COSENTINO

Dekton® worktops Design & installation

COSENTINO® KITCHENS
WORKTOPS. DESIGN & INSTALLATION

DEKTON

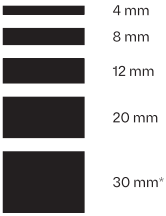
TECHNICAL CONTENT

Index

Design criteria

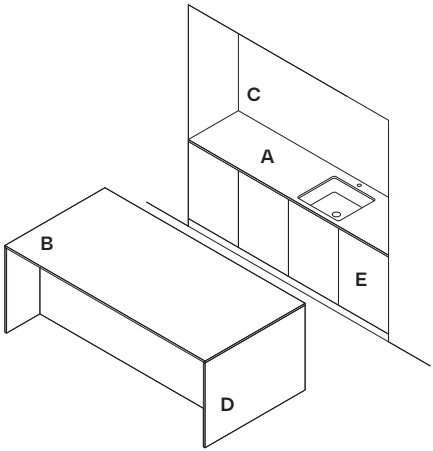
Available thicknesses

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. Worktop.
B. Island.
C. Front / Trim.
D. Waterfall edge.
E. Base unit cladding.

Recommended thickness depending on the application

	4 mm	8 mm	12 mm	20 mm
Worktop	●	●(1)	●	●
Island	●	●(1)	●	●
Front / Trim	●	●	●	●
Waterfall edge	●(2)	●(2)	●(2)	●
Base unit cladding	●	●	●	●

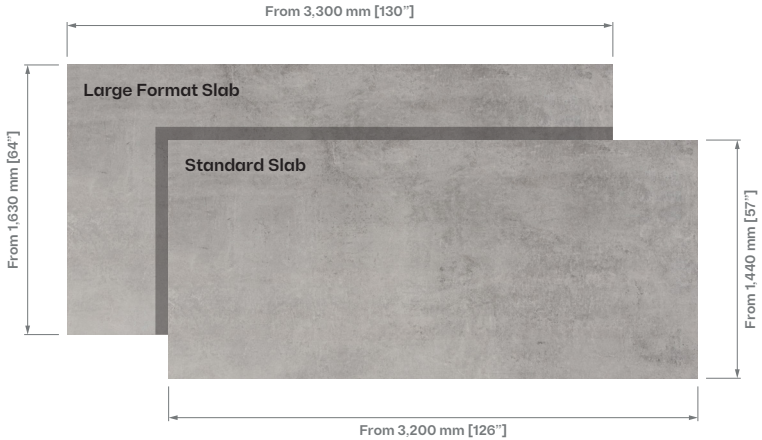
→ (●) Not recommended; (●) Allowable; (●) Recommended.

→ (1) Please refer to the specific documentation for 8 mm thick worktops.

→ (2) Only for fully attached waterfall edges (base unit cladding). See section *'Waterfall edges'*.

Slab formats

Depending on the colour 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 units

Before taking detailed measurements, check that all base units are installed, properly levelled, in their final position.

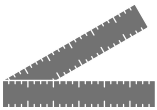
→ Order form templates

Standardised templates including data such as: customer, colour, edge type, special features, barcode, etc.

→ Measuring tools

→ Tape measure.

→ Laser tape measure.



→ Angle gauge.

→ Spirit level.

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.

→ Colour identification

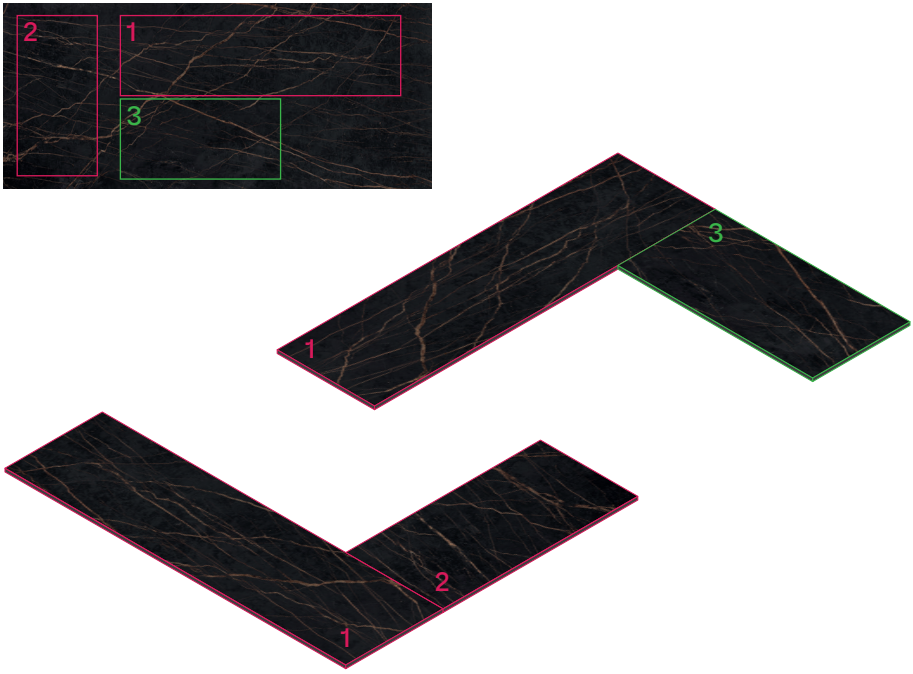
First of all, and based on all the Cosentino® technical documentation, identify the Dekton® colours with a heterogeneous background in the patterns.

→ Layout of the pieces

Before cutting the different pieces that will make up the worktop, 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.

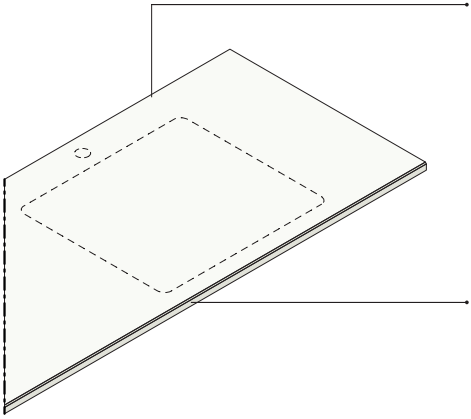
In this way, you can match areas with similar characteristics in the joints between pieces, either by tone or vein pattern, and thus avoid differences between pieces of the same slab or production.

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



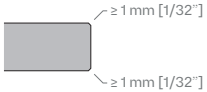
→ Layout examples | Dekton® Laurent.

Recommended edges



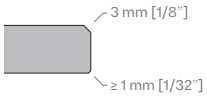
Non-exposed edges
No edge polishing is required. Simply smooth the edges, both top and bottom.

→ Unpolished flat edge

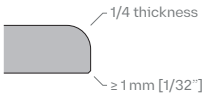


Exposed edges
To improve the impact resistance of exposed edges and to avoid the need for subsequent cutting, use one of the following types of edging on worktops or islands:

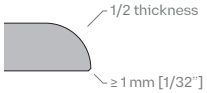
→ Polished flat edge



→ 1/4 round edge



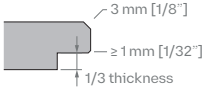
→ 1/2 round edge



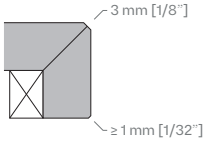
→ Round edge

→ Knife edge

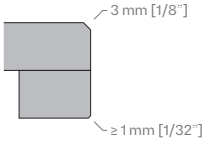
→ Dovetail edge



→ Mitred skirt edge



→ Double polished flat edge



Type of edge according to thickness

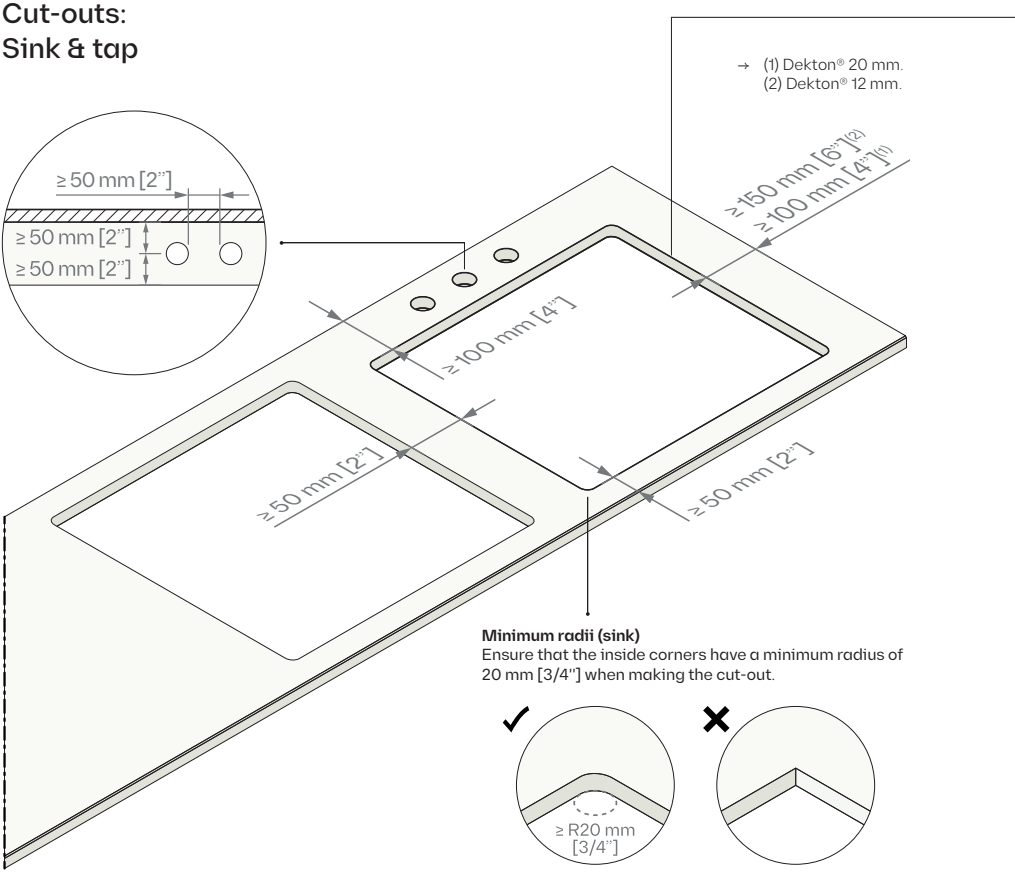
	12 mm	20 mm
Unpolished flat edge	●	
Polished flat edge	●	
1/4 round edge	●	
1/2 round edge	●	
Round edge	●	
Knife edge	●	
Dovetail edge	●	
Mitred skirt edge	●	
Double polished flat edge	●	

→ (●) Allowable; (●) Recommended.

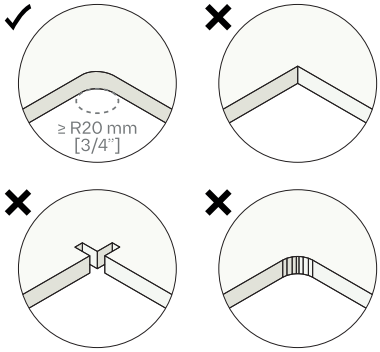
→ For 4 mm and 8 mm thicknesses, suitable for cladding and panels, the edge should be polished, or at least smooth, with 1 mm [1/32"] bevels.

→ For 8 mm thickness, suitable for worktops, please refer to the specific technical documentation.

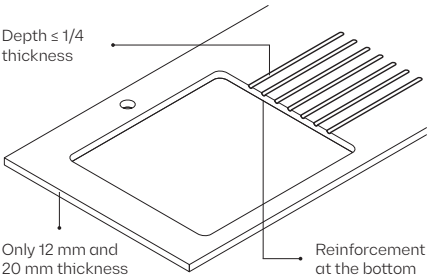
Cut-outs: Sink & tap



Minimum radii (sink)
Ensure that the inside corners have a minimum radius of 20 mm [3/4"] when making the cut-out.



DRAINING BOARD GROOVES
If the draining board is grooved, please note the following:

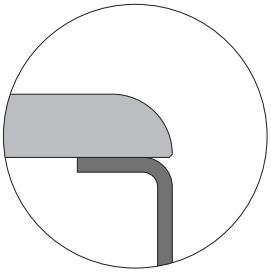


For any type of cut-out or drill hole, it is recommended that the top and bottom edges of the cut-outs or holes be slightly chamfered.

In case of overhangs on the worktop or island, please refer to the minimum distances set out in the relevant section.

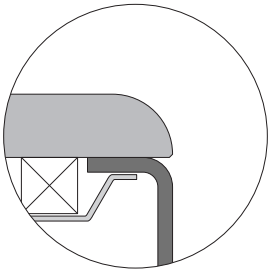
Sink types
Depending on the type of sink you choose, the following installation recommendations should be taken into account:

→ Under-mount (glued)



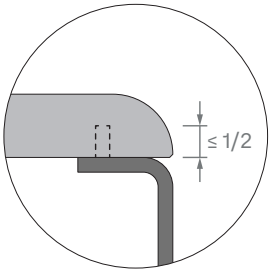
- Edge: polished flat, rounded.
- Fixing: recommended adhesive.
- No perimeter seal.

→ Under-mount (with plate)



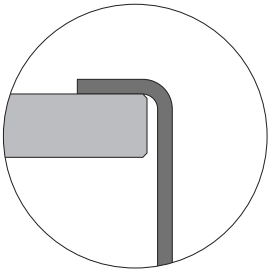
- Edge: polished flat, rounded.
- Fixing: glued block (Dekton®, granite, marble, etc.) + plate.
- No perimeter seal.

→ Under-mount (with anchoring)



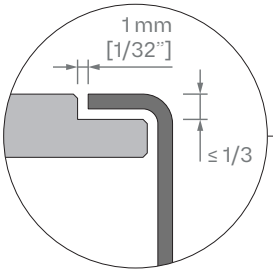
- Edge: polished flat, rounded.
- Fixing: anchoring insert + screw.
- No perimeter seal.

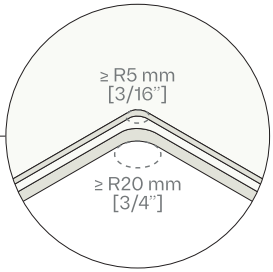
→ Top-mounted



- Edge: unpolished flat.
- Fixing: recommended adhesive.
- Optional perimeter seal.

→ Flush-mounted

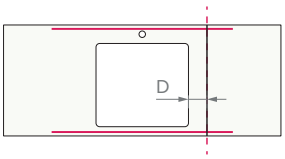




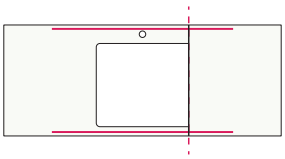
- Edge: unpolished flat.
- Fixing: recommended adhesive.
- Perimeter seal ≥ 1 mm [1/32"].

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 worktop around the cut-out area, the following recommendations should be observed:

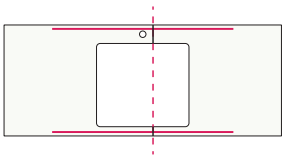
→ Outside the cut-out area



→ Tangent to the cut-out area*



→ Inside the cut-out area

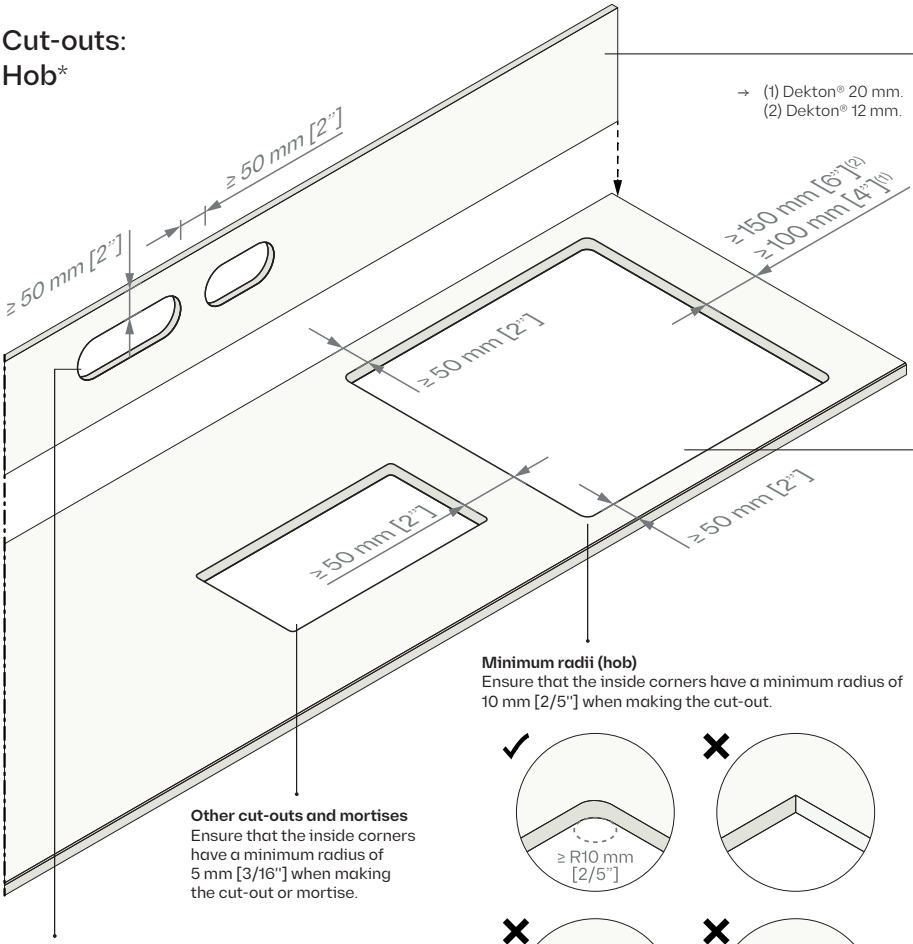


→ (D) Distance from cut-out to joint:
≥ 150 mm [6"] | Dekton® 12 mm.
≥ 100 mm [4"] | Dekton® 20 mm.

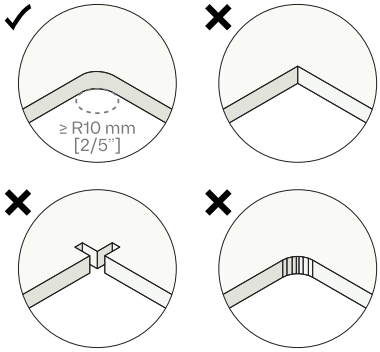
→ (*) Only for top-mounted sinks.

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

Cut-outs:
Hob*

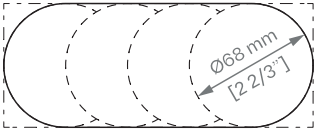


Minimum radii (hob)
Ensure that the inside corners have a minimum radius of 10 mm [2/5"] when making the cut-out.



Other cut-outs and mortises
Ensure that the inside corners have a minimum radius of 5 mm [3/16"] when making the cut-out or mortise.

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 hob/glass-ceramic hob/induction hob is not covered under these instructions. Please consult your sales representative.

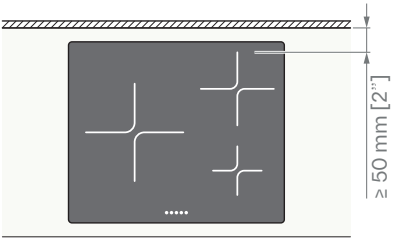
For any type of cut-out or drill hole, it is recommended that the top and bottom edges of the cut-outs or holes be slightly chamfered.

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

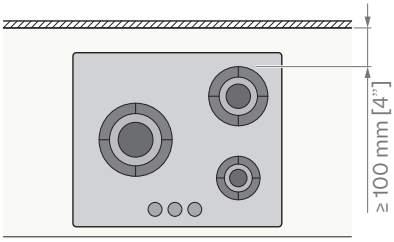
Distance to the Dekton® front

In the case of the Dekton® front, and depending on the type of hob you choose, the following distances must ALWAYS be observed from the heat emitting source and NOT from the cut-out area (measurements must be taken from the cooking zones):

→ Glass-ceramic hob/induction hob



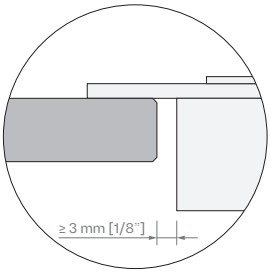
→ Gas hob



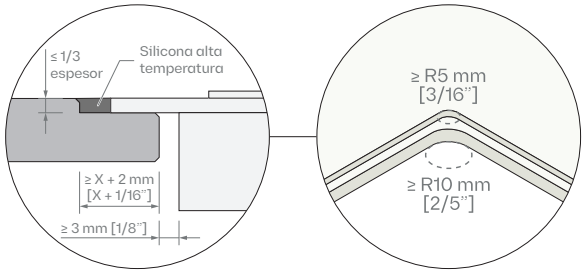
Types of installation

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

→ Top-mounted



→ Flush-mounted

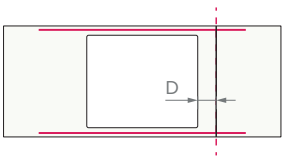


→ (X) Distance recommended by the hob manufacturer.

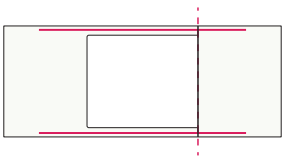
JOINTS IN THE CUT-OUT AREA

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 worktop around the cut-out area, the following recommendations should be observed:

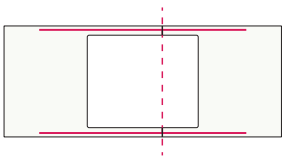
→ Outside the cut-out area



→ Tangent to the cut-out area*



→ Inside the cut-out area



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

→ (*) Only for top-mounted hobs.

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

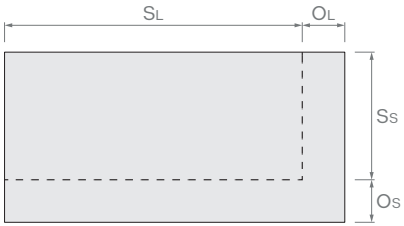
Island overhangs without cut-out/drill hole

1. Long side overhang

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

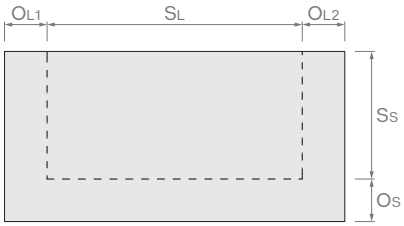
2. Short side overhang

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



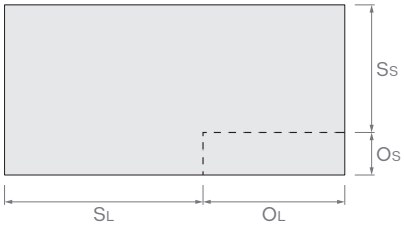
3. L-shaped overhang

	12 mm	20 mm
O_L	≤ 250 mm [10"]	≤ 350 mm [14"]
S_L	≥ 2 · O_L	
O_S	≤ 250 mm [10"]	≤ 350 mm [14"]
S_S	≥ 2 · O_S	



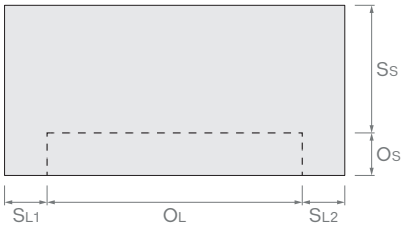
4. U-shaped overhang

	12 mm	20 mm
$O_{L1, L2}$	≤ 250 mm [10"]	≤ 350 mm [14"]
S_L	≥ 2 · (O_{L1} + O_{L2})	
O_S	≤ 250 mm [10"]	≤ 350 mm [14"]
S_S	≥ 2 · O_S	



5. Partial overhang

	12 mm	20 mm
O_L	≤ 500 mm [20"]	≤ 1,000 mm [39"]
S_L	≥ O_L	
O_S	≤ 200 mm [8"]	≤ 400 mm [16"]
S_S	≥ O_S	



6. Overhang between supports

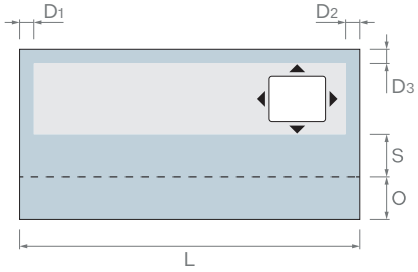
	12 mm	20 mm
O_L	≤ 1,000 mm [39"]	≤ 2,000 mm [79"]
$S_{L1, L2}$*	≥ 100 mm [4"]	≥ 50 mm [2"]
O_S	≤ 400 mm [16"]	≤ 800 mm [31 1/2"]
S_S	≥ O_S	

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

→ (O) Overhang; (O_L) Long side overhang; (O_S) Short side overhang; (L) Overhang length; (S_L) Long side support; (S_S) Short side support.

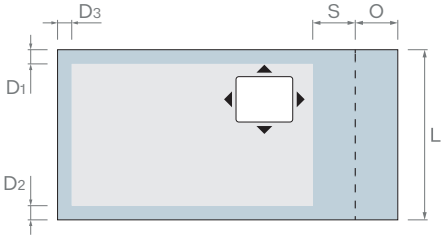
→ Maximum concentrated static load = 100 Kg (220 lb).

Island overhangs with cut-out/drill hole



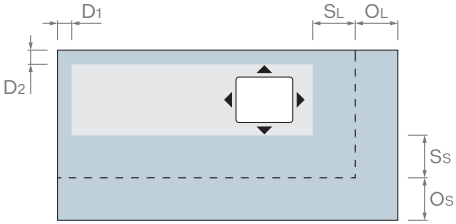
1. Long side overhang

	12 mm	20 mm
O	≤ 300 mm [12"]	≤ 600 mm [24"]
S	≥ O	
L	≥ 600 mm [24"]	
$D_{1,2}$	≥ 150 mm [6"]	
D_3	≥ 100 mm [4"]	



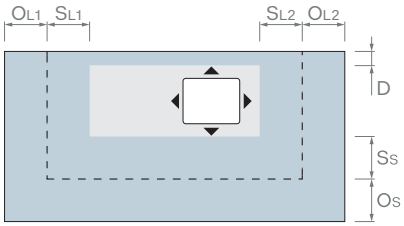
2. Short side overhang

	12 mm	20 mm
O	≤ 300 mm [12"]	≤ 600 mm [24"]
S	≥ O	
L	≥ 600 mm [24"]	
$D_{1,2}$	≥ 100 mm [4"]	
D_3	≥ 150 mm [6"]	



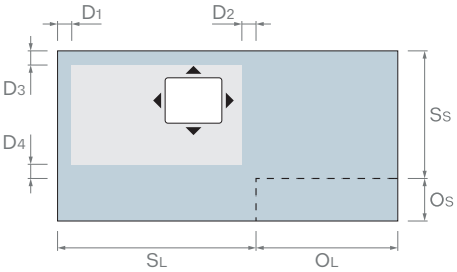
3. L-shaped overhang

	12 mm	20 mm
$O_{L,S}$	≤ 250 mm [10"]	≤ 350 mm [14"]
$S_{L,S}$	≥ $O_{L,S}$	
D_1	≥ 150 mm [6"]	
D_2	≥ 100 mm [4"]	



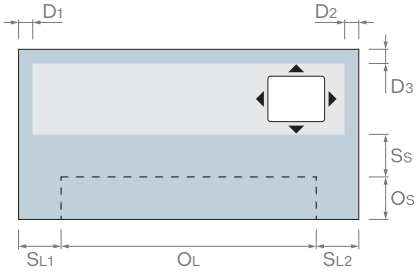
4. U-shaped overhang

	12 mm	20 mm
$O_{L1, L2}$	≤ 250 mm [10"]	≤ 350 mm [14"]
$S_{L1, L2}$	≥ $O_{L1, L2}$	
O_S	≤ 250 mm [10"]	≤ 350 mm [14"]
S_S	≥ O_S	
D	≥ 100 mm [4"]	



5. Partial overhang

	12 mm	20 mm
O_L	≤ 500 mm [20"]	≤ 1,000 mm [39"]
S_L	≥ O_L	
O_S	≤ 200 mm [8"]	≤ 400 mm [16"]
S_S	≥ O_S	
D_1	≥ 150 mm [6"]	
$D_{2, 3, 4}$	≥ 100 mm [4"]	



6. Overhang between supports

	12 mm	20 mm
O_L	≤ 1,000 mm [39"]	≤ 2,000 mm [79"]
$S_{L1, L2}$*	≥ 100 mm [4"]	≥ 50 mm [2"]
O_S	≤ 400 mm [16"]	≤ 800 mm [31 1/2"]
S_S	≥ O_S	
$D_{1, 2}$	≥ 150 mm [6"]	
D_3	≥ 100 mm [4"]	

→ (●) Do not make cut-outs or drill holes in this area.

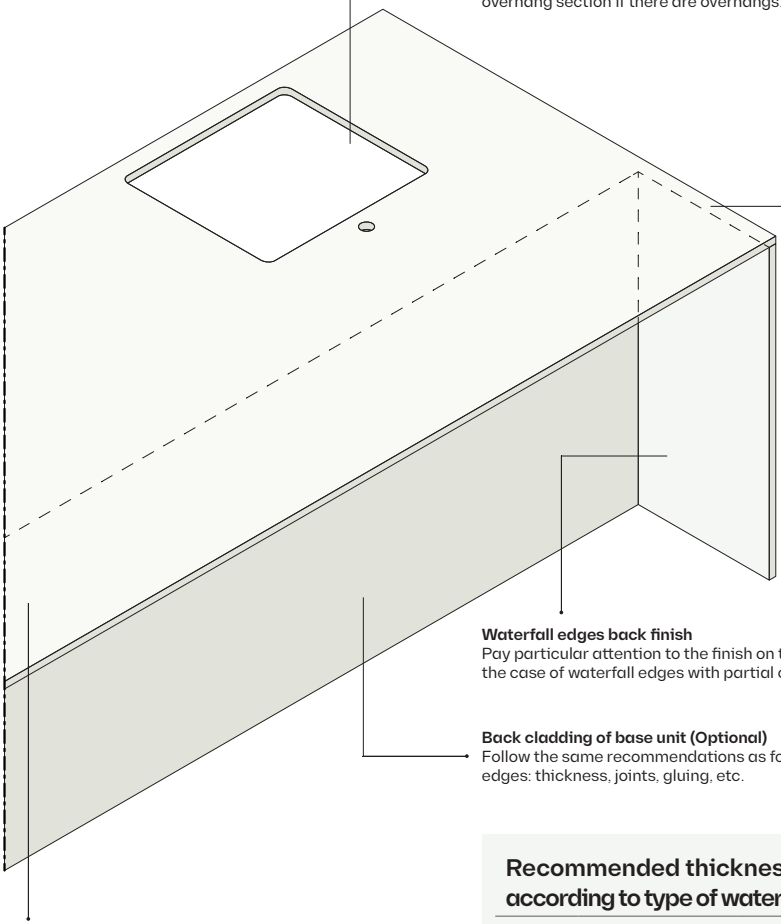
→ (*) Below these values, it is considered to be '1. Long side overhang'.

→ (O) Overhang; (O_L) Long side overhang; (O_S) Short side overhang; (L) Overhang length; (S_L) Long side support; (S_S) Short side support; (D_1), (D_2), (D_3), (D_4) 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 worktop shall be 20 mm and the minimum distance between them shall be 100 mm [4"].

Waterfall edges



Cut-outs
Follow the distance recommendations set out in the cut-out section if there are no overhangs, or in the overhang section if there are overhangs.

Waterfall edges back finish
Pay particular attention to the finish on the back face in the case of waterfall edges with partial overhang.

Back cladding of base unit (Optional)
Follow the same recommendations as for the waterfall edges: thickness, joints, gluing, etc.

Overhangs

1. Waterfall edges with partial overhang: ≤ 200 mm [8"].
2. Fully attached waterfall edges (base unit cladding): distances set out in the overhang section.

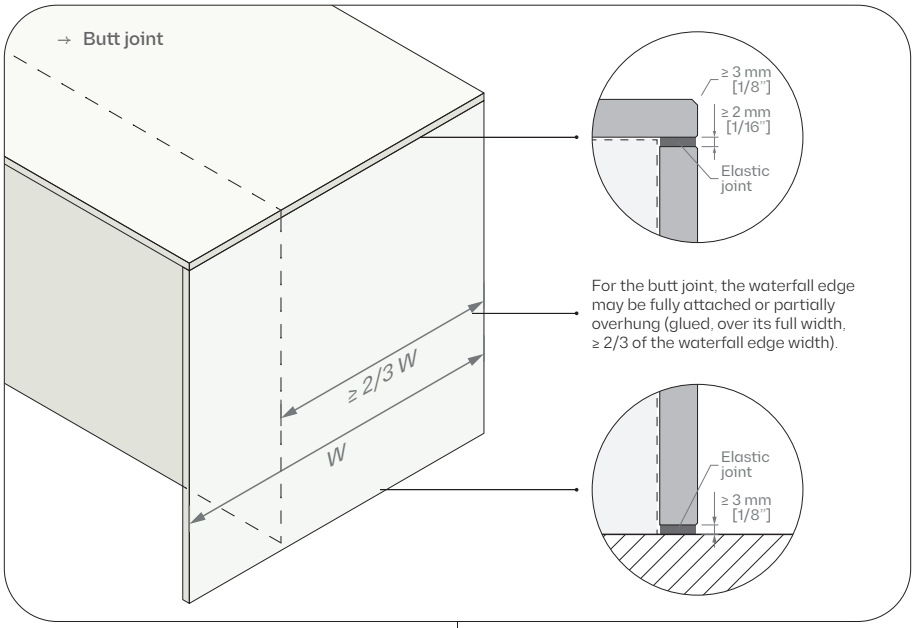
For this application, Dekton® will NOT have a structural function, but will be used as a cladding for the base units, which will withstand the stresses.

Recommended thicknesses according to type of waterfall edges

	Fully attached to base units	Partial overhang
4 mm	●	●
8 mm	●	●
12 mm	●	●
20 mm	●	●

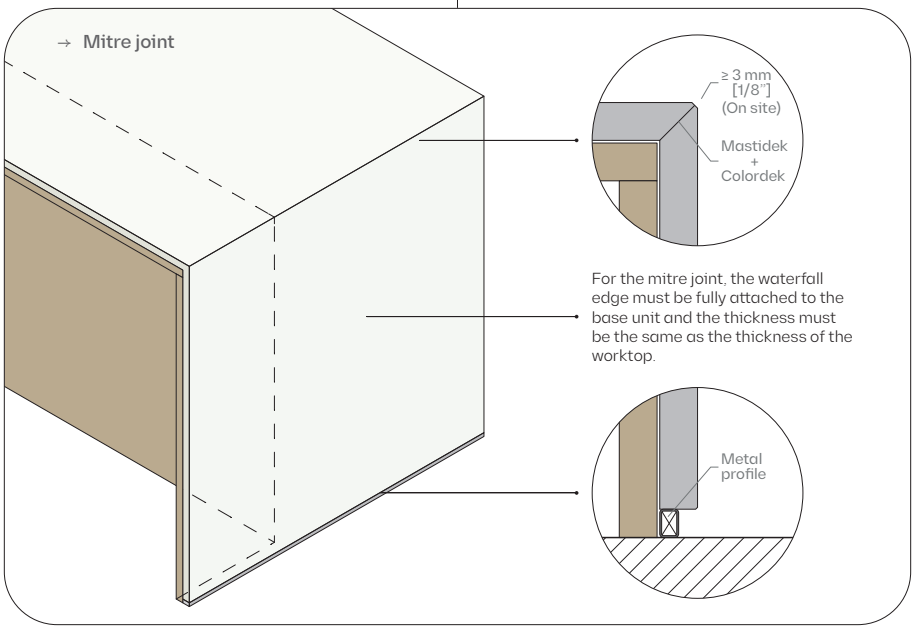
→ (●) Not recommended; (●) Recommended.

→ Butt joint



For the butt joint, the waterfall edge may be fully attached or partially overhung (glued, over its full width, ≥ 2/3 of the waterfall edge width).

→ Mitre joint



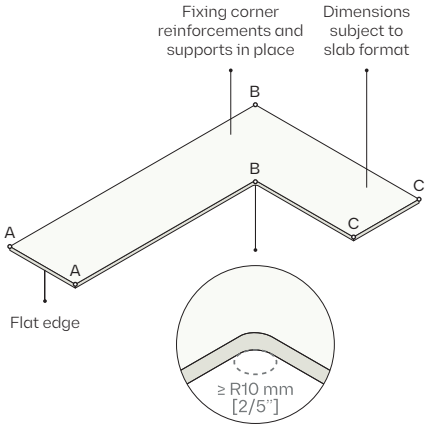
For the mitre joint, the waterfall edge must be fully attached to the base unit and the thickness must be the same as the thickness of the worktop.

Other considerations

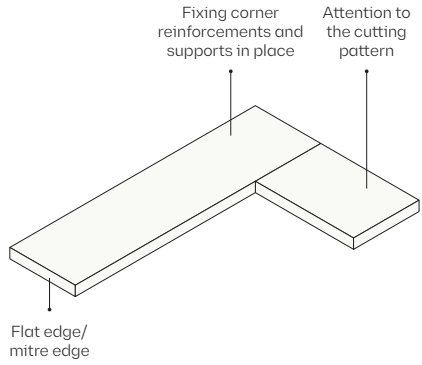
→ L-shaped worktop

For this type of worktop, 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 worktops:

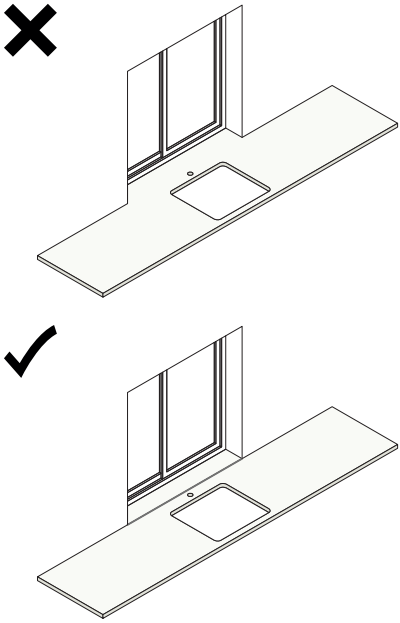


Whereas for multi-piece L-shaped worktops:



→ Window sill

At the point where the window sill meets the worktop, leave a joint gap between the worktop and the sill piece to ensure continuous, seamless support, and fill it with silicone of the same colour as the worktop:



→ Examples of joints between the window sill and the worktop.

→ Farmhouse sink

Follow the recommendations for other types of sinks (radii and distances) and provide support elements (bars or the base unit itself), so that the Dekton® worktop does not withstand the stresses.

Installation criteria

On-site adjustments

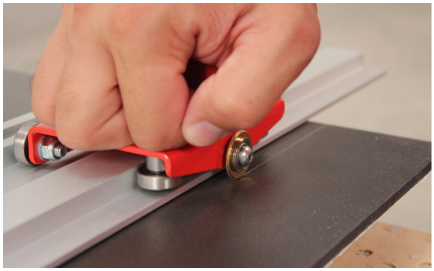
Ideally, the entire process should be carried out in the workshop, with the appropriate machinery, after a thorough measurement at the installation site.

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

→ Straight dry cutting

On-site cutting with dry cutting machines is only recommended for thicknesses of 8 mm for lengths up to 3,200 mm [126''] and 12 mm for lengths up to 1,400 mm [55''].

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



→ Straight parting cut.

→ 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.

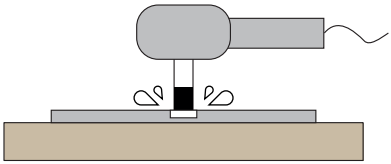
→ Straight cut with disc and water supply.

→ 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.



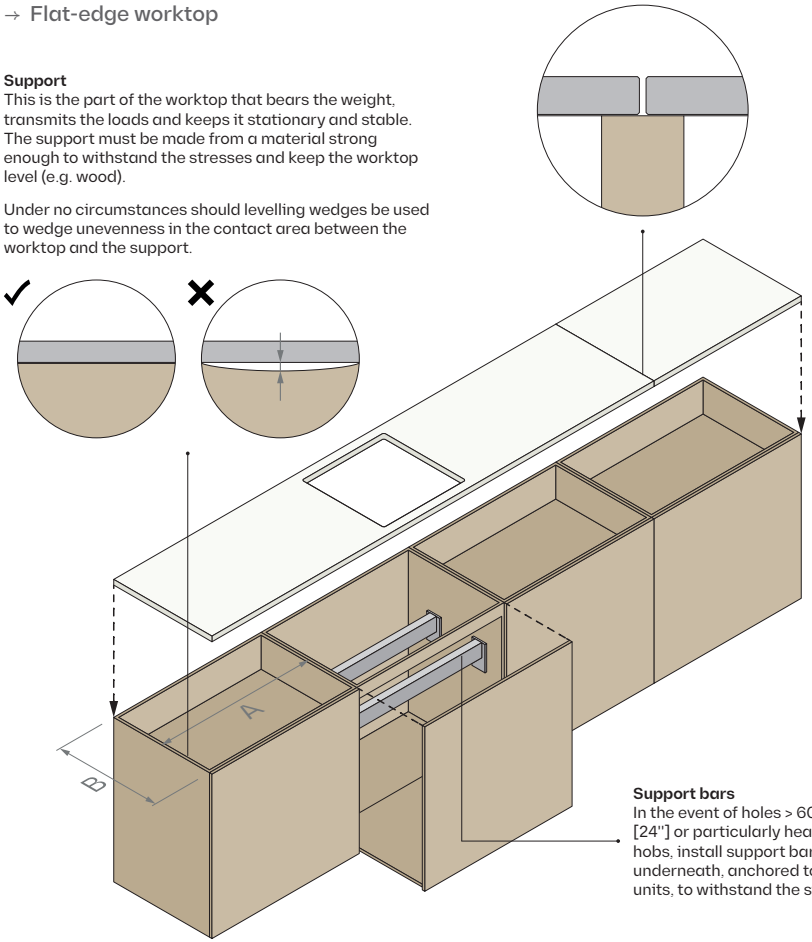
Supports & reinforcements

→ Flat-edge worktop

Support
This is the part of the worktop that bears the weight, transmits the loads and keeps it stationary and stable. The support must be made from a material strong enough to withstand the stresses and keep the worktop level (e.g. wood).

Under no circumstances should levelling wedges be used to wedge unevenness in the contact area between the worktop and the support.

Support between joints
If a joint is to be left in the worktop, it should be placed just above a base unit support.



Support bars
In the event of holes > 600 mm [24"] or particularly heavy sinks/hobs, install support bars directly underneath, anchored to the base units, to withstand the stresses.

Distances between supports

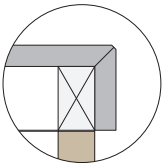
	12 mm	20 mm
A	≤ 900 mm [35"]	≤ 1,200 mm [47"]
B	≤ 700 mm [27 9/16"]	

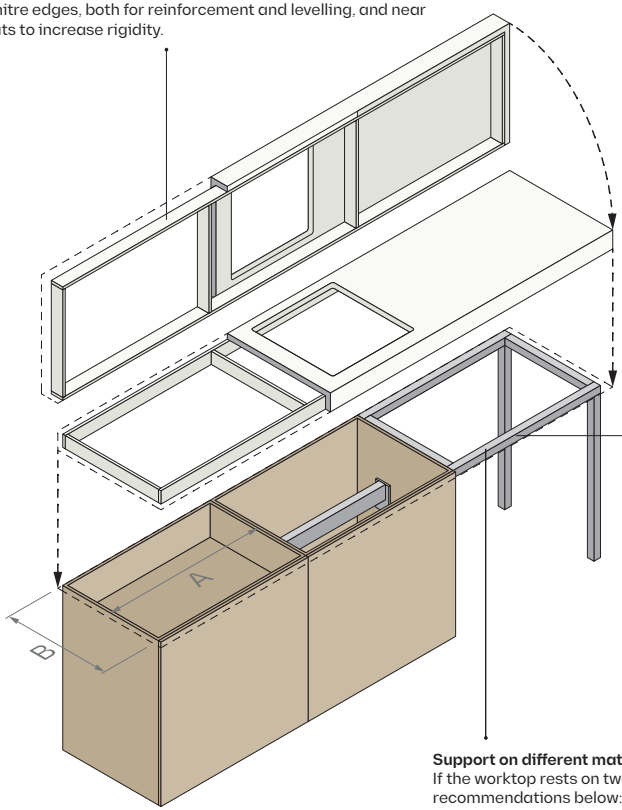
→ Worktop with mitre edge (skirt)

Reinforcement
It is the complementary part that makes a vulnerable area stronger and more resistant (e.g. in cut-outs and mitre 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 worktop plus the reinforcement work as a whole.

Reinforcements must be placed in line with the load-bearing structure on which the base units are mounted. They are required on worktops with mitre edges, both for reinforcement and levelling, and near cut-outs to increase rigidity.





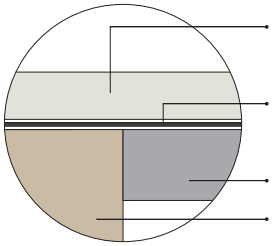
Metal structure
It must be sufficiently sturdy and stable to ensure continuous support of the worktop.

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

The distance between supports should be ≤ 1,200 mm [47"].

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

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



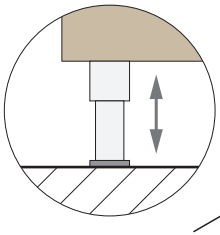
Installation process & recommendations

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 base units and of the cut pieces of the worktop, as well as the dimensions of the cladding/trim.

3. Supports and reinforcements
Check that the distances and recommendations set out for the chosen Dekton® thickness are observed.

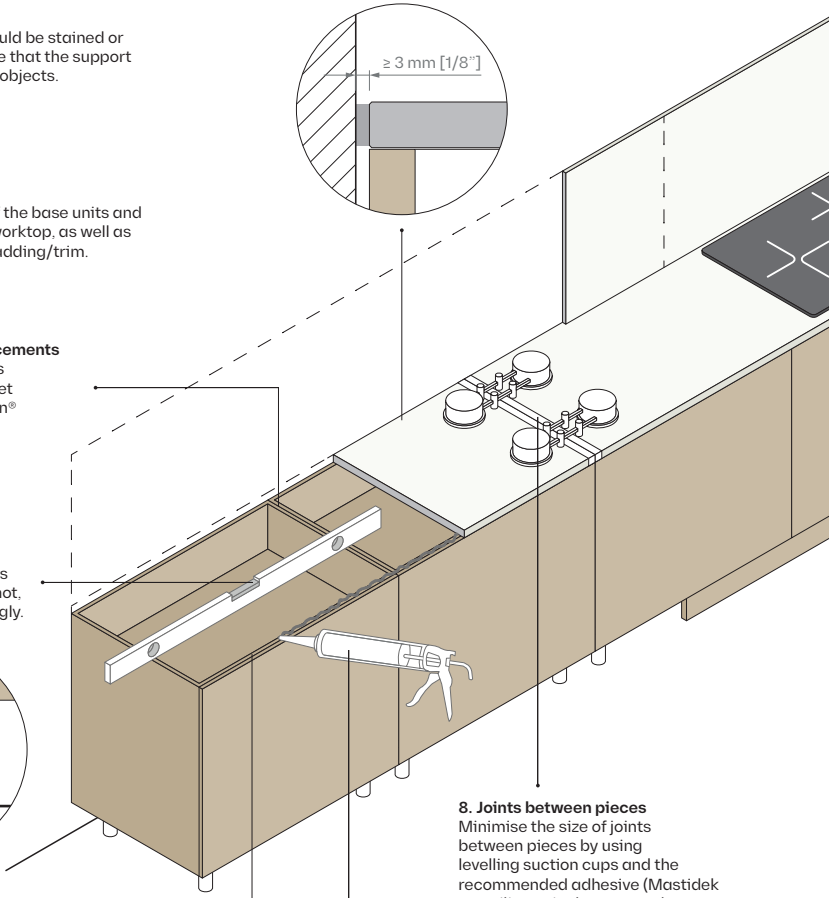
4. Base units
Check that the base units are correctly levelled. If not, adjust the level accordingly.



5. Top flatness
Check that the top, on which the worktop will be placed, is completely level. DO NOT use levelling wedges.

6. Adhesive
Apply the recommended adhesive to the top edges of base units or reinforcements, taking care not to satin the rest of the unit.

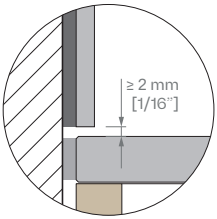
7. Placement
Place the worktop pieces on the base units once they have been levelled and adjust their position. Leave a perimeter joint of at least 3 mm [1/8"] in all areas of contact with the vertical wall, and fill the visible areas with silicone. Check that the support is continuous with a gauge.

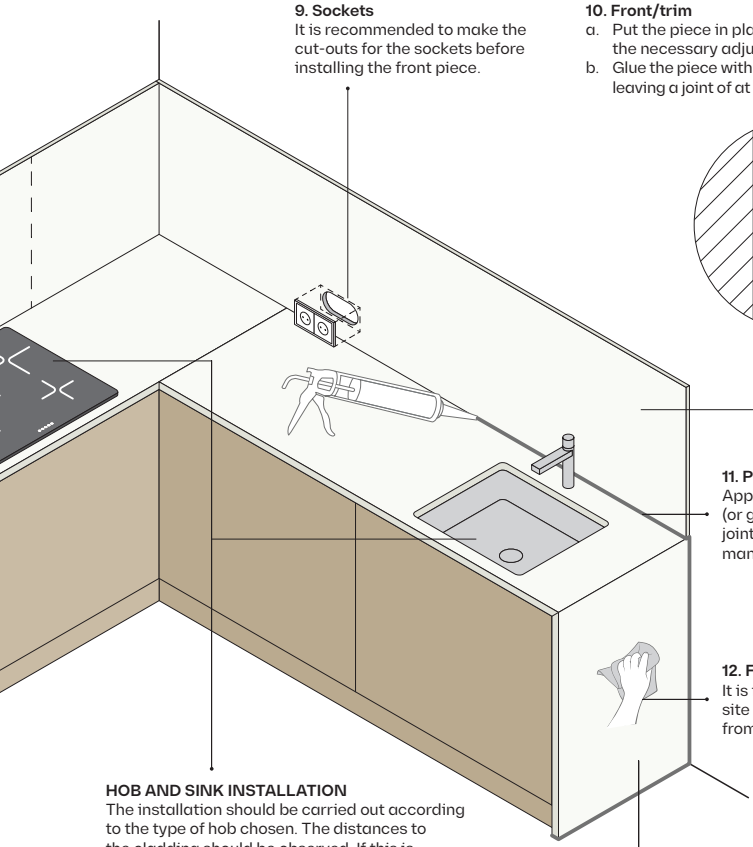


8. Joints between pieces
Minimise the size of joints between pieces by using levelling suction cups and the recommended adhesive (Mastidek or a silicone in the same colour as the worktop). Use masking tape to protect the surface.

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

10. Front/trim
a. Put the piece in place and make the necessary adjustments.
b. Glue the piece with the recommended adhesive, leaving a joint of at least 2 mm [1/16"] with the worktop.





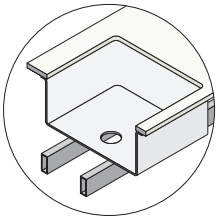
11. Perimeter seal
Apply the recommended silicone (or grout) to all necessary joints according to the manufacturer's instructions.

12. Final cleaning
It is important to carry out a final site cleaning to remove any residue from the installation process.

HOB AND SINK INSTALLATION
The installation should be carried out according to the type of hob 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).

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

IMPORTANT: In the event of large (> 600 mm [24"]) or particularly heavy hobs/sinks, install support bars directly underneath, anchored to the base units, to withstand the stresses.



WATERFALL EDGES (OPTIONAL)
Install the waterfall edge by gluing it to the base unit, according to the type of joint chosen (butt/mitre), so that the waterfall edge does NOT have a structural function.

Minor on-site adjustments are possible. Please refer to the relevant technical documentation.

Always use tools and adhesives recommended by Cosentino®.

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

Health & safety

Risks associated with handling and transport

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

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

Always take the necessary occupational safety measures to meet the requirements of local regulations. This *Manual* 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.

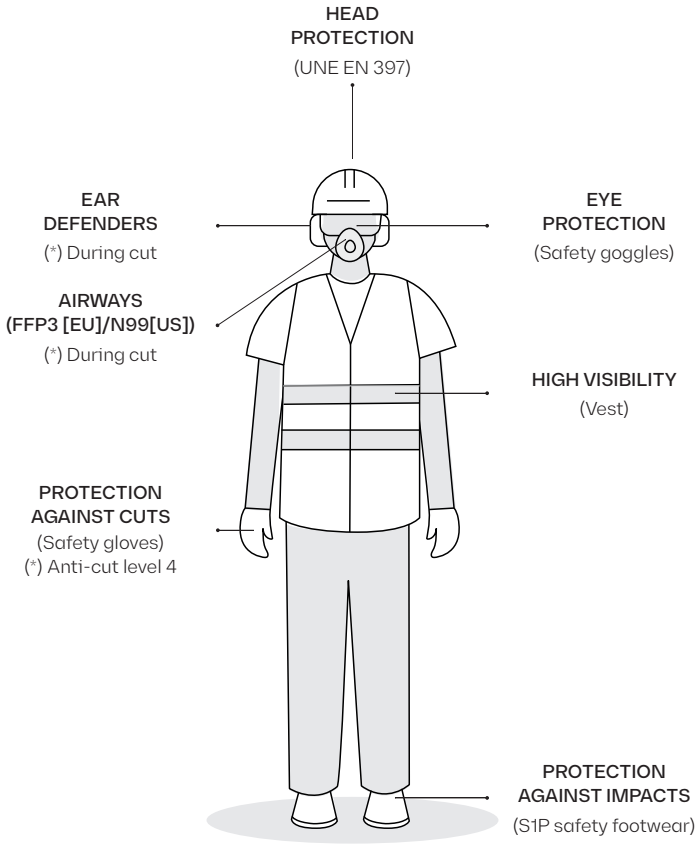
Please also refer to product *Safety Datasheets* and *Good Practice Guidelines* which are available on the website *osh.cosentino.com*, or request such documents from the distributor or manufacturer.

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.

For more information about these risks and measures to prevent them, please refer to the *Safety Datasheets* as well as the *Good Practice Guidelines* that Cosentino® has published.

If you do not have this information, please ask your supplier.


HEAD
PROTECTION
(UNE EN 397)
EAR
DEFENDERS
(*) During cut
EYE
PROTECTION
(Safety goggles)
AIRWAYS
(FFP3 [EU]/N99[US])
(*) During cut
HIGH VISIBILITY
(Vest)
PROTECTION
AGAINST CUTS
(Safety gloves)
(*) Anti-cut level 4
PROTECTION
AGAINST IMPACTS
(S1P safety footwear)

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