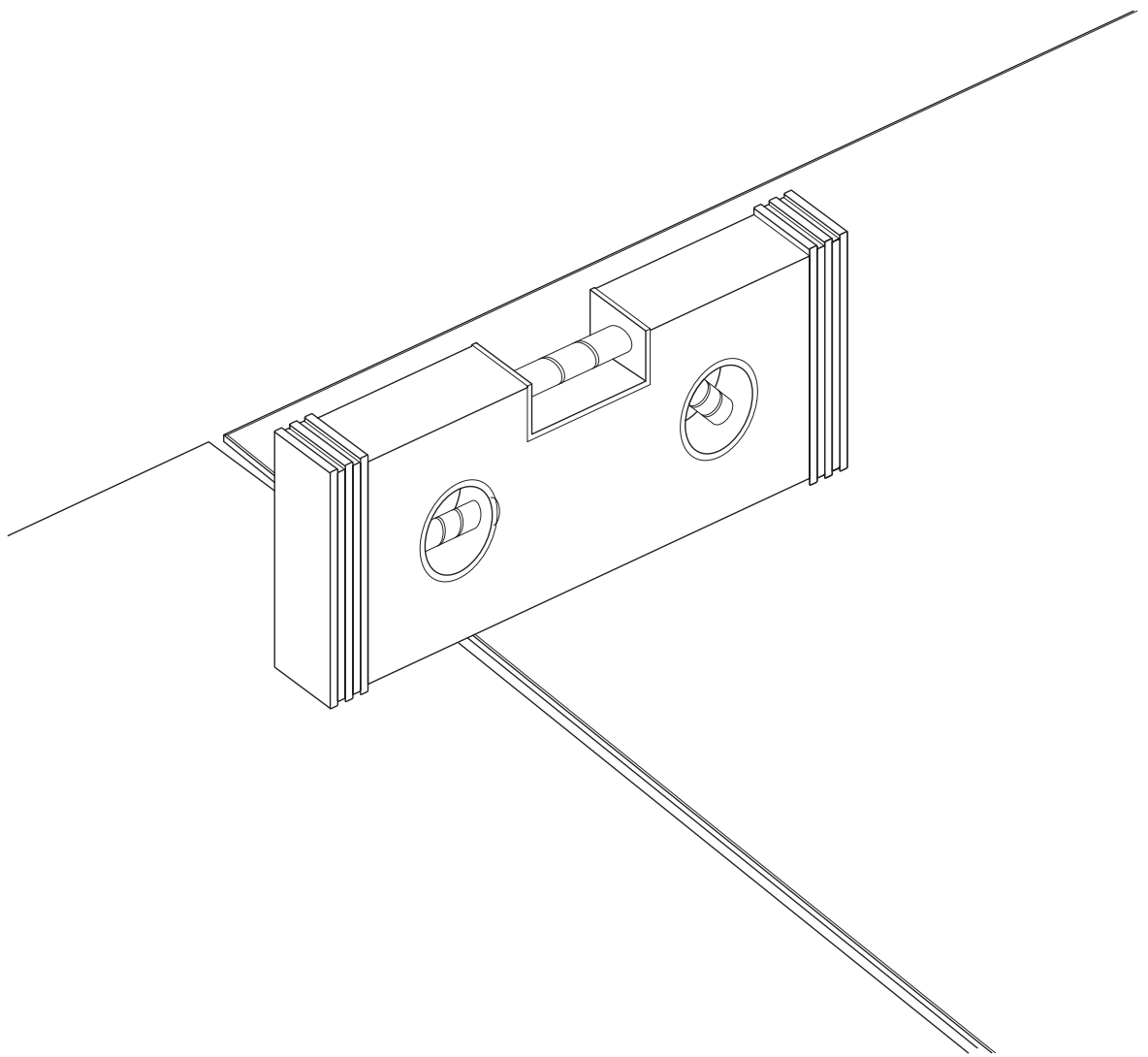


Silestone® worktops design and installation manual



The purpose of this manual is to provide general guidelines for the design of a Silestone® worktop

It is advisable to review all other information on Silestone®, such as Technical Manuals or Safety Sections, before starting any work. You can consult these product documents at the website www.silestone.com, or by contacting Cosentino, S.A.

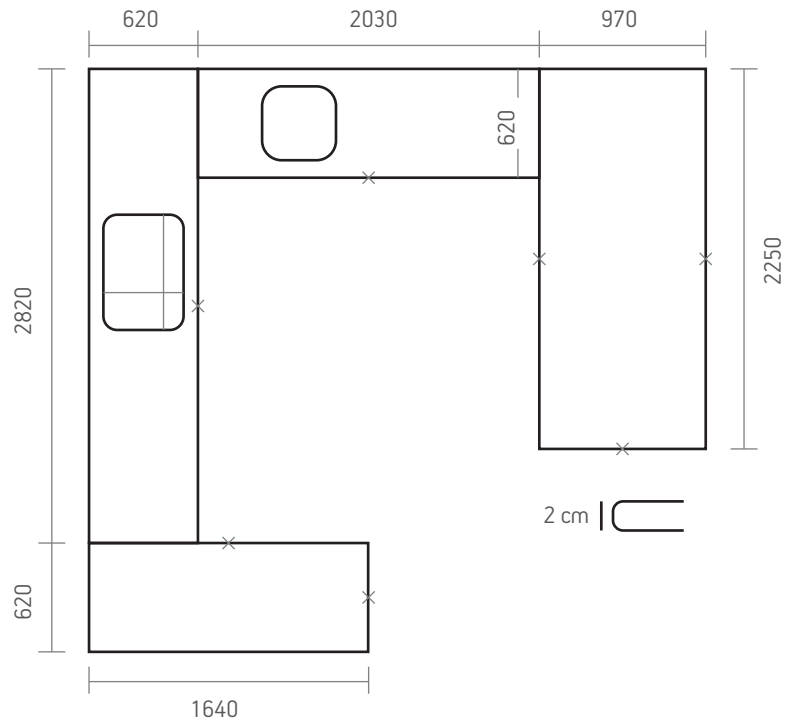
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Design principles

Measurements

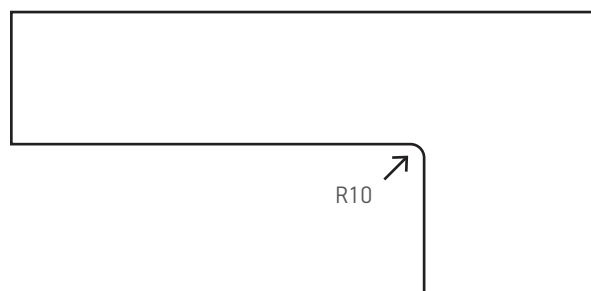
Exact measurements are essential for a job well done. In addition, it is important that the measuring, processing and installation procedures are well-coordinated tools needed to measure the work-top are: Tape measure, 2 m spirit level, builder's square, pencils, ruler and graph paper (if applicable).



Minimum radii and distances

It is mandatory that any internal corner must be rounded.

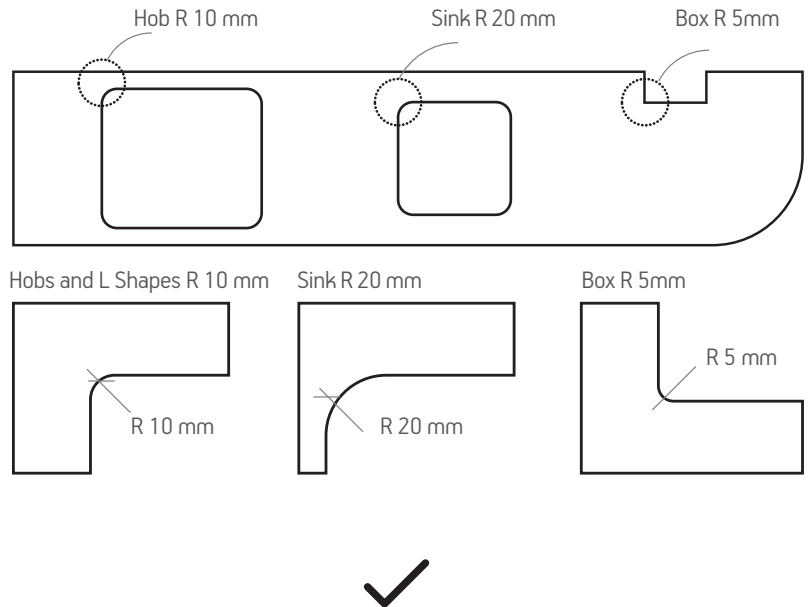
Inside Corners on L-Shapes must have a minimum 10mm radius



Cutouts

A minimum of 4mm radius is mandatory for inside corners except for L Shapes, where 10mm is required

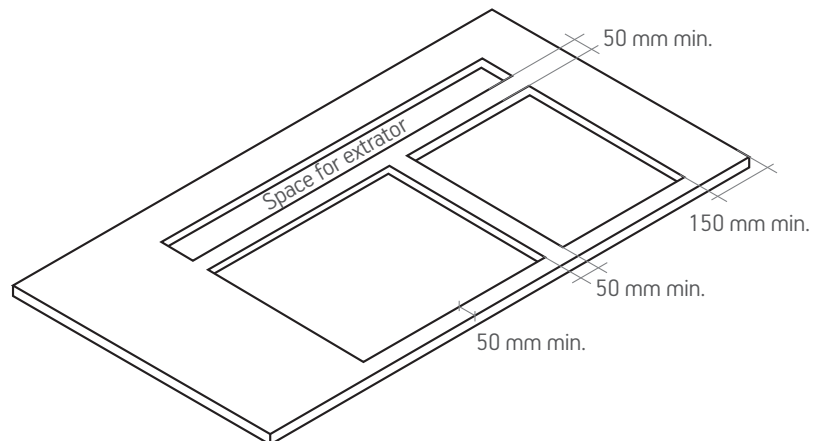
Below are recommended examples of cut-outs for fittings such as sinks, hobs, columns, etc.



Minimum distances

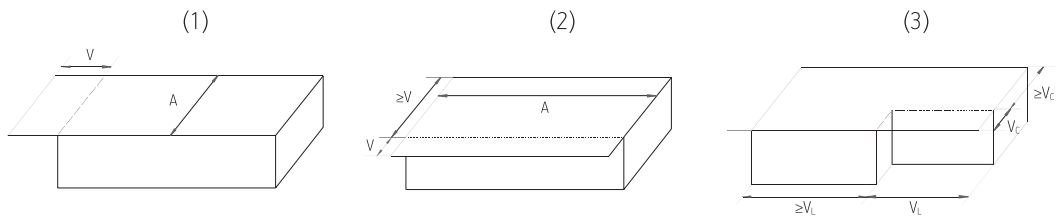
The following distances must be respected:

- The distance between the fitting and the outer edge of the slab must be at least 5 cm.
- The distance between the fitting and the seams/joins of the slab must be at least 15 cm



Overhangs

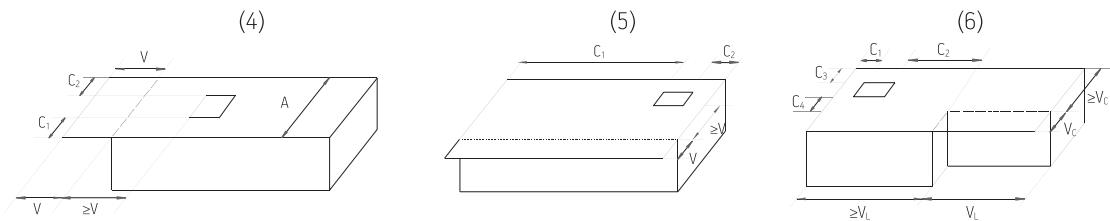
OVERHANG IN WORKTOPS WITHOUT CUT OUT	12mm		20mm		30mm	
	FAMILY I, VI	FAMILY II, III, IV, V	FAMILY I, VI	FAMILY II, III, IV, V	FAMILY I, VI	FAMILY II, III, IV, V
Overhang whole side (1) (2)	$V \leq 5$ cm	$V \leq 10$ cm	$V \leq 20$ cm	$V \leq 30$ cm	$V \leq 50$ cm	$V \leq 70$ cm
Overhang partial side (3)	N/A	N/A	$V_L \leq 40$ cm; $V_C \leq 15$ cm	$V_L \leq 70$ cm; $V_C \leq 25$ cm	$V_L \leq 100$ cm; $V_C \leq 30$ cm	$V_L \leq 140$ cm; $V_C \leq 40$ cm



* $A \geq 60$ cm; V = Overhang; V_L = Long overhang; V_C = Short overhang
Maximum punctual static charge = 100 kg

OVERHANG WITH CUT OUT	12mm		20mm		30mm	
	FAMILY I, VI	FAMILY II, III, IV, V	FAMILY I, VI	FAMILY II, III, IV, V	FAMILY I, VI	FAMILY II, III, IV, V
Overhang whole side (4) (5)	$V \leq 5$ cm	$V \leq 10$ cm	$V \leq 20$ cm	$V \leq 30$ cm	$V \leq 50$ cm	$V \leq 70$ cm
Overhang partial side (6)	N/A	N/A	$V_L \leq 40$ cm; $V_C \leq 15$ cm	$V_L \leq 70$ cm; $V_C \leq 25$ cm	$V_L \leq 100$ cm; $V_C \leq 30$ cm	$V_L \leq 140$ cm; $V_C \leq 40$ cm

The previous table is just applied to worktop with one cut out. For further information, you have to get in contact with Cosentino®.



* $A \geq 60$ cm; V = Overhang; V_L = Long overhang; V_C = Short overhang;
Maximum punctual static charge = 100 kg
Conditions: (4) (5) $C_1, C_2 \geq 10$ cm; $C_1 + C_2 \geq 35$ cm;
(6) $C_1, C_2, C_3, C_4 \geq 10$ cm; $C_1 + C_2 \geq 35$ cm; $C_3 + C_4 \geq 35$ cm

Worktop edges

Silestone gives the possibility to achieve many different edges with the same texture and color in the whole body.

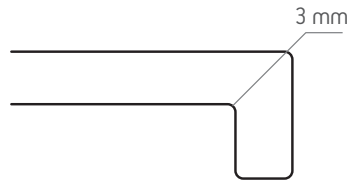
Precautions: We recommend bevelling the outer edges of worktops to improve their resistance to impact and to avoid possible cuts from sharp edges.

The greater the bevel, the greater its resistance to impact. The minimum bevel is of 1 mm when it is hidden or not exposed (for example, against a wall), and 3 mm when exposed.

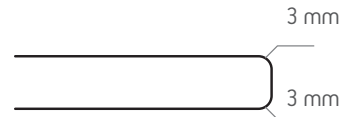
However, it is common to cut bevels greater than those mentioned above despite being technically complex.

Note: Chiseled or hammered edges are not approved

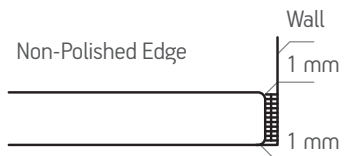
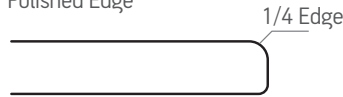
Mitred Edge



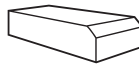
Straight Edge



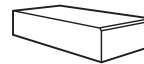
Polished Edge



Flat edge with bevel straight



Flat edge no bevel straight



Round edge



Ogee



Sharknose

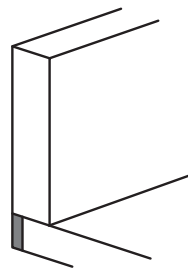


Demi bullnose



Joins. Seams and backsplashes

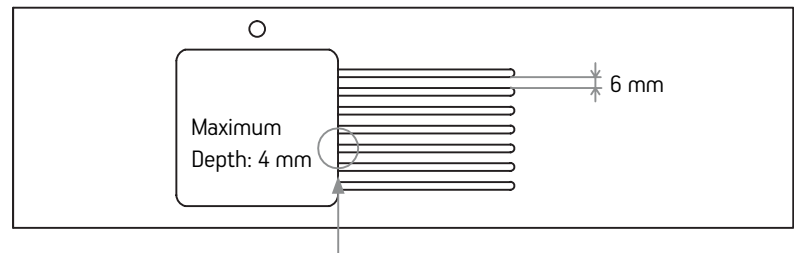
Due to the irregularities of the wall and possible structural movements of the building, we recommend leaving a perimeter expansion joint of 3mm on the worktop. These visible spaces should be filled with silicone. The seam between the backsplash and worktop should be sealed with a thread of silicone.



3 mm separation Silicone filing

Drainer grooves

- Maximum depth of 4mm in all thicknesses (12,20,30)
- Minimum distance of 6mm between each groove



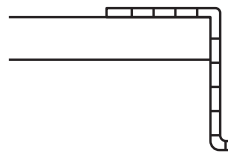
Two reinforcements are needed in this part because of the thickness has been reduced.

Flushed sinks and hobs

Hobs and sinks that are fitted flush with the worktop are increasingly popular. Three kinds of sinks can be installed:

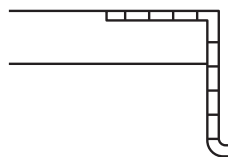
A. Top mount sink

The edge is completely protected by the sink.



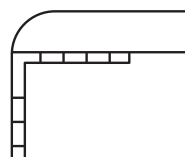
B. Sink flush to worktop

Waterproofing is ensured by a 1mm cord of silicone around the perimeter.



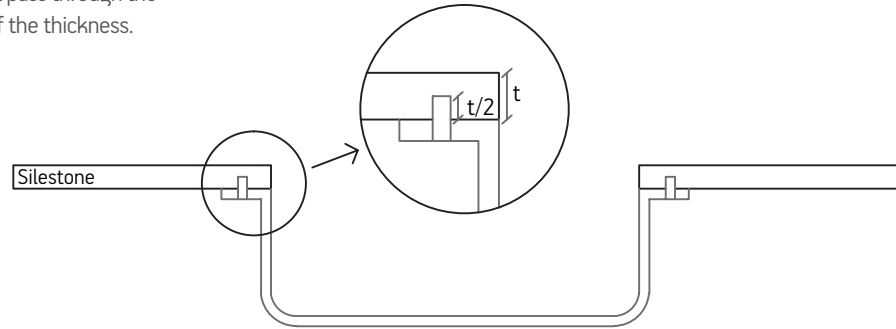
C. Under-Mount sink

In this case, the edge more exposed to knocks. We recommend making rounded edges.

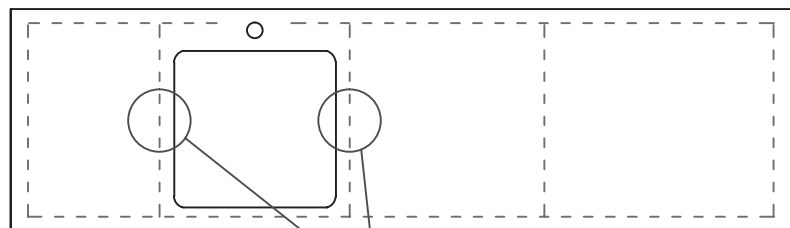
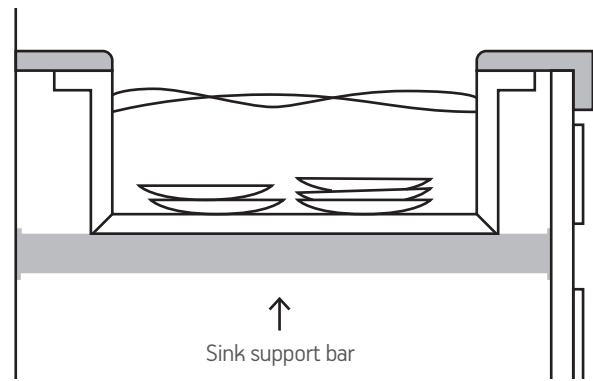


Drills and Slits

All incisions, slits or drills must pass through the material a maximum of half of the thickness.



Furthermore, for large sinks, we recommend placing support bars under the sink, so that its weight is borne by the bars and not (by) the worktop.



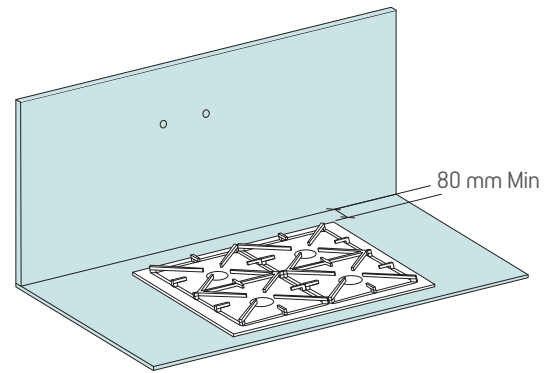
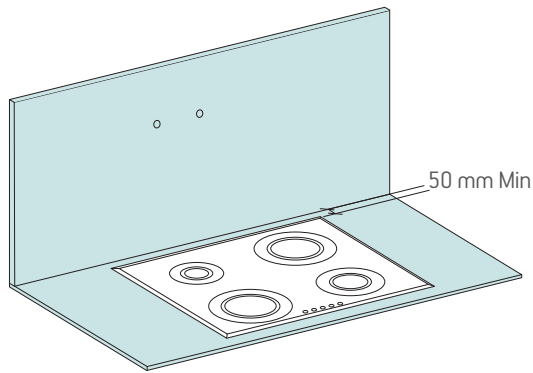
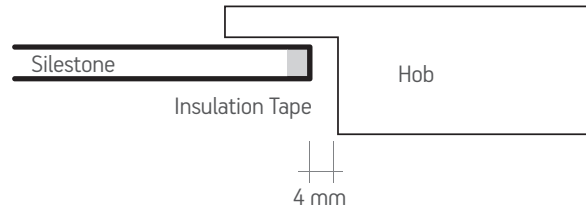
Assure the countertop support on the cabinet rails surrounding the cutout.

Hobs

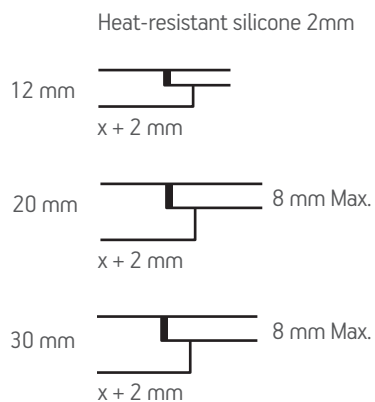
The design principles for flushed hobs are the same as those for sinks.

We recommend leaving a minimal distance of 50mm between the hob and the Silestone® cladding for electric and induction stoves, and 250 mm from the center of the gas burner

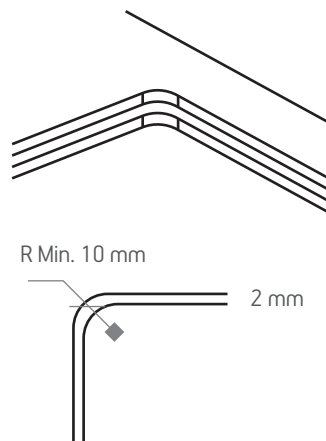
- Always allow an extra 4mm between the appliance and the edge of the cutout for expansion.



Silestone® advises only fitting flush hobs with worktops, respecting the following distances:



X = measurement recommended by the hob manufacturer



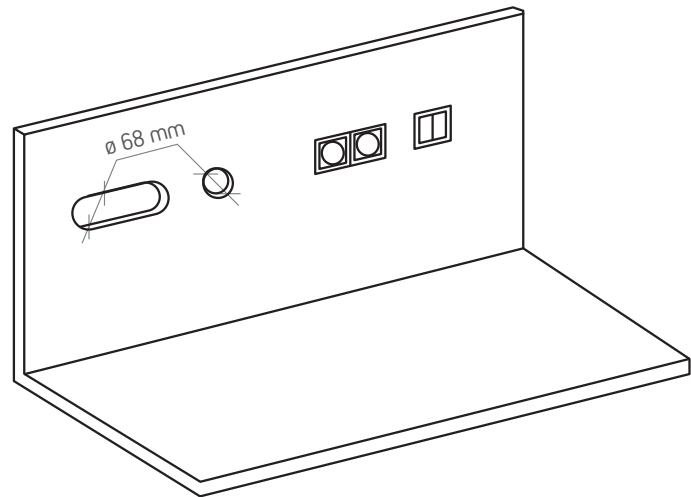
Accessories and cladding

Cladding for indoor walls can be done using high adhesion adhesives or silicone, such as polyurethane or epoxy products.

The holes made for attaching accessories (sockets, switches, etc.) must be made using circular drill bits.

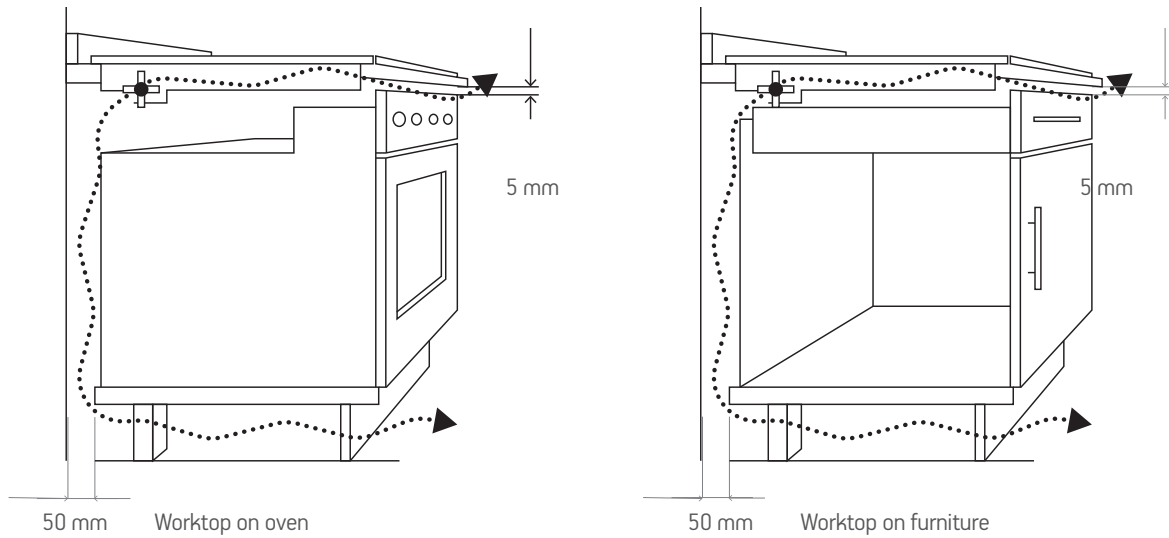
Drill contiguous holes for larger openings. Drilling must be done with approved tools.

If the hole to be drilled is near a corner, leave a distance of at least 5 cm between the corner and the hole.

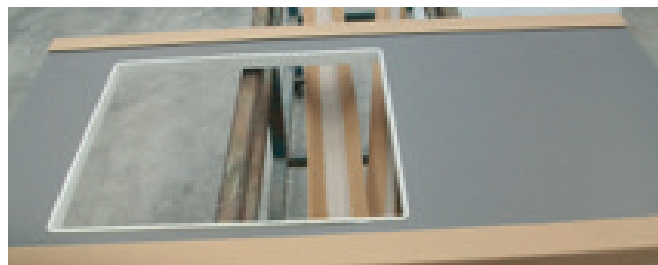


Appliances: oven, induction hobs, dishwasher machines...

Leave a gap between the top and cabinet to allow proper ventilation



*insulation tape must be installed around the hob cutout

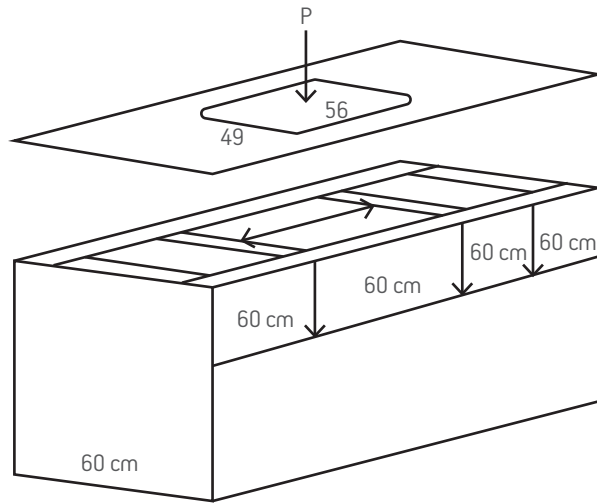


A cushioned insulation is needed to prevent heat transmission by conduction and convection. Optionally, an insulation with a metallic finish can be included to avoid the heat transmitted by radiation, but always with a cushioned layer.



Worktop Installation

Before starting installation, it is important to remember that the Silestone® worktop requires Leveled and proper support, must be clean and cleared of all objects. For recommendations on tool manufactures, putties and complementary products, contact your nearest Cosentino® Centre representative for information and advice in order to ensure optimum installation.

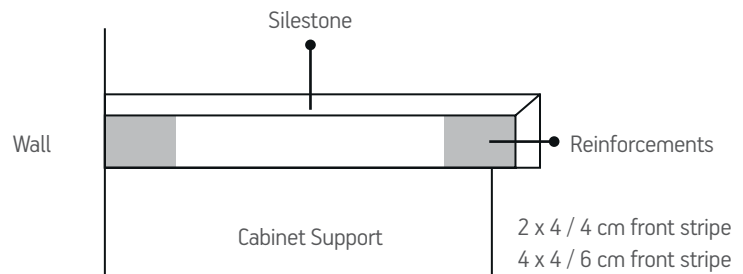


Measurements

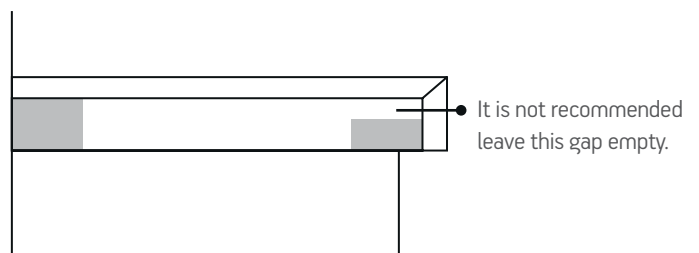
Reinforcements on a kitchen worktop are essential to ensure proper installation. These reinforcements must always be used.

- Silestone might be supported on the whole perimeter frame
- Support rails within the cabinet should be provided every 600mm.
- Supports to surround cutouts.
- Support must be provided under all countertop joints.

Recommended



Not recommended



Worktops with straight edges

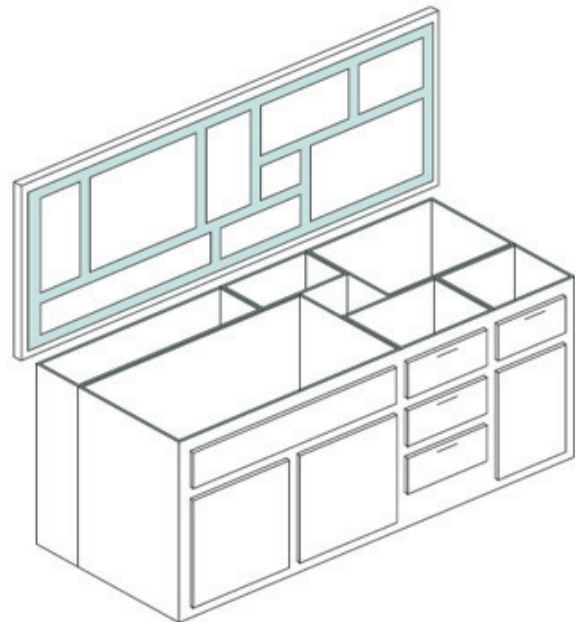
For worktops with designs that have a straight edge where the interior structure of the worktop cannot be hidden, we recommend a total, level support for the entire structure. To achieve it, we recommend installing a continuous board of MDF (or similar material) integrated into the kitchen furniture

Worktops with mitred edges

In the case of worktops with mitred edges, interior hidden structures such as edgings, strips, etc., can be installed that ensure the correct level of the worktop with the kitchen cabinet, as well as increased strength for the worktop, these edgings must be placed all around the edge of the final shape of the worktop so that they rest directly on the vertical supports of the kitchen cabinets.

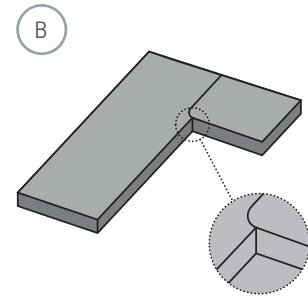
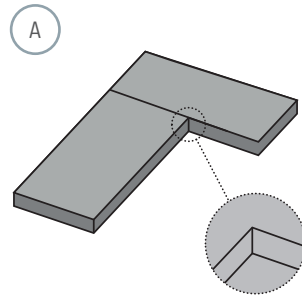
Furthermore, it is important to place these perimeter edgings around the fittings to make them stronger and strengthen the area

It is also necessary to strengthen the areas that have cut-outs to give the worktop more stability



L-Shapes worktop

COSENTINO recommends the fabrication of L-Shape worktops adding a joint on the angle.



Adhesion

For the joints, follow the steps below:

- 1) Clean the area, removing all dirt and dust. Before adhesion, it is advisable to place masking tape on both sides of the joint to keep your work clean.
- 2) Fill in all spaces using silicone or coloured Solumastic. Approved polyester resin in the correct colour may also be used.
- 3) Apply silicone remover and rub down the silicone to remove any excess. Excess silicone can be removed using CleanColorsil.

Cosentino offers a range of complementary products for stonemasons that allow to have a product perfectly finished and installed in any color with resins and silicones that adjust to the offered tones.

For more info visit the web <http://pro.cosentino.com/en/>

Liability waiver

This manual has been created to offer informative guidelines for the design and installation of Silestonen® products.

The information provided is merely informative and the customer must check it over thoroughly.

For any queries or further information consult the website www.silestone.com or contact Cosentino, S.A.

Cleaning and Maintenance

Prevention measures

In order to ensure a proper fabrication and installation of SILESTONE, it is important to take precautions, to speed up the working times and avoid unnecessary cleanings and stains.

Below are two good practice procedures during installation:

- Masking tape to avoid spreading the glue on the surface of the material



- Use of spatula to remove properly the excess silicone cords.



Cleaning silicone and glue

During the fabrication (miter cutting, laminating, general cleaning of pieces) and the counter top installation (joints, splash backs, etc.) where glues, adhesives and silicones are used, we recommend to clean afterwards (maximum 30 minutes after gluing). To do so, use clean cotton cloths or paper.

Use Clean Colorsil (Cosentino's complementary product) as a silicone and adhesive cleaner; or, Isopropyl Alcohol (Isopropanol) or ethanol may be used instead.

Not recommended products

Products such as solvent or acetone should not be used for cleaning worktops or slabs.

Scouring pads should not be used. It is advisable to use microfibre cloth or wet paper.



COSENTINO HEADQUARTERS

Ctra. Baza a Huércal - Overa, km 59 / 04850 - Cantoria - Almería (Spain)
Tel.: +34 950 444 175 / Fax: +34 950 444 226 / info@cosentino.com
www.cosentino.com / www.silestone.com / www.dekton.com / www.scalea.es

