 LAPITEC BUSHING TOOL FOR BLIND HOLES

Parameters – Data refers to Lapitec S.p.A. branded tool.

Available diameters	Spindle revolutions rpm	Feed rate inch/min
Ø 1/4"	6000	5/8 - 13/16
Ø 1/4" (KEIL)	6000	5/8 - 13/16
Ø 5/16"	6000	5/8 - 13/16
Ø 3/8"	6000	5/8 - 13/16
Ø 7/16 (FISCHER)	6000	5/8 - 13/16
Ø 1/2"	6000	5/8 - 13/16

Advice

During processing, use plenty of water well directed to the inside and outside of the tool.

Warnings

After each processing operation it is advisable to rinse the surface thoroughly with clean water before the workpiece dries.

2.4.5 LAPITEC KEIL/FISCHER DRILLING TOOL FOR UNDERCUT HOLES

Parameters – Data refers to a Lapitec S.p.A. branded tool

Type	Spindle revolutions rpm	Feed rate inch/min
KEIL Ø 7/25"	6000	1/16
FISCHER Ø 2/5"	6000	1/16

Given the material's hardness, to prevent excessive wear of the Keil/Fischer drilling tool for undercut holes, Lapitec S.p.A. recommends making a pre-hole using a drill for blind holes (indicated in section 2.4.4).

2.4.6 LAPITEC ROUTER TOOL FOR INCREMENTAL CUTTING

Tool for cutting on a continuous basis, without suction cups.

Parameters – Data refers to a Ø 5/8" Lapitec S.p.A. branded tool

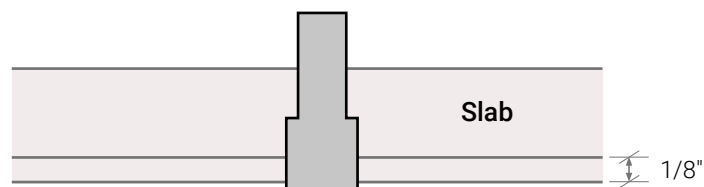
Available diameters	Spindle revolutions rpm	Feed rate inch/min	Max removal inches
1/2" - 3/4" - 1 1/4"	6500	16-24	1/32

To prevent chipping in the lower part of the workpiece, which could compromise its use, it is advisable to finish the passing cut leaving 1/8" of material and then remove the residual material in a single pass, sinking by at least 1/32" and with a speed of 50% of that used previously.

It is reminded that the increment/sinking between one pass and another should be made on an area free from material (hole).

Advice

During processing, use plenty of water well directed to the inside and outside of the tool.



Warnings

After each processing operation it is advisable to rinse the surface thoroughly with clean water before the workpiece dries.

2.4.7 LAPITEC STUBBING WHEEL TOOL

Parameters – Data refers to Lapitec S.p.A. branded tool

Available diameters	Spindle revolutions rpm	Feed rate inch/min	Max removal inches
Ø 2"	4500-5000	12	1/16
Ø 3 1/2"	4000-4500	20	1/16

Advice

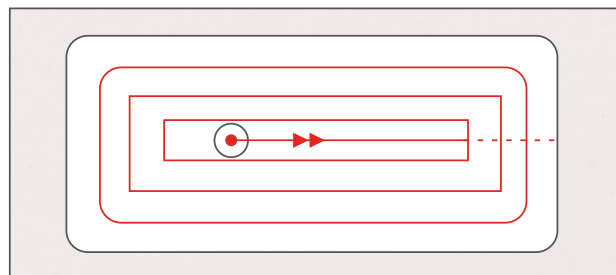
Remove a maximum of 1/16" per pass.

During processing, use plenty of water well directed to the inside and outside of the tool.

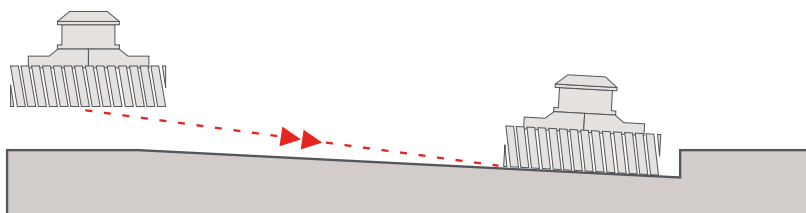
Warnings

After each processing operation it is advisable to rinse the surface thoroughly with clean water before the workpiece dries.

Removal diagram



Approach diagram



2.4.8 SPHERICAL MILLING TOOL FOR DRIP DRAINERS*

For milling grooves on Lapitec it is recommended to use spherical milling tools for granite/ceramic.

Parameters – Data refers to a Ø 5/8" Lapitec branded tool

Grinding wheel	Spindle revolutions rpm	Feed rate inch/min
1	6000	250
2	6000	400
3	6000	400
4	6000	200

Advice

During processing, use plenty of water well directed to the inside and outside of the tool.

Warnings

After each processing operation it is advisable to rinse the surface thoroughly with clean water before the workpiece dries.

- * Consult the tool manufacturer's data sheet to define the appropriate processing parameters, which may vary depending on the manufacturer.

2.4.9 ENGRAVING TOOL*

For surface engraving, it is recommended to use a PCD (polycrystalline diamond) tool for granite.

Thickness	Spindle revolutions rpm	Feed rate inch/min	Max removal inches
1/2" - 3/4" - 1 1/4"	8000-10000	3-5	1/16

Advice

During processing, use plenty of water well directed to the inside and outside of the tool.

Warnings

After each processing operation it is advisable to rinse the surface thoroughly with clean water before the workpiece dries.

- * Consult the tool manufacturer's data sheet to define the appropriate processing parameters, which may vary depending on the manufacturer.

2.4.10 PROFILING TOOL*

For profiling Lapitec it is recommended to use grinding wheels for granite/ceramic.

Parameters - Data refers to tool measuring $\varnothing 3 \frac{1}{2}$ ".

Grinding wheel	Type	Spindle revolutions rpm	Feed rate inch/min
1	Metal	5000-5500	39
2	Metal	5000-5500	98
3	Metal	5000-5500	98
4	Metal	4500-5000	39
5	Polishing	2500-3000	35
6	Polishing	2500-3000	35
7	Polishing	2500-3000	35

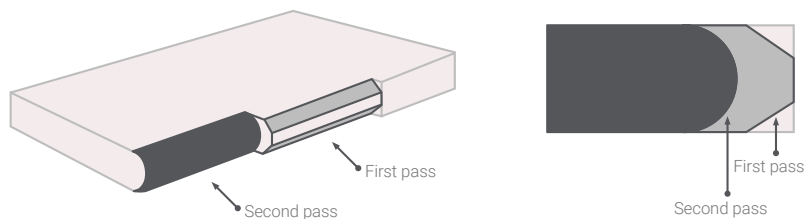
Advice

During processing, use plenty of water well directed to the inside and outside of the tool.

Warnings

After each processing operation it is advisable to rinse the surface thoroughly with clean water before the workpiece dries.

For profiling shapes with major removal, it is recommended to divide removal by the first metallic tool into 2 passes, or use the breaker tool.



* Consult the tool manufacturer's data sheet to define the appropriate processing parameters, which may vary depending on the manufacturer.

2.4.11 WHEEL FOR COUNTERTOP POLISHING*

For polishing Lapitec it is recommended to use polishing grinding wheels for granite.

Parameters – Data refers to a Ø 4” tool

LUX FINISH

Grinding wheel	Grit	Spindle revolutions rpm	Feed rate inch/min	Compression**	Passes
1	GR 50	1200	236	0,5	1
2	GR 100	1200	236	0,5	1
3	GR 200	1200	236	0,6	1
4	GR 500	1200	236	0,8	2
5	GR 1000	1200	177	1	1
6	GR 2000	1200	177	0,5	2
7	GR 3000	1200	177	1	2

SATIN FINISH

Grinding wheel	Grit	Spindle revolutions rpm	Feed rate inch/min	Compression**	Passes
1	GR 50	1200	236	0,5	1
2	GR 100	1200	236	0,5	1
3	GR 200	1200	236	0,6	1
4	BRUSH GR 180	1500	137	1	1

Warnings

After each processing operation it is advisable to rinse the surface thoroughly with clean water before the workpiece dries.

* Consult the tool manufacturer's data sheet to define the appropriate processing parameters, which may vary depending on the manufacturer.

** Data is specific to Breton® machines equipped with a polishing system with spindle power absorption control.

2.4.12 LAPITEC BRANDED TOOLS

It is recommended to use Lapitec S.p.A. branded tools.



Lapitec finger bit tool

Diameter $\frac{7}{8}$ "



Lapitec drill for through holes

Diameters $1 \frac{1}{4}$ " - $1 \frac{3}{8}$ " - $2 \frac{1}{4}$ " - $2 \frac{3}{4}$ " - 4"



Lapitec incremental router for flush top recesses

Diameters $\frac{1}{4}$ " - $\frac{5}{16}$ " - $\frac{3}{8}$ " - $\frac{1}{2}$ " - $\frac{5}{8}$ "



Lapitec bushing tool for blind holes

Diameters $\frac{1}{4}$ " - $\frac{5}{16}$ " - $\frac{3}{8}$ " - $\frac{7}{16}$ " - $\frac{1}{2}$ "



Lapitec Keil/ Fischer drilling tool for undercut holes



Lapitec router tool for incremental cutting

Diameter $\frac{5}{8}$ "



Lapitec stubbing wheel tool

Diameters 2" and $3 \frac{1}{2}$ "



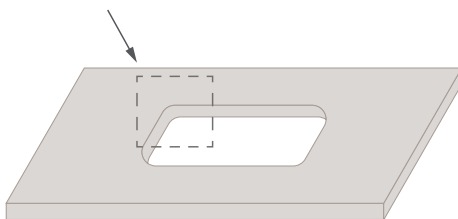
3. DESIGN RULES

3.1. INTERNAL CUT-OUTS AND HOLES

All internal corners relating to a cut-out must have a minimum radius of $\frac{3}{16}$ ".

For industrial kitchens the minimum radius is $\frac{3}{8}$ ".

A larger radius gives greater structural strength to the workpiece (see figure 1), while any non-radiused corner creates a stress point on the countertop (see figures 2, 3 and 4).



$R \geq \frac{3}{16}$ "
 $R \geq \frac{3}{8}$ " (industrial kitchens)

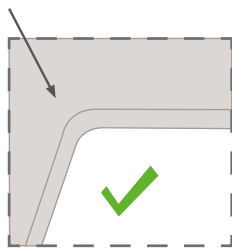


Figure 1

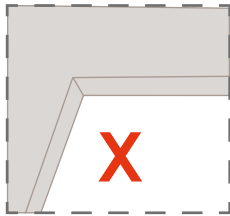


Figure 2

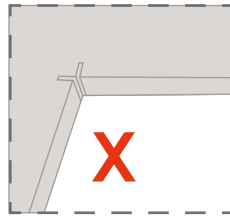


Figure 3

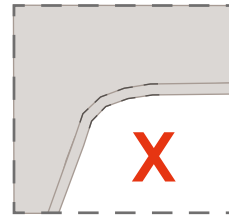
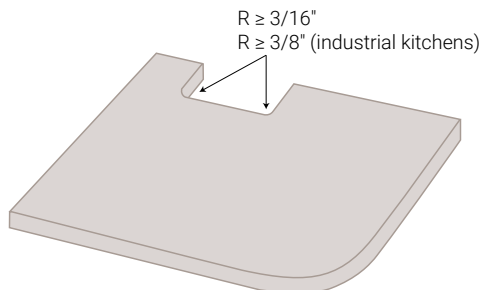


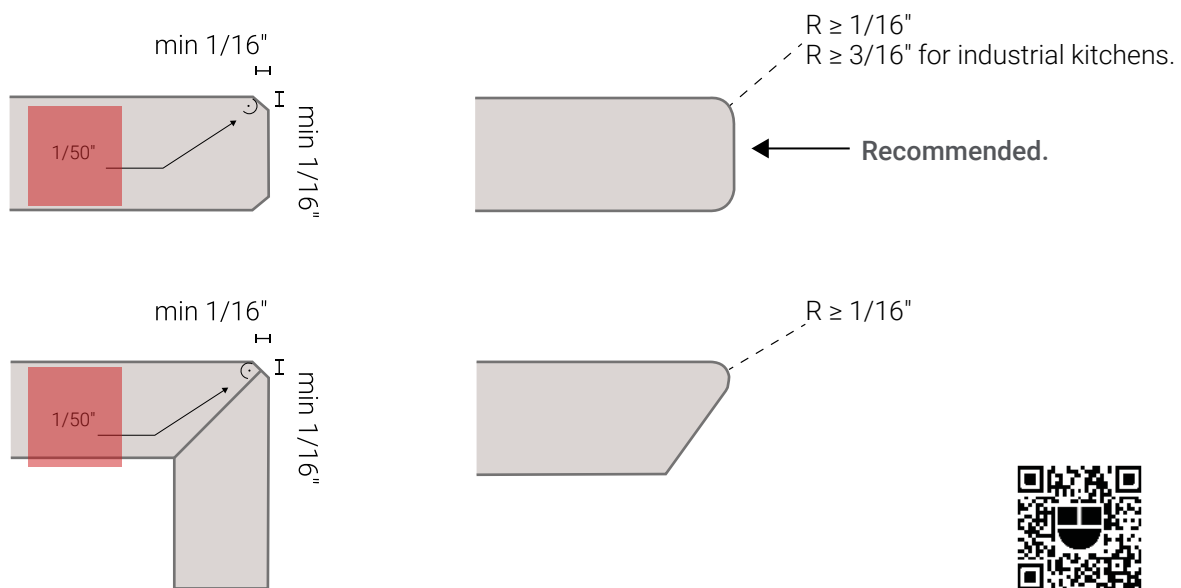
Figure 4

It is recommended to create a minimum radius of $\frac{3}{16}$ " in the presence of columns or elements requiring the countertop to be cut.



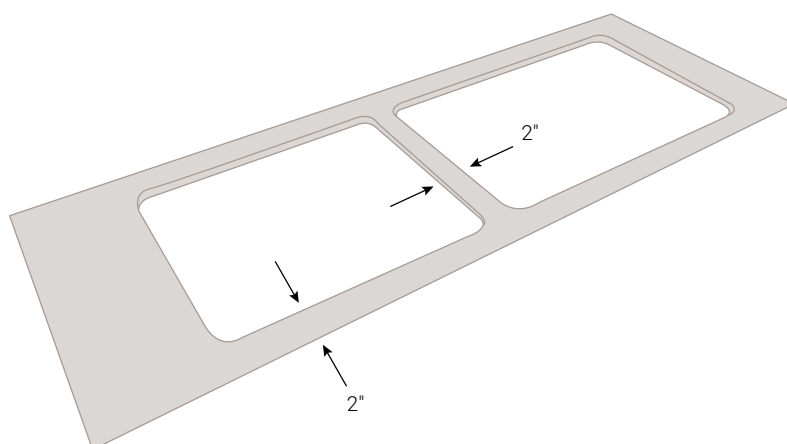
3.2. PROCESSING OF EDGES

It is recommended to process the edges of the workpieces as indicated in the drawing. These instructions are a good compromise between aesthetics and functionality while also guaranteeing a considerable reduction of accidents with the product.



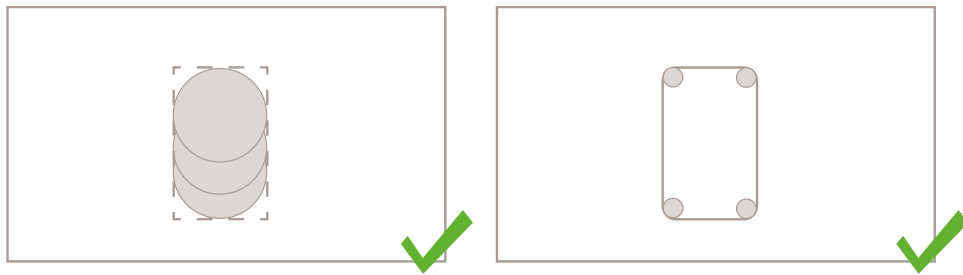
3.3. MINIMUM DISTANCE BETWEEN EDGE AND CUT-OUTS

The recommended minimum distance between cut-out and cut-out and between edge and cut-out is 2".



3.4. HOLES FOR ACCESSORIES

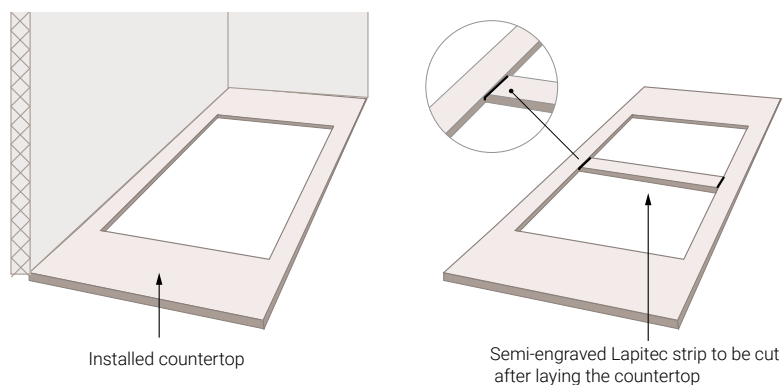
It is recommended to create circular holes for accessories/switches as shown in the pictures below.



3.5. LARGE CUT-OUTS

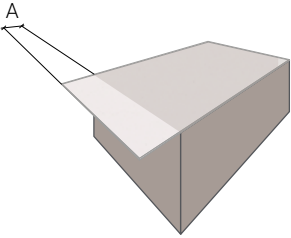
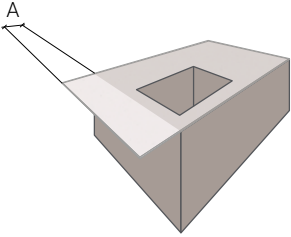
In the case of one or more large cut-outs, it is recommended to leave a strip of material to stiffen the countertop. This strip, already engraved at half the thickness, will be cut after installation is complete.

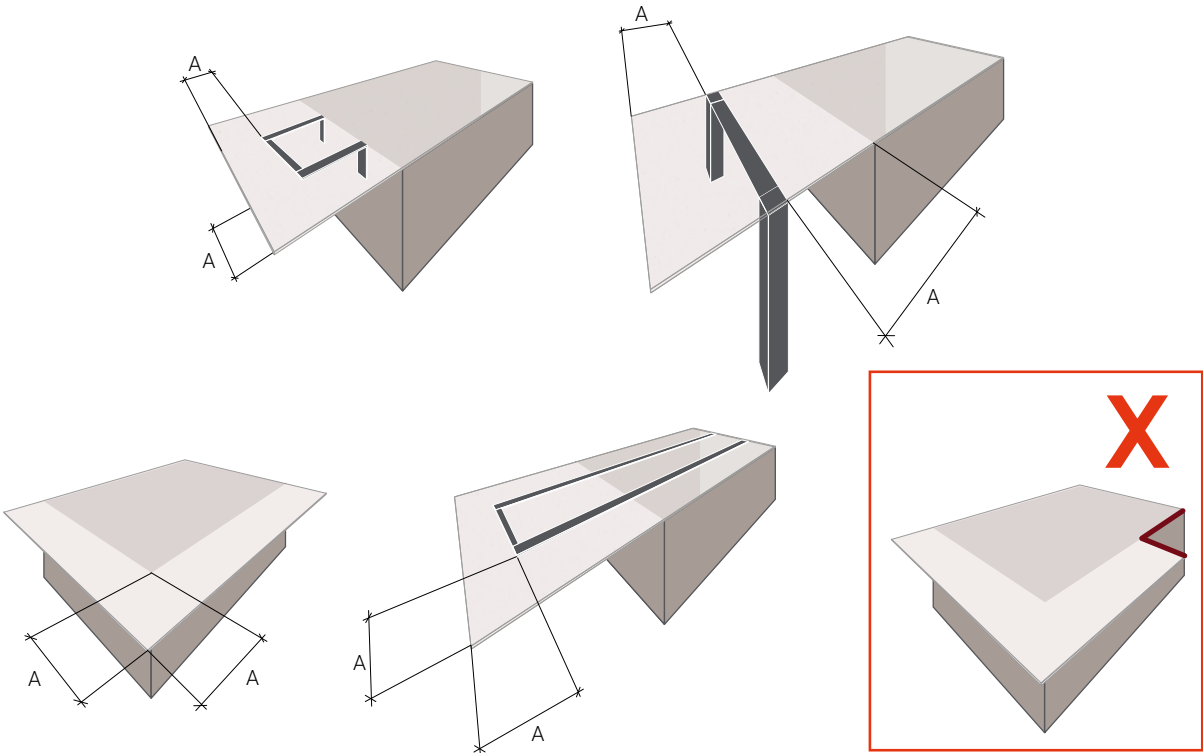
This limits the possibility of breakage during handling and installation.



3.6. OVERHANGS

When designing the countertop it is advisable to dimension the overhangs according to the following table so that the workpiece is not exposed to the risk of breakage during daily use.

	Thicknesses			Drawing
	1/2"	3/4"	1 1/4"	
Countertop with unsupported overhang	A <6"	A <13 1/2"	A <19 1/2"	
Cut-out countertop with unsupported overhang	A <3 1/2"	A <8 1/4"	A <11 1/2"	





4. CLEANING, MAINTENANCE AND CARE

4.1. ROUTINE CLEANING

Daily care is essential for the correct maintenance of Lapitec® surfaces. To facilitate the removal of stains, do not let them dry and clean them as soon as possible.

For the routine cleaning of Lapitec it is recommended to use a microfibre cloth to remove dust from the surface, then rinse with warm water and a neutral detergent such as FilaCleaner. Rinse with clean water and dry with a damp microfibre cloth or non-abrasive soft sponge. Alternatively, neutral, no-rinse detergents such as Vetril, Glassex or FilaBrio can be used. In any case, follow the instructions of the detergent manufacturer.

For small areas cleaning can be carried out manually. For large areas it is recommended to use a pressure washer outdoors or a floor washer indoors.

What not to do

Do not use washing up liquid, waxes, oily soaps, impregnating agents or other treatments. Some detergents available on the market contain wax or polishing additives that after several applications may leave an oily film on the surface, preventing Lapitec from being cleaned.

Avoid using ceramic knives or other objects of similar hardness to Lapitec, as they may damage the surface.

Do not use abrasive sponges that may scratch the surface. Use blue scratch-resistant Scotch-Brite sponges.

Do not hit the material with sharp or heavy metal objects as they may chip the material or, in some cases, cause it to break.

Remember that the edges are the most delicate part of the Lapitec workpiece.

4.2. SPECIAL CLEANING

When routine cleaning is not enough, specific procedures must be followed depending on the stain to be removed. The use of recommended products, even if aggressive, will not compromise the beauty of the piece. The length of time the dirt is left on the surface plays an important role, therefore it is advisable to clean as soon as possible. It is recommended to start by cleaning a small area and check its effectiveness before cleaning the whole surface.

Do not under any circumstance use concentrated hydrochloric acid or caustic soda, or products containing hydrochloric acid and its derivatives.

Lapitec S.p.A. has collaborated with Fila Industria Chimica S.p.A., a company specialised in surface cleaning, to identify the most suitable and effective products for the correct cleaning of Lapitec workpieces.

Below is a table identifying the types of stains that may occur on surfaces and the products recommended by Fila Industria Chimica S.p.A. for their removal. Data sheets are available on the website www.filasolutions.com. The choice of detergent must either be one of those listed in the table or an alternative product with identical characteristics.

Before proceeding, it is always recommended to obtain the most up-to-date documentation from the provider of the cleaning products and follow the instructions. After cleaning, the surfaces must be properly rinsed in order to remove all traces of the detergent used. In case of special requirements, contact Lapitec S.p.A. customer care at customercare@lapitec.com.

Notes

Ink, paint, wax, oil/grease, enamel and adhesive stains can also be removed using solvents such as nitro thinner, acetone or white spirit. Test effectiveness on a small area before applying on the whole surface.

Warnings

Lapitec S.p.A. accepts no responsibility for the effectiveness of subsequent cleaning and maintenance operations if the surface is not cleaned after laying or if cleaning is not carried out properly.

Type of dirt	Type of detergent	Smooth surfaces (Lux, Satin, Velluto)	Textured surfaces (Lithos, Vesuvio, Arena, Meridio)
Limescale deposit	Descaler detergent (e.g. Fila Deterdek)	Damp scratch-resistant Scotch-Brite	Sorghum or plastic bristle brush
Metal marks	Descaler detergent (e.g. Fila Deterdek)	Damp scratch-resistant Scotch-Brite	Sorghum or plastic bristle brush
Pencil	Descaler detergent (e.g. Fila Deterdek)	Damp scratch-resistant Scotch-Brite	Sorghum or plastic bristle brush
Grease	Degreasing detergent (bleach-based/Fila PS87 Pro)	Damp cloth	Damp Scotch-Brite non-scratch scrub sponge
Coffee	Degreasing detergent (bleach-based/Fila PS87 Pro)	Damp cloth	Damp Scotch-Brite non-scratch scrub sponge
Ice cream	Degreasing detergent (bleach-based/Fila PS87 Pro)	Damp cloth	Damp Scotch-Brite non-scratch scrub sponge
Fruit juice	Degreasing detergent (bleach-based/Fila PS87 Pro)	Damp cloth	Damp Scotch-Brite non-scratch scrub sponge
Blood	Degreasing detergent (bleach-based/Fila PS87 Pro)	Damp cloth	Damp Scotch-Brite non-scratch scrub sponge
Tomato	Degreasing detergent (bleach-based/Fila PS87 Pro)	Damp cloth	Damp Scotch-Brite non-scratch scrub sponge
Wine	Degreasing detergent (bleach-based/Fila PS87 Pro)	Damp cloth	Damp Scotch-Brite non-scratch scrub sponge
Beer	Degreasing detergent (bleach-based/Fila PS87 Pro)	Damp cloth	Damp Scotch-Brite non-scratch scrub sponge
Ink	Degreasing detergent (bleach-based/Fila PS87 Pro)	Damp cloth	Damp Scotch-Brite non-scratch scrub sponge
Nicotine	Degreasing detergent (bleach-based/Fila PS87 Pro)	Damp cloth	Damp Scotch-Brite non-scratch scrub sponge
Marker pen	Degreasing detergent (bleach-based/Fila PS87 Pro)	Damp cloth	Damp Scotch-Brite non-scratch scrub sponge
Cola	Degreasing detergent (bleach-based/Fila PS87 Pro)	Damp cloth	Damp Scotch-Brite non-scratch scrub sponge
Hair dye	Degreasing detergent (bleach-based/Fila PS87 Pro)	Damp cloth	Damp Scotch-Brite non-scratch scrub sponge
Rubber	Degreasing detergent (bleach-based/Fila PS87 Pro)	Damp scratch-resistant Scotch-Brite	Sorghum or plastic bristle brush
Chewing gum	Degreasing detergent (bleach-based/Fila PS87 Pro)	Damp scratch-resistant Scotch-Brite	Sorghum or plastic bristle brush
Rust	Rust removal detergent	Damp scratch-resistant Scotch-Brite	Sorghum or plastic bristle brush
Silicone	Specific detergent for silicone removal (e.g. Fila Zerosil)	Damp scratch-resistant Scotch-Brite	Sorghum or plastic bristle brush
Candle wax	Zerosil	Damp scratch-resistant Scotch-Brite	Sorghum or plastic bristle brush



5. CUSTOMER CARE

Lapitec Academy

Lapitec Academy is the division that trains and supports professionals working with Lapitec® through in-company training and direct support. Every single experience gained on international projects and through different uses is used to perfect the product and accessories marketed by Lapitec S.p.A.

Through direct involvement with its customers, Lapitec S.p.A. is constantly searching for new solutions to make the service increasingly complete and effective for the various needs of use.

Thanks to the Academy Community service, any technical news and developments are promptly shared with the entire network of collaborators.

Professionals participating in the training course held by Lapitec Academy can earn Approved Fabricator certification and learn useful tips and techniques for processing Lapitec.

Contacts:

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+39 0423 703811



Customer Care

For any particular requirements, please contact Lapitec S.p.A. customer care.

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