

Kitchen countertops design & installation

COSENTINO® KITCHENS
COUNTERTOPS . DESIGN & INSTALLATION
(VALID ONLY FOR NORTH AMERICA)



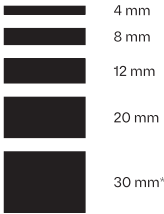
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Design criteria

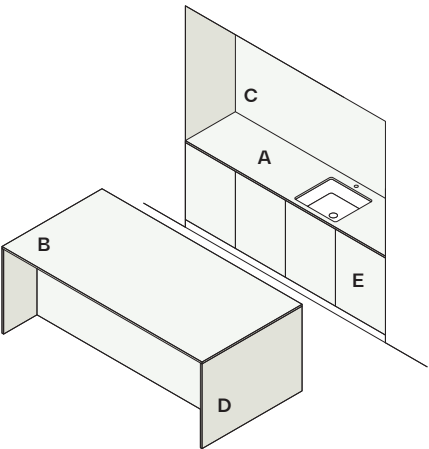
Available thicknesses

Dekton® is a highly versatile material. This is because it has a wide range of thicknesses that help to meet all the needs that may arise when designing a kitchen.



→ (*) All values applied to 20 mm thickness in this manual will also apply to 30 mm thickness.

The image below shows the different applications of the material in a kitchen:



A. Countertop.
B. Island.
C. Front/Trim.
D. Waterfall edge.
E. Cabinet cladding.

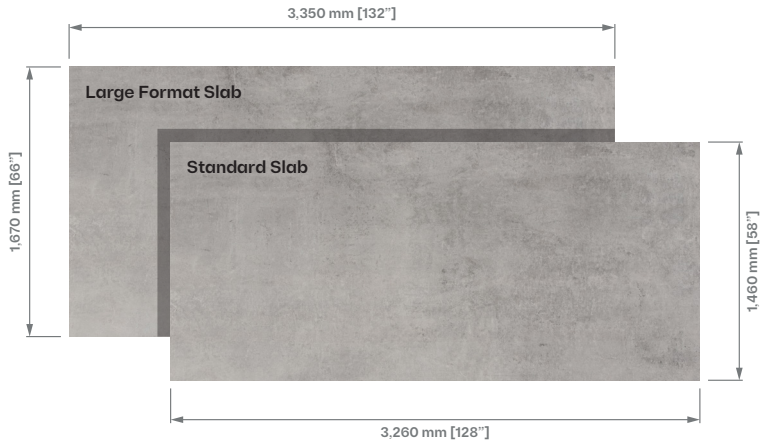
Recommended thickness depending on the application

	4 mm	8 mm	12 mm	20 mm
Countertop	●	● ⁽¹⁾	●	●
Island	●	● ⁽¹⁾	●	●
Front/Trim ⁽²⁾	●	●	●	●
Waterfall edge	● ⁽³⁾	● ⁽³⁾	●	●
Cabinet cladding ⁽⁴⁾	●	●	●	●

→ (●) Recommended; (●) Allowable; (●) Not recommended.
→ (1) Please refer to the specific documentation for 8 mm thick countertops.
→ (2) It is considered to be a trim for a height of up to 200 mm [8"]. Beyond that, it is considered to be a front.
→ (3) Only for fully attached waterfall edges (cabinet cladding). See section 'Waterfall edges'.
→ (4) See the *Furniture Design & Installation Manual* for more details on this application.

Slab formats

Depending on the color and thickness, Dekton® comes in 2 different slab formats. Therefore, you should check* the original dimensions when designing with our material.



→ (*) See current portfolios or consult your local Cosentino® contact person.

Guide to correct measurement

→ Fully fitted cabinets

Before taking detailed measurements, check that all cabinets are installed, properly leveled, in their final position.

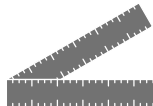
→ Measuring tools



→ Tape measure.



→ Laser tape measure.



→ Angle gauge.



→ Spirit level.

→ Order form templates

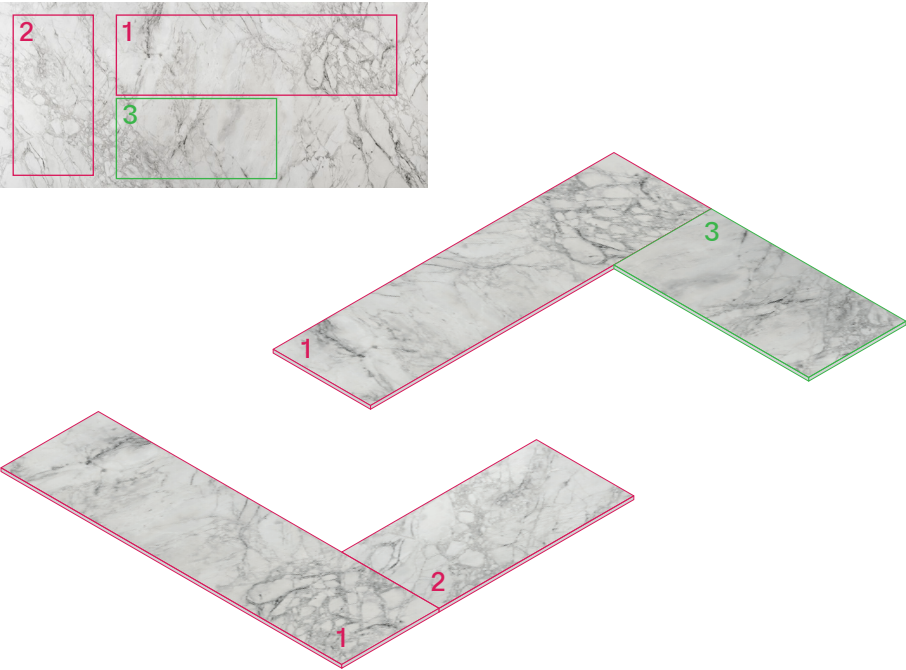
Standardized templates including data such as: customer, color, edge type, special features, barcode, etc.

Random pattern

Some Dekton® products are created and designed to resemble natural stone. In nature, we can find stones of heterogeneous appearance that may include veins and areas of different tones and contrasts. The same goes for our materials, so it is very important to pay attention to the design and layout of the pieces before producing the material.

→ Color identification

First of all, and based on all the Cosentino® technical documentation, identify the Dekton® colors with a heterogeneous background in the patterns.



→ Layout examples | Dekton® Bergen kC.

→ Layout of the pieces

Before cutting the different pieces that will make up the countertop, place the slab on the cutting table, clean it and make a layout of these pieces in which the tone and/or vein pattern is clearly identified.

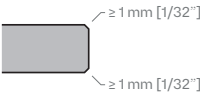
In this way, you can match areas with similar characteristics in the joints between pieces, either by tone or vein pattern, and thus avoid differences between pieces of the same slab or production.

Below are two examples of how a Dekton® color can be laid out with a random pattern:

Recommended edges

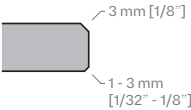
Non-exposed edges
Those that go against the walls, in the joints of the countertop, etc.
No edge polishing is required. Simply smooth the edges, both top and bottom.

→ Unpolished flat

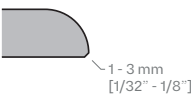


Exposed edges
To improve the impact resistance of exposed edges and to avoid the need for subsequent cutting, use one of the following types of edging on countertops or islands:

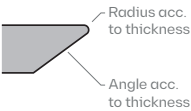
→ Polished flat



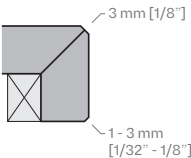
→ 1/2 round



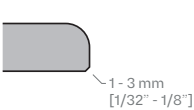
→ Knife



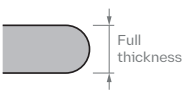
→ Mitered skirt



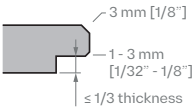
→ 1/4 round



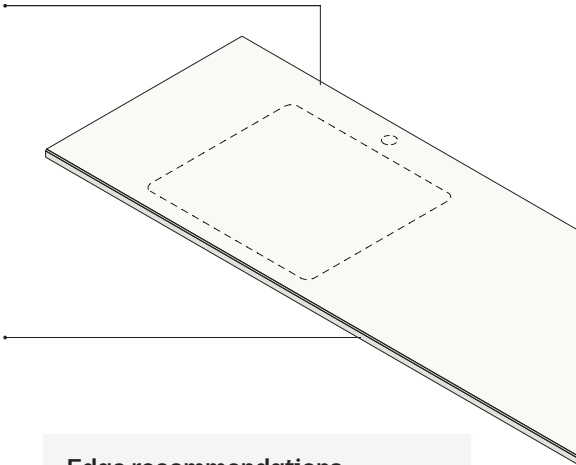
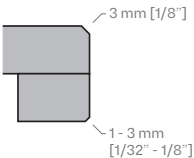
→ Round



→ Dovetail



→ Double polished flat

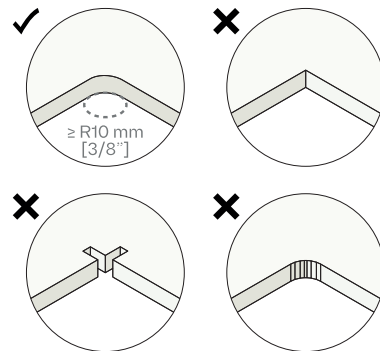
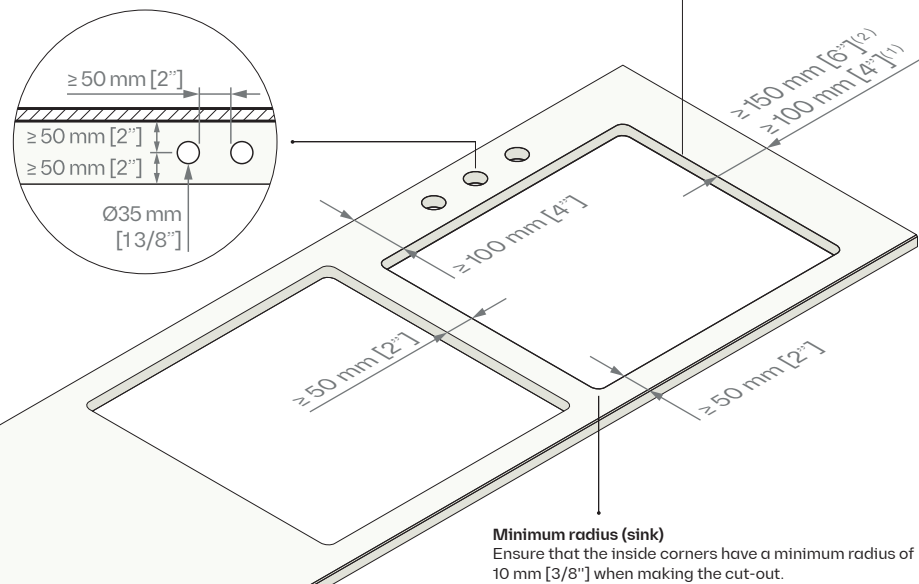


Edge recommendations according to thickness

	8 mm ⁽¹⁾	12 / 20 mm
Unpolished flat	●	●
Polished flat	●	●
1/4 round ⁽²⁾	●	●
1/2 round	●	●
Round ⁽²⁾	●	●
Knife	●	●
Dovetail ⁽²⁾	●	●
Mitered skirt ⁽²⁾	●	●
Double polished flat	●	●

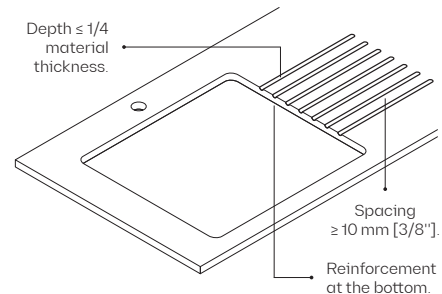
→ (●) Recommended; (●) Allowable; (●) Not recommended.
→ For 4 mm thickness, suitable for fronts/trims or cabinet cladding, the edge should be polished, or at least smooth, with 1 mm [1/32"] bevels.
→ (1) For 8 mm thickness suitable for fronts/trims or cabinet cladding. For countertop application, please refer to the specific technical documentation.
→ (2) Valid only for straight sections.

Cut-outs: Sink and tap



DRAINING BOARD GROOVES

If the draining board is grooved, please note the following:



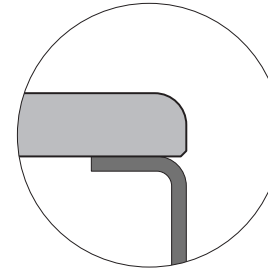
→ For any type of cut-out or drill hole, it is recommended that the top and bottom edges of the cut-outs or holes be slightly chamfered.

→ In case of overhangs on the countertop/island, please refer to the minimum distances set out in the relevant section.

Sink types

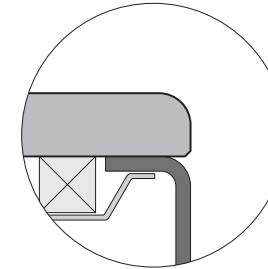
Depending on the type of sink you choose, the following installation recommendations should be taken into account:

→ Under-mount (glued)



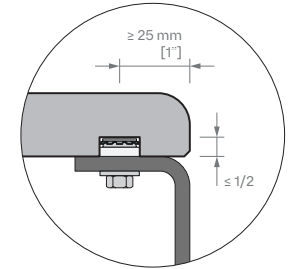
- Edge: Polished flat, rounded.
- Fixing: Recommended adhesive.
- No perimeter seal.

→ Under-mount (with plate)



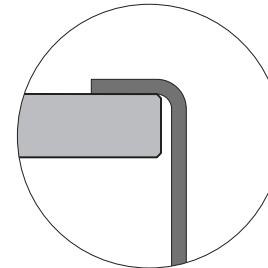
- Edge: Polished flat, rounded.
- Fixing: Glued block (Dekton®, granite, marble, etc.) + plate.
- No perimeter seal.

→ Under-mount (with anchoring)



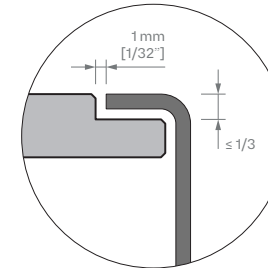
- Edge: Polished flat, rounded.
- Fixing: Anchoring insert + screw.
- No perimeter seal.

→ Top-mounted

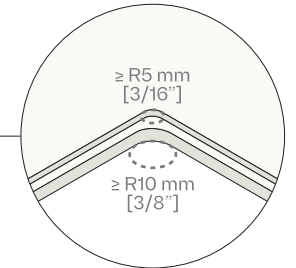


- Edge: Unpolished flat.
- Fixing: Recommended adhesive.
- Optional perimeter seal.

→ Flush-mounted



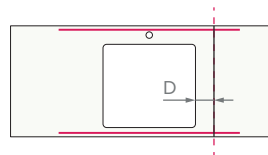
- Edge: Unpolished flat + routing.
- Fixing: Recommended adhesive.
- Perimeter seal ≥ 1 mm [1/32"].



JOINTS IN THE CUT-OUT AREA

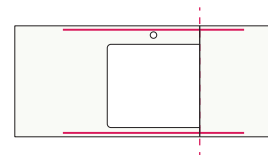
Cosentino® does not recommend leaving joints in the cut-out area. If, for design and/or dimensional reasons, a joint must be left in the countertop around the cut-out area, the following recommendations should be observed:

→ Outside the cut-out area



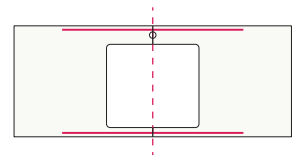
- (D) Distance from cut-out to joint:
≥ 150 mm [6"] | Dekton® 12 mm.
≥ 100 mm [4"] | Dekton® 20 mm.

→ Tangent to the cut-out area*



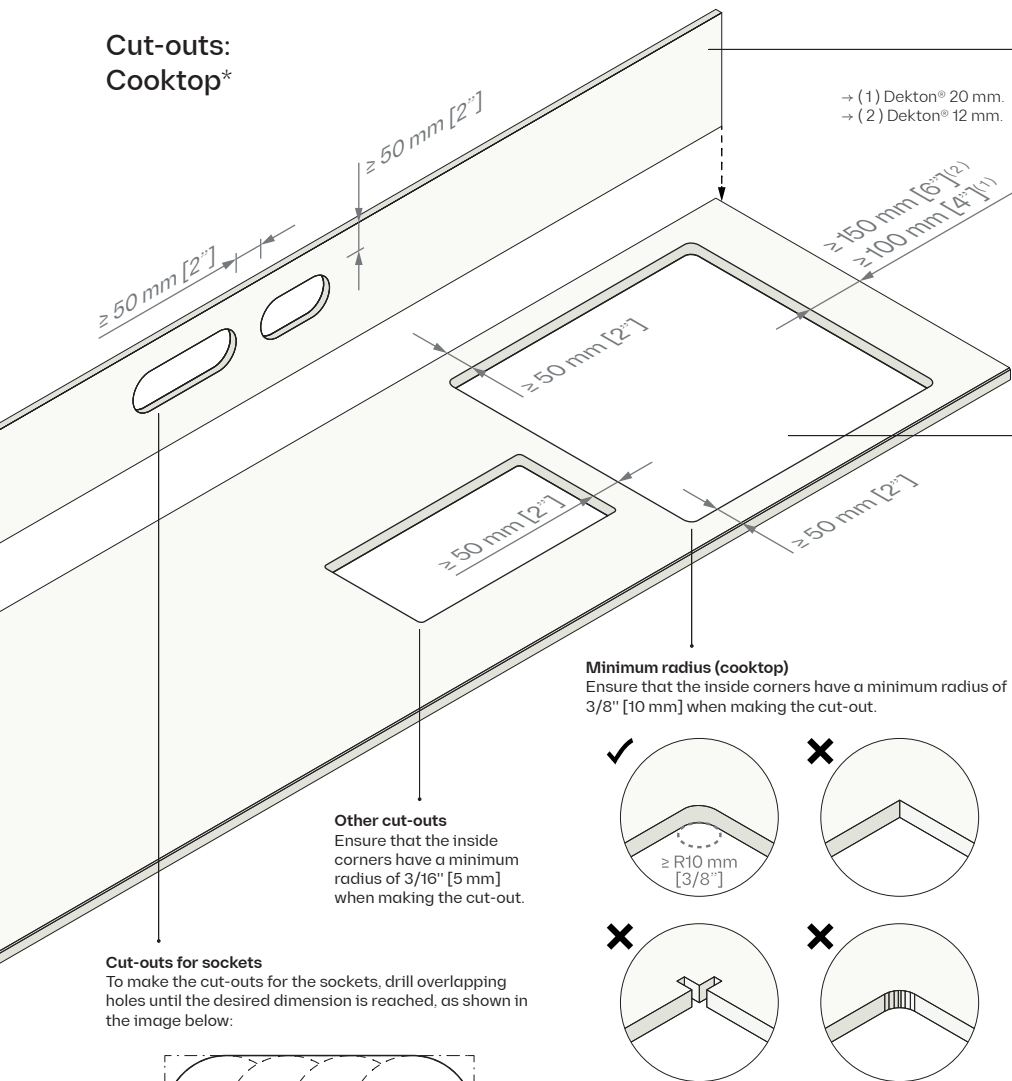
- (*) Only for top-mounted sinks.

→ Inside the cut-out area



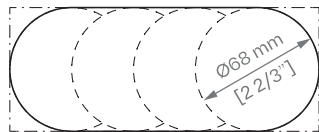
- (●) Ensure continuous, seamless support in this area.

Cut-outs: Cooktop*



Cut-outs for sockets

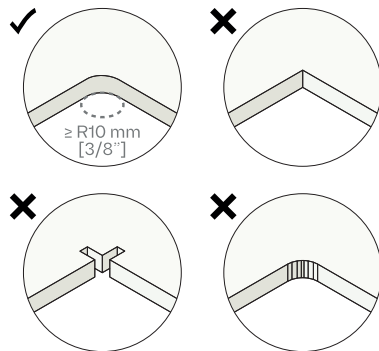
To make the cut-outs for the sockets, drill overlapping holes until the desired dimension is reached, as shown in the image below:



→ (*) Any type of appliance other than a gas cooktop/glass-ceramic cooktop/induction cooktop is not covered under these instructions. Please consult your sales representative.

Minimum radius (cooktop)

Ensure that the inside corners have a minimum radius of 3/8" [10 mm] when making the cut-out.



→ For any type of cut-out or drill hole, it is recommended that the top and bottom edges of the cut-outs or holes be slightly chamfered.

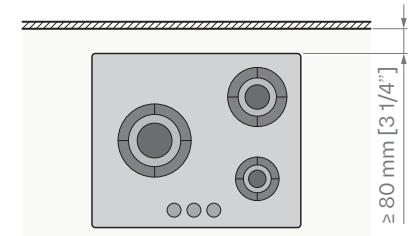
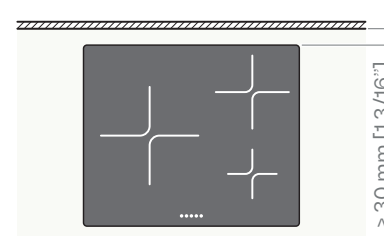
→ In case of overhangs on the countertop/island, please refer to the minimum distances set out in the relevant section.

Distance to the Dekton® front

In the case of the Dekton® front, and depending on the type of cooktop you choose, the following distances must be observed:

→ Glass-ceramic cooktop/Induction cooktop

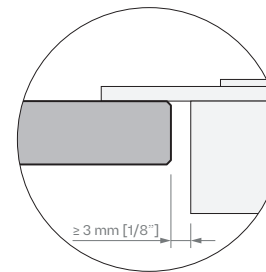
→ Gas cooktop



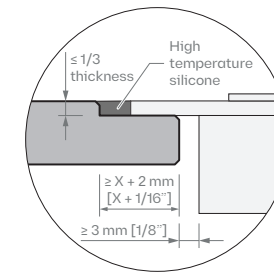
Types of installation

Depending on the type of cooktop you choose, follow the installation recommendations below:

→ Top-mounted

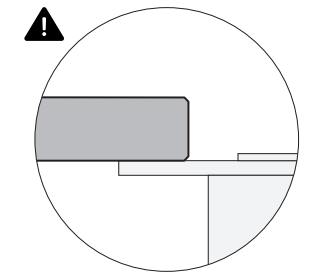


→ Flush-mounted



◦ (X) Distance recommended by the cooktop manufacturer.
◦ Minimum radius of 5 mm [3/16"] at the inside corners of the routing.

→ Under-mount*

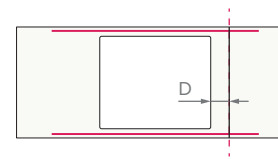


◦ (*) PROHIBITED when using gas cooktops as the flame must never be projected directly onto Dekton®. Valid when using glass-ceramic/induction cooktop.

JOINTS IN THE CUT-OUT AREA

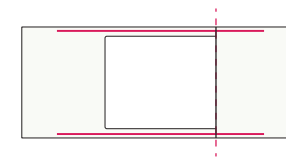
Cosentino® does not recommend leaving joints in the cut-out area. If, for design and/or dimensional reasons, a joint must be left in the countertop around the cut-out area, the following recommendations should be observed:

→ Outside the cut-out area



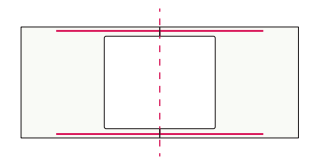
◦ (D) Distance from cut-out to joint:
≥ 6" [150 mm] | Dekton® 12 mm.
≥ 4" [100 mm] | Dekton® 20 mm.

→ Tangent to the cut-out area*



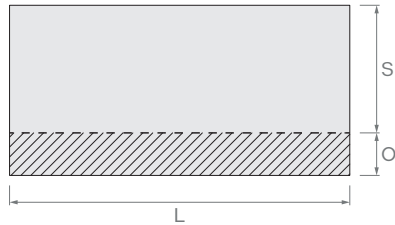
◦ (*) Only for top-mounted cooktops.

→ Inside the cut-out area



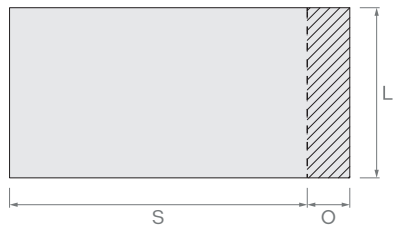
◦ (●) Ensure continuous, seamless support in this area.

Island overhangs without cut-out/drill hole



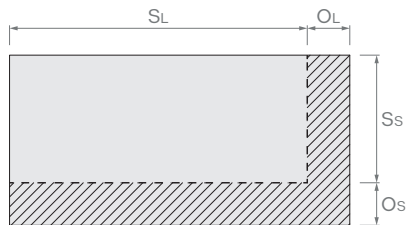
1. Long side overhang

	12 mm	20 mm
O	≤ 300 mm [12"]	≤ 600 mm [24"]
S	≥ 2 · O	
L	≥ 600 mm [24"]	



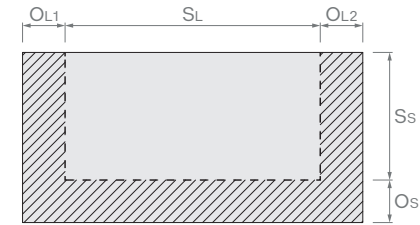
2. Short side overhang

	12 mm	20 mm
O	≤ 300 mm [12"]	≤ 600 mm [24"]
S	≥ 2 · O	
L	≥ 600 mm [24"]	



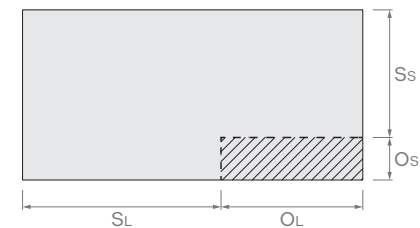
3. L-shaped overhang

	12 mm	20 mm
OL	≤ 250 mm [10"]	≤ 500 mm [20"]
SL	≥ 2 · OL	
Os	≤ 250 mm [10"]	≤ 500 mm [20"]
Ss	≥ 2 · Os	



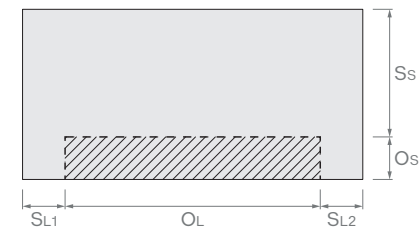
4. U-shaped overhang

	12 mm	20 mm
OL1, L2	≤ 250 mm [10"]	≤ 500 mm [20"]
SL	≥ 2 · (OL1 + OL2)	
Os	≤ 250 mm [10"]	≤ 500 mm [20"]
Ss	≥ 2 · Os	



5. Partial overhang

	12 mm	20 mm
OL	≤ 800 mm [31 1/2"]	≤ 1,600 mm [63"]
SL	≥ OL	
Os	≤ 250 mm [10"]	≤ 500 mm [20"]
Ss	≥ Os	



6. Overhang between supports

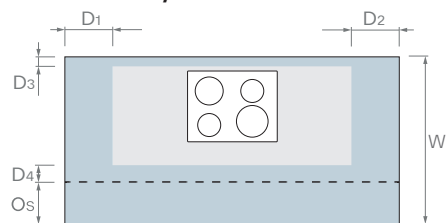
	12 mm	20 mm
OL	≤ 1,000 mm [39"]	≤ 2,000 mm [79"]
SL1, L2*	≥ 100 mm [4"]	≥ 50 mm [2"]
Os	≤ 400 mm [16"]	≤ 800 mm [31 1/2"]
Ss	≥ Os	

→ (*) Below these values, it is considered to be '1. Long side overhang'.

→ (O) Overhang; (S) Support; (L) Overhang length;
(OL) Long side overhang; (Os) Short side overhang;
(SL) Long side support; (Ss) Short side support.

→ Maximum concentrated **static** load = 100 Kg [220 lb].

Island overhangs with cut-out/drill hole



It is possible to make a cut-out/drill in this area.

Do not make cut-outs or drill holes in this area.

0. Island overhang with hob

	20 mm
Os	≤ 300 mm [12"]
W	≥ 900 mm [35"]
D1, 2	≥ 250 mm [10"]
D3, 4	≥ 70 mm [3"]

1. Long side overhang

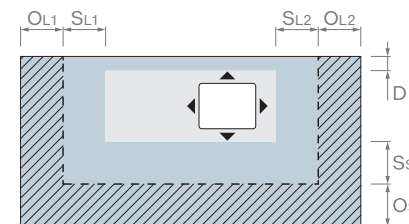
	12 mm	20 mm
O	≤ 300 mm [12"]	≤ 600 mm [24"]
S	≥ V	
L	≥ 600 mm [24"]	
D1, 2	≥ 150 mm [6"]	
D3	≥ 100 mm [4"]	

2. Short side overhang

	12 mm	20 mm
O	≤ 300 mm [12"]	≤ 600 mm [24"]
S	≥ V	
L	≥ 600 mm [24"]	
D1, 2	≥ 100 mm [4"]	
D3	≥ 150 mm [6"]	

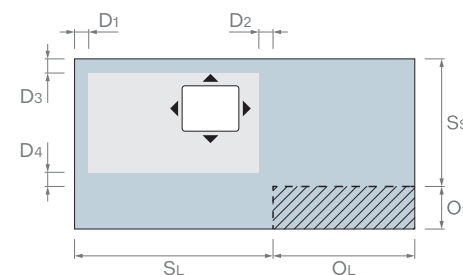
3. L-shaped overhang

	12 mm	20 mm
OL, s	≤ 250 mm [10"]	≤ 500 mm [20"]
SL, s	≥ VL, S	
D1	≥ 150 mm [6"]	
D2	≥ 100 mm [4"]	



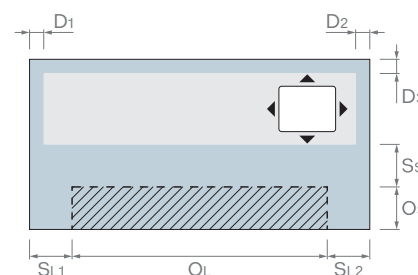
4. U-shaped overhang

	12 mm	20 mm
OL1, L2	≤ 250 mm [10"]	≤ 500 mm [20"]
SL1, L2	≥ OL1, L2	
Os	≤ 250 mm [10"]	≤ 500 mm [20"]
Ss	≥ Os	
D	≥ 100 mm [4"]	



5. Partial overhang

	12 mm	20 mm
OL	≤ 800 mm [31 1/2"]	≤ 1,600 mm [63"]
SL	≥ OL	
Os	≤ 250 mm [10"]	≤ 500 mm [20"]
Ss	≥ Os	
D1, 2, 3, 4	≥ 150 mm [6"]	≥ 100 mm [4"]



6. Overhang between supports

	12 mm	20 mm
OL	≤ 1,000 mm [39"]	≤ 2,000 mm [79"]
SL1, L2*	≥ 100 mm [4"]	≥ 50 mm [2"]
Os	≤ 400 mm [16"]	≤ 800 mm [31 1/2"]
Ss	≥ Os	
D1, 2	≥ 150 mm [6"]	
D3	≥ 100 mm [4"]	

→ (*) Below these values, it is considered to be '1. Long side overhang'.

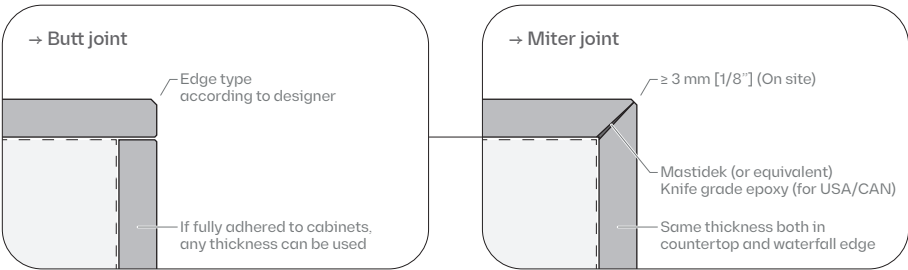
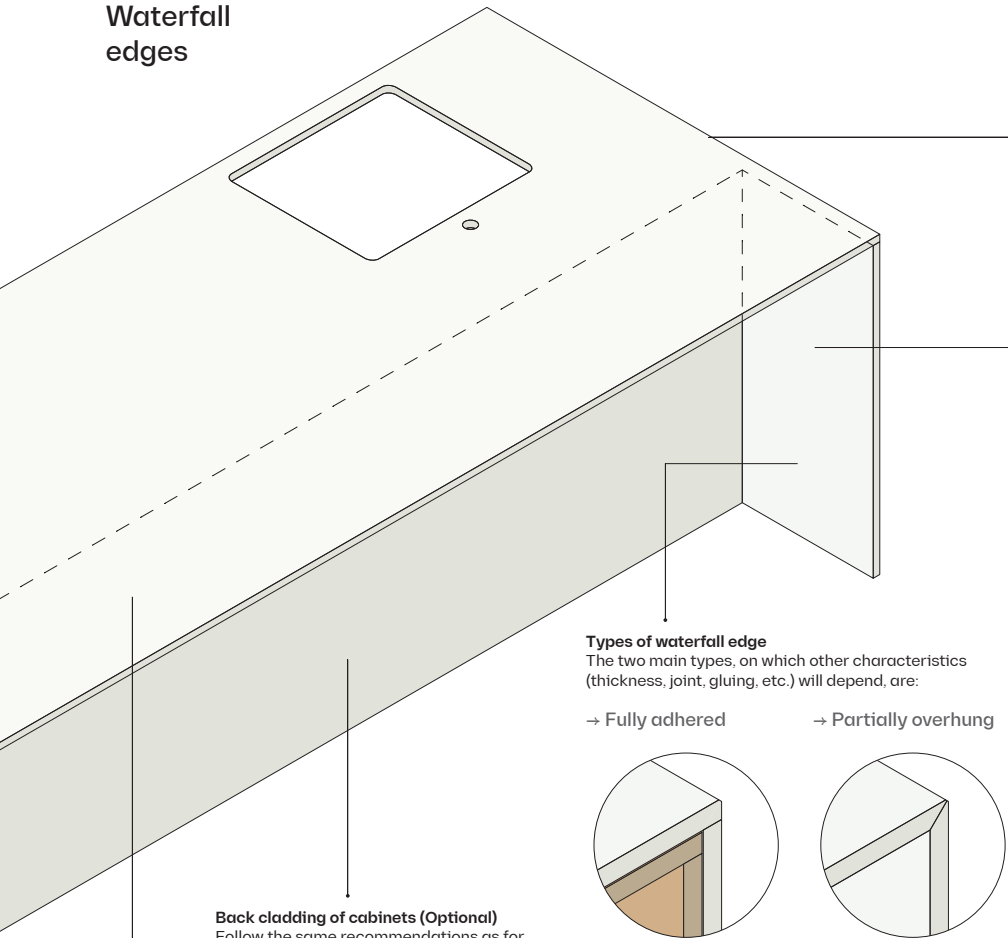
→ (O) Overhang; (S) Support; (L) Overhang length; (OL) Long side overhang; (Os) Short side overhang; (SL) Long side support; (Ss) Short side support; (D1), (D2), (D3), (D4) Distance from cut-out to joint.

→ Maximum concentrated **static** load = 100 Kg [220 lb].

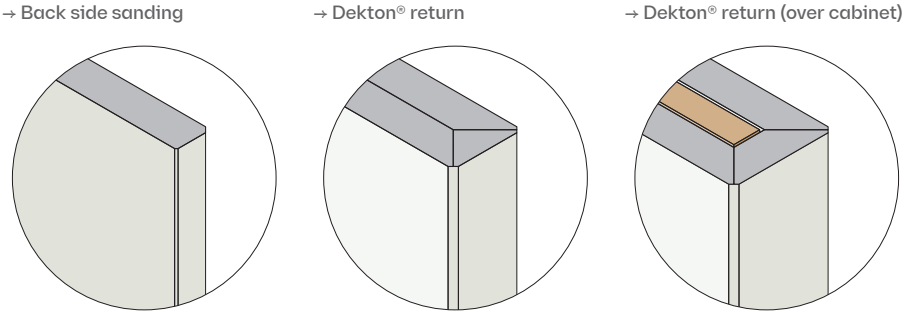


→ If more than one cut-out/drill hole is made, the thickness of the countertop shall be 20 mm and the minimum distance between them shall be 100 mm [4"].

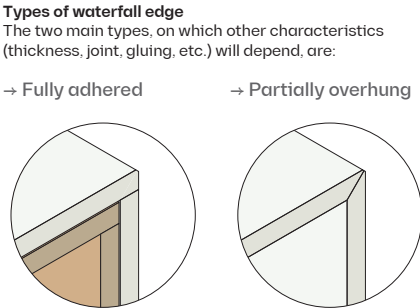
Waterfall edges



Interior finish of the waterfall edge
In the case of waterfall edges where the rough back face of Dekton® is exposed, and depending on the required design and the characteristics of the waterfall edge, there are three ways to achieve a better look for that area:



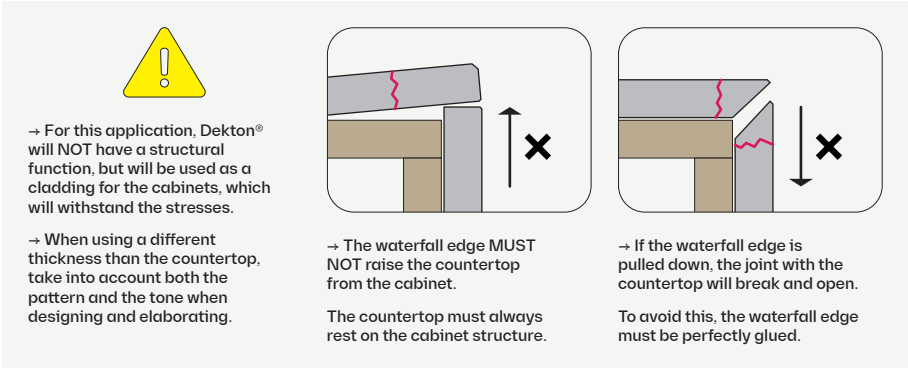
- Finish: Honed, NEVER similar to that of the front face of the waterfall edge.
 - Thickness: 12 and 20 mm.
 - Elaboration: By a sanding sequence (GR50 - GR100 - GR200 - GR400).
 - Valid only for partially overhung waterfall edges.
- Finish: Same as on the front face of the waterfall edge.
 - Thickness: 12 and 20 mm.
 - Elaboration: By gluing mitered pieces together.
 - Valid only for partially overhung waterfall edges.
- Finish: Same as on the front face of the waterfall edge.
 - Thickness: 4, 8, 12 and 20 mm.
 - Elaboration: By gluing mitered pieces to the cabinet structure.
 - Valid only for fully adhered to cabinets waterfall edges.



Recommended thicknesses		
	Fully adhered to cabinets	Partially overhung
4 mm	■	■
8 mm	■	■
12 mm	■	■
20 mm	■	■

→ (●) Recommended; (●) Allowable; (●) Not recommended.

- Waterfall edge + Overhang**
When requiring the use of waterfall edges in combination with island overhangs, the maximum dimensions of both elements would be:
- Waterfall edges with partial overhang:
 - 12 mm thickness: ≤ 250 mm [10"].
 - 20 mm thickness: ≤ 500 mm [20"].
 - Fully attached waterfall edges (cabinet cladding):
Dimensions set out in the section 'Island overhangs'.

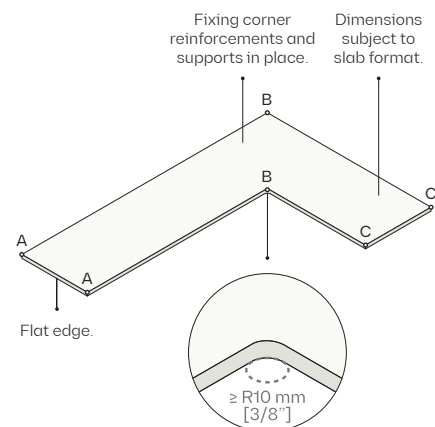


Other considerations

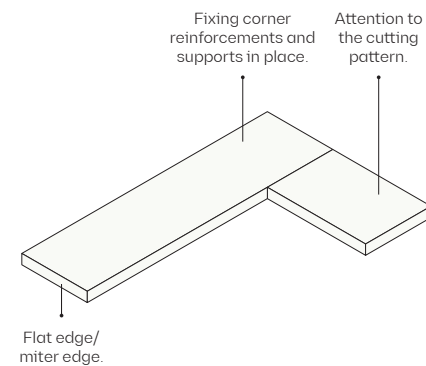
→ L-shaped countertop

For this type of countertop, make sure that the support points (A, B, C) are at the same height. In the event of slight variations in height, a support base should be placed on the ribs of the unit by means of continuous 5 mm [3/16"] neoprene or elastomer strips.

For one-piece L-shaped countertops:

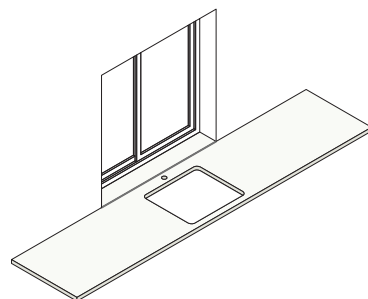


For multi-piece L-shaped countertops:



→ Window sill

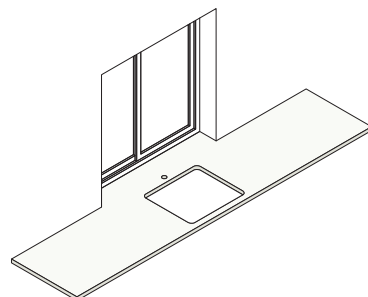
At this meeting point where a continuous, through support cannot be ensured, leave a joint gap between the countertop and the sill piece (best solution) and fill it with silicone of the same color as the countertop.



→ Resolution WITH joint.

Alternatively, should having a seam not be the desired option, the following must apply:

- The support must be continuous, through and of the same material (e.g. wood) below both the countertop and the sill piece.
- Leave a perimeter gap ■ 3 mm [1/8"] and fill with silicone.
- Make appropriate radius (■ R10mm [3/8"]) at all internal corners.
- Valid for 12 and 20 mm thickness.



→ Resolution WITHOUT joint.

Installation criteria

On-site adjustments

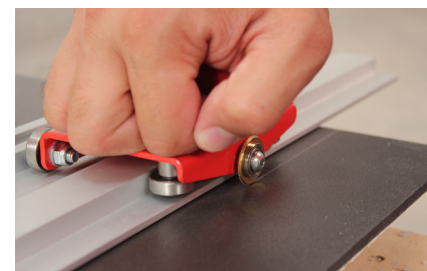
Ideally, the entire process should be carried out in the workshop, with the appropriate machinery, after a thorough measurement at the installation site.

However, minor adjustments can be made on site, both to the countertop and the cladding, following specific recommendations.

→ Straight dry cutting (Cladding and furniture cladding)

On-site cutting with dry cutting machines is only recommended for thicknesses of 4 mm and 8 mm, used for cladding and furniture cladding.

After cutting, use a polishing block to remove sharpened edges.



→ Straight cut with disc and water supply

It can also be made on site, for thicknesses between 8 mm and 20 mm, subject to the following requirements:

- Use cutting tools recommended by Cosentino®.
- Always cut with water supply.
- Sharpen the tool regularly.

After cutting, use a polishing block to remove sharpened edges.

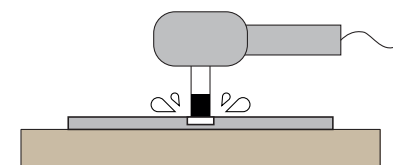


→ Drill holes

The holes can be drilled on site, e.g. to make cut-outs for sockets (overlapping holes Ø68 mm [2 2/3"]).

Drill the holes on a flat surface of lower density than Dekton® (e.g. wood) to avoid any chipping.

It is recommended that larger drill holes and cut-outs are made in the workshop.

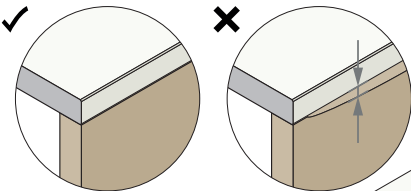


Supports and reinforcements

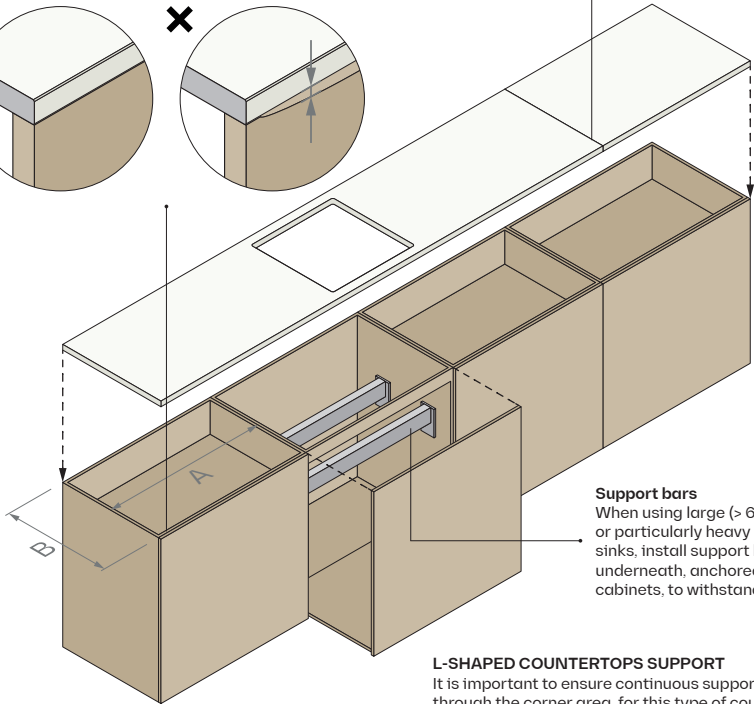
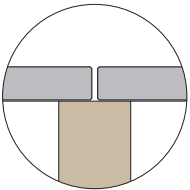
→ Flat-edge countertop

Support
This is the part of the cabinet that bears the countertop, transmits the loads and keeps it stationary and stable.

The countertop must always rest completely on the cabinet structure which must be made from a material strong enough to withstand the stresses and keep the countertop leveled.

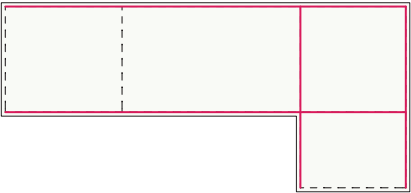


Support between joints
If possible, when a joint is to be left in the countertop, it should be placed just above a cabinet support.



Support bars
When using large (> 600 mm [24"]) or particularly heavy cooktops/sinks, install support bars directly underneath, anchored to the cabinets, to withstand the stresses.

L-SHAPED COUNTERTOPS SUPPORT
It is important to ensure continuous support, passing through the corner area, for this type of countertops, especially when they are resolved in one piece.



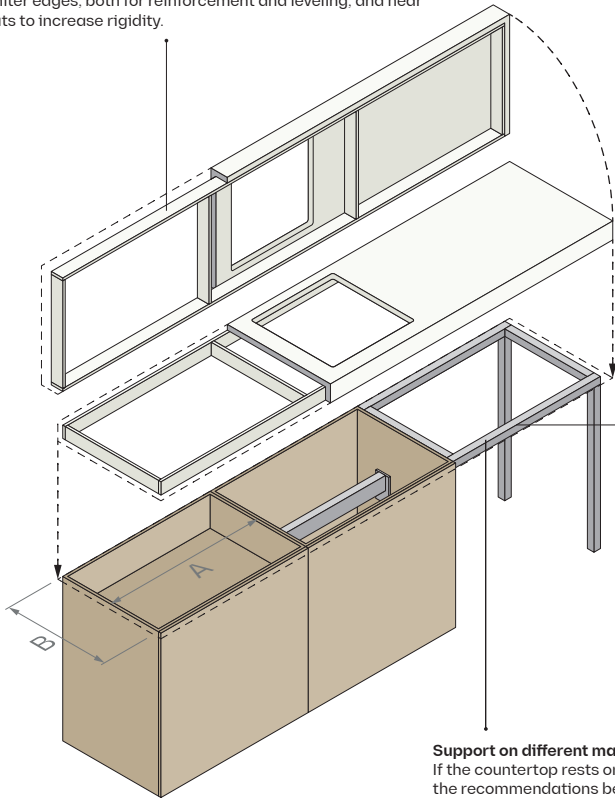
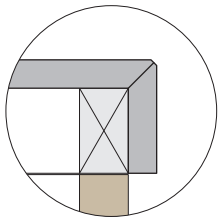
Distance between two supports		
	12 mm	20 mm
A	≤ 900 mm [35"]	≤ 1,200 mm [48"]
B	≤ 700 mm [27 1/2"]	

→ Countertop with miter edge (skirt)

Reinforcement
It is the complementary part that makes a vulnerable area stronger and more resistant (e.g. in cut-outs and miter skirts).

It should be made from Dekton® or a material with similar physical properties (e.g. marble or granite). Furthermore, it should be glued in such a way that the countertop plus the reinforcement work as a whole.

Reinforcements must be placed in line with the load-bearing structure on which the cabinets are mounted. They are required on countertops with miter edges, both for reinforcement and leveling, and near cut-outs to increase rigidity.



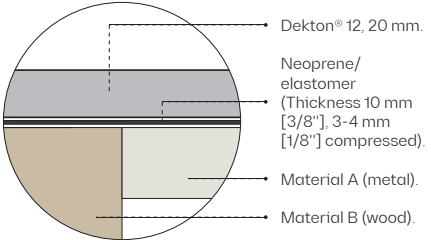
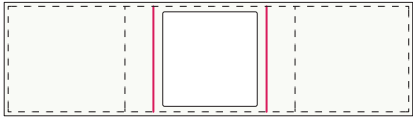
Metal structure
It must be sufficiently sturdy and stable to ensure continuous support of the countertop.

The support of the countertop on the metal structure should be ≥ 100 mm [4"].

The attachment to the other units (wood) shall always be done by mechanical fixing.

Support on different materials
If the countertop rests on two different materials, follow the recommendations below:

REINFORCEMENTS IN CUT-OUTS
Reinforce the surrounding area when the cut-out has large dimensions and/or when it is placed on countertops with a 12 mm thickness and/or with skirt.



Installation process and recommendations

1. Before starting

Protect anything that could be stained or damaged, and make sure that the support area is clean and free of objects.

2. Dimensions

Check the dimensions of the cabinets and of the cut pieces of the countertop, as well as the dimensions of the cladding/trim.

3. Leveling

The cabinet must be within 1/4" (3 mm) of flat and level when measured across a distance of 120" (3 m).

4. Shims

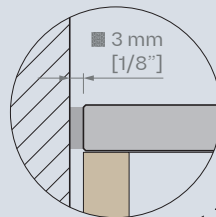
Use only horseshoe (1/8" and 1/16") and pre-scored shims. Maximum distance between shims is 12" (30 cm).

5. Wedge adjustment

Shape your wedge to fill the exact space you need it to fill. If one wedge is not thick enough for the required adjustment, tap another one on top of the first one.

7. Placement

Place the countertop pieces on the cabinets once they have been leveled and adjust their position. Leave a perimeter joint of at least 3 mm [1/8"] in all areas of contact with the vertical wall, and fill the visible areas with silicone. Check that the countertop is fully supported with a gauge.



8. Joints between pieces

Minimize the size of joints between pieces by using leveling suction cups and the recommended adhesive (Mastidek or a silicone in the same color as the countertop). Use masking tape to protect the surface.

6. Adhesive

Once the countertop is level, apply a silicone directly through the wedges to secure it.

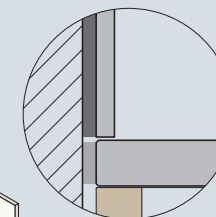
9. Sockets

It is recommended to make the cut-outs for the sockets before installing the front piece.

10. Front/Trim*

a. Put the front in place and adjust if necessary.
b. Apply the recommended adhesive/mastic which ensures a rigid fixation, and glue the piece to the substrate which will support the entire load of the front.

■ (*) For gluing of fronts, follow the recommendations of the Dekton® Interior Wall Cladding Quick Guide. For gluing of trims, simply apply silicone beads.



11. Perimeter seal

Apply the recommended silicone (or grout) to all necessary joints according to the manufacturer's instructions.

12. Final cleaning

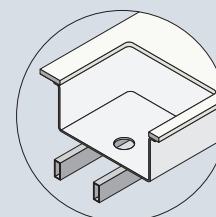
It is important to carry out a final site cleaning as soon as possible to remove any residue from the installation process.

COOKTOP AND SINK INSTALLATION

COOKTOP: The installation should be carried out according to the type of cooktop chosen. The distances to the cladding should be observed. If this is not possible, this area should not be clad in Dekton® but in another material (e.g. steel).

SINK: The installation should be carried out according to the type of sink chosen.

IMPORTANT: When placing large (> 600 mm [24"]) or particularly heavy cooktops/sinks, install support bars directly underneath, anchored to the cabinets, to withstand the stresses.



WATERFALL EDGES (OPTIONAL)

Install the waterfall edge by gluing it to the cabinet according to the type of joint chosen (butt/miter) and using adhesives/mastics that ensure a rigid fixation, so that the waterfall edge does NOT have a structural function.

→ Always use tools and adhesives recommended by Cosentino®.

→ Shim material may be plastic or composite. Make sure that you're pushing it in just far enough. It needs to be placed in the correct position to do its job. Unsecured shims can slip or drop from their position, putting the countertop at risk.

→ Failure to properly follow the instructions in this *Manual* may result in material breakage.



Health & safety

Operators and fitters dealing with Dekton® materials, must comply with all applicable occupational health and safety laws and regulations.

Always take the necessary occupational safety measures to meet the requirements of local regulations. This *Guide* is not an exhaustive document or a substitute for the relevant laws and regulations, and is provided for information purposes only.

Safety measures will depend on the specific conditions of each job.

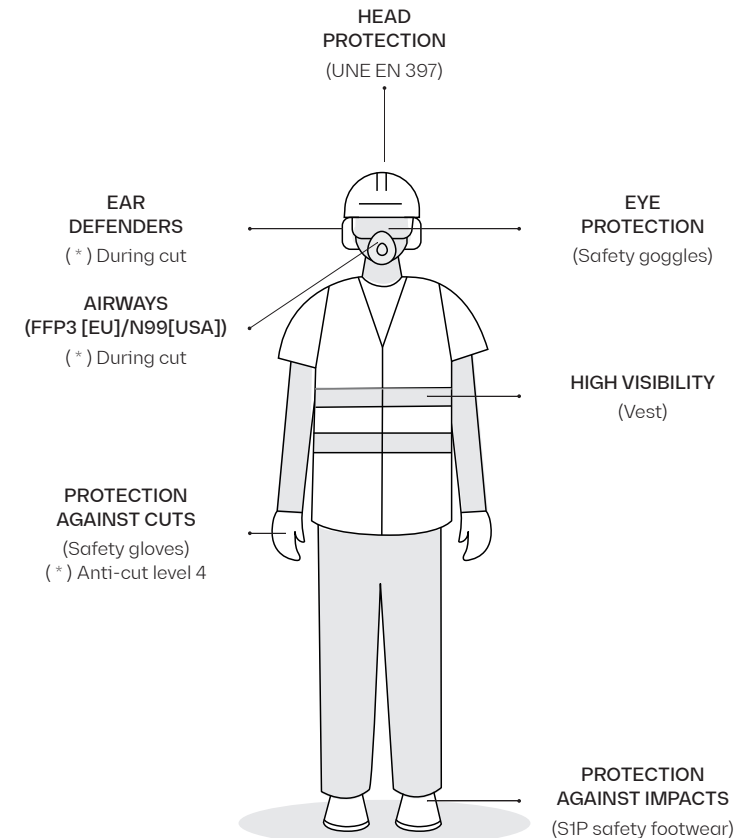
Risks associated with handling and transport

During transport and handling of Dekton® materials, risks such as bumps, cuts, musculoskeletal disorders, entrapment or blast injuries can occur due to incorrect handling.

Risks associated with manufacturing and transformation

The manufacturing process can involve risks such as cuts, blast injuries, entrapment, exposure to high noise levels and exposure to chemicals such as free crystalline silica dust.

Before processing the product, consult the Dekton® *Safety Data Sheet* and the *Good Practice Guidelines* available upon request from Cosentino® or on the website osh.cosentino.com.



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→ These certificates apply to
Dekton® and Silestone®

→ Find information on NSF-certified
colors at www.nsf.org

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