

FABRICATION AND INSTALLATION OF NEOLITH COUNTERTOPS



Before commencing fabrication consult Safety Data Sheets www.neolith.com

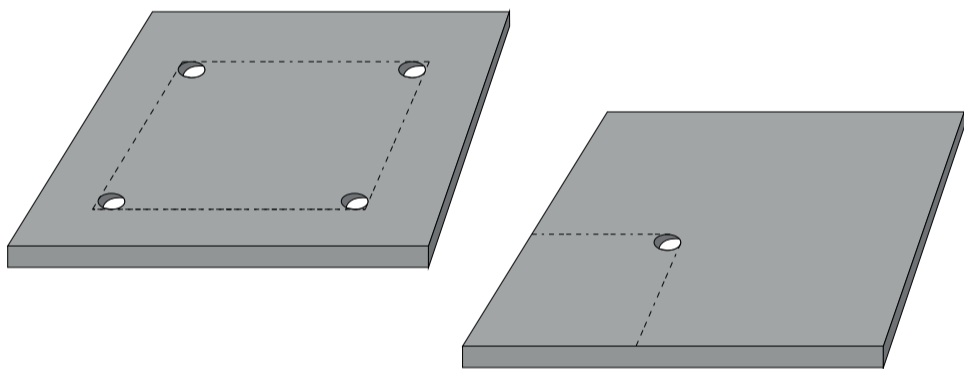
1. Inspection Procedure

Before commencing fabrication perform a visual inspection of the slab for:

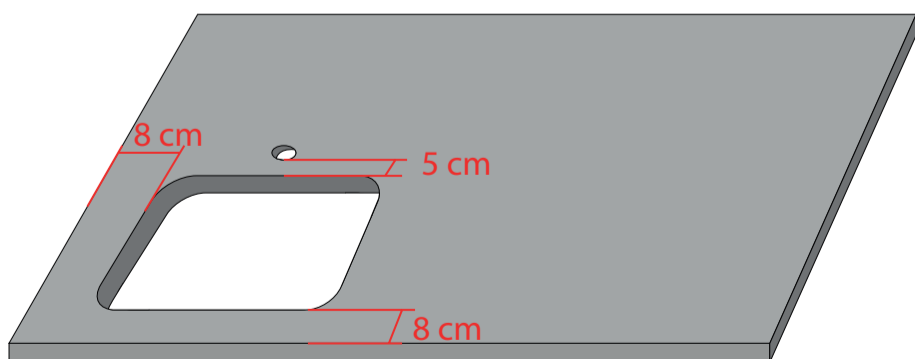
- Pigment contamination.
- Blisters, cracks & fissures.
- Warping.

2. Cut-outs

Cut-outs are made by first drilling out the corners. The minimum radius of the corner should be 6 mm.



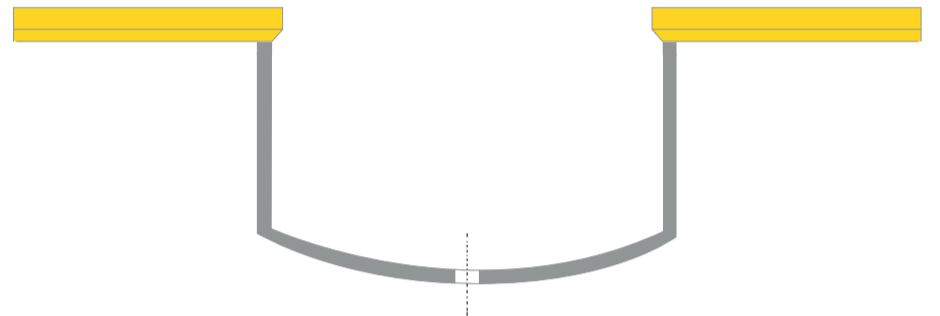
- When fabricating a cut out please bear in mind that the minimum distance between a cut-out and the edge of the slab should be at least 8 cm.
- The distance between a hole for a tap and the cut-out should be at least 5cm.
- Cut-outs not supported by a solid sub-surface should be reinforced with a suitable material such as granite strips, aluminium bars or high density polyurethane foam strips.



3. Procedures for installations of fixtures to countertops

Under-mount installation for 3+3 and 5+3 mm countertops.

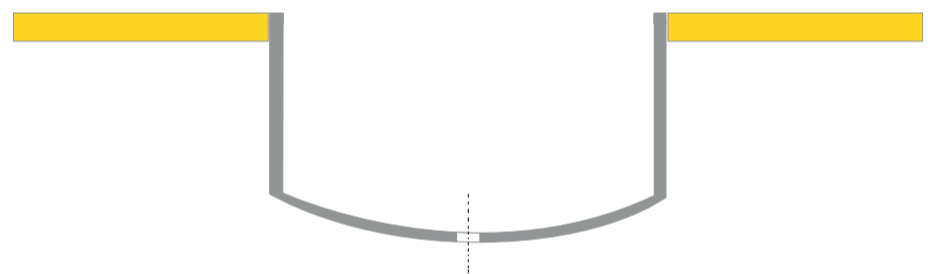
When installing an under-mount fixture, the cut out should be a little bit smaller than the fixture. Bevel and polish the edge of the top layer and grind down and polish the bottom layer to the glue layer to create the illusion of a solid piece.



For 1 cm countertops the edges are bevelled and polished, as there is no glue layer.

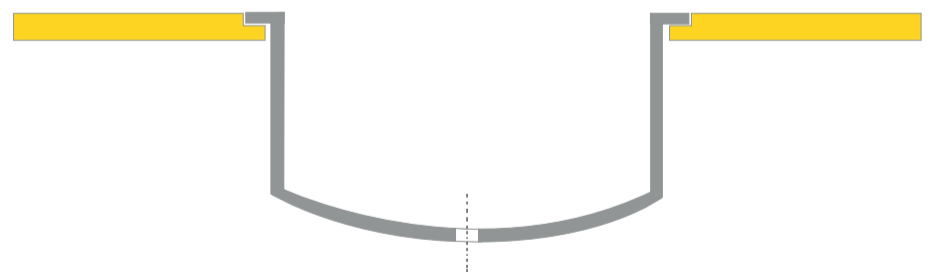
Over-mount installation.

Flatten the edges of the cut-out and leave a space between the fixture and the edge of the cut-out.



Flush installation.

Fabricate a cut-out to fit the perimeter of the fixture. Afterwards mark the perimeter of the overlapping part of the fixture. Grind down carefully the thickness of the overlap to make sure the exterior of the overlap coincides with the surface of the countertop.



4. Installation of sinks & vitro ceramics

- Install, glue and seal the accessory/appliance as per manufacturer's instructions after installing the surface.
- Glue and seal the accessory/appliance to the surface with suitable flexible adhesive
- Ensure that the accessory/appliance is fully supported inside the cabinet, in addition to being attached to the Neolith countertop.



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5. Fabrication of mitre edges with apron

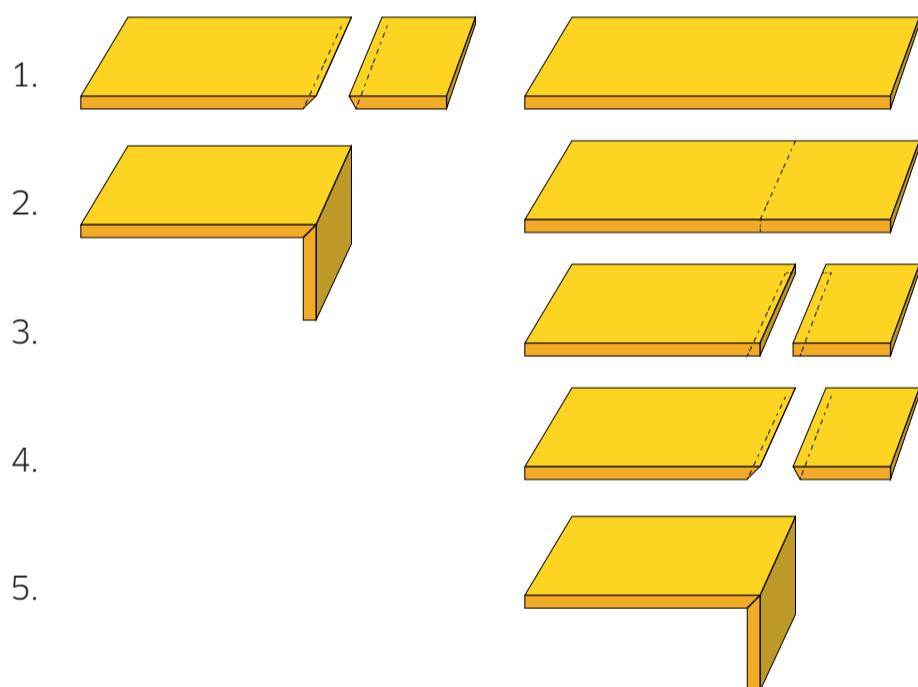
Machined Edges

Cut the slab directly at a 45 degree angle. Reduce the 45 degree angle slightly on the back part of the mitred cut, to leave room for the adhesive.

Manual Fabrication

Make a straight cut. Grind down the edges with a electroplated diamond grinding disc leaving a few millimeters from the edge. Grind down the remaining millimeters with a grit 60 cup wheel and smoothen the edges.

Make sure to apply the adhesive evenly to ensure a strong joint. To guarantee optimal strength, the mitred edge is reinforced using any suitable material (e.g. granite strips, aluminium bar or high density polyurethane foam strips). After hardening bevel and polish the joint to the desired size.



Machined Edges

Manual Fabrication

6. Polishing Edges

Polished edges are fabricated by standard granite/marble polishing discs of different grain sizes.

Start off with the lowest grit and finish with the highest grit, if required the edge can be buffed using polishing wax.

Wet polishing: up until grit 1500.

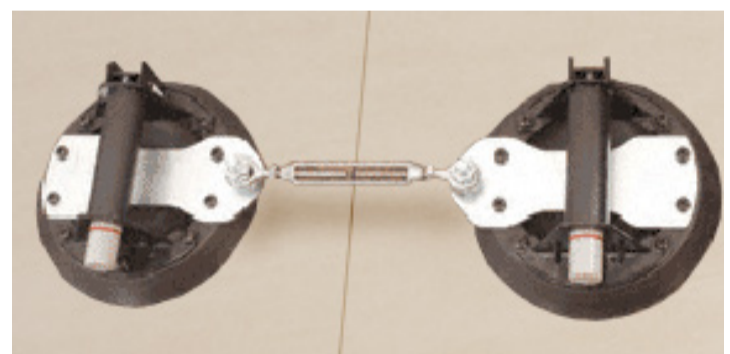


Dry polishing: up until grit 400.



7. Joining

- Ensure that all the edges are smooth and straight and line up properly before you joint Neolith.
- Attach one or two soft rubber suction cups on either side of the joint you are joining and attach turnbuckles between the suction cups. You will use this to pull the two pieces together as the seam dries. Leave room so you can work underneath the turnbuckle attachments.



- Apply adhesive and tighten the turnbuckles to squeeze the two pieces together. Don't over tighten or you'll pull the suction cups off the countertops.
- Pull a wet razor blade or putty knife along the edge of the adhesive to remove excess and to create a smooth seam that's flush with the surface.
- Wait for the adhesive to dry, with the suction cups in place.
- Reinforce the seam underneath with recommended material.
- DO NOT POLISHING THE SEAM.



FABRICATION AND INSTALLATION OF NEOLITH COUNTERTOPS

8. Preparing the Cabinets

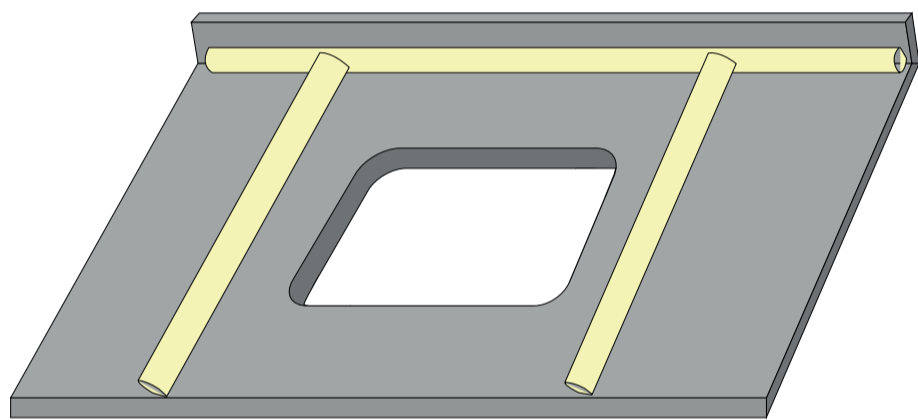
Properly installed new cabinets are ready for countertop installation. Older cabinets that have had the countertops removed may need additional preparation.

Make sure the cabinets are straight, flat and suitable for supporting the weight of the countertop.

Verify that the countertop has enough support in spaces where there are seams and cut-outs for appliances.

Fabricate back to front supports under the countertop every +/- 600 mm. If a cut-out is bigger than 600 mm, reinforcements should be installed along the perimeter of the cut-out.

All seams should be reinforced underneath.



9. Installation of Countertops

Preparation

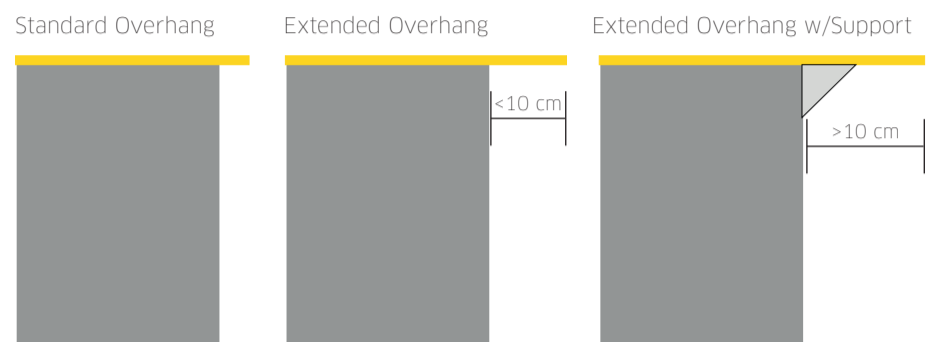
- Place all the manufactured sections of the countertop on the cabinets without adhesive. Check that all the sections are the correct size, shape relative to the cabinets and the walls.
- Use wedges to level the countertop and fill in the spaces between the countertop and the cabinets with natural silicone.
- Check that the countertop is straight and level.
- Make a last visual examination to ensure that the countertop is to your satisfaction

Sealing between the countertop and wall

- Clean the space of any debris.
- Fill the space generously with natural silicone.

10. Overhangs

Countertops extend out from the face frame of the cabinets and just over the cabinet doors. This is called the overhang. Standard cabinet frames are 60cm deep with 1,5cm to 2,5 cm thick doors. Most countertops have a 2,5 cm overhang to make a standard depth of +/- 63 cm.



If you have the space, and would like to create additional countertop space, you can extend your overhang. It is important to keep in mind that countertops with an extended overhang might require additional support:

Maximum overhang:

- Without apron edge:

1 cm countertops	15 cm.
5+3 cm countertops	10 cm.
- Mitre apron edge:

1 cm and 5+3 countertop	30 cm*
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* Taking in account that the countertop has been reinforced all around the edge and front to back supports every 600mm.



HANDLING NEOLITH COUNTERTOPS

Moving a Neolith Countertop



Placing a Neolith Countertop on a bench



RECOMMENDED TOOLS FOR MACHINING COUNTERTOPS

In order of usage:

1. Blades

a) Continuous rim, electroplated diamond cutting disc.

Inside 60 mm diameter;

- Outside (mm and RPM):
- 300 mm: 2.500 RPM
 - 350 mm: 2.200 RPM
 - 400 mm: 1.900 RPM
 - Straight Advance speed: 1,3 m/min
 - Mitre Advance speed: 1m/min



b) Segmented blade for porcelain. Recommended speed:

- 300 mm: 2.500 RPM Ref. 720-172
- 350 mm: 2.200 RPM Ref. 720-174
- 400 mm: 1.900 RPM Ref. 720-176
- Straight Advance Speed: 1,3 m/min
- Mitre Advance speed: 1 m/min



2. Electroplated diamond grinding disc, type G100 and G30

Refining and trimming edges. Recommended speed 2.000 RPM.

Thin Grit Ref. 720-008

Hard Grit Ref. 720-009



3. Beveling and pre-grinding edges

Cup wheels, medium, grain 60. Recommended speed 2.000 RPM

TheSize recommends cup wheels from Tyrolit

Ref: 720-061



4. Glue, putty and pigments

Putty "Soldapiedra" for countertops and Interior applications.

Color matching pigments available

Ref: Depending on the colors



5. Silicon carbide discs

Silicon Carbide velcro discs for dry use. Grit 60, 120, 220, 400.

Recommended speed 2.000 RPM

Ref: Depending on diameters and grits



RECOMMENDED TOOLS FOR MACHINING COUNTERTOPS

5. Silicon carbide discs

Silicon Carbide velcro discs for wet use.



7. Felt pad

Ø 125 Ref. 720-181
Ø 180 Ref. 720-181



8. Core drill 20-35 mm

Electroplated diamond, cutting drill bits.
Ø 35 Ref. 411-018



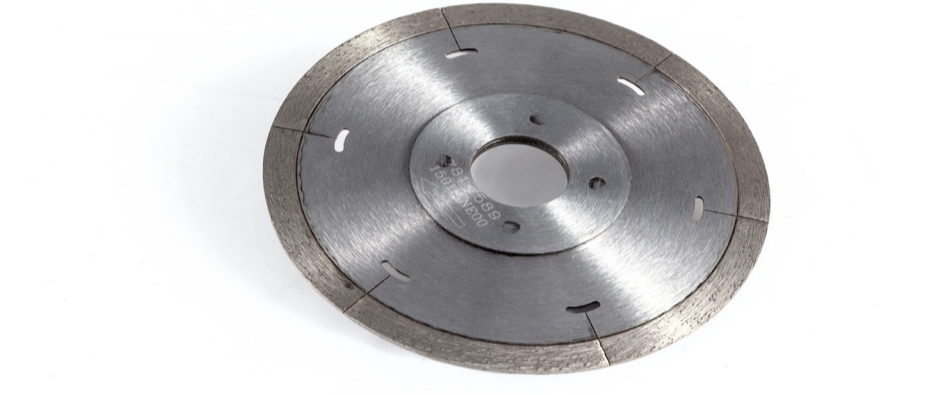
9. Drill bits 6-12 mm

Electroplated diamond, cutting drill bits.
Use the drill without the hammer action. Use water for cooling.
Ø 6 Ref. 853-099
Ø 8 Ref. 853-098
Ø 10 Ref. 853-097



10. 4" Diamond blade

Segmented blade for porcelain. Recommended speed: 11.000 RPM. (Supplied from TheSize)
Ref. 720-169



11 Continuous rim porcelain blade

Ref. 411-009



12. 4" Angle grinder and 7" Buffer



RECOMMENDED TOOLS FOR MACHINING COUNTERTOPS

Special tools for CNC machining:

13.a Finger bit

Recommended speed 4.600 RPM. 120 mm/min
Ref. 720-107



13.b Core drill

Recommended speed 4.500 RPM. 20 mm/min
Ref. 720-165



For CNC polishing, the tools are the same than the used for quartz and granites.



CLEANING AND MAINTENANCE OF NEOLITH COUNTERTOPS

Features of Neolith

Neolith countertops are fairly easy to clean, as food scraps and deposited waste cannot penetrate the material, so it guarantees good hygiene. For most cases, only a **damp cloth** is sufficient for cleaning.

Stains created by food and substances generally used in kitchens (e.g. lemon juice, vinegar, olive oil, wine and coffee) are easy to remove.

Even highly aggressive cleaning agents, such as oven cleaners do not affect the surface of Neolith.

Another advantage of its production process is that **Neolith is heat resistant**. Hot pots or pans do not discolor nor damage the surface.

Everyday cleaning

Use a microfiber cloth to remove dust from the surface. Clean your Neolith countertop daily if necessary.

Neolith countertops can be washed with warm water, to which a detergent can be added, used in the dose recommended by the manufacturer. (Avoid products containing hydrofluoric acid and its derivatives). Rinse with warm water and dry with a cloth or similar.

If liquids are spilled, it must be dried immediately. The faster you clean and dry spills, the easier it is to remove stains.

It is not advisable to use waxes, oily soaps, impregnating agents or other treatments (hydro-oil repellent) on the product, because its application is not necessary at all.

Some of the detergents currently on the market contain waxes or polishing additives that, after several washes, **can leave an oily film** on the surface of Neolith.

Do not hit your Neolith countertop with a blunt and heavy objects. It could chip or even break (the edges are the most sensitive to physical damage).

TIP:

During treatment, closely examine the spot. If the spot is still there, but is lighter or reduced, you know the treatment is working. Keep applying until the stain is completely gone.

Suggested detergents to clean general stains

Some products may not be removed by normal cleaning operations and specific procedures must be used, depending on their nature. The amount of time the substance remains on the surface is very important, as it is advisable to clean the area as soon as possible. This will prevent it from drying out and allows to be cleaned easily.

Here are some of the substances listed for removing stains.

Types of Stains

Grease
Oil
Ink
Rust
Lime
Cement
Wine
Coffee
Rubber
Plaster
Epoxy glues
Candle wax
Iodine
Blood
Ice cream
Resins
Fruit juice
Permanent marker
Aluminum scratches

Types of detergents

Alkaline / Solvent
Solvent
Oxidant / Solvent
Acid
Acid
Acid
Alkaline / Acid
Alkaline / Solvent
Solvent
Acid
Solvent
Solvent
Oxidant
Oxidant
Alkaline
Solvent
Oxidant
Solvent
Acid

Acid: Acidic cleaning products: descalers, cement removers...

Alkaline: Basic cleaning products: ammonia, degreasers...

Solvent: Universal solvent, thinner, turpentine, acetone, alcohol...

Oxidant: Diluted hydrogen peroxide or bleach ...



Warning:

Always follow the manufactures' recommended dosage and time.

