# INSTALLATION MANUAL
# for COUNTERTOPS
## ROYAL SINTERED STONE

E-2025

# Contents

# 1. Introduction

This manual provides general instructions for using Royal Sintered Stone in the fabrication of countertops. It is intended to serve as a guide, offering helpful suggestions and best practices for processing Royal Sintered Stone slabs.

The information presented reflects the highest level of technical, scientific, and operational knowledge available to the manufacturer at the time of publication. Users are encouraged to consult the most recent version of this manual, available in the “Catalogues” section of our website at www.rygcorp.com , where additional technical documents can also be found.

As Royal Sintered Stone is a natural sintered material, users should not rely solely on this manual. Instead, they are advised to consult broader technical and scientific literature, and to seek the support of qualified professionals throughout the processing and installation phases.

Royal Sintered Stone Manufacture and Investment JSC shall not be held liable for any damage resulting from the application of the information or recommendations contained in this manual. All instructions and suggestions must be verified in advance by the user.

Furthermore, Royal Sintered Stone Manufacture and Investment JSC reserves the right to make technical modifications at any time without prior notice or individual communication.

# 2. Design rules

## 2.1 Internal cut-out and holes

All internal corners relating to a cut-out must have a minimum radius of 3/16”. For industrial kitchens the minimum radius is 3/8”. A larger radius gives greater structural strength to the workpiece (see figure 1), while any non-radiused corner creates a stress point on the countertop (see figures 2, 3 and 4)

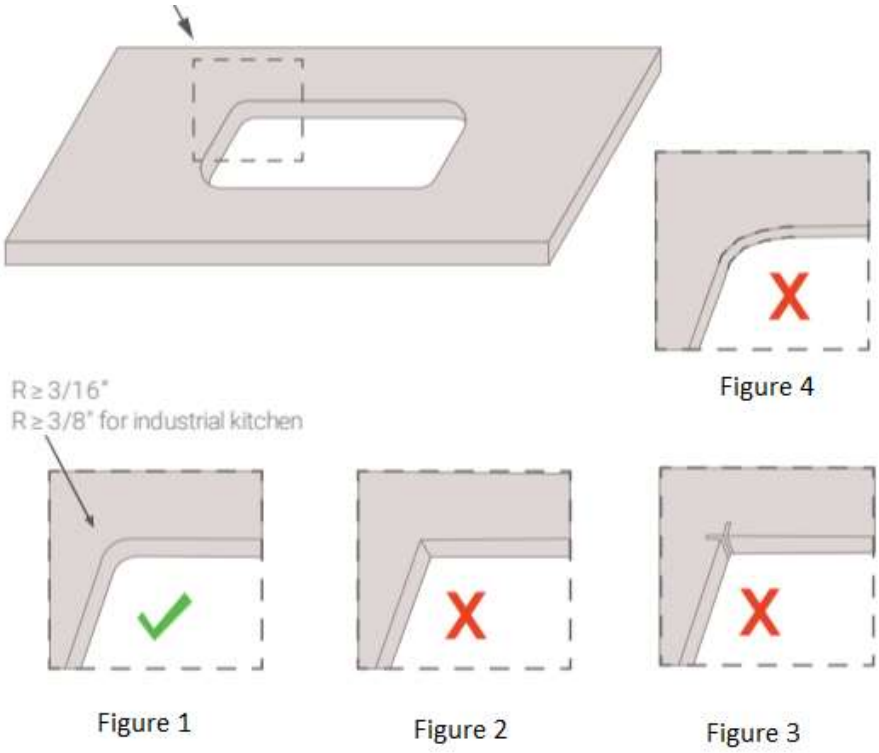
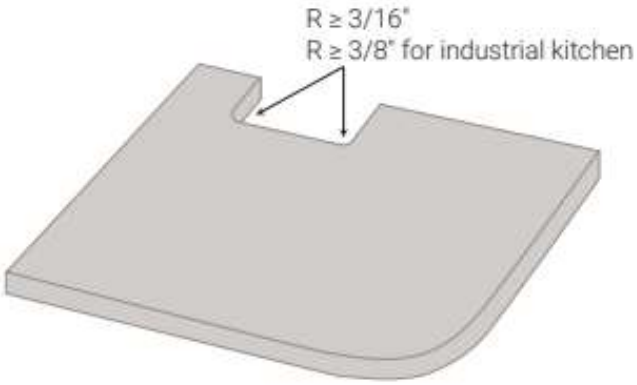


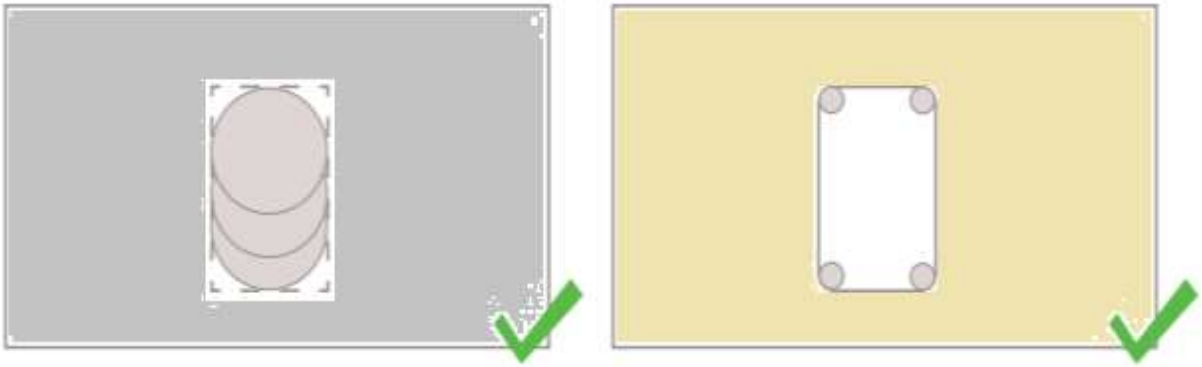

Figure 1 Figure 2 Figure 3 Figure 4

It is recommended to create a minimum radius of 3/16” in the presence of columns or elements requiring the countertop to be cut.



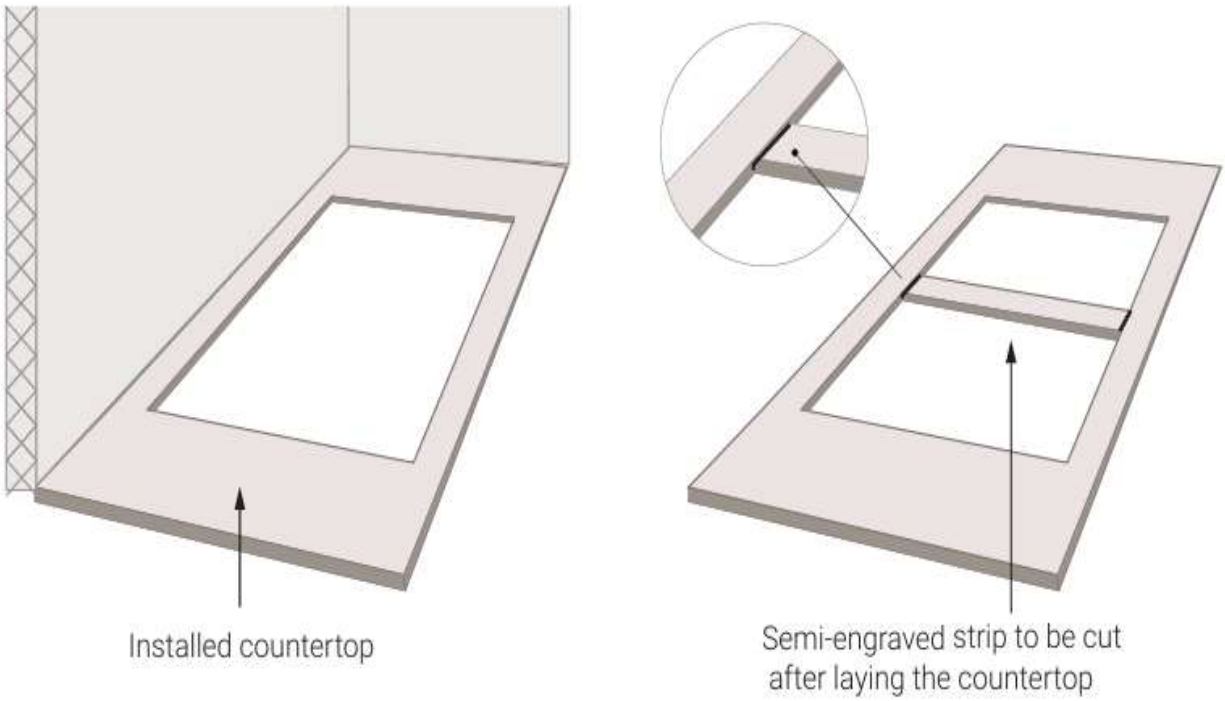
## 2.2 Holes for accessories

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



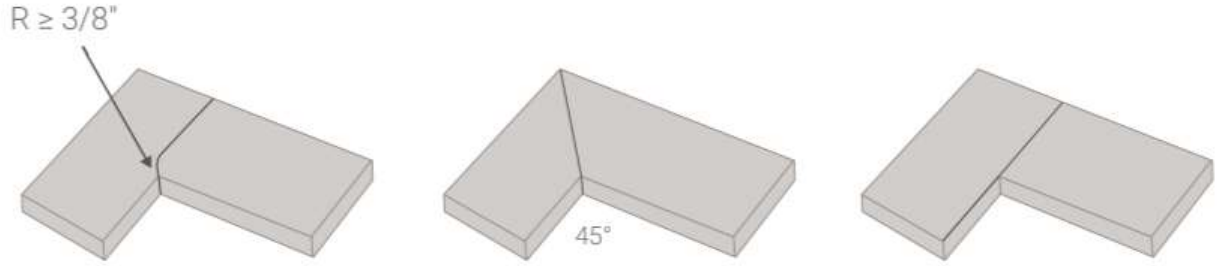
## 2.3 Large cut-outs

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

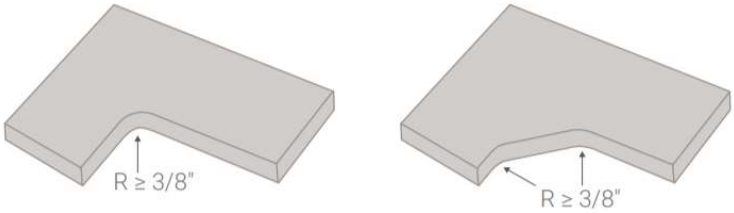


## 2.4 L-Shaped workpieces

In the case of an L-shaped kitchen, it is recommended to divide the countertop into two pieces so as not to compromise the strength of the workpiece.

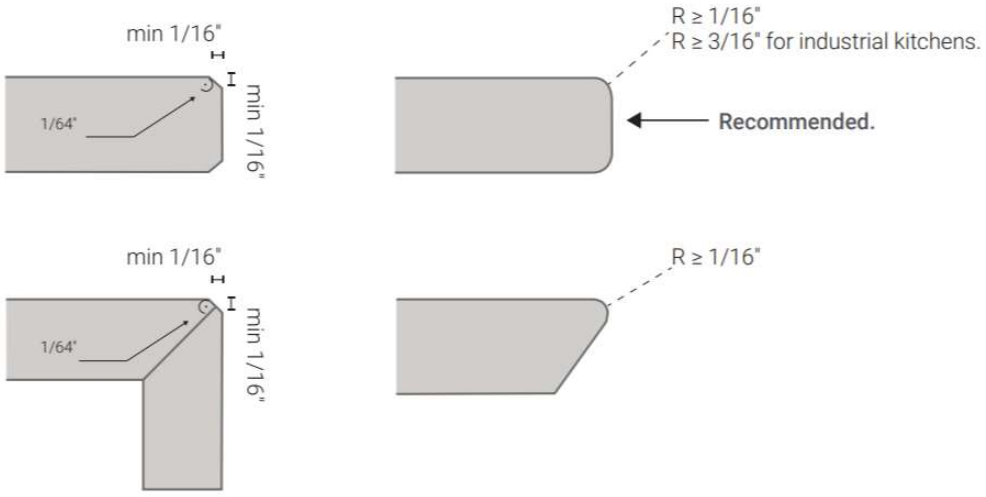



If you want to make a single piece L-shaped countertop, the minimum radius must be 3/8”.



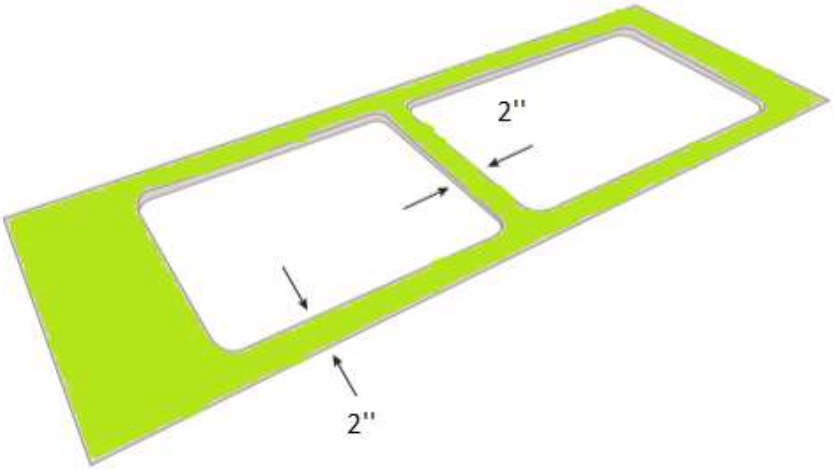

## 2.5 Processing of edges

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



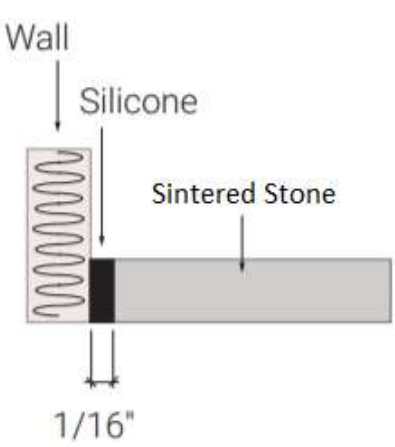
## 2.6 Minimum distance between edge and cut-outs

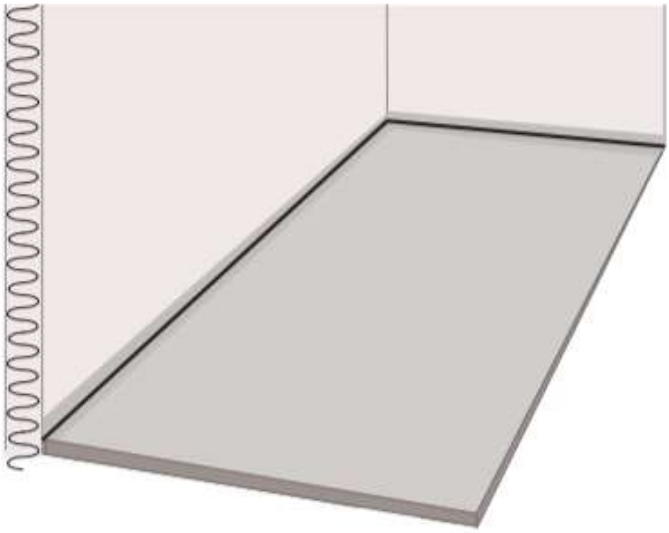
The recommended minimum distance between cut-out and cut-out and between edge and cut-out is 2”.



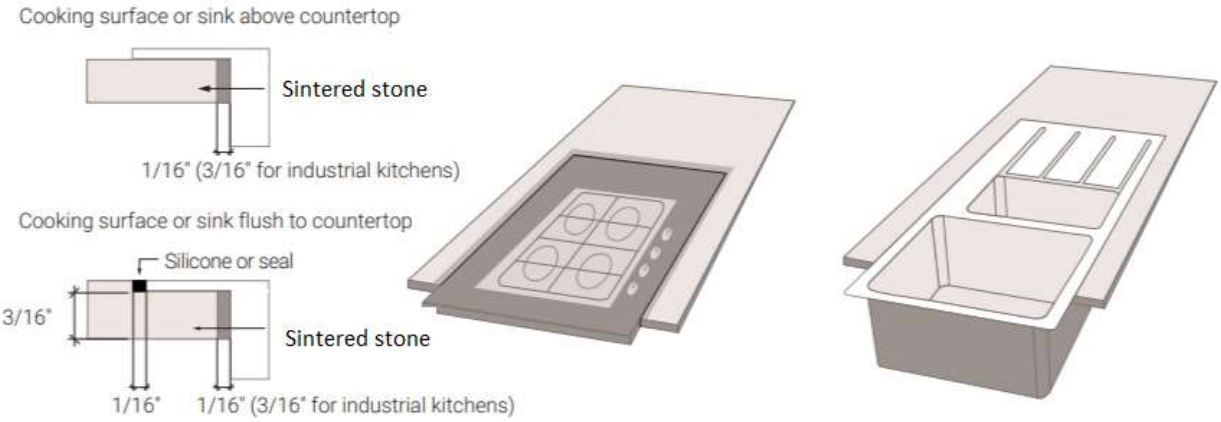

## 2.7 Minimum distance between wall-sink-cooking surface

The recommended minimum distance between the countertop and the wall is 1/16”



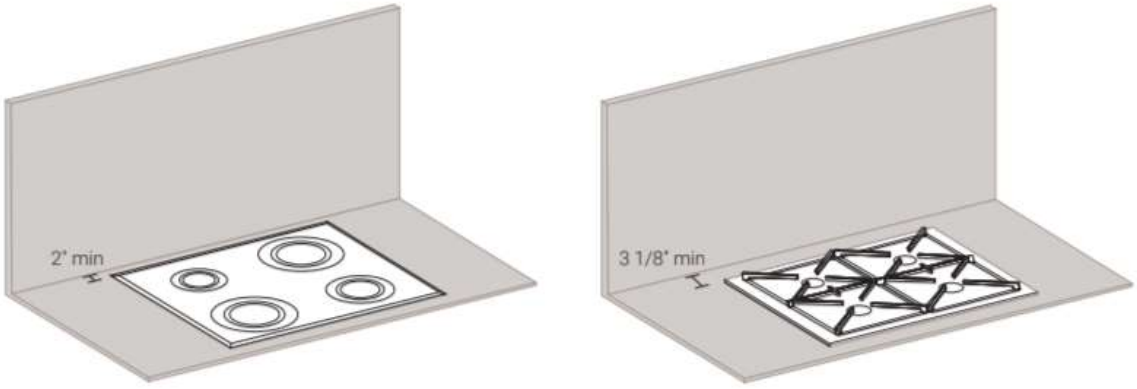



The recommended minimum distance between the Royal sintered stone countertop and the cooking surface or sink is 1/16” (1/8” for industrial kitchens). To define the minimum gap with the sintered stone slab, consult the technical manual of the manufacturer of the cooking surface or sink.



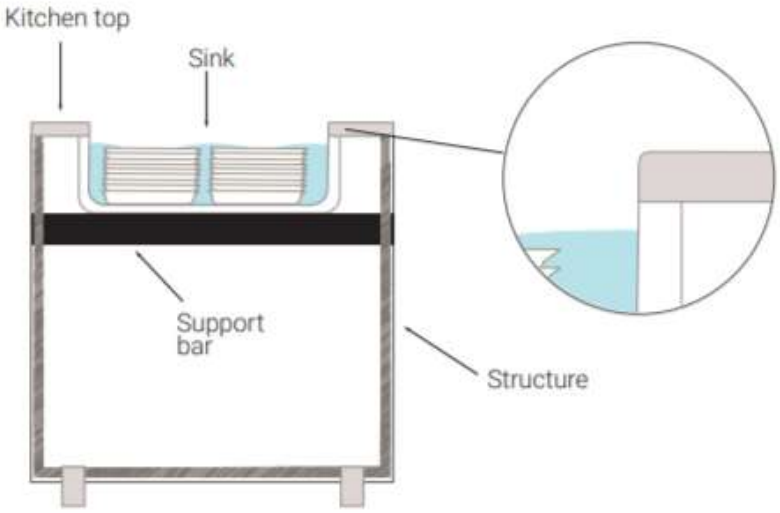

## 2.8 Minimum distance between backsplash and cooking surface

With splashbacks over 4” high, it is recommended to keep a minimum distance of: - 2” between the backsplash and the electric hob; - 3 1/8” between the backsplash and the gas hob.



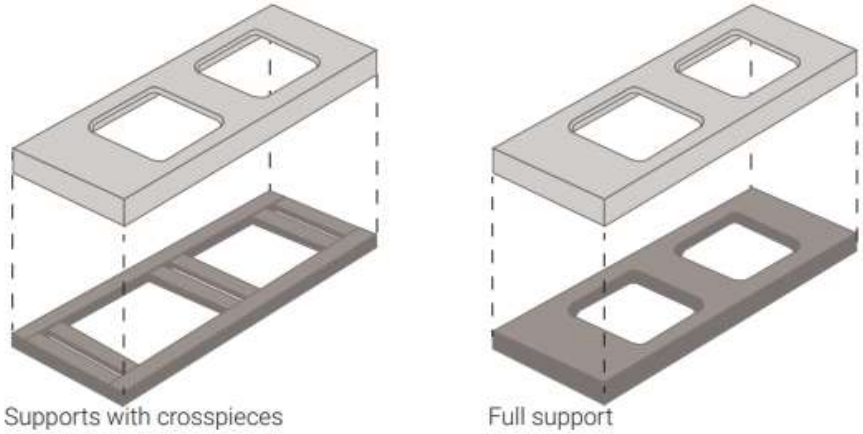

## 2.9 Supports

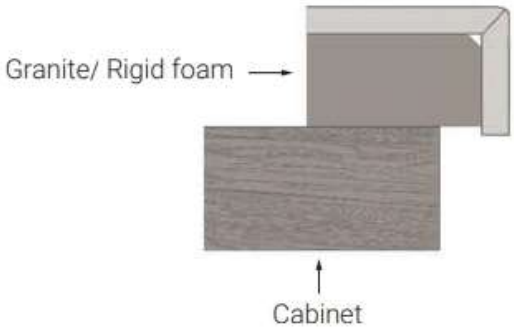
For under-top and flush-mount installations or for large above-tops for sinks or cooking surfaces, it is recommended to use support bars fixed to the structure on which the countertop will be placed, to avoid the risk of detachment and/or breakage risks due to heavy loads (sink full of water and large pans)




## 2.10 Reconstructed countertop reinforcement

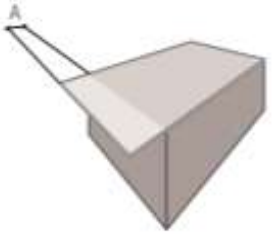
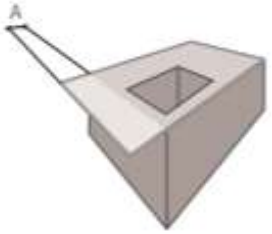
Depending on the thickness of the sintered stone used and the countertop design, it is recommended to support the countertop with a reinforcement or a material with the same expansion coefficient (e.g., granite, or rigid foam).

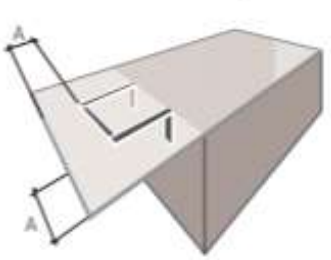


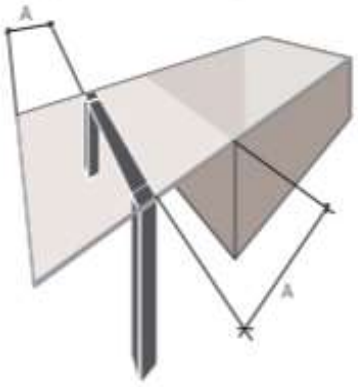



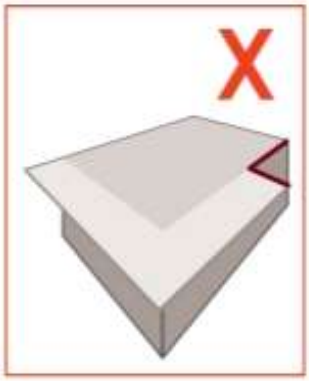
## 2.11 Overhangs

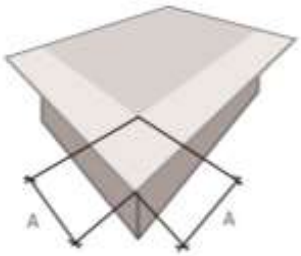
When designing the countertop, it is advisable to dimension the overhangs according to the following table so that the workpiece is not exposed to the risk of breakage during daily use.

| | Thicknesses | | | Drawing |
|---|---|---|---|---|
| | ½" | ¾" | 1 ¼" | |
| Countertop with unsupported overhang | A ‹6" | A ‹13 ½" | A ‹19 ½" |  |
| Cut-out countertop with unsupported overhang | A ‹3 ½" | A ‹8 ¼" | A ‹11 ½" |  |





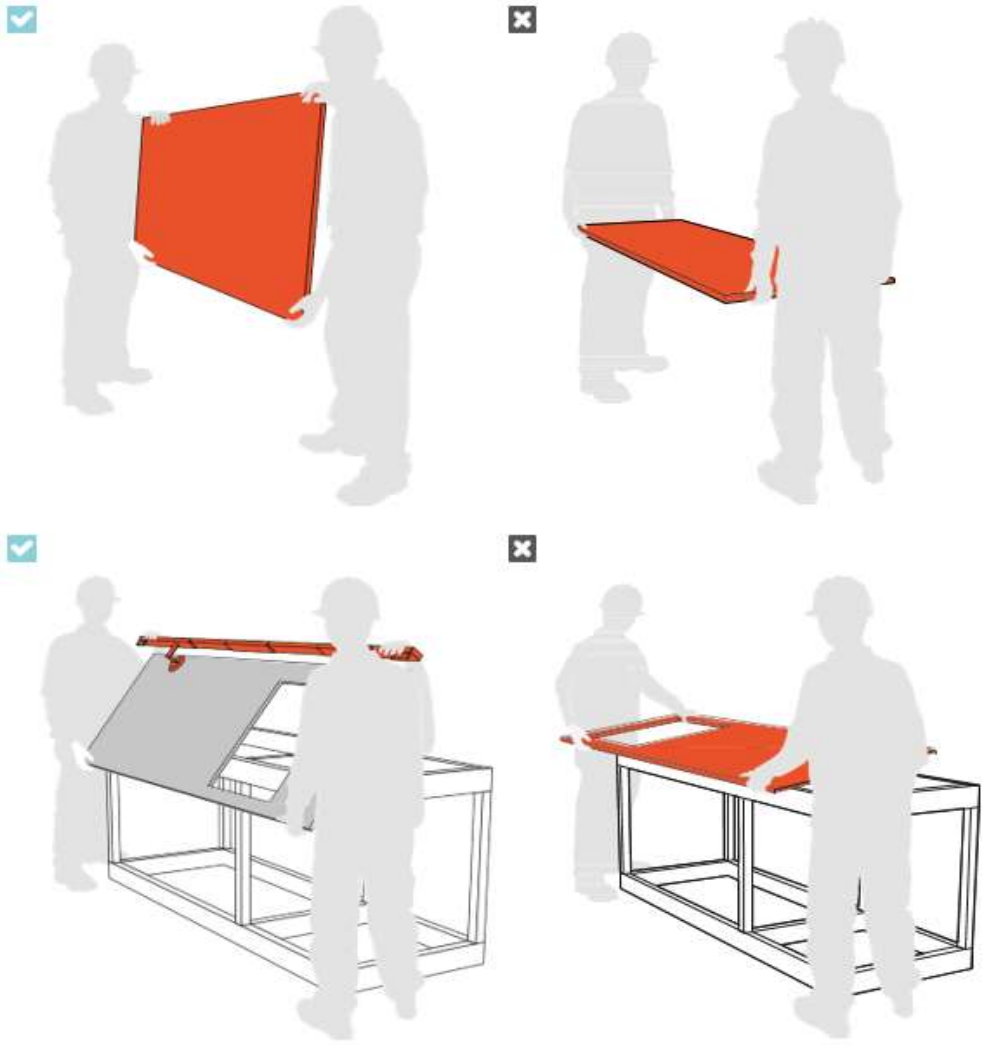




# 3. Handling and laying

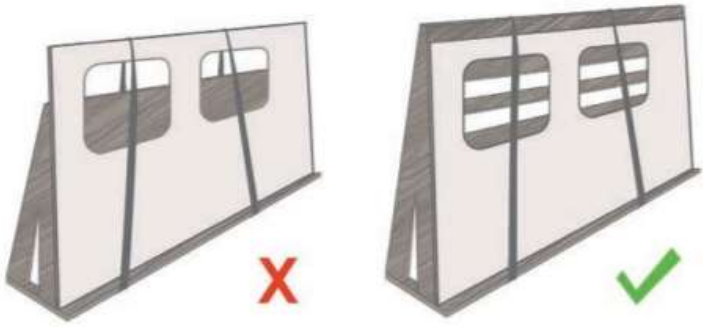
## 3.1 Handling and packaging of sintered stone slab

At all times, when handling and transporting the workpiece, whether by hand or by means of belts and suction cups, it must be kept in an upright position, as shown in the drawing below. Any holes inside the workpiece must always be facing upwards.

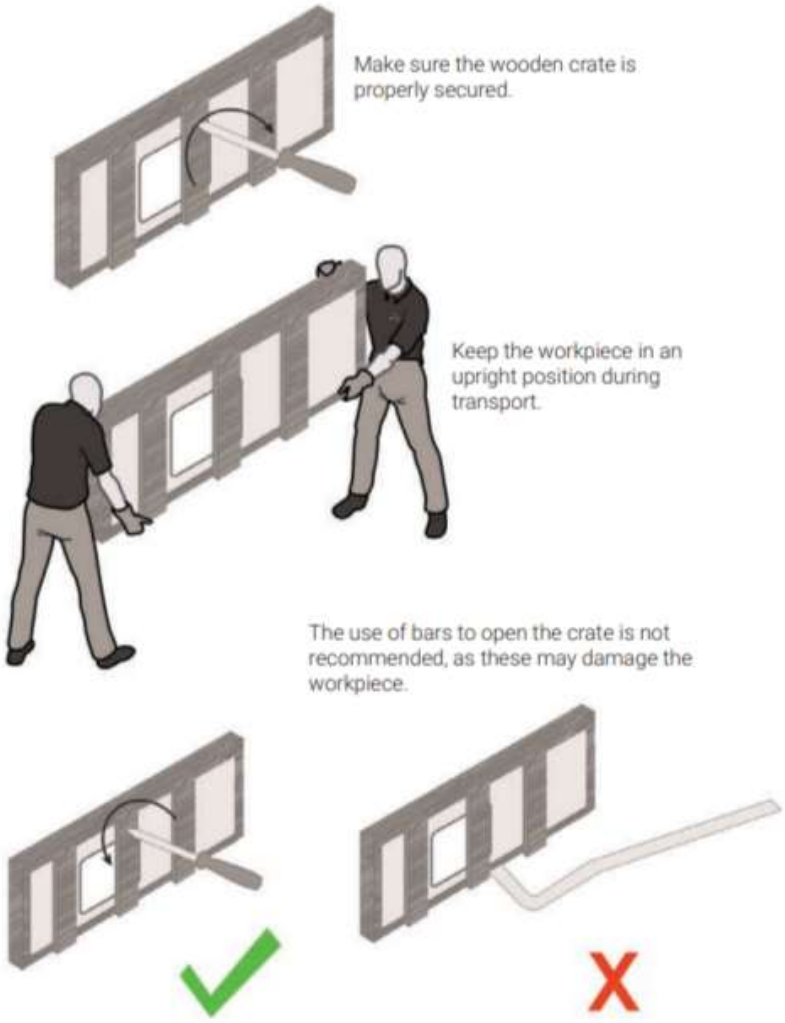


The slabs are packaged on stands and/or in crates. They must be transported individually with care and stacked on their side, regardless of their format, making sure to insert materials (e.g. wooden shims) between the different pieces and between the slabs and the support to prevent any breakages.

The slabs should always be properly supported to avoid bending and stored in areas that are not subject to accidental impacts (workplace transport or manoeuvring areas).



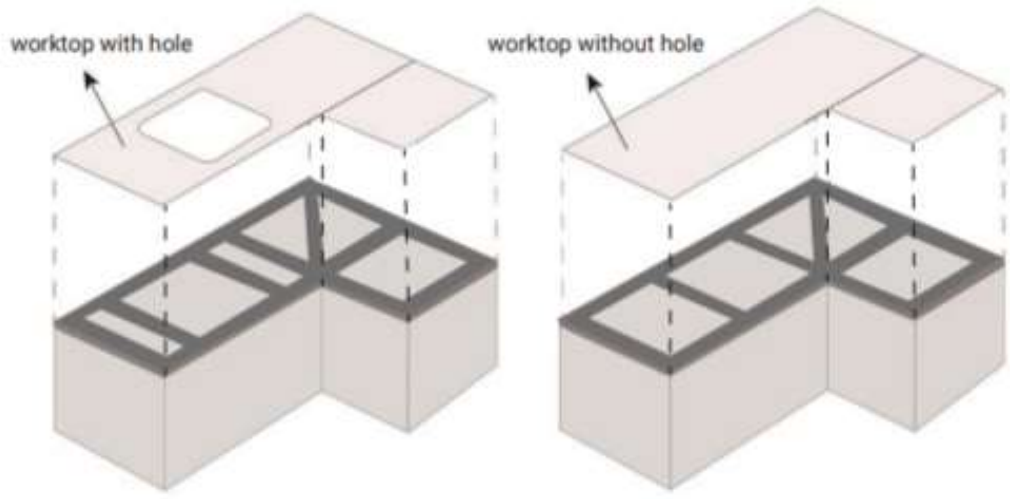
If stored outside, the slabs should always be protected from rain by a sheet, thus preventing any stagnation. If the slabs get wet during packaging, the packaging must be completely removed and the slabs must be arranged so that they can dry perfectly.



## 3.2 Pre-laying

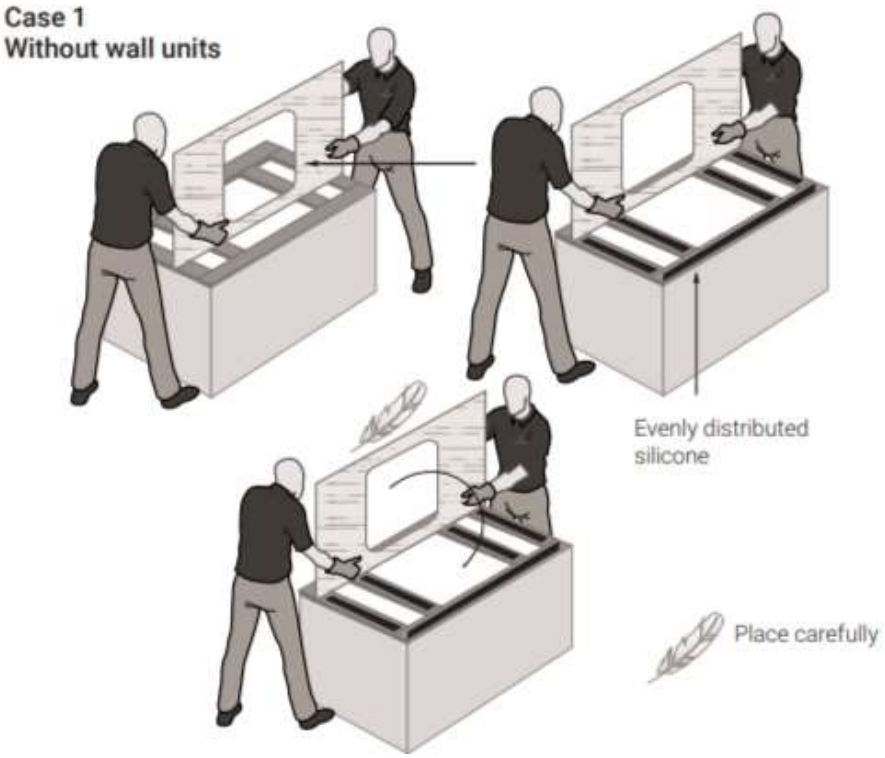
It is essential that the support base on which the countertop is to be laid is flat, level and structurally solid. Most breakages during assembly and post-laying are due to an uneven or inadequate support, or the presence of debris or process residues. The surface of the countertop must rest perfectly on the support, any unsupported points may weaken the workpiece. It is therefore not advisable to apply isolated silicone dots. Apply the adhesive over the entire support area so that it adheres completely to the countertop

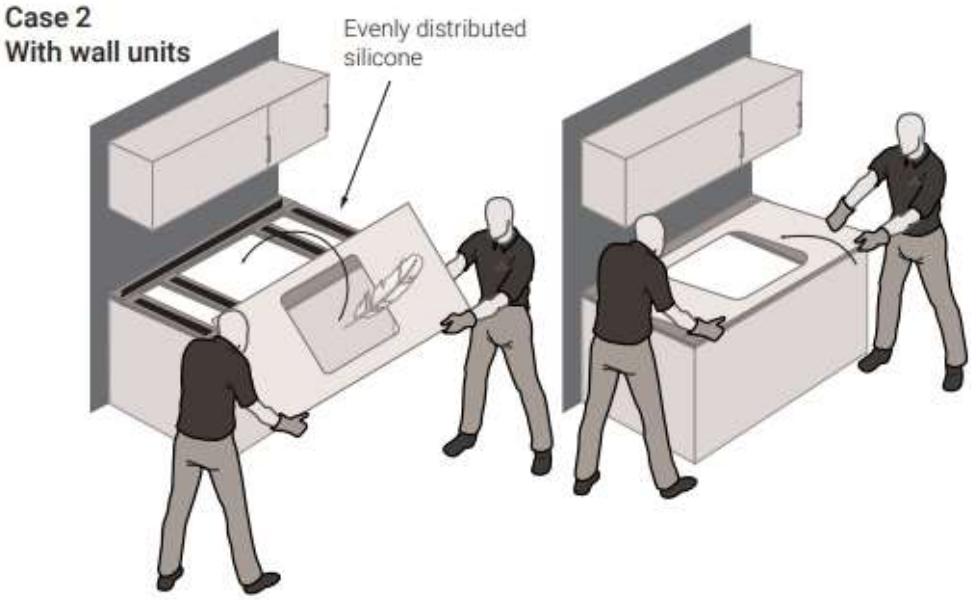
If there are one or more holes (sink hole, gas hole) in the countertop, the most stressed parts must be properly supported to provide adequate stability.



## 3.3 Laying

When laying the workpiece, follow the advice below to ensure optimal positioning.



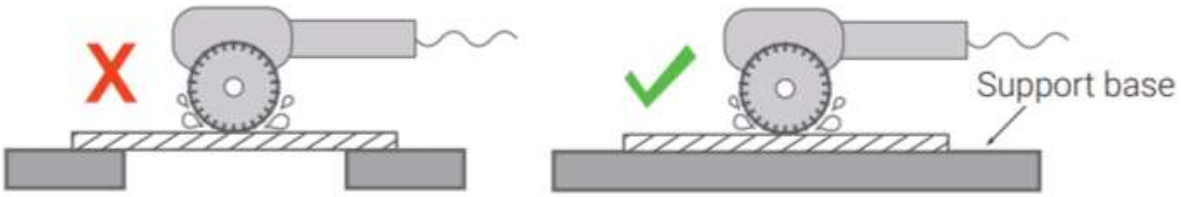



# 4. Manual processing

Should processing be necessary on site, it is recommended to strictly follow all the instructions provided in this manual. If any processing becomes necessary, it is good practice to carry out preliminary tests for both cutting and drilling in order to acquire familiarity and avoid any problems. For manual processing it is recommended to follow the health and safety regulations in force. Each worker must have specific PPE (Personal Protective Equipment) for the work to be performed. Our recommendations are as follows.

## 4.1 Manual cutting

The instructions provided in this paragraph refer to manual cutting only, tools whose full compatibility with those indicated has been checked. Always use plenty of water for cooling and dust suppression. The slabs must be properly supported during any manual processing. The support should be sufficiently rigid, perfectly flat and in good condition. A wooden support is preferable to a metal one to prevent scratches from friction on the sintered stone surface.

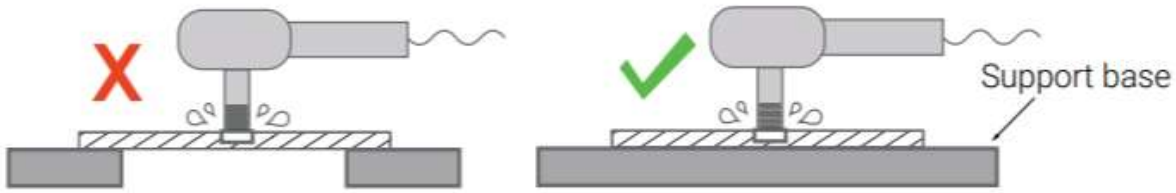



*Disclaimer*

Always work from the finished surface towards the raw surface. Square or rectangular holes (e.g. electrical installations) must have a rounded edge with a radius of 3/16'' at all four corners. Once the cut has been completed, it is recommended that the upper and lower edge of the newly cut edge is lightly sanded using 60/120 grain diamond sandpaper. This will prevent unwanted chippings and cuts.

## 4.2 Manual drilling

If it is necessary to drill holes (for piping, air vents, etc. The part to be drilled must be properly supported, as is the case when cutting; during drilling operations avoid any hammering to avoid breakage. When drilling, use water for cooling and dust suppression.




*Disclaimer*

Always work from the finished surface towards the raw surface. Square or rectangular holes (e.g. electrical installations) must have a rounded edge with a radius of 3/16'' at all four corners.

# 5. Cleaning, maintenance and care

## 5.1 Routine cleaning

Proper daily care is essential to maintain the appearance and durability of sintered stone surfaces. To prevent staining, clean spills promptly before they dry. For routine cleaning, use a microfiber cloth to remove dust from the surface, then rinse with warm water and a neutral detergent. Follow this by rinsing with clean water and drying with a damp microfiber cloth or a non-abrasive soft sponge.

Alternatively, neutral, no-rinse cleaning products such as Vetril, Glassex, or FilaBrio may be used—always following the manufacturer's instructions.

For small areas, cleaning can be done manually. For larger surfaces, it is recommended to use a pressure washer outdoors or a floor washer indoors.

**What not to do:**

Do not use washing up liquid, waxes, oily soaps, impregnating agents or other treatments. Some detergents available on the market contain wax or polishing additives that after several applications may leave an oily film on the surface, preventing sintered stone from being cleaned. Avoid using ceramic knives or other objects of similar hardness

to sintered stone, as they may damage the surface. Absolutely avoid the application of any kind of covering or toning treatments. Sintered stone, in fact, does not require any further intervention on the surface. Do not use abrasive sponges that may scratch the surface. Use blue scratch-resistant Scotch-Brite sponges. Do not hit the material with sharp or heavy metal objects as they may chip the material or, in some cases, cause it to break. Remember that the edges are the most delicate part of the sintered stone workpiece.

## 5.2 Special cleaning

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

**Notes:**

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

**Thank you!**