

**ASCALE**  
TAU

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Countertop  
Technical Manual



## PRODUCT

### Introduction

The search for wellbeing in architectural spaces has been constant at TAU Cerámica all the way to achieving excellence with ASCALE. It's all-new multi-purpose, large-sized and lightweight material. TAU Cerámica is re-inventing itself and adapting architectural spaces to people's new lifestyles. The value of a brand along with work, effort, innovation and quality keep the industry alive. ASCALE strengthens the technical characteristics of top-of-the-line wall tile with more possibilities due to its lightness and adaptability.

With high pressure and temperature, we transform 100% all-natural minerals into slabs that combine natural beauty with resistance from the latest technologies.

ASCALE is large-format sintered stone that comes in 320x160 cm and is produced in three thicknesses: 6, 12 and 20 mm. ASCALE offers a great variety of 12 and 20 mm thick slabs to build any type of work surface. It also complements these thicknesses with lighter 6 mm thick slabs to clad any vertical or horizontal wall. The combination of both thicknesses, 6 and 12 mm, makes ASCALE a powerful tool for architecture, interior design and construction professionals as it allows them to create unique, elegant and versatile spaces with the unbeatable technical features of this material.

### Product

Why use ASCALE? Because our sintered stone offers the ideal technical characteristics for any work surface to get the same or even better aesthetic value than with any other material.

Our collections perfectly adapt to the needs of all types of consumers. We have all types of marble, cement, stone, wood, metal and basic colours. Our mission is to create areas that evoke feelings of comfort wherever they may be.

Thanks to ASCALE, you can enjoy the most iconic natural stone finishes with the features of next-generation slabs. Moreover, our 6 and 12 mm thick slabs feature a fibreglass mesh reinforcement on the back so the material can attain the highest possible resistance.



ESTABILIDAD DIMENSIONAL  
DIMENSIONAL STABILITY



IMPERMEABLE  
WATERPROOF



RESISTENCIA A LA ABRASIÓN PROFUNDA  
RESISTANCE TO DEEP ABRASION



RESISTENCIA A LA ABRASIÓN SUPERFICIAL  
RESISTANCE TO SURFACE ABRASION



RESISTENCIA QUÍMICA  
CHEMICAL RESISTANCE



RESISTENCIA A LAS MANCHAS  
STAIN RESISTANCE



RESISTENCIA A LA FLEXIÓN  
BENDING STIFFNESS



RESISTENCIA TÉRMICA  
THERMAL RESISTANCE



RESISTENCIA A LA HELADA  
FROST RESISTANCE



RESISTENCIA AL CUARTEO  
CRAZING RESISTANCE



RESISTENCIA AL RAYADO  
SCRATCH RESISTANCE



INCOMBUSTIBLE  
FIREPROOF

GAMA CROMÁTICA / CHROMATIC RANGE



LAURENT BLACK    MACCHIA-VECCHIA GOLD    MONTBLANC WHITE    BAHÍA SILVER    ARMANI SILVER    BELVEDERE BLACK

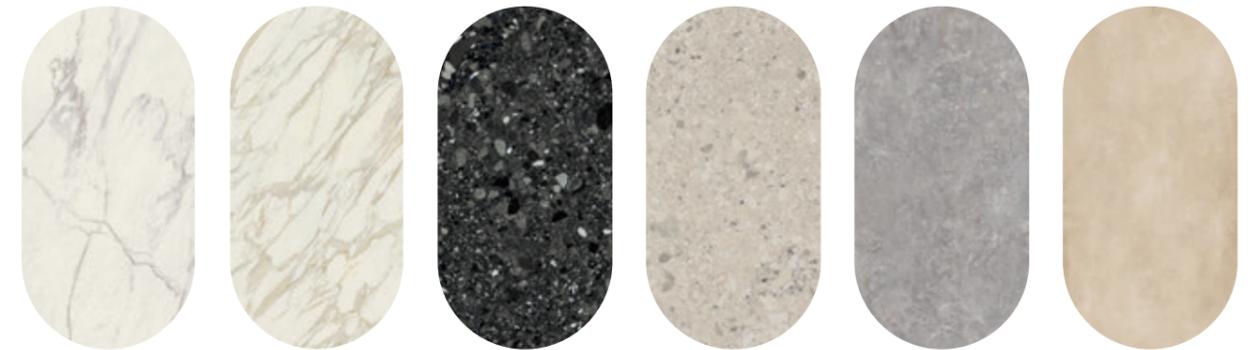


MOON BLACK    TAJ MAHAL ALMOND    CROTONE PULPIS    VARESE ONICE    TORANO STATUARIO    VAGLI GOLD



LABRADORITE ROYALBLUE    ARABESCATTO WHITE    ALLURE BLACK    PALOMASTONE LINEN    CARDOSO GRAY    TIVOLI WHITE

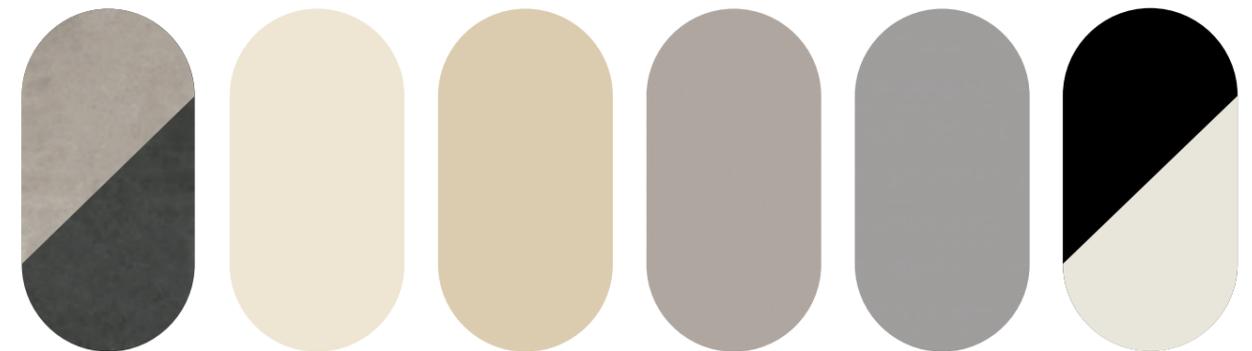
GAMA CROMÁTICA / CHROMATIC RANGE



GRASSI WHITE    DUCAL GOLD    MONTECLEMO BLACK    MONTECLEMO SILVER    BORGOGNA SILVER    ARIZONA SAND



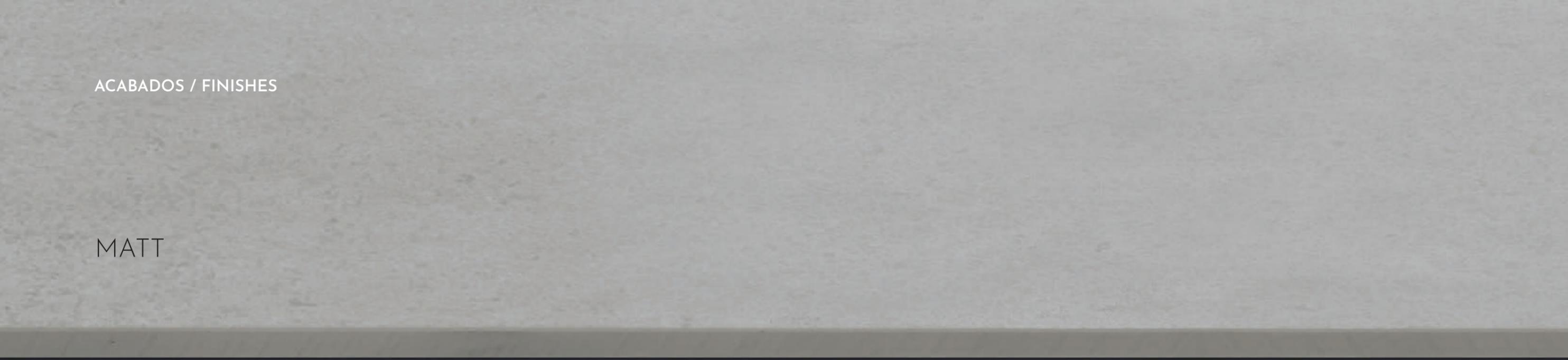
MARQUINA BLACK    COSMOPOLITA SILVER    COSMOPOLITA GRAY    BOREAL UMBER    BOREAL SAND    MOMA RUSTEEL



IMPERIA BLACK / SILVER    CROMIA WHITE    CROMIA IVORY    CROMIA SILVER    CROMIA GRAY    ALPI WHITE GRUM BLACK

ACABADOS / FINISHES

MATT



SOFT MATT



POLISHED



ESPESOR / THICKNESS



ACABADOS / FINISHES



MATT



SOFT MATT



PULIDO / POLISHED

FORMATO / FORMAT

126"x63"  
320x160

APLICACIÓN / APPLICATION



**REVESTIMIENTO:**  
Tanto interior como exterior.  
**FACHADAS.**  
**PAVIMENTO:**  
Tanto interior como exterior  
**MOBILIARIO.**

**WALL TILE:**  
Interior and outdoor.  
**FAÇADES.**  
**FLOORING:**  
Interior and outdoor  
**FURNITURE.**



**ENCIMERAS:**  
Para baño y cocina.  
**PAVIMENTO:**  
Tanto interior como exterior  
**MOBILIARIO.**

**COUNTERTOPS:**  
Kitchen and bath.  
**FLOORING:**  
Indoor / Outdoor.



**ENCIMERAS:**  
Para baño y cocina.  
**PAVIMENTO:**  
Tanto interior como exterior  
**MOBILIARIO.**

**COUNTERTOPS:**  
Kitchen and bath.  
**FLOORING:**  
Indoor / Outdoor.



CHARACTERISTIC CARACTERÍSTICA	STANDARD NORMA DE ENSAYO	DETERMINATION DETERMINACIÓN	AVERAGE VALUE VALOR MEDIO
Weight Peso	-	Weight / m <sup>2</sup> Peso por m <sup>2</sup>	6mm+ 14'95 kg/m <sup>2</sup>
			12mm+ 29'86 kg/m <sup>2</sup>
			20mm 49'75 kg/m <sup>2</sup>
Dimensional and superficial features Características dimensionales y superficiales	ISO 10545-2	Slab weight Peso de una tabla	6mm+ 76,3 kg
			12mm+ 152,9 kg
			20mm 254,9 kg
Water absorption Absorción del agua	ISO 10545-3	Admitted deviation: Average thickness Desviación admisible: Grosor medio	±5%
		Flatness Planitud	±0,35%
		Surface quality Calidad de la superficie	>95% free of visible flaws (Confirming) >95% Libre de defectos (Conforme)
Impact resistance Resistencia al impacto	ISO 10545-5	Coefficient of restitution Coeficiente de restitución	6mm+ 0'8
			12mm+ 0,91
Resistance to deep abrasion Resistencia a la abrasión profunda	ISO 10545-6		Average value 140 mm <sup>3</sup> Valor medio mm <sup>3</sup>
Linear thermal expansion Dilatación térmica lineal	ISO 10545-8		<7,0x10 <sup>-6</sup> °C <sup>-1</sup>
Thermal shock resistance Resistencia al choque térmico	ISO 10545-9		Resists Resiste
Linear thermal expansion Dilatación a la humedad	ISO 10545-10		0,01% (0,1mm)
Frost resistance Resistencia a la helada	ISO 10545-12		Resists Resiste
Chemical resistance Resistencia química	ISO 10545-13	Acids and bases Ácidos y bases	Matt/SoftMatt Mate: Class ULA-ULB Polished Pulido: Class 3-4
		Cleaning products and pool reactive agents Productos de limpieza y reactivos de piscinas	Class UA Clase UA
Resistance to stains Resistencia a las manchas	ISO 10545-14		Matt/SoftMatt Mate: Class 5 Polished Pulido: Class 3-4
Cadmium an lead release in mg/dm <sup>2</sup> Cesión de cadmio y plomo en mg/dm <sup>2</sup>	ISO 10545-15		Conforming Conforme
Colours' resistance to fading Resistencia de los colores a la luz	DIN 51094		
Static load for raised floors Carga estática en pavimentos elevados	EN ISO 12825	Average values Valores medios	
Volatile organic compounds emission Emisión de compuestos orgánicos volátiles	EN ISO 16000-9	Emission test chamber method Método de ensayo de emisión de cámara	
Resistance to cold liquids Resistencia a líquidos fríos	EN 12720	Furniture - Assessment of surface resistance to cold liquids Mobiliario. Evaluación de la resistencia de la superficie a los líquidos fríos	
Resistance to wet heat Resistencia al calor húmedo	EN 12721	Furniture - Assessment of surface resistance to wet heat Mobiliario. Evaluación de la resistencia de la superficie al calor húmedo	
Resistance to dry heat Resistencia al calor seco	EN 12722	Furniture - Assessment of surface resistance Mobiliario. Evaluación de la resistencia de la superficie al calor seco	
Flexural strength Resistencia a la flexión	ISO 10545-4	Breaking strenght Fuerza de rotura	6 mm+ 1556 N *
			12 mm+ 5500 N **
			20 mm 14000 N *
		Modulus of rupture Módulo de rotura	6 mm+ 54'5 N/mm <sup>2</sup> *
			12 mm+ 53 N/mm <sup>2</sup> **
			20 mm 52 N/mm <sup>2</sup> **

## HANDLING AND STORAGE

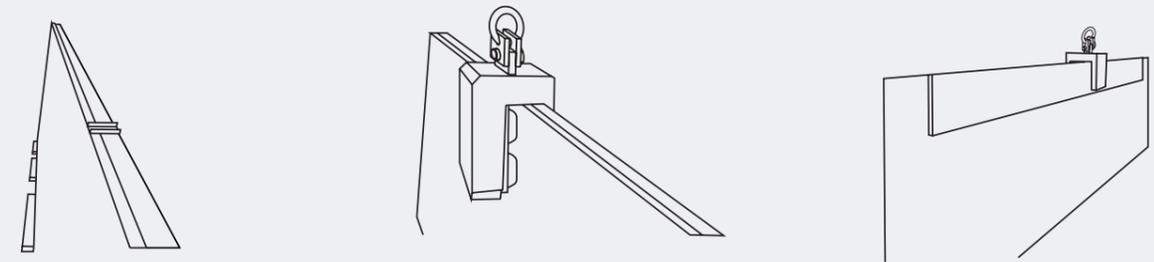
### Weights / Dimensions

Technical information	U.M.	6 mm	12 mm	20 mm
Slab surface	sqm	5.12	5.12	5.12
Slab weight	kg	77	152	253
Weight / sqm	kg	14	29	48
Slabs per A-Frame*	nr.	44	22	14
net sqm per A-Frame	sqm	232,32	116,16	71,68
A-Frame weight	kg	210		
Full A-Frame weight	kg	3388	3344	3752
A-Frame dimensions including packaging	mm	3300 x 750 x 1900		

### Slab handling

#### Transport with clamps

It's the best way to move 12 and 20 mm thick ASCALE slabs. Always pay attention to the movement and handling of the slabs to prevent splintering or breakage. ASCALE recommends using the following type of clamp for lifting and moving individual slabs:



The additional width of this clamp will prevent the slab from bending during handling to, thus, prevent undesirable breakage.

Recommendations:

- Clamping more than 2 slabs at the same time is not recommended.
- Make sure to cover all metal surfaces that may come into contact with the slab with adhesive foam tape.

If this type of clamp is not available, use a 2 cm thick plank of approximately 3 m x 20 cm so the clamp can catch 12 mm slabs.

Fixing the ends of the slab with jacks to the plank so the slab doesn't sag during handling is recommended.

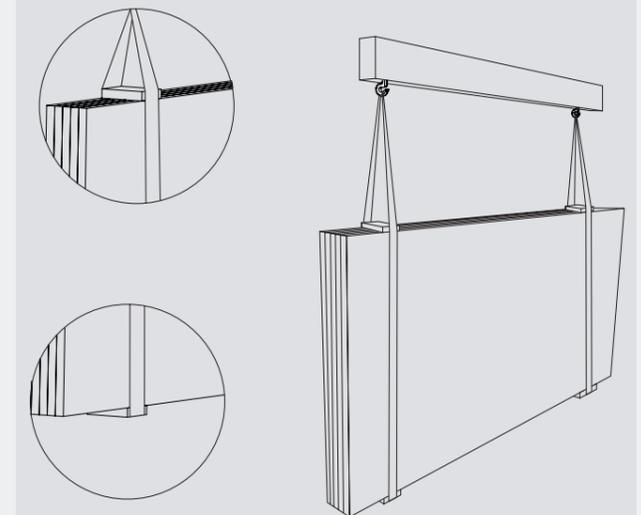
Position the plank to the rear of the slab to be lifted.

- 1) Place the clamp on the slab and plank.
- 2) Fix the clamp and lift the slab and plank with care.
- 3) Avoid sudden changes in direction.

#### Transport with slings

An adequate system for moving several slabs at the same time. Using canvas slings is recommended.

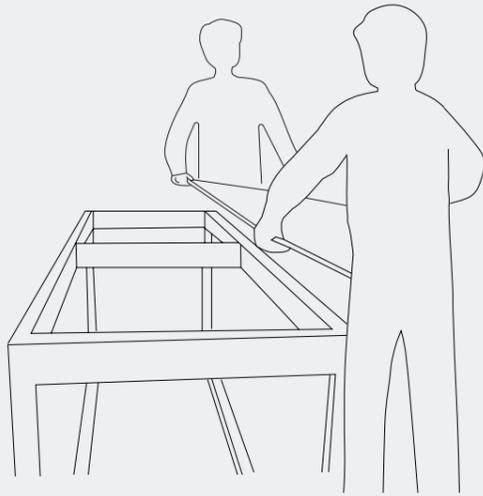
Metal slings must not be used to handle ASCALE slabs. Using wooden spacers is recommended to prevent direct contact between the slings and slabs.



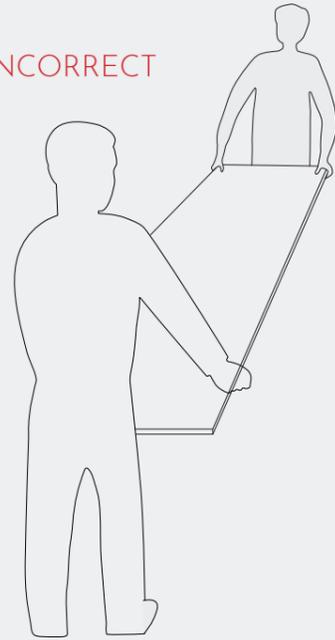
### Manual transport

Always keep in mind the weight of anything that needs to be transported. Get help from any type of support and never move slabs in a flat horizontal position as this may cause excessive buckling.

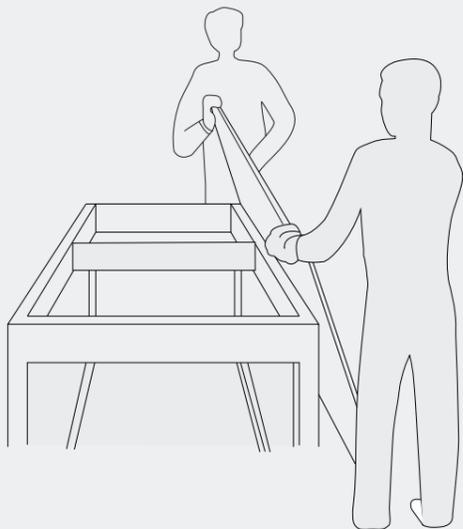
**✘ INCORRECT**



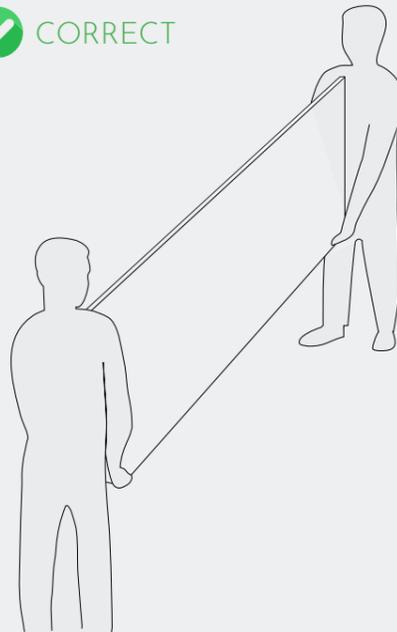
**✘ INCORRECT**



**✔ CORRECT**

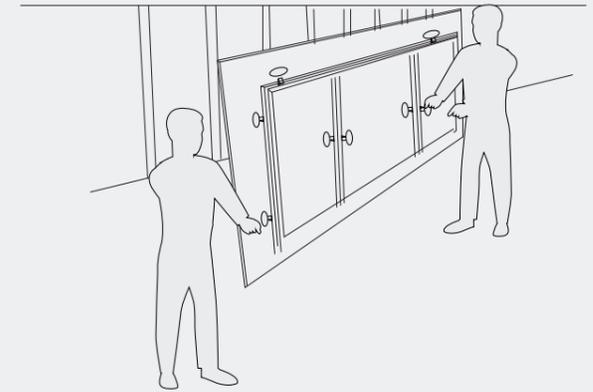
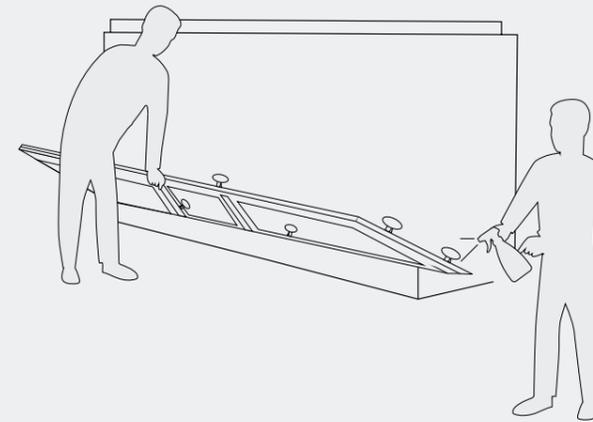
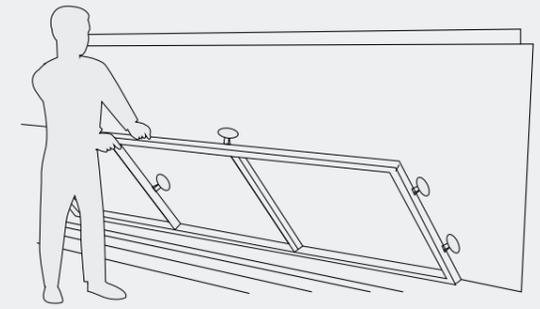


**✔ CORRECT**



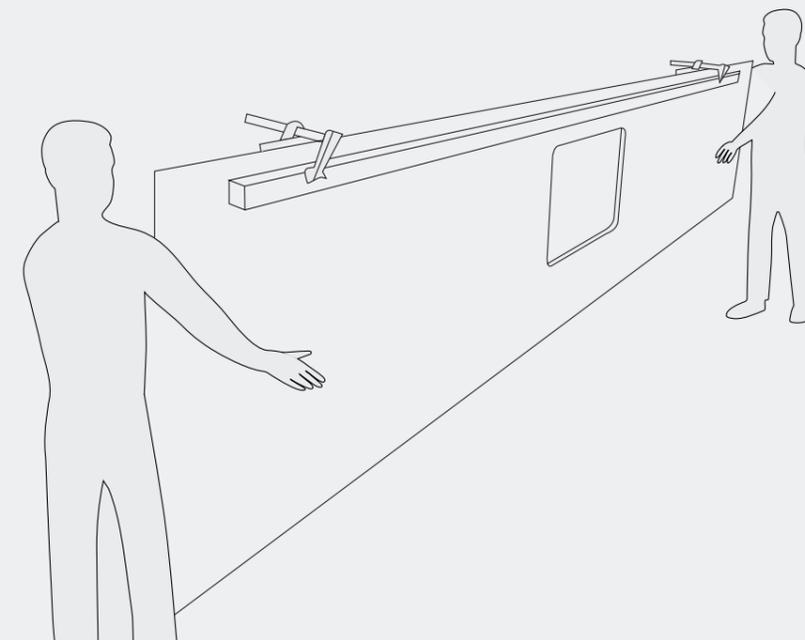
### Transport using a frame with suction cups

This is only recommended for 6 mm thick slabs. The suction cups may be placed all along the frame to adapt to the size of the piece to be moved. Using this tool is also recommended when installing the slab in the final application position.



If this type of frame is not available, an aluminum rod or similar element, secured with several jacks, can also be used. This will prevent the piece from bending too much during handling.

Fixing thin, long pieces (skirting, for example) with jacks to an aluminum rod for transport is also recommended.



## Packing

After production, the slabs are placed on A-Frame which are ideal for transport and storage after proper labelling.



A-Frame with ASCALE slabs must be loaded, unloaded and moved using a proper lift truck, crane or other handling mechanism.

Whenever handling or moving, make sure the load is balanced.

If possible, keep your ASCALE slabs on the same A-Frame they came on. Any subsequent handling must be by using adequate trestles or rails (wooden or metal) with proper protection to vertically support the slabs (wooden, plastic or rubber) to prevent chips and dents at the support point.

## Storage

When storing slabs on A-Frame not supplied by us, using a continuous support base or at least one with four support points for the slabs is recommended. This base must be rigid (preferably made of wood). This will prevent splintering on the edges of the ASCALE slabs.

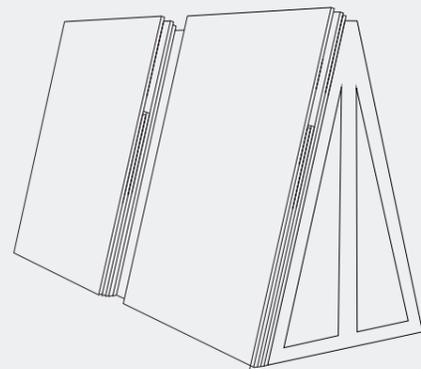
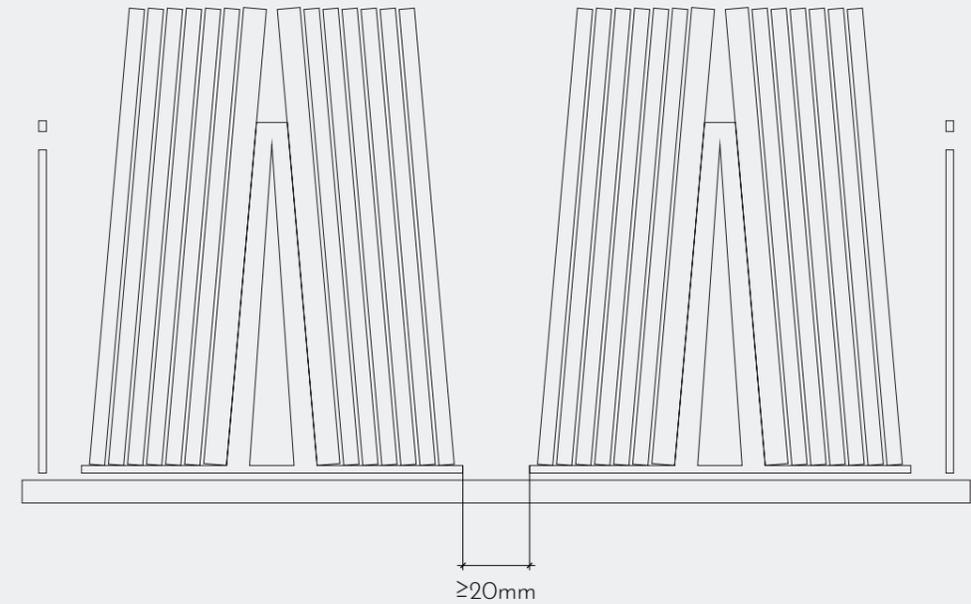
Make sure the ASCALE slabs have at least three support points (one in the middle and two on the sides).

If storing in the open air, cover the slabs with waterproof fabric.

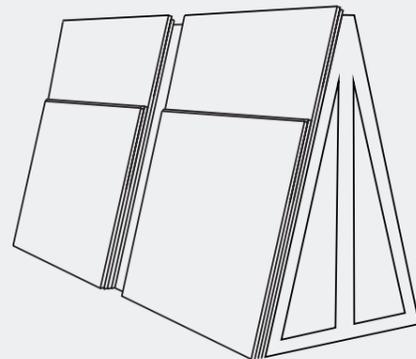
Cut parts may have sharp edges and therefore have to be handled with care and with suitable guards.

The cut material must be packed with cardboard or similar protection at the corners and with cushioning panels at the perimeter edges (with adequate thickness) to protect against shocks.

If the product is not packed properly, breakage may occur.

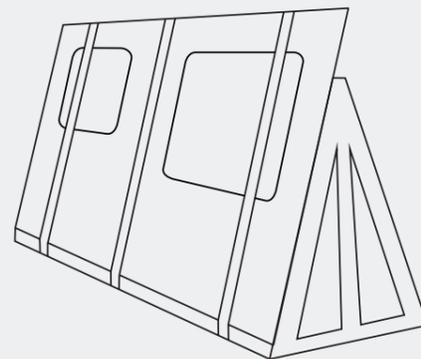


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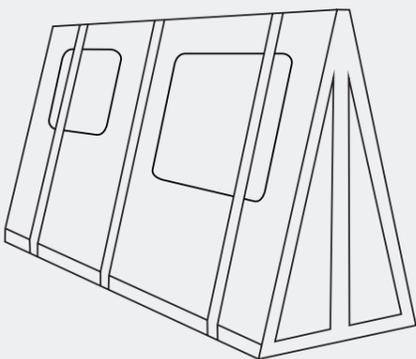


✔ CORRECT

"Avoid resting large boards on smaller boards:"



✘ INCORRECT



✔ CORRECT

"Check that the A-Frame or base on which the boards rest is larger than the surface of the board:"



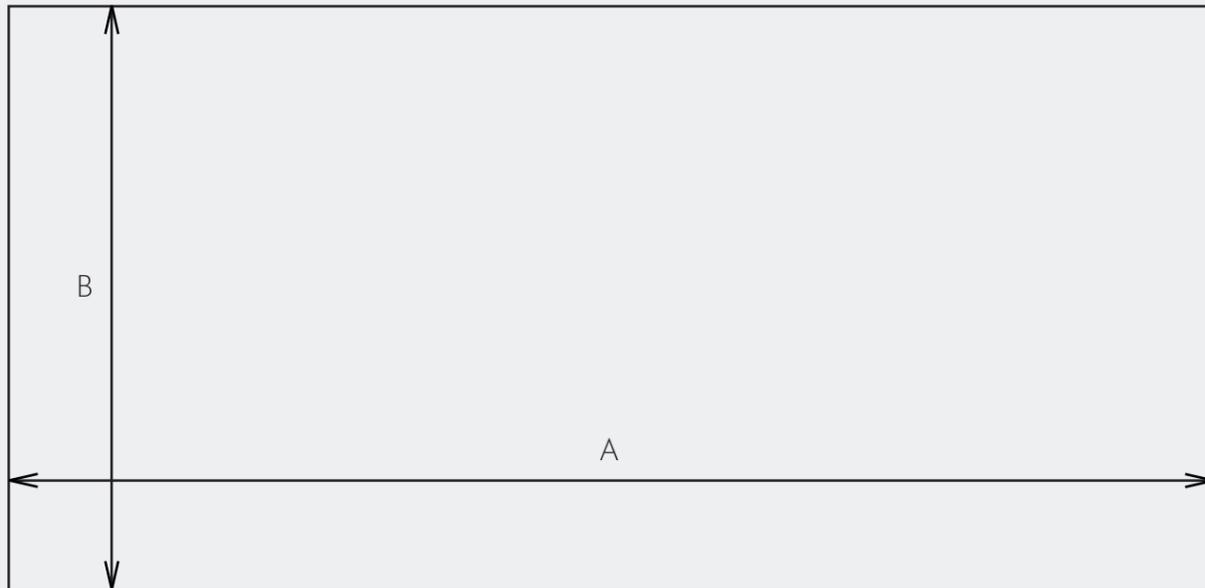
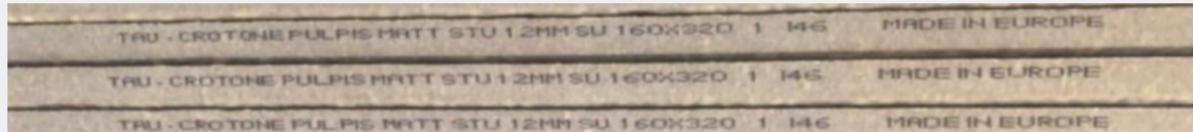
## RECEPTION AND QUALITY CONTROLS

ASCALE controls the slabs in accordance with the highest standards of quality. Even still, always inspect the material received before starting any work by following these steps:

- Check the outside of the packaging (no visible blows or damages).
- Check that everything corresponds between the transport document, order and material received. The product code is printed on the side edges of each slab.
- Visually inspect the slabs for possible surface defects: fissures, stains, colour fading, variations in shine and imperfections. An inspection against the light is highly

recommended.

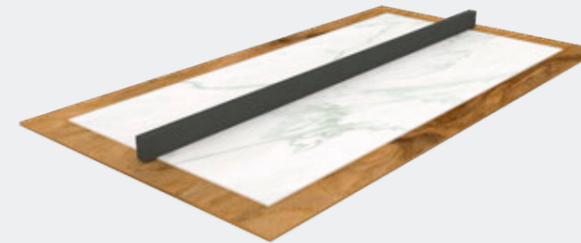
No claims will be accepted for installed or manufactured material when defects were already present upon delivery of the material. Marble workers are responsible for determining whether the slabs are adequate for use. If they are not adequate, the supplier must be contacted immediately so they may be exchanged before the slabs are cut or modified in any way.



Dimensions	Length mm (A)	Width mm (B)
For guidance only	3240	1630
Useful for 6 mm	3197	1597
Useful for 12 mm	3200	1600
Useful for 20 mm	3200	1600

## Flatness

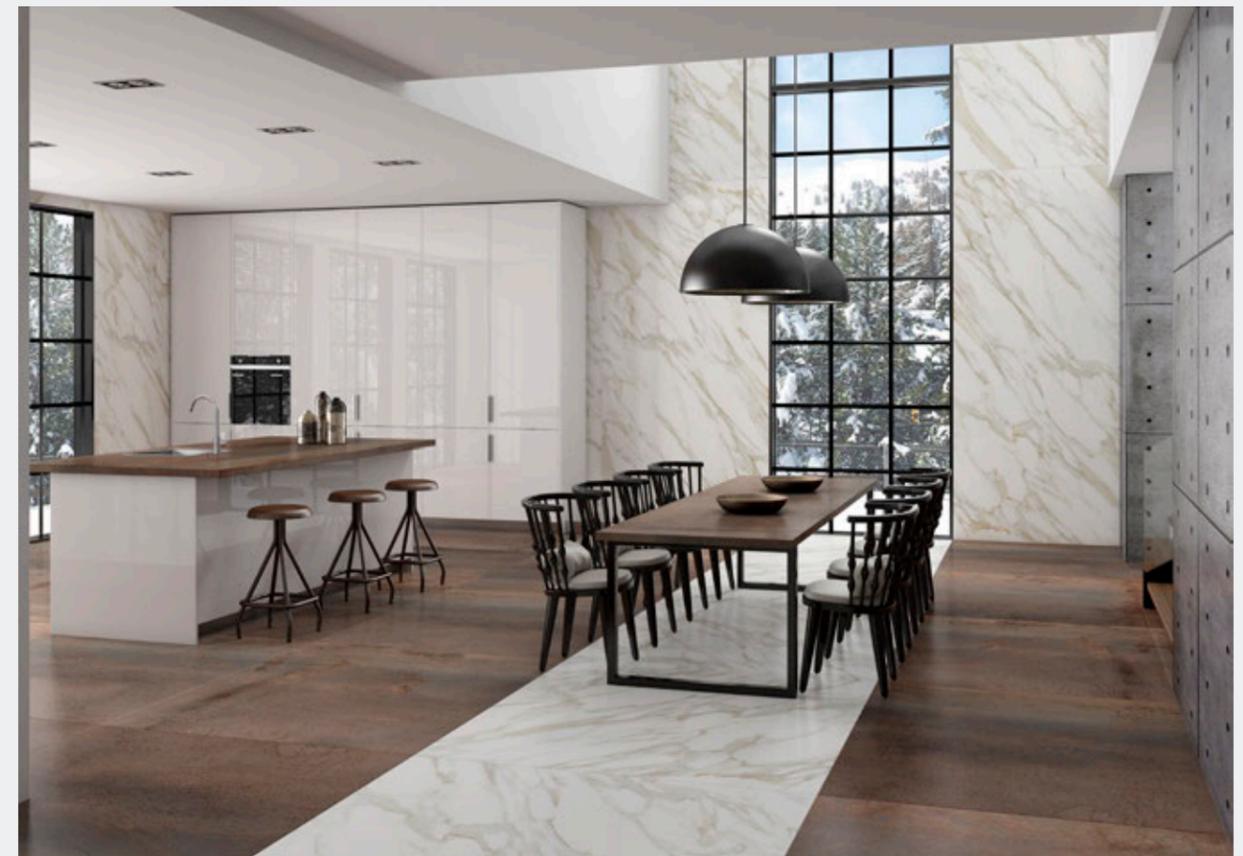
To check the flatness of a slab, position it over a completely flat horizontal base free of any residue.



Maximum slab width tolerance: 2 mm  
Maximum slab length tolerance: 4 mm

## Slab identification

Each slab is affixed with a label indicating important information to ensure their traceability such as the model, tone and production date. Keep or record the label for future reference.



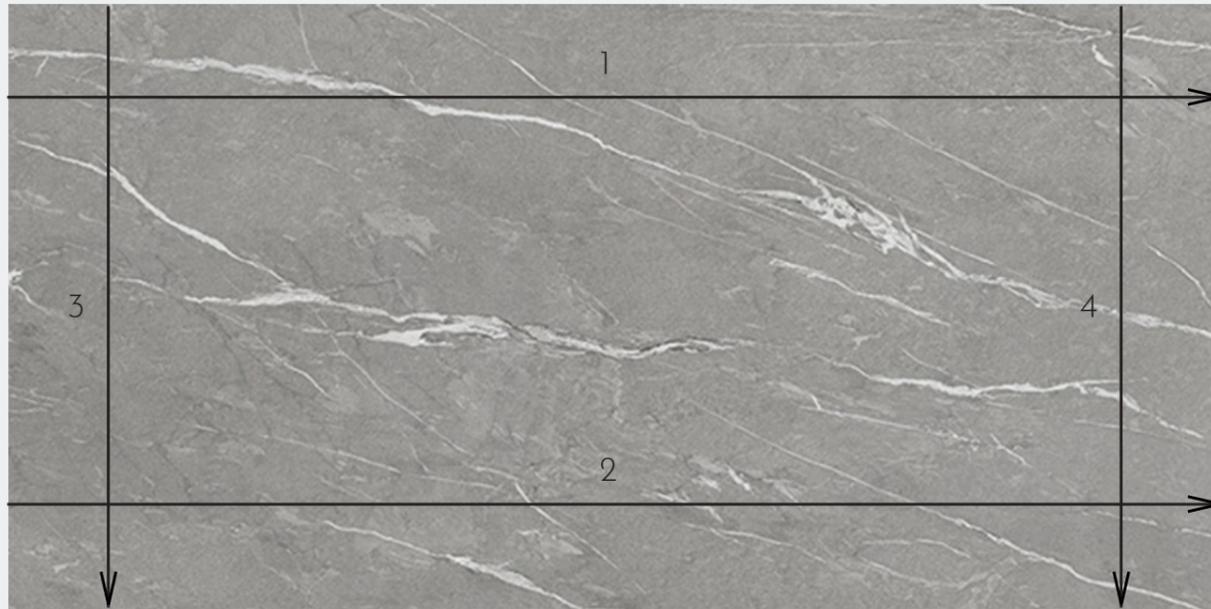
## CUTTING PARAMETERS AND RECOMMENDATIONS

### Preliminary information

Before working with the slabs, always make sure the entire slab is supported on the bench and the bench is free of any shards. The slab must be completely flat.

To release any strain on the raw slab prior to handling, correct the edges by cutting some 1.5 cm on each side.

Recommended sequence for strain release cutting:

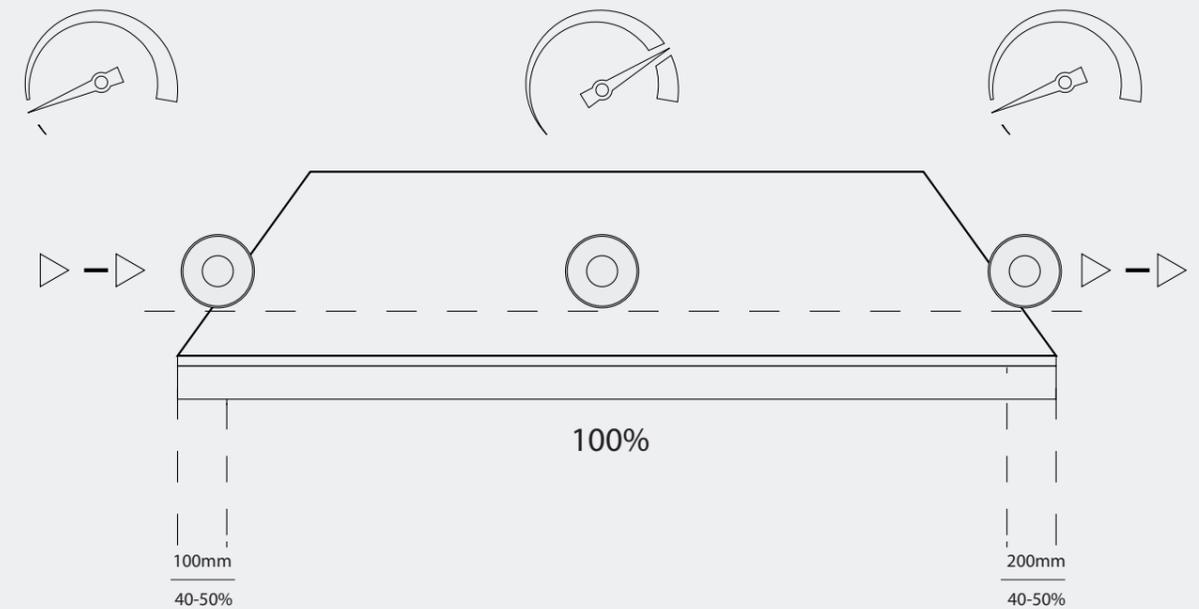


### Cutting with a cutting blade

Cutting ASTALE slabs with a segmented grinder is recommended. The cutting parameters are as follows:

These speeds must be reduced by 50% at the beginning and end of the cut (approximately 15-20 cm at the start and end of the cut):

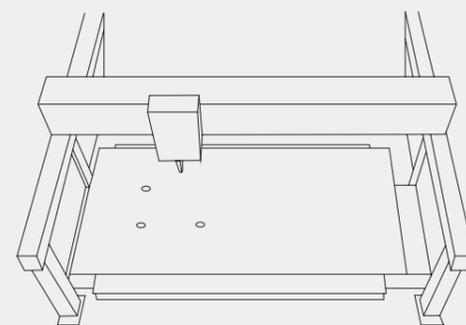
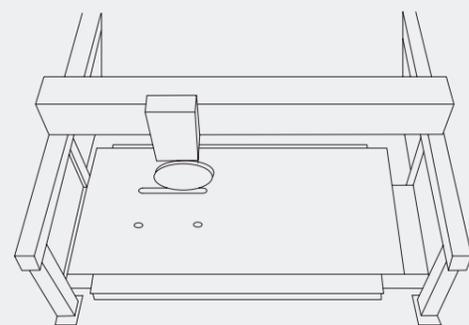
Blade	RPM	Forward speed (m/min) for 6/12/20 mm thicknesses	
		Straight cut	45° cut
300 mm	2300-2500	1,6/1,2/0,8	0,9/0,7/0,6
350 mm	2000-2200	1,6/1,2/0,8	0,9/0,7/0,6
400 mm	1700-1900	1,6/1,2/0,8	0,9/0,7/0,6



## CUTTING PARAMETERS AND RECOMMENDATIONS

Due to the hardness of ASCALE material, the grinder should be cooled well. The cooling jet must be continuous and always target the cutting point where the blade will be in contact with the slab:

Sink holes: before making the cutouts, you must drill the corners of the holes a bit with a radius of at least 5 mm.



## Waterjet cutting

The entire surface of the slab must be supported on the ribs of the waterjet. The ribs must be as close as possible and must be in perfect conditions.

For perimeter and outer cuts, first discharge water off the slab. Then, make the first hole in the slab at 700 bar pressure for 10 seconds. After that, increase the pressure to around 3900 bar to begin cutting.

If the machine software and design allow, finishing the cut as close as possible to the edge of the slab is recommended.

Other recommended parameters:



Head	0.88 mm
Abrasive flow rate	500 gr/min
Cutting speed (6 mm+)	1.2-1.8 m/min
Cutting speed (12 mm+)	0.7-1.0 m/min
Cutting speed (20 mm+)	0.3-0.5 m/min

## CUTTING PARAMETERS AND RECOMMENDATIONS

### Instructions for CNC use

Make sure the suction cups are in good conditions. They must be placed around the holes and on the extra piece as well as in the necessary points to reduce bending and stress in the material.

Milling cutters: drill a hole prior to cutting at the point furthest away from the edge of the slab as possible. Recommended break speed of 10 mm/min. Cut the desired shape beginning with that drill hole.

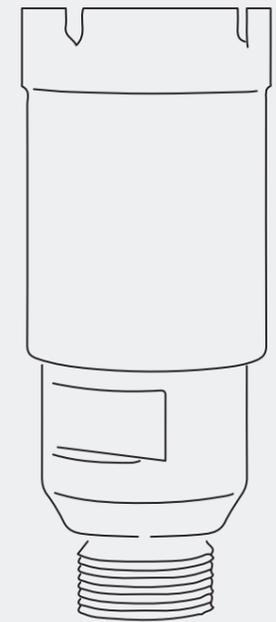
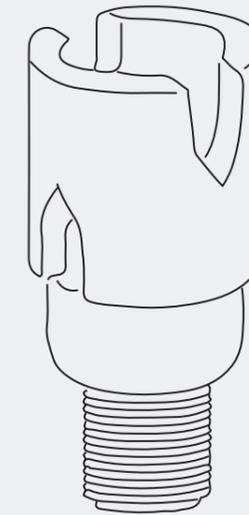
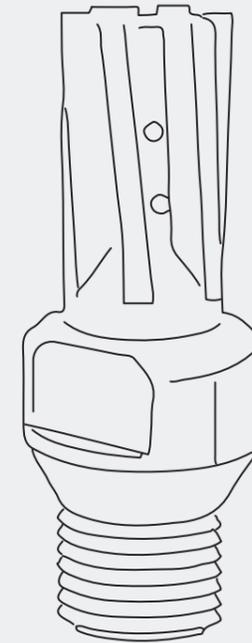
Do not use the oscillation option during cutting; this could cause splintering. The RPM and cutting speeds are determined by the tool manufacturer.

Router bits: make a hole first to being the rabbeting. Rabbet 0.5 mm during each of the first 2 attempts. After that, you can rabbet up to 2 mm each time.



The most precise parameters will be recommended by the tool manufacturer; however, the following is for guidance only:

Tool	RPM	Forward (mm/min)
19-22 mm grinder	4500-5500	150-250
35 mm drill bit	3500-4000	10
Router bit	6000-9000	400



### Handicraft

The slabs must be adequately secured during any manual die cutting. The support must be sufficiently rigid, perfectly flat and in good conditions.

and move towards the back side. Working with cooling water and masks is recommended to prevent inhaling the dust.

The die cutting must always begin on the top

## COUNTERTOP DESIGN RECOMMENDATIONS

Certain recommendations should be followed when designing a countertop. Here are a few cutting, design and architecture tips to help reduce problems caused by breakage, fissures or deformations in the final product.

ASCALE recommends using 12 mm and 20 mm thickness material when producing countertops.

### Planning

#### General Considerations

To the extent possible, the following indications must be observed:

- Make sure the support is in the final position.
- Measure and project the size, shape and location of the surface. Measuring precision is essential for proper production and installation.
- Plan production with rectangular pieces that are as big as possible with the least amount of slab waste.
- Pre-mark the furniture with the location of any joints to be placed on the countertop. Joints should be placed on complex seams. Check that the surface is even in the places where joints will be added.

- Check the location and available space for any accessories to be placed in the countertop considering the distance between them and the areas around them.

- Do not cut visible edges on the countertop in accordance with slab edges given that the raw slab edge is not appropriate as a final slab edge.

#### Graphics

If the project includes the use of several slabs, check the graphic orientation of the material.

If several slabs are to be used for graphic continuity (bookmatch effect, for example), pay attention when cutting the pieces that will be joined together. As occurs with natural stone, this type of work may show slight isolated deviations in the graphics even when done properly. ASCALE will not accept claims for this reason.

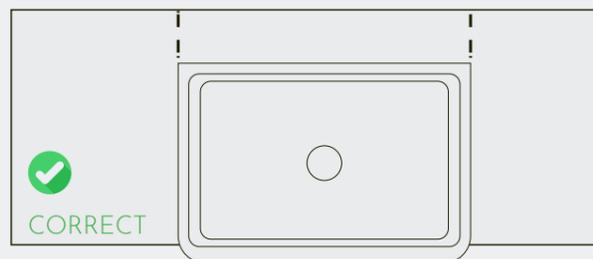
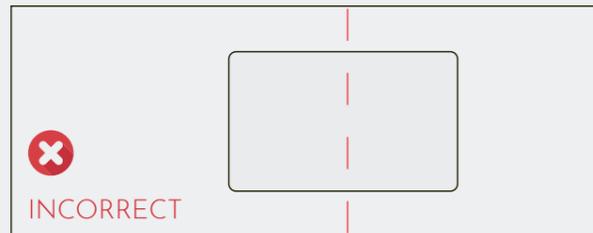


## Design and Shapes

If the countertop design so allows, avoid ASCALE countertops with unbalanced weights:

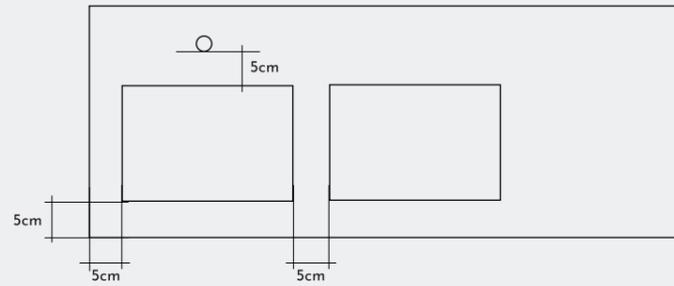


Irregular cuts are also not recommended such as for a "farmhouse sink". In these cases, add joints to the countertop design:



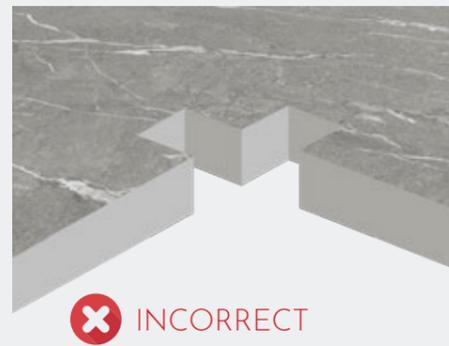
## Hollows

The minimum distance allowed between holes or cutouts and/or from the edge of the slab is 5 cm. If gas fire is used, leave 8 cm between the hob cutout and the backsplash.



The inner angles of the cutouts must have a constant radius of 5 mm.

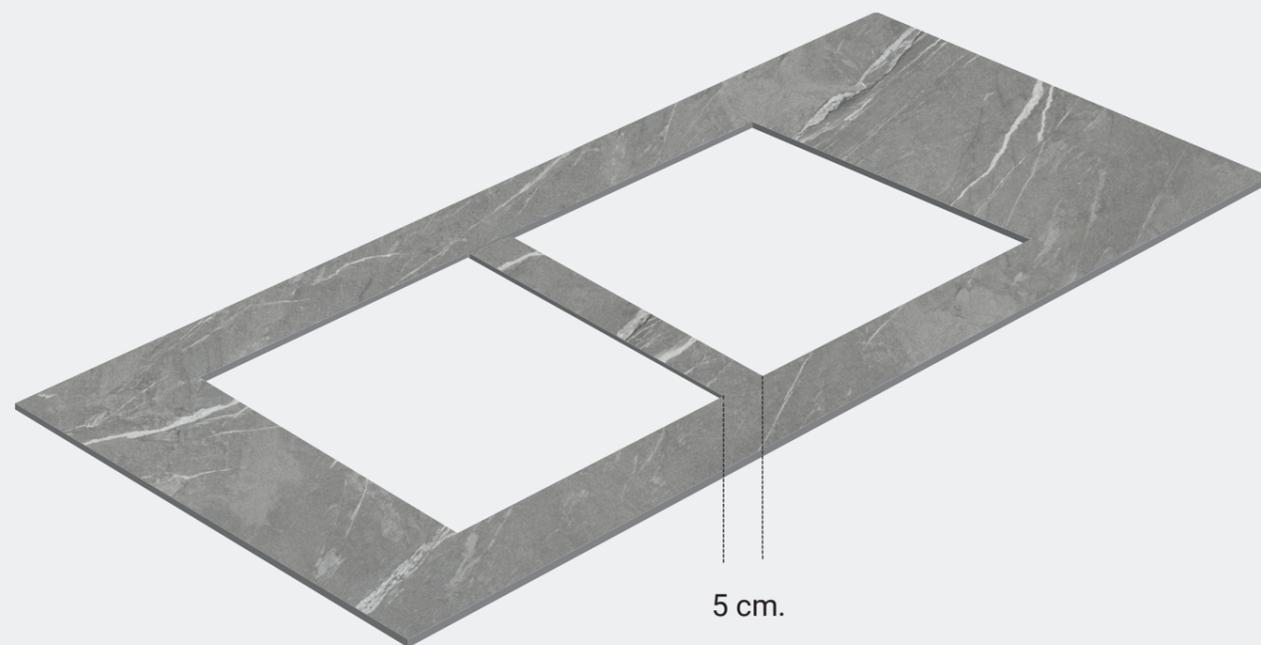
If cutting with a grinder, drill holes must be made in each of the corners with a  $\varnothing 10$  mm drill bit prior to the cuts on the straight sides.



After cutting, the edges of the cutouts for vitroceramic cooktops, sockets or switches are often a bit sharp or irregular; therefore, beveling them with special diamond or abrasive sanders is recommended.

Polishing the edges of the cutout is recommended to eliminate any micro-fissures created when cutting. The more intense this treatment is, the less risk there will be in the future.

If large-size cutouts are planned (more than 70 cm), place a pre-cut bar approximately 5 cm wide in the centre of the opening in the direction of the depth (which must be removed after installation) to make any movement in the piece less critical.



## Joints

An empty space of at least 3 mm between the product and the supporting wall and approximately 1 mm between juxtaposed slabs must be planned during the work as expansion joints.

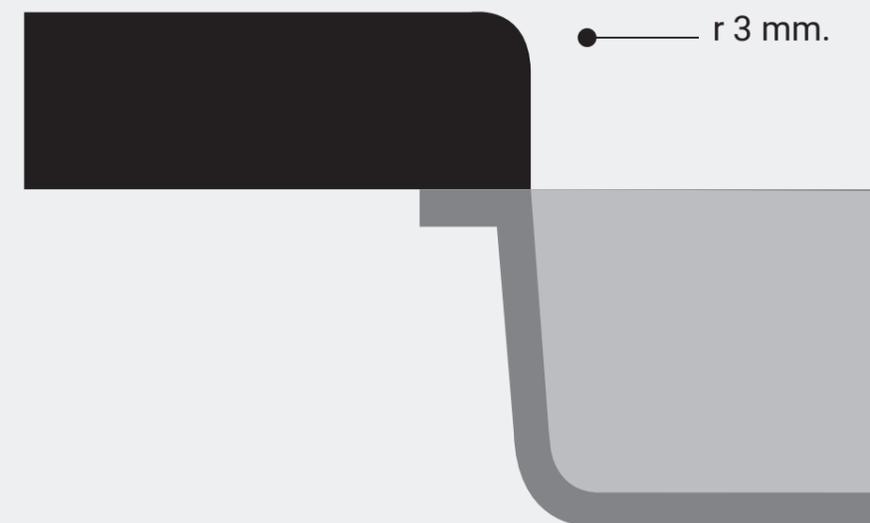
Due to the nature of ASCALE slabs, micro-bevelling is recommended for all joints.



## Sinks and hobs

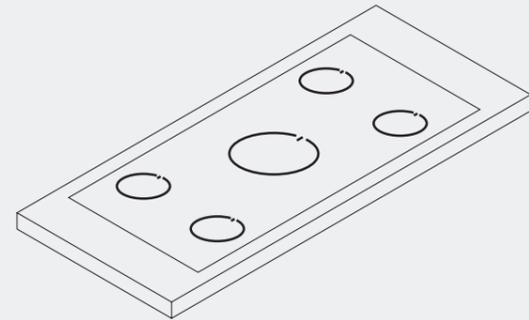
### Undermount sinks

To reduce the risk of splintering at the edges to a minimum, a round edge or even a corner cove edge with a radius of at least 3 mm is recommended.

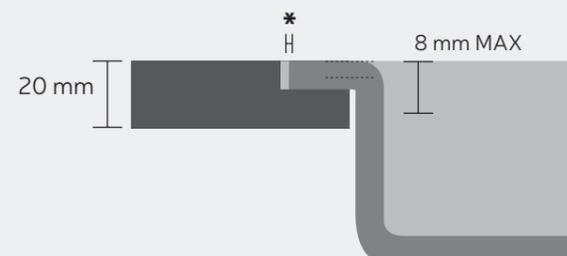
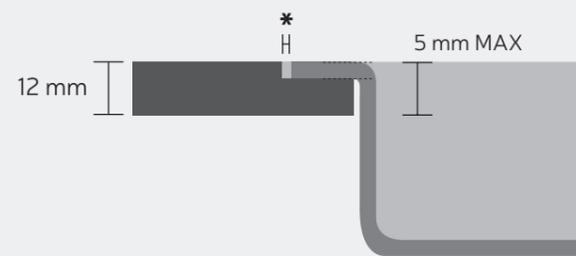


### Topmount sinks and hobs

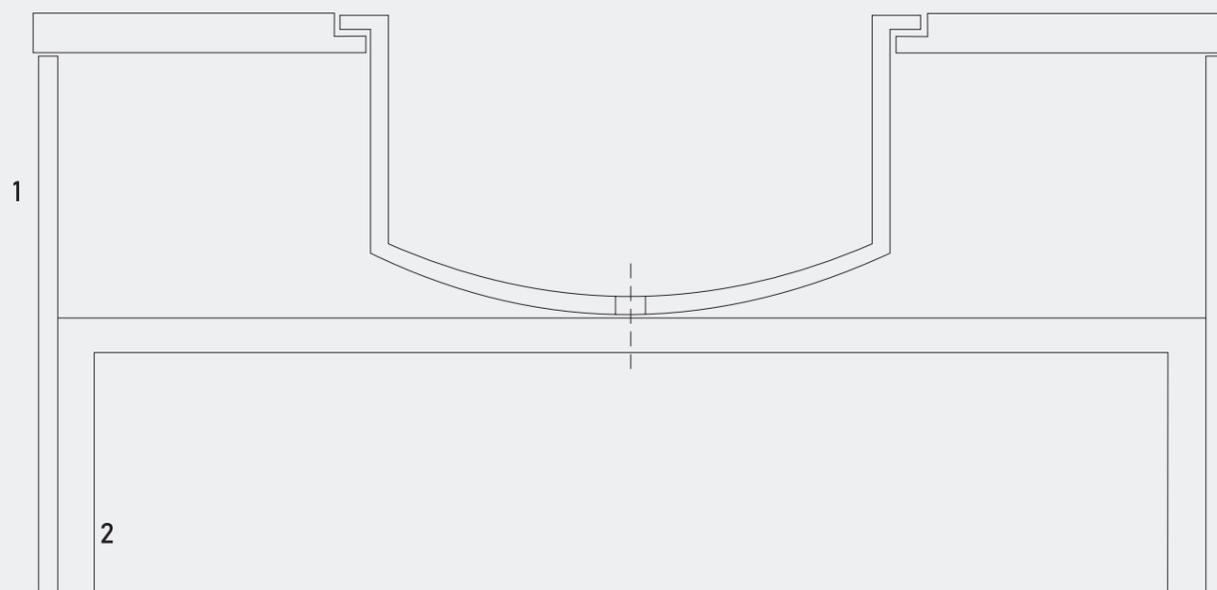
Topmount sinks and induction or vitroceramic hobs supported on rabbets made on the surface of the countertop are only recommended for 12 mm and 20 mm thick countertops with the following maximum rabbet depths:



Slab thickness	Maximum rabbet depth
12 mm	5 mm
20 mm	8 mm



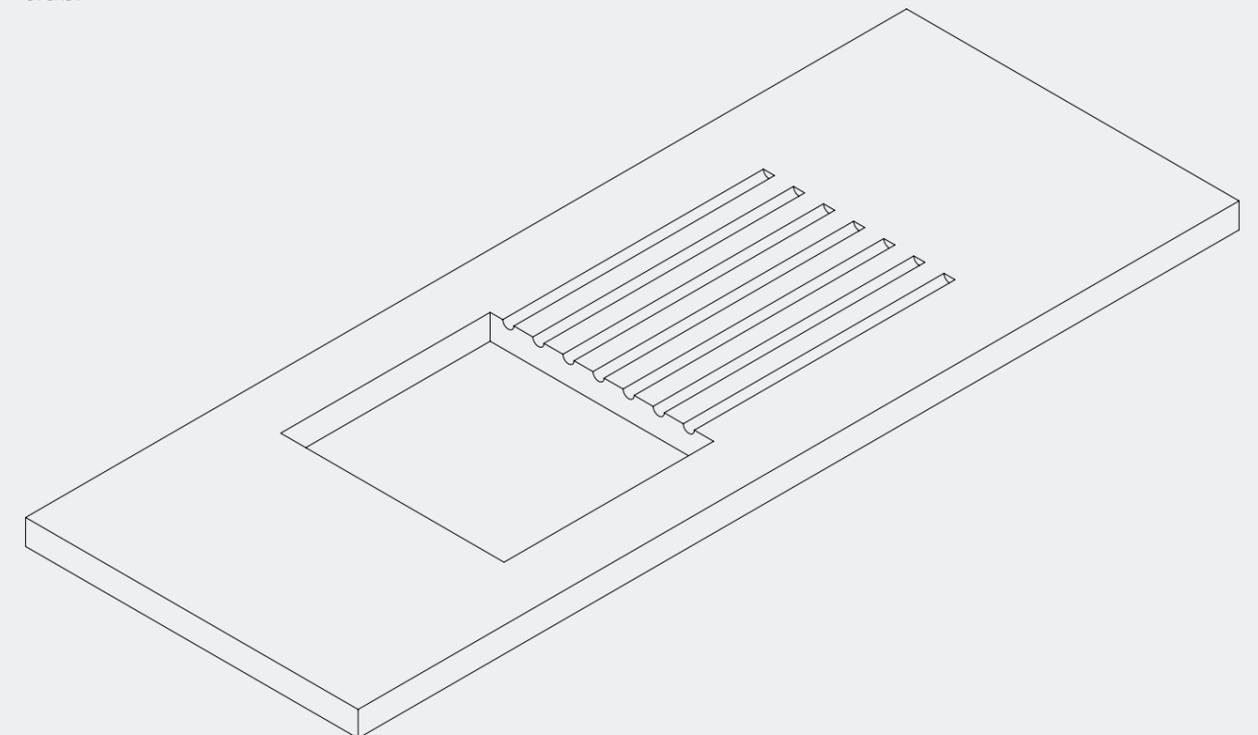
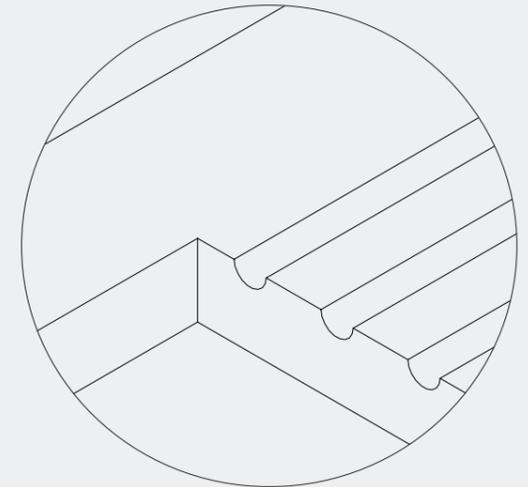
For large-size sinks, you might need to place a supporting rod under the sink:



### Drains

The best result for this work is achieved in full body materials where the finish on the indents looks just like the normal slab surface. Considerations for this type of work:

- Procedure: Make the rabbet as per the indications in point "Cutting Recommendations" in this manual, beginning at the sink cutout. Sand the indents by hand to remove any marks left by the router bit. Finally, treat the indents with a sealant to prevent water absorption in that area.
- The depth of the channels must be limited to 25% of the thickness: 3 mm for 12 mm and 5 mm for 20 mm.
- The minimum distance between channels shall be 1 cm.
- Plus, the rabbeted area will need additional reinforcement on the back of the slab.





## Edging

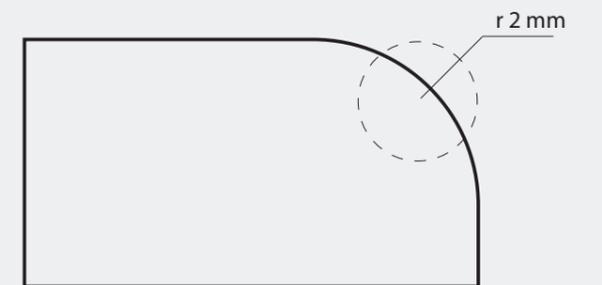
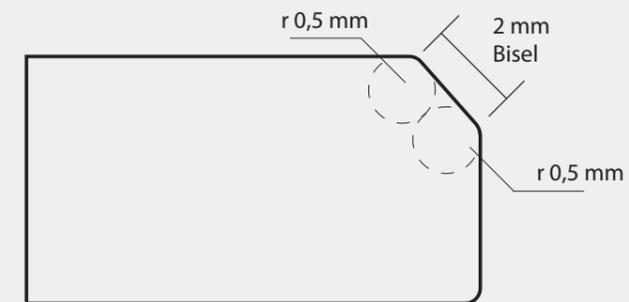
ASCALÉ recommends countertop edging to optimize the look and functionality of the finish.

Exposed countertop edges must be bevelled to enhance the behaviour on impact and prevent cutting. The more bevelled it is, the higher the resistance to impact.

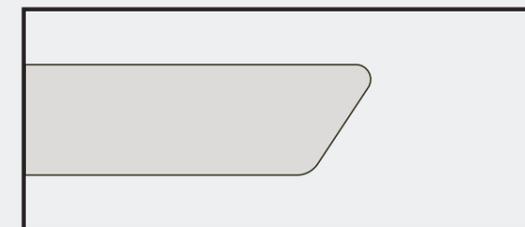
The minimum bevel shall be 1 mm when hidden and not exposed and 2 mm with

rounded grip tiles when seen and exposed. A rounded bevel is recommended, especially on edging with a high risk of impact such as sinks and dishwashers.

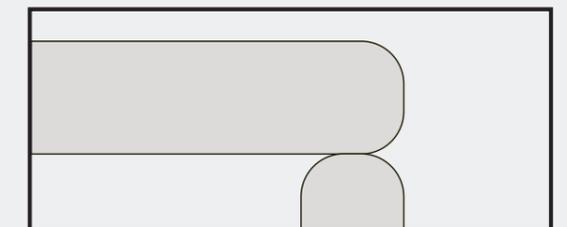
Different possible edgings:



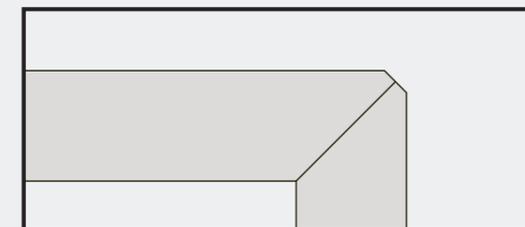
Canto pico flauta



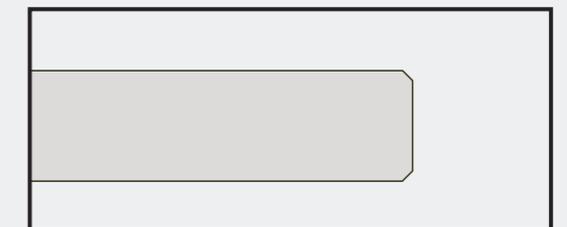
Canto a testa



Cantoinglete recto



Doble canto cuadrado recto



## Substructure and installation

12 mm and 20 mm (with reinforcement mesh) thick ASCALE slabs do not require adhesive on a continuous structural support even though it is a habitual practice.

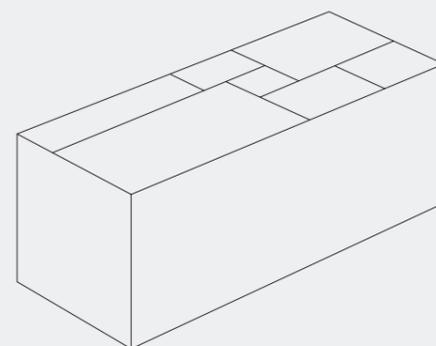
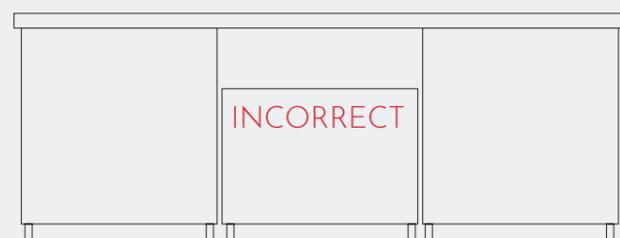
The support material must be rigid, dimensionally stable for the conditions of use and have a thermal expansion coefficient that is similar to the slab. For outdoor countertops, do not use wooden supports or any recycled materials or materials with a thermal expansion coefficient that is too different to the sintered stone material (6-7 M°K-1).

The countertop surface must be perfectly supported as any unsupported point may weaken the piece produced. Therefore, never apply isolated drops of silicone but rather extend the adhesive all across the supporting area.

12 mm thick slabs must be fixed to a base (total perimeter of the perfectly aligned furniture or substructure) in a 600 x 600 mm square.

20 mm thick slabs must be fixed to a base (total perimeter of the perfectly aligned furniture or substructure) in a 900 x 900 mm square.

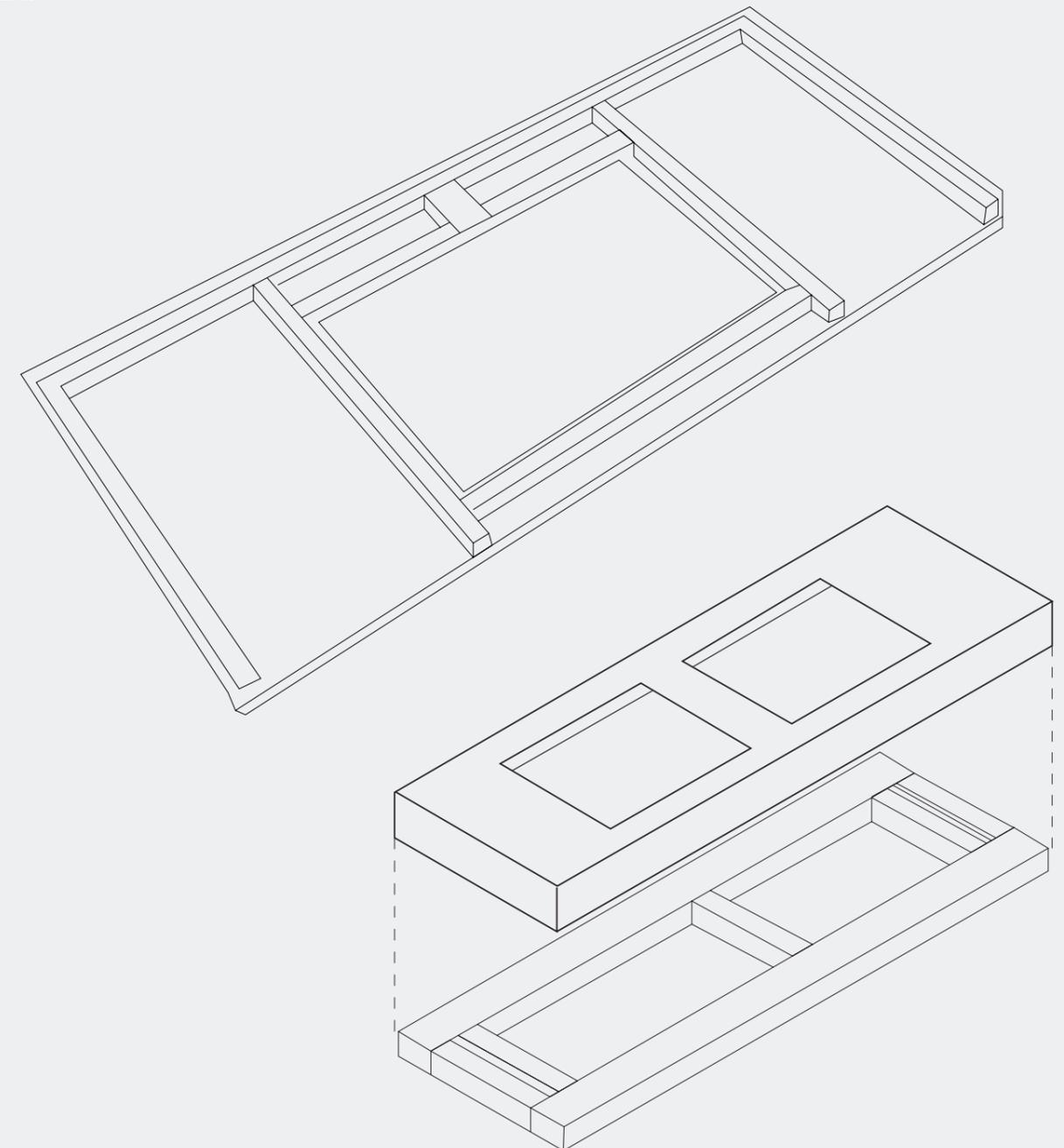
Continuous surface reinforcements such as an integrated board on the furniture should be placed on countertops with straight edge designs where the substructures cannot be hidden.



## Reinforcements

These reinforcements are important because they give the countertop more rigidity and stability. The reinforcements must be distributed all along the perimeter so they are directly supported on the sides of the kitchen furniture. For holes for faucets, wooden or similar reinforcement is recommended as it will distribute the tension generated during daily use.

For countertops with 45° edges, the edge reinforcements must be made with the remains of the slab used or dense granite. Do not use reinforcements made of other materials (quartz, for example) as the thermal expansion may cause curling or openings in the edging.



## Overhangs

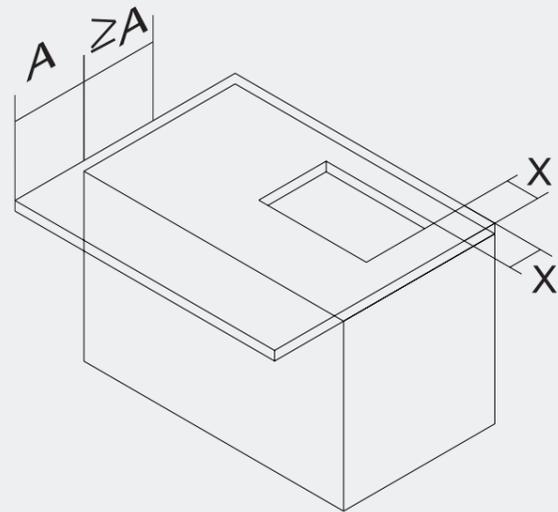
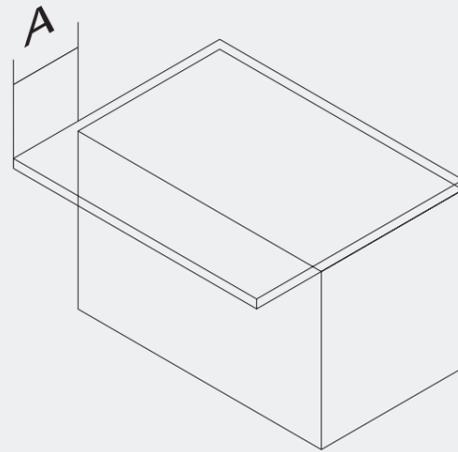
ASCALE slabs in 12 and 20 mm thicknesses allow overhangs.

Overhangs are not recommended when there are cutouts or holes in the slab at least 15 cm from the edge of the furniture; for holes or cutouts at a distance of 15-60 cm from the edge, the length of the overhangs must be reduced by 50% with respect to the following

indications.

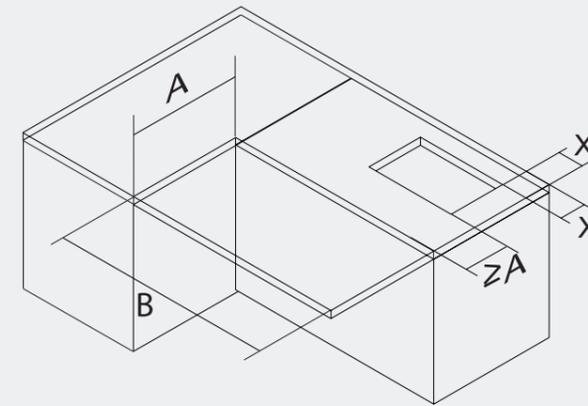
ASCALE recommends:

SINGLE OVERHANG		
thickness	12 mm	20 mm
	$A \geq 15 \text{ cm}$	$A \geq 30 \text{ cm}$



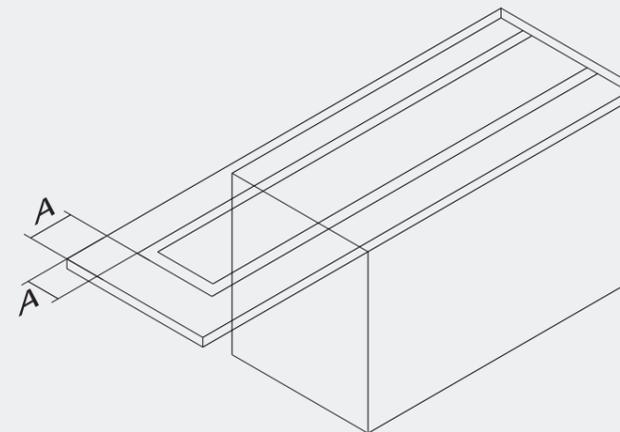
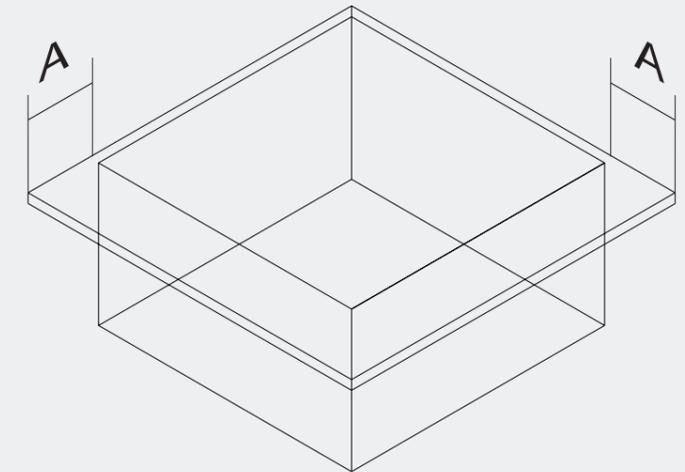
SINGLE OVERHANG WITH A CUTOUT		
thickness	12 mm	20 mm
	$A \leq 15 \text{ cm}$	$A \leq 30 \text{ cm}$
	$X \geq 10 \text{ cm}$	$X \geq 10 \text{ cm}$

44



PARTIAL OVERHANG		
thickness	12 mm	20 mm
	$A \leq 15 \text{ mm}$	$A \leq 30 \text{ mm}$
	$B \leq 80 \text{ cm}$	$B \leq 100 \text{ cm}$
	$X \geq 10 \text{ cm}$	$X \geq 10 \text{ cm}$

DOUBLE OVERHANG 1		
thickness	12 mm	20 mm
	$A \leq 15 \text{ cm}$	$A \leq 30 \text{ cm}$



DOUBLE OVERHANG 2		
thickness	12 mm	20 mm
	$A \leq 15 \text{ cm}$	$A \leq 30 \text{ cm}$

45

## ADHESIVES

Adhesives are used when joining ASCALE slabs on countertops, the colour of which shall be compatible with the body colour of the ASCALE material used. Please note that the surface colour of some ASCALE models is not exactly equal to the slab body. This is important as the body colour is exposed upon polishing the edging.

The different manufacturers of adhesives for this use recommend their own products that most closely match the colours of ASCALE models. For more information on adequate colours, ask your sales representative or your adhesive supplier.

## CLEANING, MAINTENANCE AND PRECAUTIONS OF USE

### Daily maintenance

Simply use a damp microfibre cloth for daily surface cleaning. Using a neutral liquid detergent with a soft sponge or microfibre cloth is suggested for occasional cleaning. Rinse with warm water and dry with a hand towel or similar material.

### Persistent stains

The most persistent stains can be removed using a slightly abrasive sponge and applying a specific stain remover product for the type of stain to be removed (see table).

Using metal scourers is not recommended as they would leave metal traces that must later be cleaned.

### Precautions of use

Removing any staining liquids (i.e. coffee, tea, red wine), caustic substances (i.e. oven detergents), acidic or colouring substances as quickly as possible and then rinsing the surface with water is recommended.

Do not use ceramic knives directly on the surface in any finish. Use a cutting board in such case. Avoid any blows to the most delicate areas such as edges and corners.

### Contact with hot surfaces

ASCALE surfaces are specially resistant to thermal variations. Hot pans may be placed directly on the slabs without any risk of staining. However, using trivets is recommended so they last longer.

**Table with recommended cleaning products**

Type of stain	Product (over a Matte-Soft Matte finish)	Product (over a Polished finish)
Grease	Neutral / Alkaline	Neutral / Alkaline
Oil	Neutral	Neutral
Citric	Neutral	Neutral
Fruit juice	Neutral	Neutral / Alkaline
Soft drinks	Neutral	Neutral
Coffee / tea	Neutral	Neutral / Alkaline
Wine	Neutral	Neutral / Alkaline
Vinegar	Neutral	Neutral / Alkaline
Sauces / Ketchup	Neutral / Cream or powder	Neutral
Ice cream	Neutral	Neutral / Alkaline
Wax candle	Solvent	Solvent
Calcareous residue	Acid	Neutral / Acid
Oxides / rust	Neutral / Acid	Neutral / Acid
Metal scratching	Neutral / Acid	Neutral / Acid
Permanent marker	Cream or powder	Neutral / Alkaline
Resins	Solvent	Solvent

### Legend:

Neutral detergent: generic liquid products with a neutral pH  
 Alkaline detergent: degreasers in general, ammoniac and similar  
 Acid detergent: descaler, stripper for cement residue and similar  
 Solvent detergent: turpentine, nitro solvent, alcohol, acetone and similar  
 Cream or powder detergent: a product for hard surfaces

### Warnings:

Always respect the precautions of use, dosage and times recommended by the detergent manufacturers. Never use products with hydrofluoric acid or derivatives.

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