

Technical Guide,
Specifications, Application
and Processing Instructions
for Sintered Stones.

PARADYZ
TRI-D 

**SINTERED
STONES**

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Introduction

TRI-D sintered stones is a new category of products by Ceramika Paradyż, which has been renowned for over 30 years for its bold and modern design, being highly valued by both professionals and conscious customers.

Through full-body colouring, TRI-D sintered stones retain their colour not only on the surface but also in the cross-section, making it an ideal finishing material for countertops, kitchen islands, windowsills, fireplaces, and other spatial objects. The sintered stones can be mechanically processed like natural stone, while being resistant to scratches, high temperatures, chemicals, staining from food items, and UV radiation. In addition to various surface decorations, some patterns of TRI-D sintered stones, with a thickness of 20 mm, feature decorative mineral veins visible in the cross-section of the slab.

The timeless design inspired by natural stone gives spaces a unique character and enhances their functional qualities. Moreover, the complementary nature of selected sintered stones with tiles from the Monumental collection allows for a cohesive arrangement both indoors and outdoors, thanks to their resistance to weather conditions.

TRI-D sintered stone is available in two formats: 1600x3200 and 1230x3200, and two thickness values, i.e. 12 and 20 millimetres. Each product guarantees quality, durability, and satisfaction with the achieved effect.



1.1 Product description

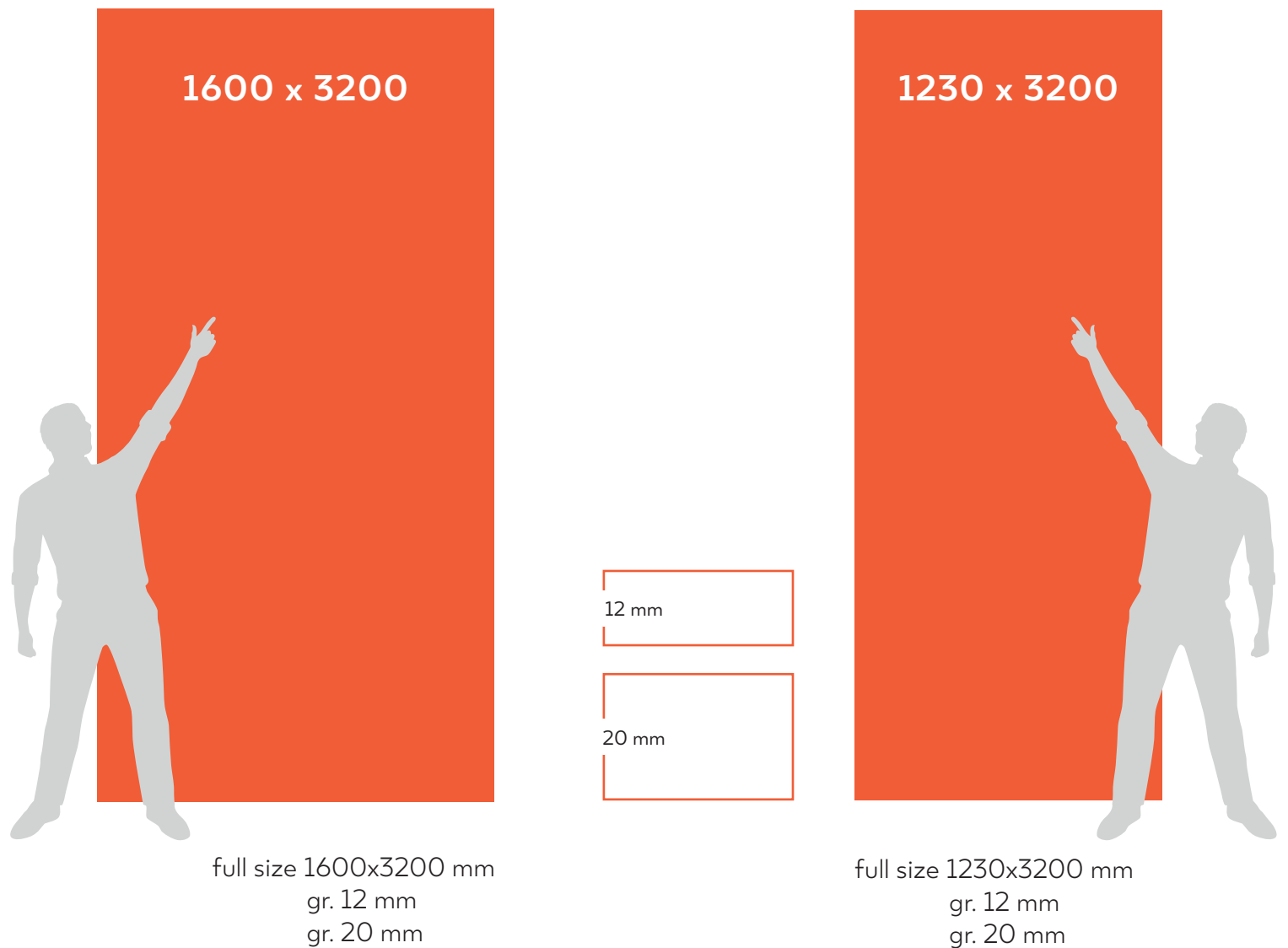
Due to their low water absorption, Ceramika Paradyż sintered stones can be used both indoors and outdoors. Thanks to the use of special material blends, TRI-D sintered stones are resistant to frost and demonstrate high resistance to stains, scratches, and water. Their low water absorption capacity prevents the formation of typical stains while also speeding up and facilitating the surface cleaning process. Ceramika Paradyż offers various formats and patterns of produced sintered stones, catering to the needs of most residential and commercial spaces



1.2 Available formats

Sintered stone is produced from ceramic mass designed with the highest quality mineral raw materials. They are fired in a modern roller kiln under conditions that allow for the production of a product that meets the highest customer expectations.

Available formats and thicknesses:























The description „Full size” placed before the declared dimensions of the slabs means that the delivered sintered stones may have larger dimensions than the declared ones.

2.2. Properties of sintered stones according to EN 14411

The parameters of sintered stones produced by the dry pressing method in accordance with the requirements of the EN 14411 standard, Annex G, Group BIa – “Dry-pressed ceramic tiles with low water absorption $E_b \leq 0.5\%$.”

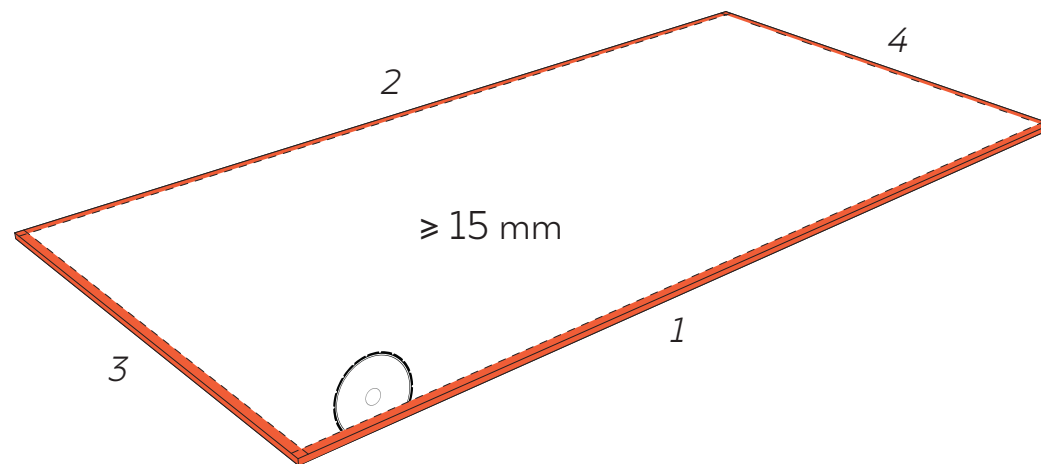
Physical and chemical properties	Standard-Method	TRI-D 12 mm thickness	TRI-D 20 mm thickness
Water absorption, [%]	EN ISO 10545-3	< 0,1	< 0,1
Bending strength, [N/mm ²]	EN ISO 10545-4	Min. 50	Min. 60
Breaking force, [N]	EN ISO 10545-4	Min. 5000	Min. 16000
Frost resistance	EN ISO 10545-12	Frost resistance	Frost resistance
Resistance to staining	EN ISO 10545-14	ISO-5 class (unglazed, min. ISO-3 class)	ISO-5 class (unglazed, min. ISO-3 class)
Resistance to acids and alkalis in low concentrations	EN ISO 10545-13	LA class (unglazed LA(V))	LA class (unglazed LA(V))
Resistance to household chemicals and swimming pool water additives	EN ISO 10545-13	A class (unglazed A(V))	A class (unglazed A(V))
Resistance to deep abrasion of unglazed tiles, [mm ³]	EN ISO 10545-6	Max 130	Max 130
Resistance to thermal shock	EN ISO 10545-9	Resistant	Resistant
Volatile organic compound (VOC) emissions	UNI EN 16000-9	A+ class	A+ class

Explanation of symbols	
 Low water absorption, less than 0.1%. No change even with prolonged exposure to water and moisture.	 Resistant to all common detergents (acidic and alkaline).
 Frost resistance, resulting from low water absorption. Can be installed outdoors, regardless of weather conditions.	 Marking of slip resistance class for selected products.
 Sunlight resistance. No change in the appearance of the slabs even with prolonged exposure to the and high temperatures.	 Guaranteed safe use confirmed by the Hygienic Approval
 Installation versatility. They work well both on the wall and on the floor.	 Completely safe for contact with foods, confirmed by the Health Quality Certificate
 Breaking force minimum 5000 N (12 mm thickness). Breaking force minimum 16000 N (20 mm thickness).	 Superior application quality, resistant to hairline cracks.
 Minimum bending strength of 50 N/mm ² (12 mm thickness). Minimum bending strength of 60 N/mm ² (20 mm thickness).	 Heat-resistant.
 Easy to clean, resistant to stains commonly found in the kitchen or bathroom.	 Resistant to wear and scratches as well as daily use and cleaning under standard conditions of use. Warranty and colour fastness over the years.
 Highest class of chemical resistance, no change in surface appearance when exposed to acids, bases and salts used in swimming pools.	 Natural, environmentally friendly made from natural raw materials, recyclable.
 Resistant to bacteria, mould and fungi development.	 Cleaning-friendly for spaces with pets.
 A safe product with no radioactive substances in its composition, confirmed by the Radiation Hygiene Certificate.	 CE certified for use in the European Union.

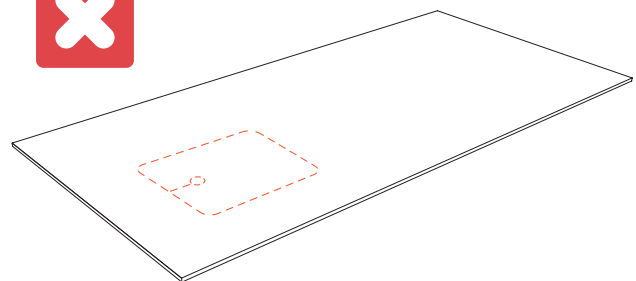
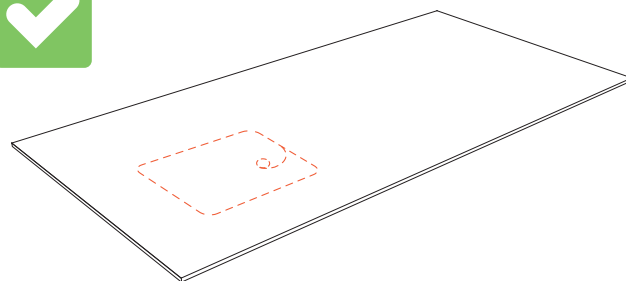
3. Guidelines for designing, processing, and cutting sintered stones

The material is supplied in the form of sintered stones with irregular edges that require processing to achieve the target dimensions. The standard thicknesses of sintered stones are 12 mm and 20 mm. Cutting and edge processing can be done using the mentioned cutting discs or water cutting machines, as well as CNC machines equipped with tools for processing ceramic or stonemasonry materials.

Before cutting the slabs, it is recommended to relieve stress by cutting off a minimum of 15 mm from each side, following the numbered steps below.



✦ STARTING THE CUTTING OF HOLES NEAR THE EDGE

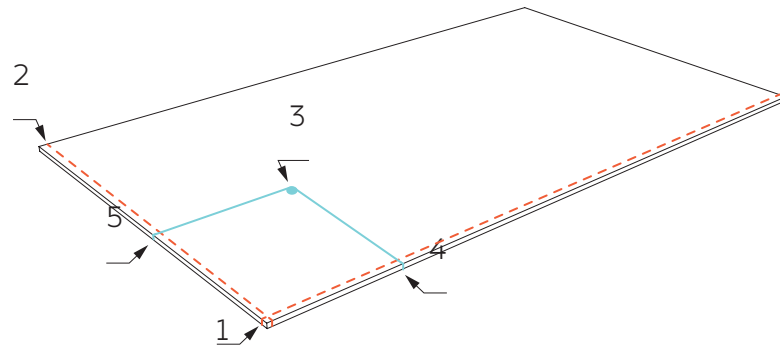


Depending on the user's needs, porcelain sintered stones can be used as both ceramic floor coverings and countertops, kitchen islands, kitchen and bathroom countertops. The quantity and placement of appropriate functional and assembly holes will be defined by the final product's purpose. Due to the thickness and proportions of the sintered stones, several technical guidelines should be followed to facilitate their proper cutting, processing, and use.

4. Sample cutting sequences for sintered stones

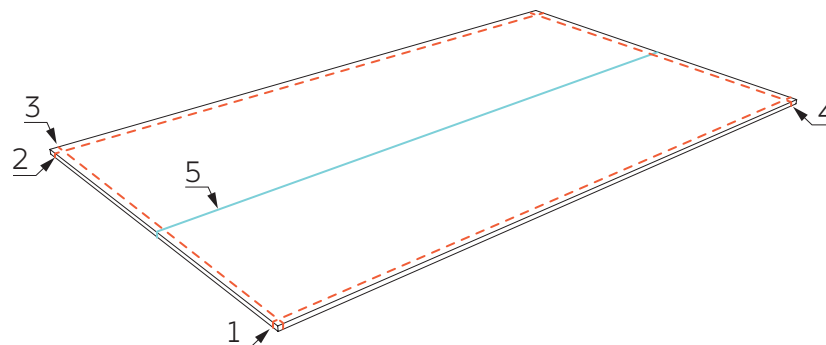
Relief cut can be the right cut at the same time

Figure I



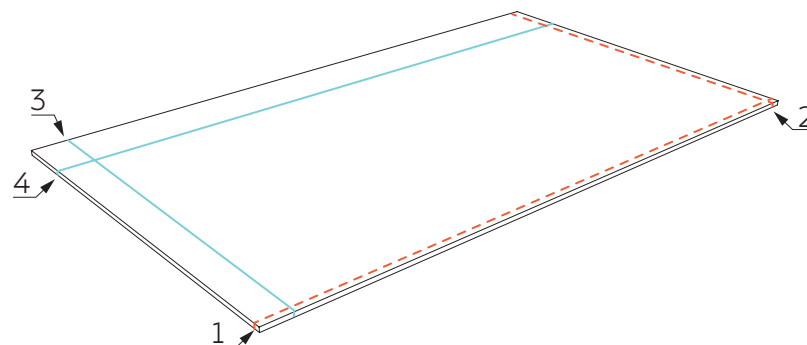
1. Dashed red line - relieving cut along the long side
2. Dashed red line - relieving cut along the short side
3. Drill a hole at the intersection of two cutting lines
4. Continuous blue line - proper cutting of the element along the short edge
5. Continuous blue line - proper cutting of the element along the long edge

Figure II



- 1 and 2. Dashed red line - relieving cut along the long side
- 3 and 4. Dashed red line - relieving cut along the short side
5. Continuous blue line - proper cutting

Figure III

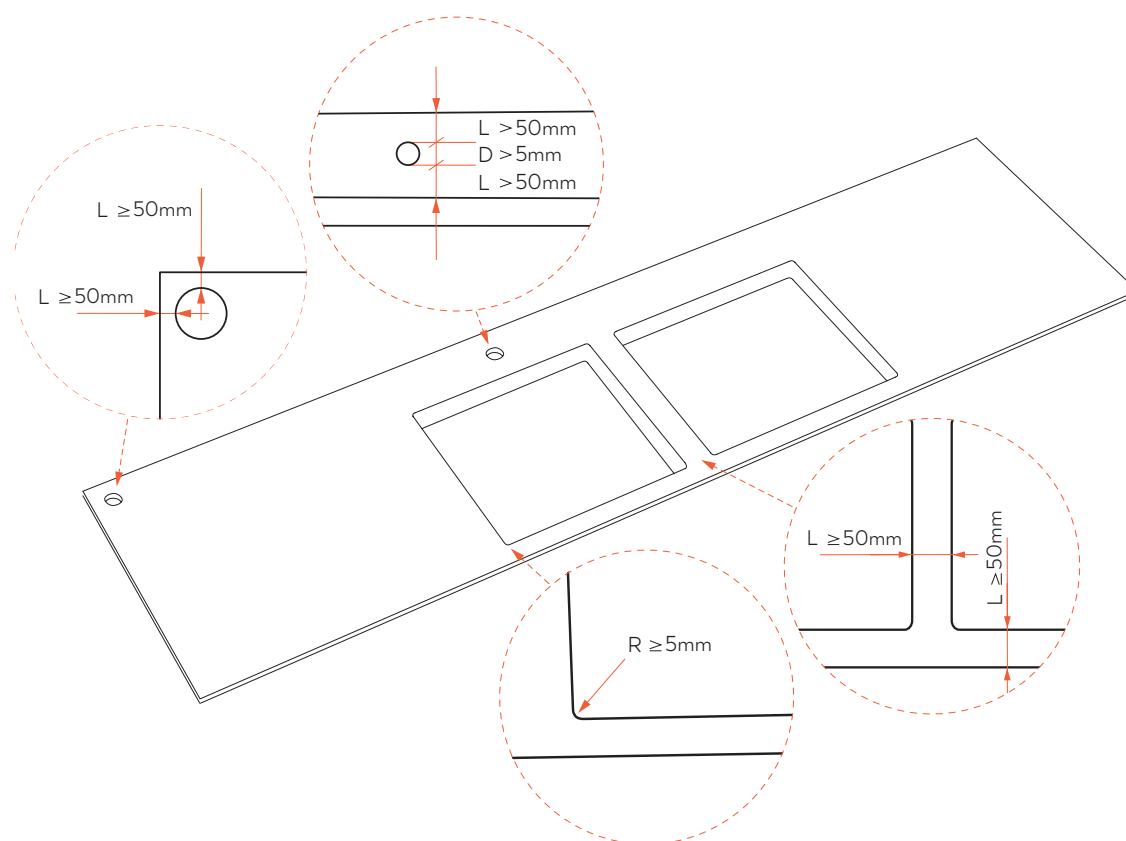


1. Dashed red line - relieving cut along the long side
2. Dashed red line - relieving cut along the short side
3. Continuous blue line - proper cutting along the short edge
4. Continuous blue line - proper cutting along the long edge

5. Cutting sintered stone

Workers from companies involved in processing should conduct a visual assessment of the quality of the slab before starting work, after thorough cleaning of the surface. Any observed changes must be reported before commencing cutting. Otherwise, Ceramika Paradyż will not accept claims and complaints made after the start of processing and/or installation.

When using sintered stones for kitchen or bathroom countertops, the following minimum distances and dimensions should be followed to limit the possibility of damaging the stone during cutting. The minimum radius of corner rounding for openings should be 5 mm (cutting to a right angle is prohibited due to the possibility of cracks). Distances between openings or openings and the edges of the stone should not be less than 50 mm, and the diameters of the openings should be no smaller than 5 mm.

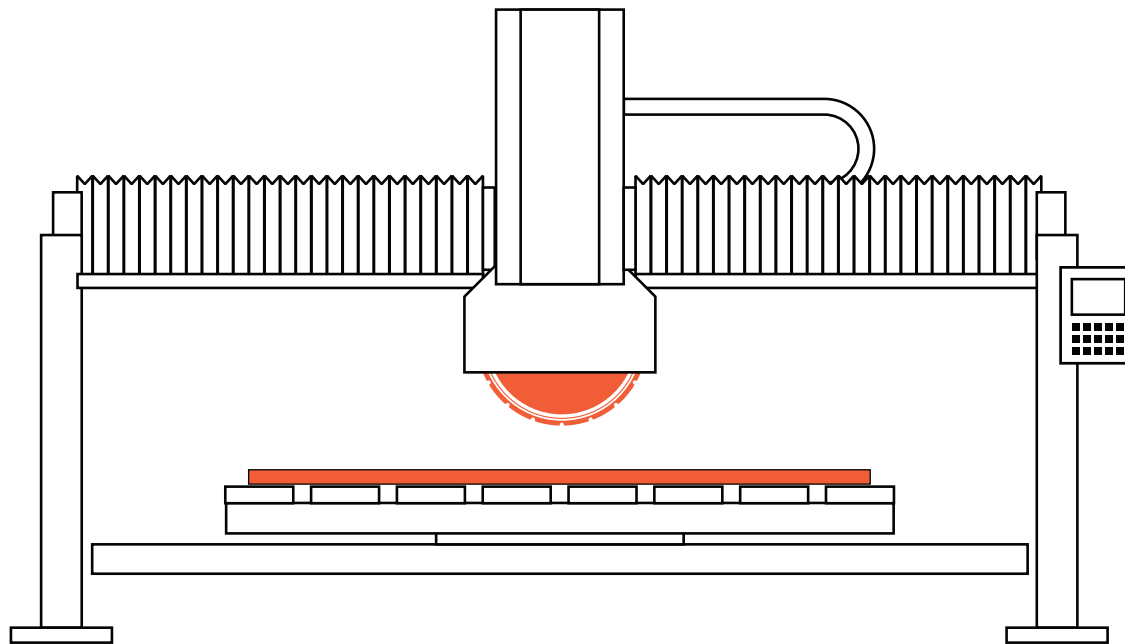


For sintered stones used as kitchen, bathroom, or island countertops, the maximum overhang (surface protruding beyond the supporting point) should be a maximum of $1/3$ of the dimension relative to the supported part and should not exceed 200 mm. Installation should comply with the requirements specified in the relevant standards for the scope in which the slab is used.

Note!

Cut and finished side edges should be protected according to the instructions.

5.1 Cutting sintered stone using a bridge saw



◆ WORK TABLE/REQUIREMENTS

- the table size should be larger than the size of the processed slab
- the table structure should be solid and durable
- the table surface should be leveled and flat

◆ - CUTTING DISC/REQUIREMENTS

- the cutting disc should be in good condition, we recommend using diamond discs dedicated to cutting sintered stones/stoneware. When selecting a disc, take special care to ensure that the tool is compatible with the specifications of the machine it will be used on
- properly cooled with water
- tested on the material before starting the process

Examples of saw blades for cutting sintered quartz/stoneware:

ADW 400 iKon Ultra compact surfaces: 400 mm disc diameter, 60 mm mounting,

K5 DIAREX by KONIG: 400 mm disc diameter, 60 mm mounting,

ADW 500 JOKER H60: 500 mm disc diameter, 60 mm mounting,

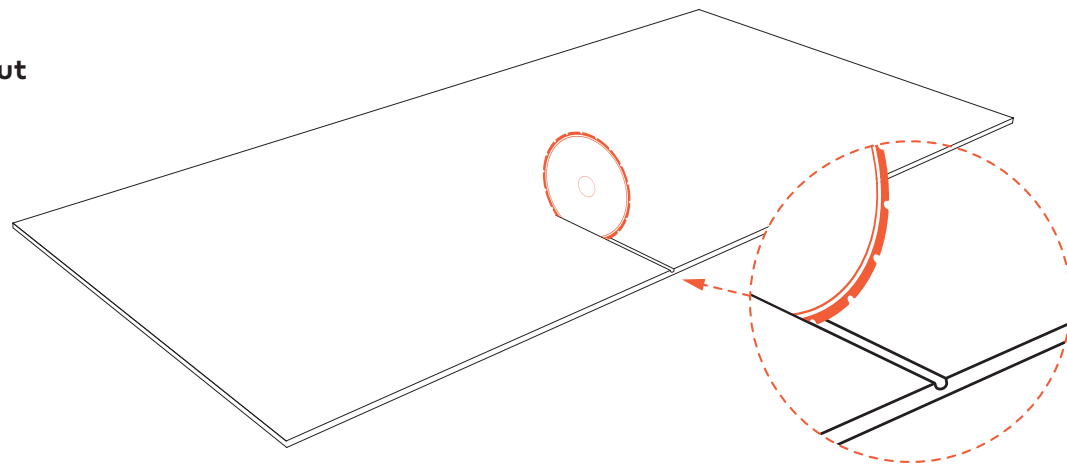
ADW 400 iKon V25 Silent H60: 400 mm disc diameter, 60 mm mounting

For companies starting work with TRI-D sintered stones, the manufacturer will provide a sample piece for testing to select the appropriate tools.

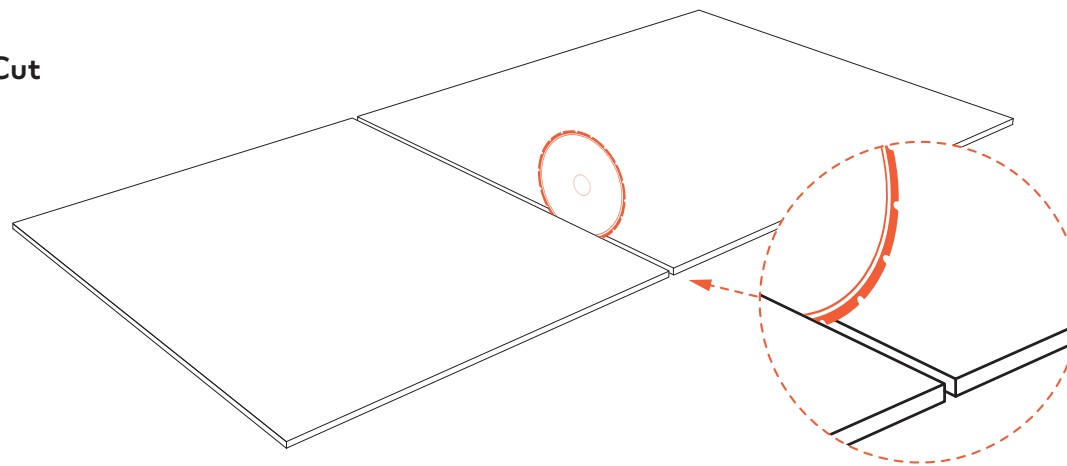
◆ CUTTING TECHNOLOGY

The stone can be cut in one or two tool passes. The first pass should cut the material to a depth of 6 to 8 mm for 20 mm thick slabs and 4 to 5 mm for 12 mm thick slabs. The second pass should cut the remaining part of the material. During the second pass, cracks may appear along the first cut due to the nature of the material.

I Cut



II Cut



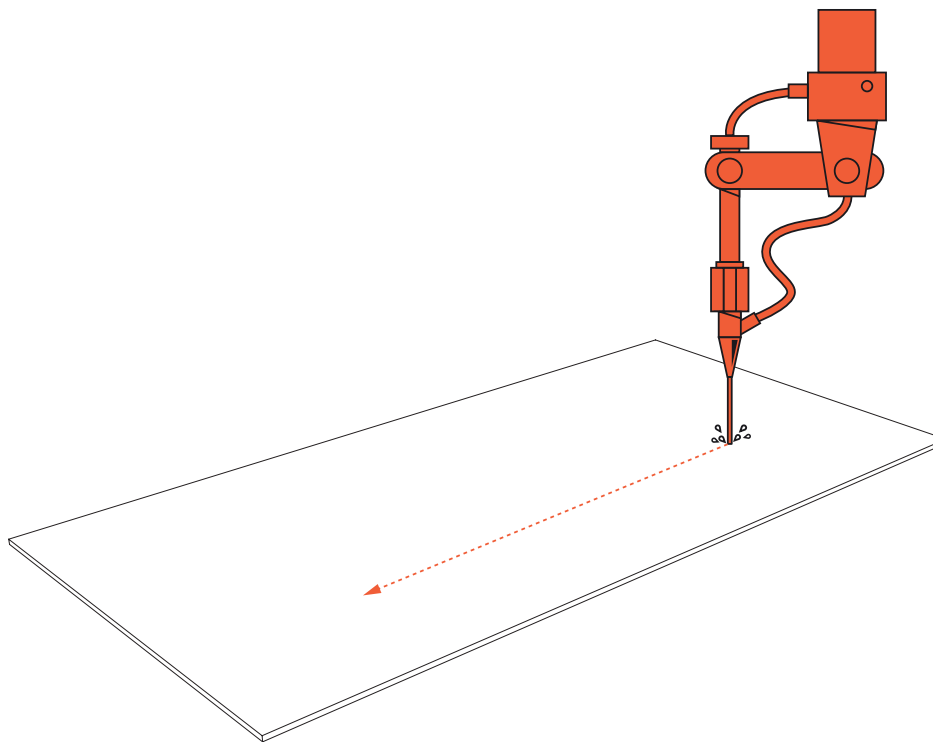
◆ CUTTING PARAMETERS*

Slab thickness	20 mm	12 mm
Cutting speed	0,6 m/min	1,2 m/min
Tool cutting depth into the work table	2 mm	2 mm
Recommended RPM for 400 mm blade diameter	1600-1900 RPM	1600-1900 RPM
Recommended RPM for 350 mm blade diameter	1900-2200 RPM	1900-2200 RPM

*Depending on the type of disc used, the brand and its diameter, it is necessary to adjust the specific rpm and speed recommended by the manufacturer.

5.2 Cutting sintered stones with waterjet

- ◆ The machine's work table should have a level, flat and stable surface. Special attention should be paid to the spacing of the support bars, to ensure that they are as close together as possible. This arrangement of supports ensures that the workpiece will be properly supported. A good solution is to place the workpiece on an additional plate.
- ◆ The starting hole should be made using a pressure of 700 bar. Begin cutting the hole from the centre of the slab, moving the cutting line towards the edge.
- ◆ For linear cutting, water pressures of up to 3,500 bar are recommended.
- ◆ The best cutting result will be achieved when the nozzle is positioned approximately 3 mm above the material.
- ◆ For cutting sintered stones, use an abrasive – Garnet type mesh 80. The consumption rate of the abrasive ranges from 100 grams to 1,000 grams per minute (depending on the pump or nozzle used – on average about 500 grams/minute). The cutting performance largely depends on the type of Garnet.



◆ CUTTING PARAMETERS

Slab thickness	20 mm	12 mm
Cutting speed	0,4 m/min	0,6 m/min

5.3 CNC Machining

Ceramika Paradyż ceramic sintered stone can be machined using computerised numerical control machines (CNC).

CNC machinery enables the manufacture of diverse shapes. Most commonly, milling is carried out for sinks, hobs, including edge finishing for flush-mounted appliances, finishing and trimming edges, and for making intricate cut lines, e.g. at draining boards. Use diamond blades designed for cutting sintered stones / large-format ceramics. The choice of tools depends on the type of cuts to be made.

Before machining, check the grip of the suction cups on the slab to be processed. If the fixture is unsatisfactory, the slab can be damaged if it moves during processing. Correct positioning of the suction cups holding the slab is fundamental to successful cutting. When drilling holes, ensure that the hole being drilled is supported as close by as possible.

A suitable tool cooling system is essential to ensure excellent quality of edge machining.

Depending on the type of cutter and brand used, it is necessary to adjust the specific RPMs and feed rates to ensure proper cutting quality.

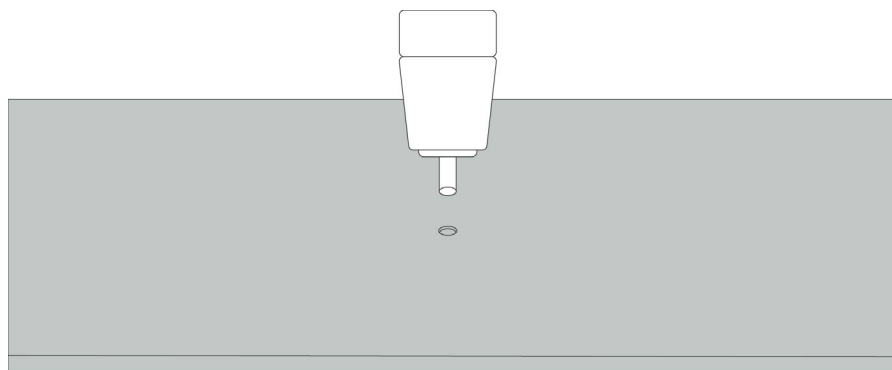
♦ RECOMMENDED CUTTING, TRIMMING AND DRILLING RPM AND FEED RATE:

Tool	RPM*	Feed rate (mm/min)
Milling cutter – 12 mm	4500 – 5500	150
Milling cutter – 20 mm	4500 – 5500	125
Trimming cutter	8000- 10000	250
Crown drill	4500 – 5500	10

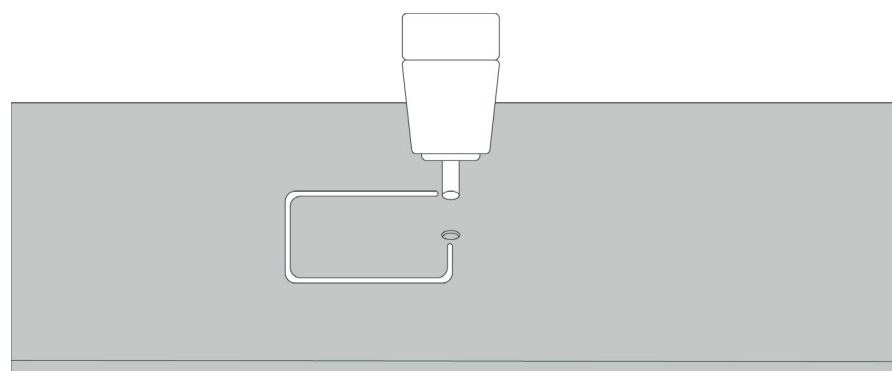
*Depending on the type of blade used, the brand and its diameter, it is necessary to adjust the specific RPM and feed rates recommended by the manufacturer.

When using chamfer bits, drilling should be carried out at the standard speed adapted to the given bit diameter, while the hole chamfering itself should be carried out at half the speed.

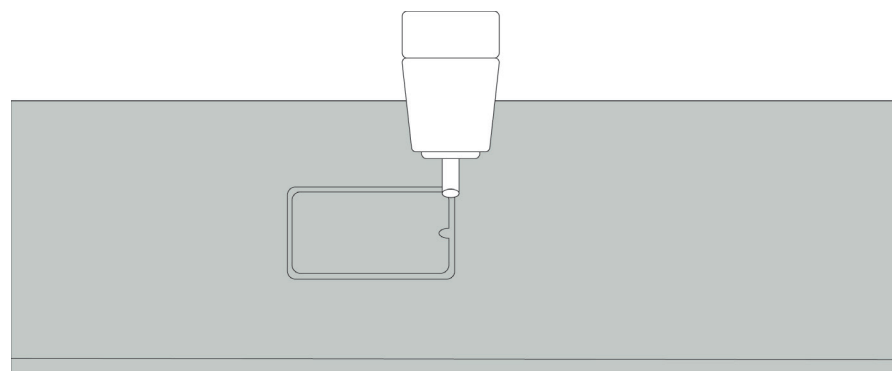
◆ DRILLING



◆ CUTTING



◆ MILLING

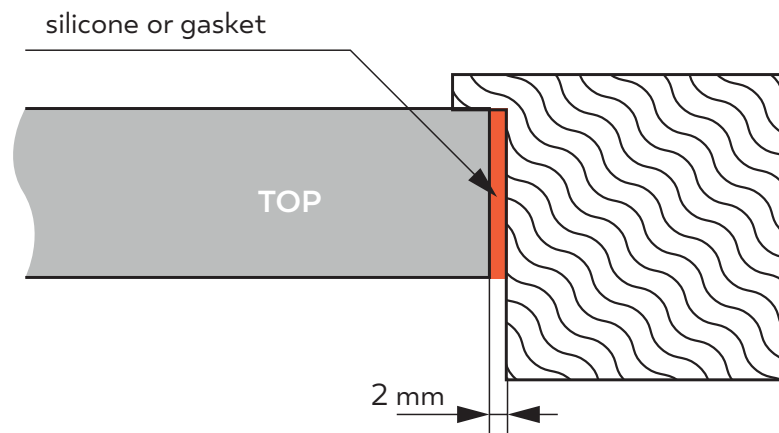


6. Installation of sinks and hobs in countertops

There are many models of sinks and hobs available on the market, which differ, among other things, in their installation method. Below are a few tips for installing standard appliances.

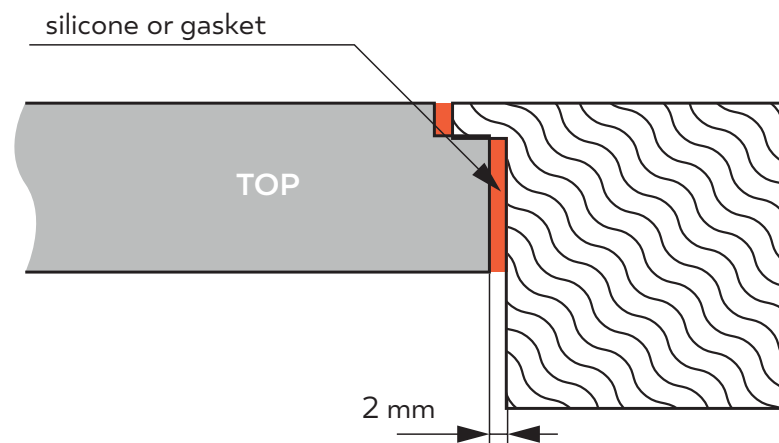
Hob: It is important to maintain a gap between the hob and the countertop as indicated in the diagram below. The left gap allows the material to expand under the influence of temperature. The remaining space should be filled with appropriate silicone. The design principles for cooktops installed in the same plane as the countertop are the same as for sinks. When installing induction cooktops, support should be applied.

♦ HOB/SINK INSTALLED ON THE COUNTERTOP

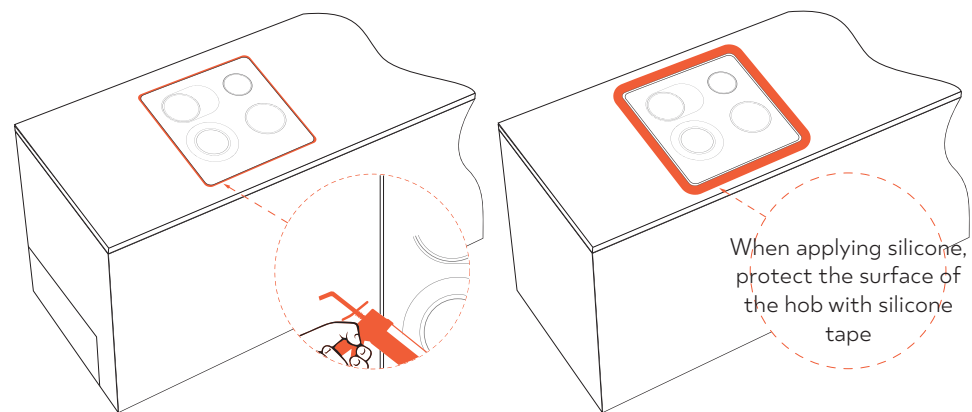


♦ HOB/SINK INSTALLED ON THE COUNTERTOP

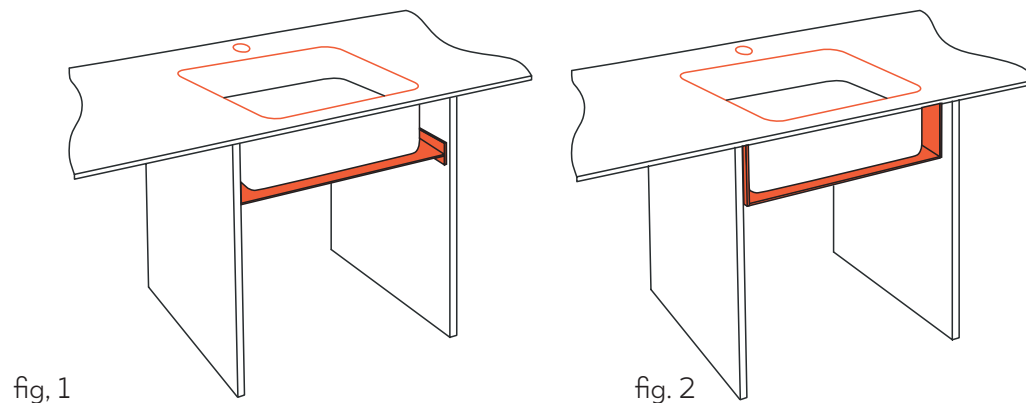
The maximum allowable recess in the countertop is 4 mm for a 12 mm thick plate and 6 mm for a 20 mm thick plate.



Before applying silicone, remember to protect the surface of the plate with protective tape.

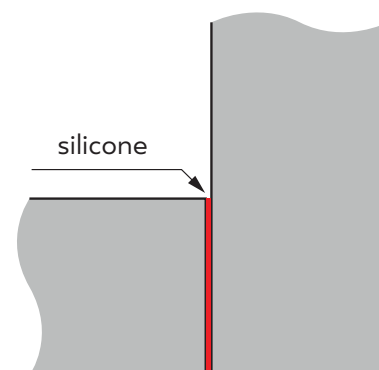


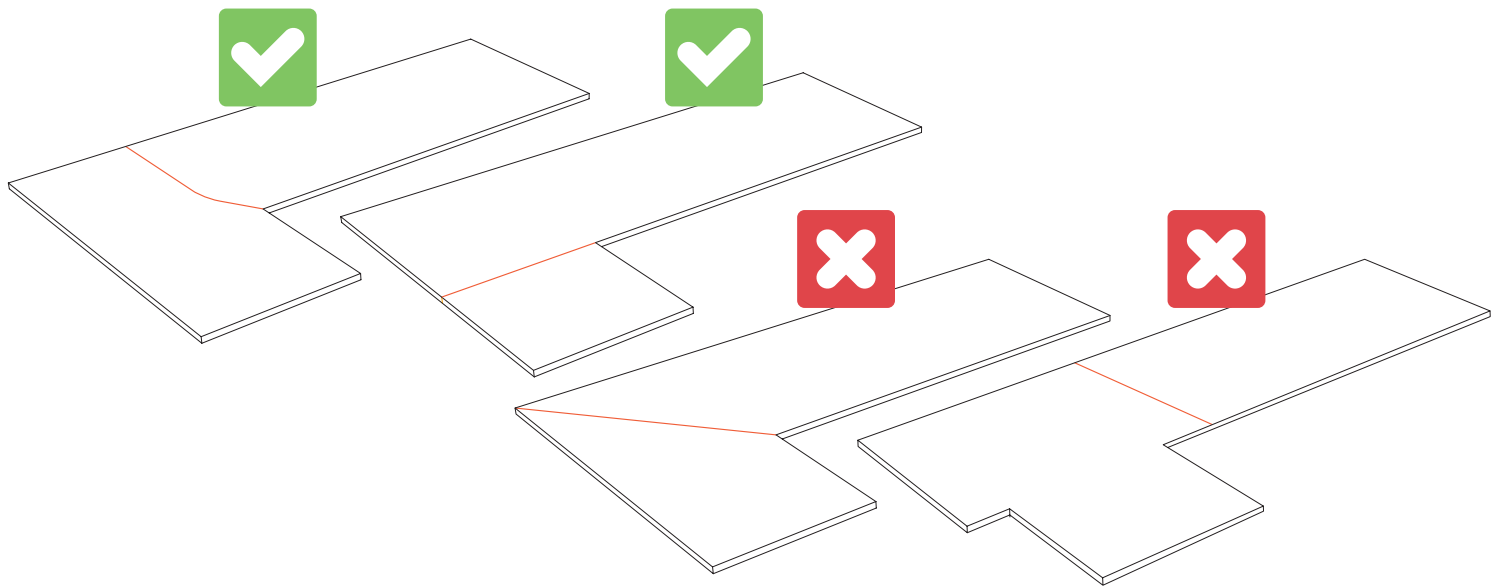
Due to the variety of available sinks on the market, it is important to remember to provide additional supports in each case to bear the loads that may occur, such as when the sink compartments are filled with water.



If there is a drawer beneath the sink or any limitations preventing support according to drawing number 1, you can use the support proposed in visualisation 2.

The diverse applications of sintered stone often require joining slabs together. When designing the countertop, remember to pay attention to the graphic direction applied to the processed slab to ensure pattern continuity. In the case of L-shaped countertops, it is recommended to make perpendicular connections. Remember to fill the joint separating the two slabs with the appropriate silicone.





Before installing the countertop, ensure that the furniture is properly level and joined together. For cabinets with widths that do not allow proper stability of the entire top panel, it is recommended to use an additional reinforcing element underneath. This will eliminate deflection of the countertop and allow for proper distribution of the forces generated from its load in daily use.

Due to the roughness of the wall surfaces and the structural movements of the building, it is recommended that a 2 mm wide longitudinal expansion joint is used at the countertops, which should be sealed with a permanently elastic silicone material.

The edge chamfers should be uniform along the entire length of the countertop to eliminate the formation of possible cracks when the countertop is under load. This is particularly relevant for internal corners of L-shaped countertops.

Preparing cabinets for countertops:

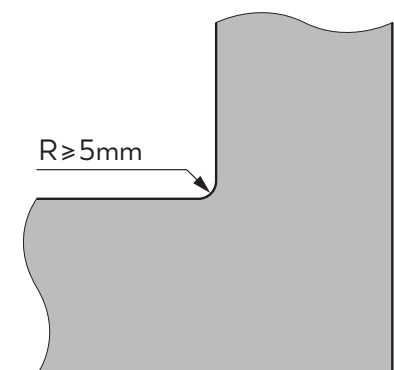
- ◆ the surface must be sturdy, stable and perfectly level (the widest cabinet module should not exceed 90 cm), for wider cabinets use appropriate reinforcement.
- ◆ full body for 12 mm thick sintered stones (80% solid body for 20 mm thick sintered stones).

When cutting an L-shaped countertop in one piece, special attention should be paid to the cabinet's design, which should be:

- perfectly level,
- fully enclosed,
- solid.

This type of countertop is very sensitive and prone to cracking, so special care must be taken during its transport and installation.

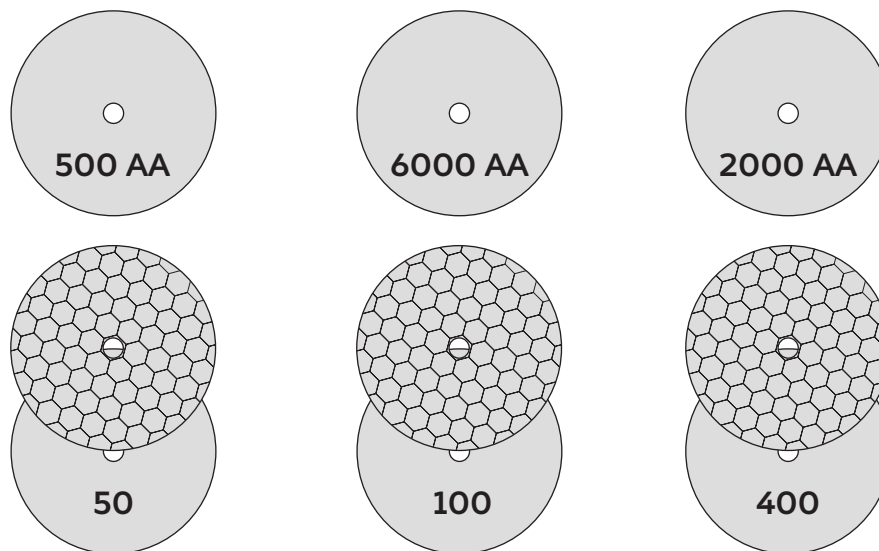
The internal corner of an L-shaped countertop should have a minimum radius of 5 mm. Angled cuts are not allowed.



7. Manual processing

TIPS

- ◆ Before starting work, perform a test on a waste piece using the tool.
- ◆ The sintered stone should be processed using a wet system.
- ◆ Use tested tools to achieve the best cutting quality.
- ◆ For each hole you make, use a sharp tool in good condition.
- ◆ Use pads or brushes designed for processing porcelain tiles until you achieve a polished or matte surface.



- ◆ To achieve higher quality parameters, it is recommended to impregnate/glue the edges of the tiles after processing. Note that when impregnating/gluing countertops that will come into contact with food, only use impregnators with food certificates.



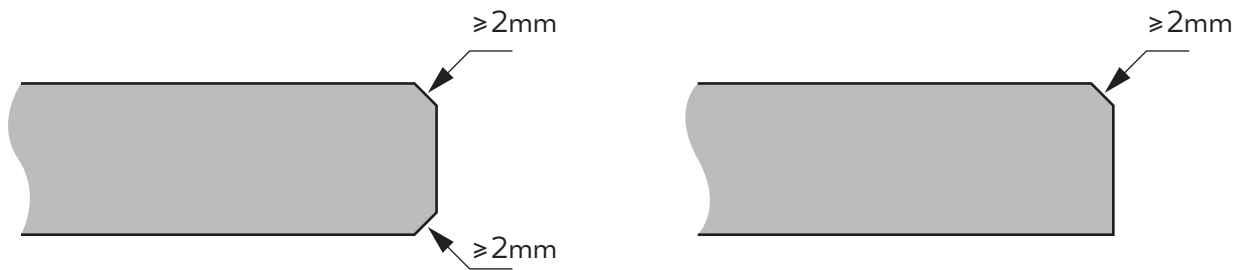
*PLATINUM P+ liquid	*Anti-Stain Nano-Effect	*HG CEMENT REMOVER, ADHESIVE AND GROUT FILM REMOVER
Transparent, colourless adhesive (very light self-colour), epoxy acrylate-based, high strength, very quick surface drying, ready for further processing, food safe after curing (certified by an external institute)	Very strong stone protection against water, grease and oil. Protects floors, tables, bathroom, and kitchen countertops made of absorbent natural and artificial stones (such as marble, sandstone). For use indoors and outdoors. Stains do not penetrate the stone structure or can be easily removed. Protective action is achieved within a few minutes, and full protection is achieved after 2-3 hours. In most cases, it does not change the colour shade of the stone. Special substances create bonds on the surface, causing the so-called „water droplet repellent effect.“ Water droplets on the surface flow off the stone surface. Approved for contact with food (tested by an independent research institute)	A product designed to remove stubborn cement residue, among others, from porcelain tiles, stone pavement slabs, and acid-resistant natural stones such as Norwegian slate, granite, quartzite. Effectively removes adhesive residues and typical dirt generated during tiling and renovation works. A product for professionals - essential for the first stage of tiling works. Capacity: 1 litre of the product covers approximately 20-40 m2.

* sample products for impregnation, maintenance, and cleaning of sintered quartz.

8. Edge machining

EXAMPLE PARAMETERS FOR EDGE MACHINING:

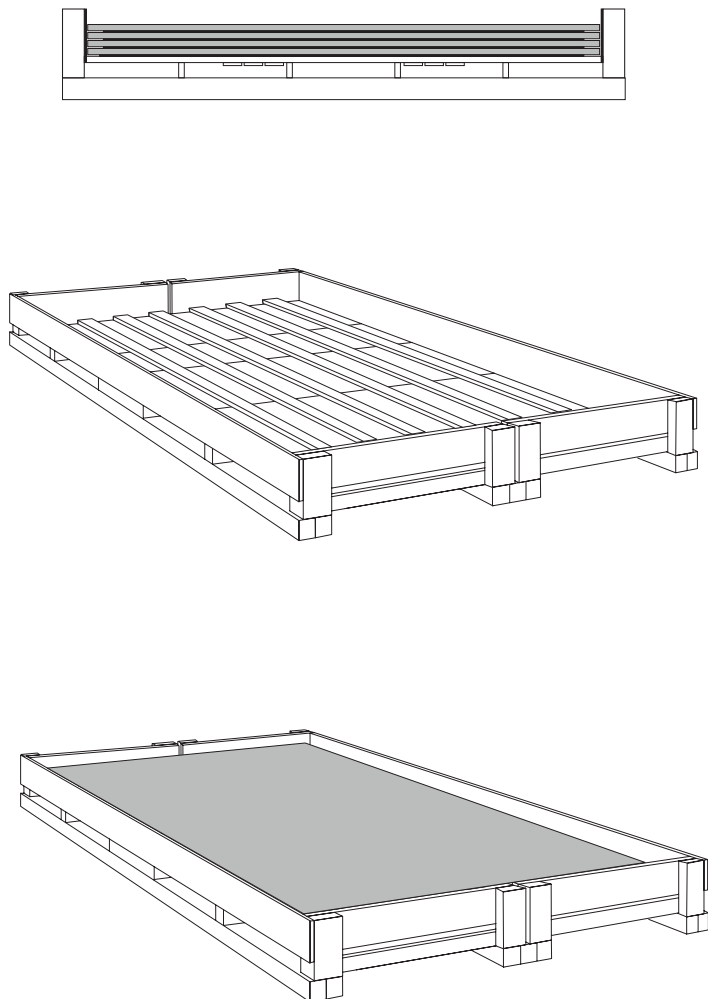
- ◆ Feed rate up to 0.6 m/min
- ◆ Pressure from 1.8 to 3.2 bar
- ◆ Grit sequence: 50, 100, 400 (grit depending on edge finish)
- ◆ We recommend making a chamfer at least 2 mm wide to increase the edge's resistance to impact.



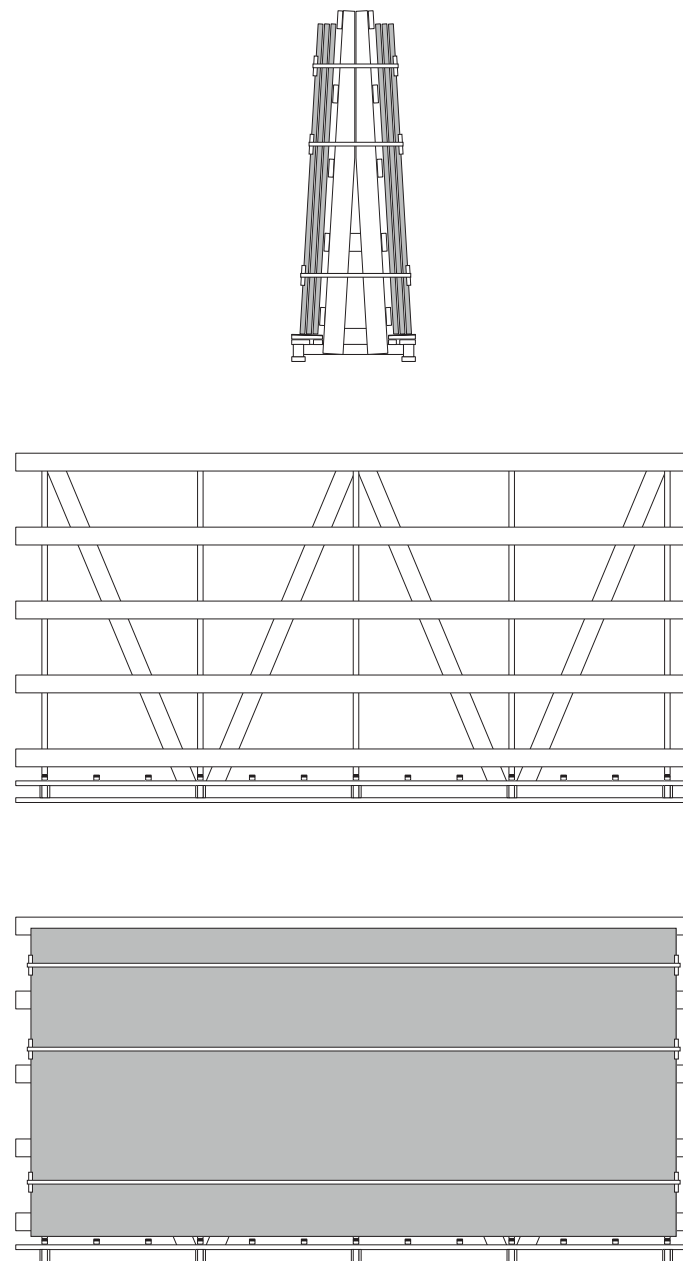
9. Storage and transportation

Ceramika Paradyż stores and delivers products in wooden crates or on wooden A-Frame stands. It is recommended to store products in their original packaging as supplied by the manufacturer. The slabs can be stored outdoors regardless of the weather conditions.

WOODEN CRATE



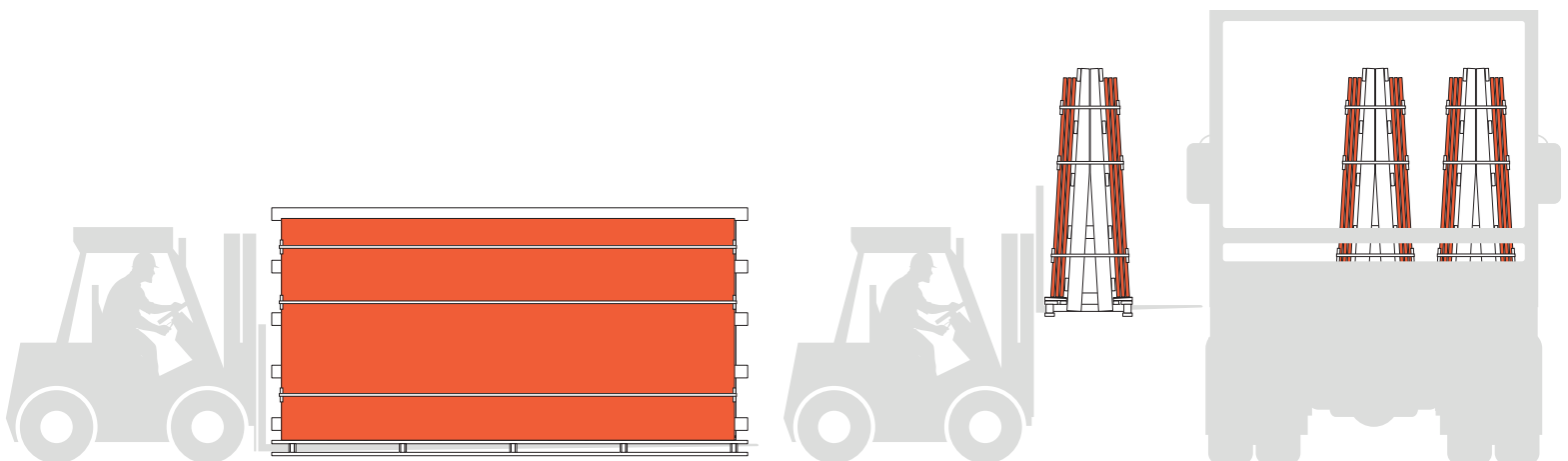
WOODEN A-FRAME STAND



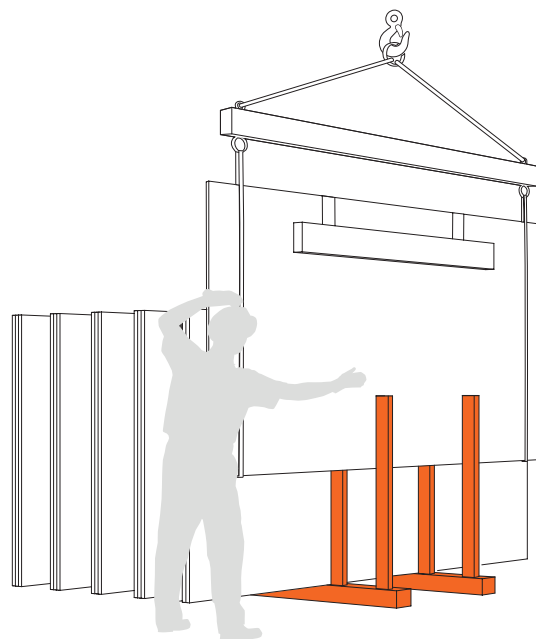
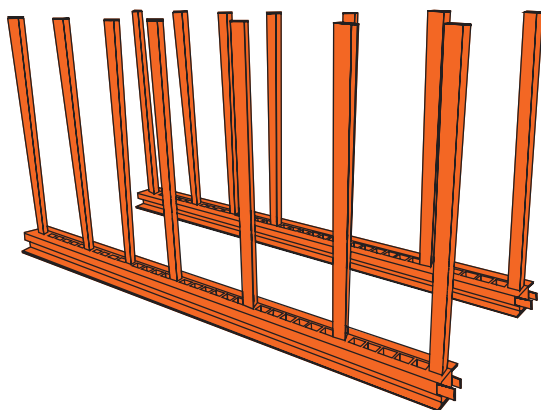
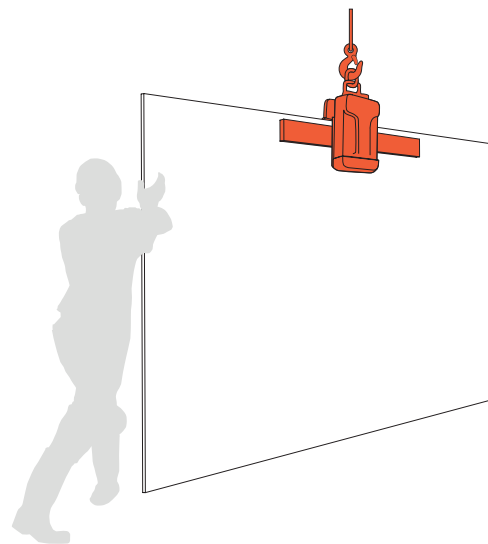
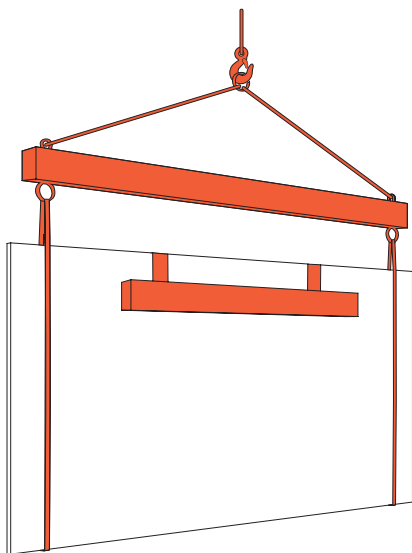
BOX 1400x3450x390				
PARADYŻ TRI-D 1230x3200	Number of pieces in a collective package	Number of sqm in a collective package	1 pc weight [kg]	Gross weight of a col- lective packaging [kg]
Thicknes 12 mm	11	43,3	122	1 482
Thicknes 20 mm	7	27,6	201	1 545
A-FRAME STAND 750x3300x1480				
Thicknes 12 mm	14	55,2	122	1 858
Thicknes 20 mm	8	31,5	201	1 756

BOX 1760x3430x390				
PARADYŻ TRI-D 1600x3200	Number of pieces in a collective package	Number of sqm in a collective package	1 pc weight [kg]	Gross weight of a col- lective packaging [kg]
Thicknes 12 mm	11	56,3	159	1 905
Thicknes 20 mm	7	35,8	261	1 987
A-FRAME STAND 750x3300x1480				
Thicknes 12 mm	12	61,4	159	2 074
Thicknes 20 mm	8	41,0	261	2 248

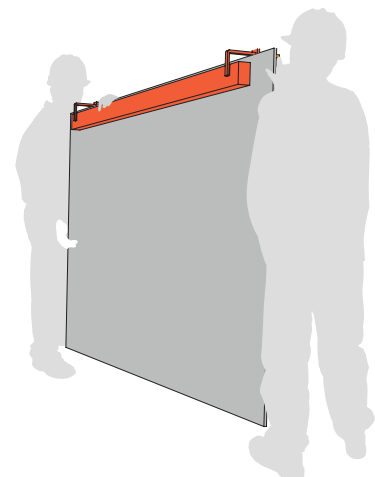
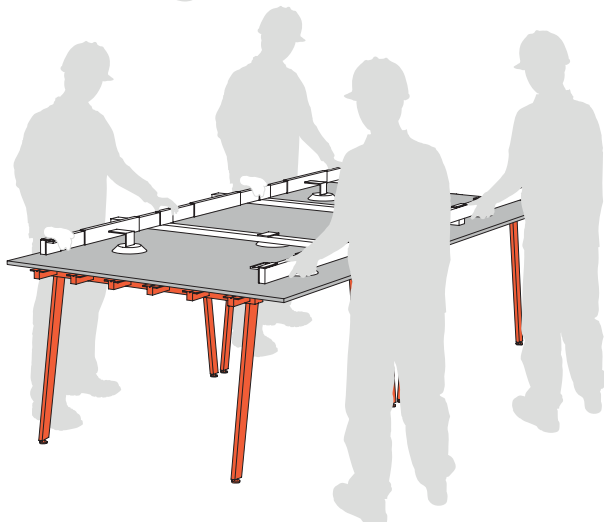
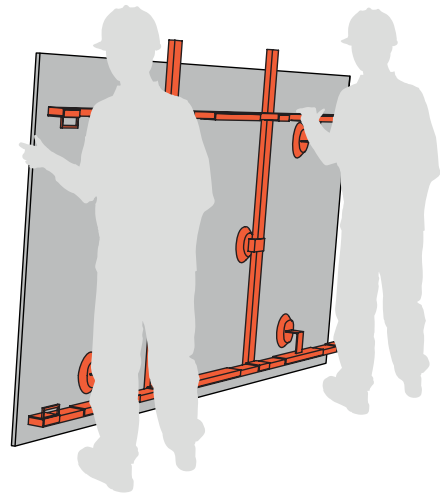
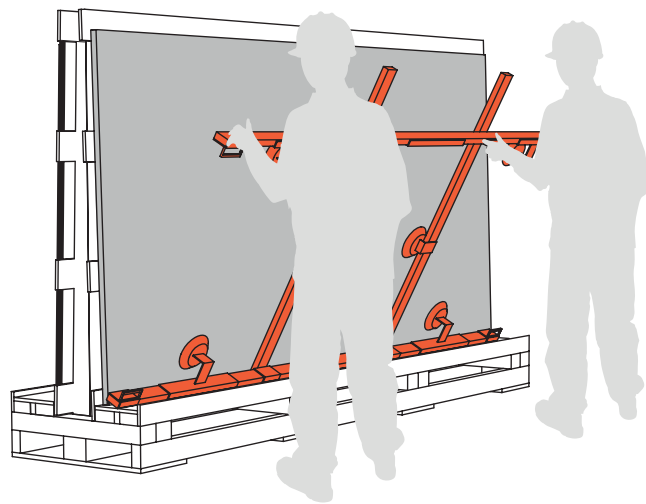
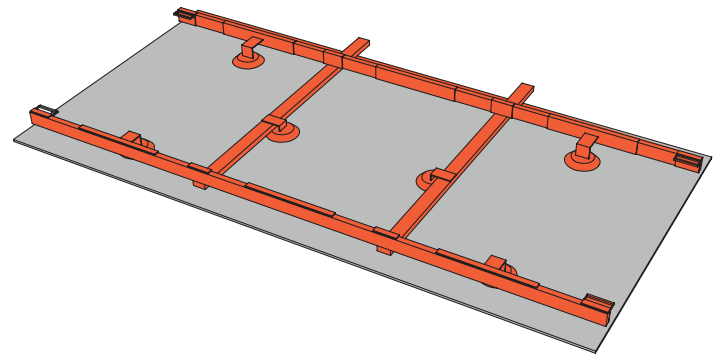
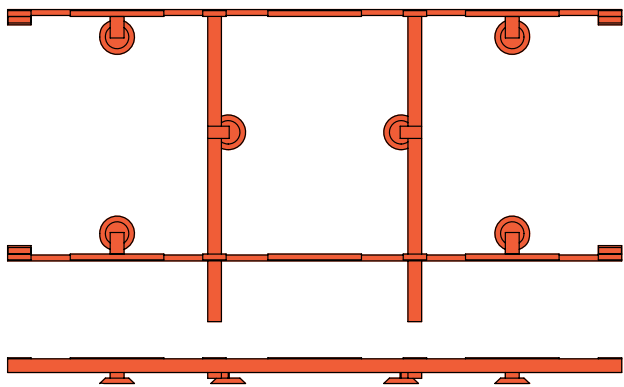
When unloading carriers with products, it is recommended to use a forklift truck with the highest possible load capacity. Transportation should be carried out by gripping the carrier transversely with forks of at least 1200 mm in length and a load capacity of at least 3500 kg.



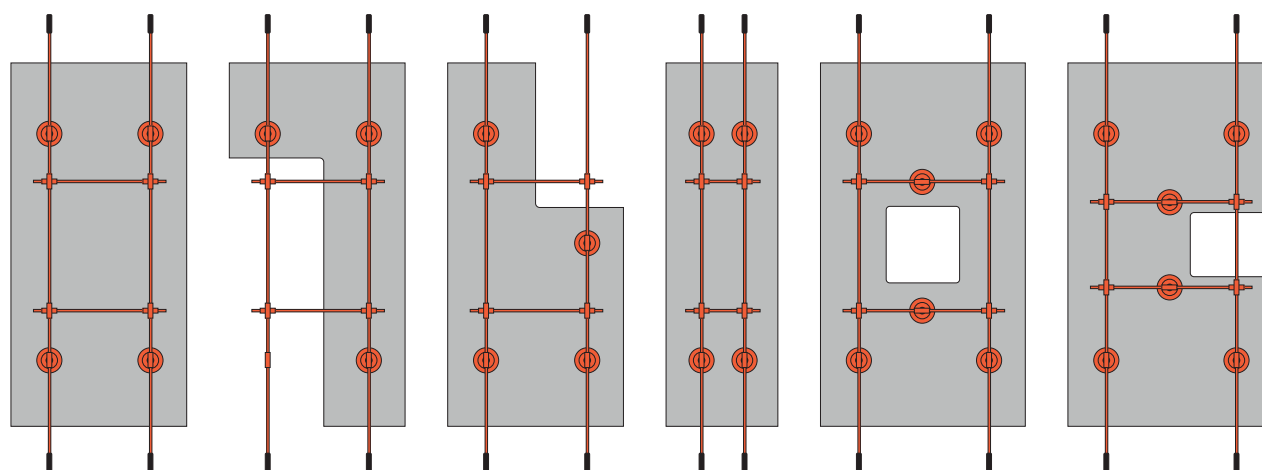
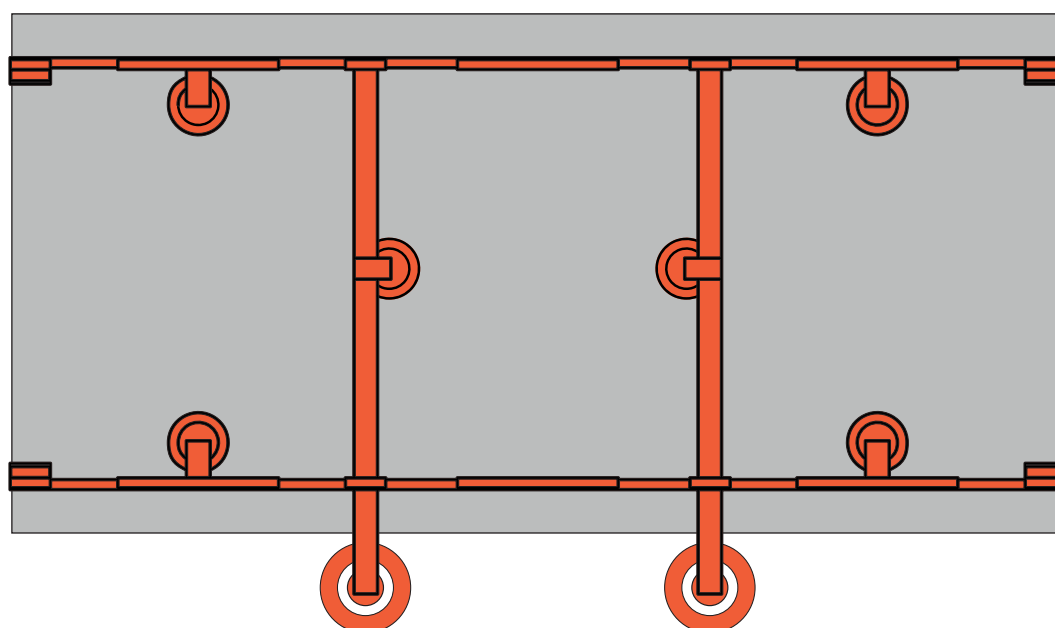
Slabs should be unloaded from the carrier while observing all safety regulations using appropriate equipment. Such operation should be performed with sufficient workspace, avoiding twisting and bending. Special attention should be paid to avoid accidental damage to the assortment, especially on the edges. After unloading, the slabs can be stored on the manufacturer's racks or dedicated warehouse racks designed for large-format slabs. It is recommended to use additional styrofoam, foam, or wooden spacers to protect individual slabs from surface scratches.



Unloading should be done using devices equipped with suction cups with multiple gripping points or a grab with an arm covered in rubber. Chains or steel rods should not be used for this purpose due to the risk of damaging the slabs. When transporting structural slabs using suction cups, special attention should be given to ensure that the selected pressure provides adequate grip on the slab.

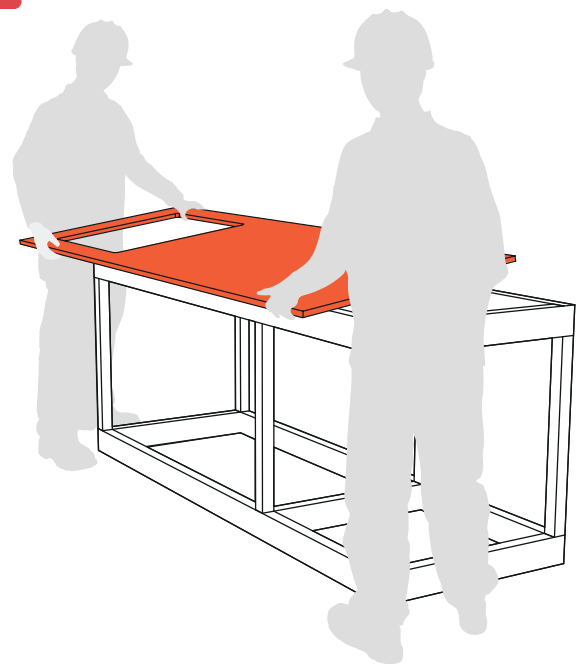
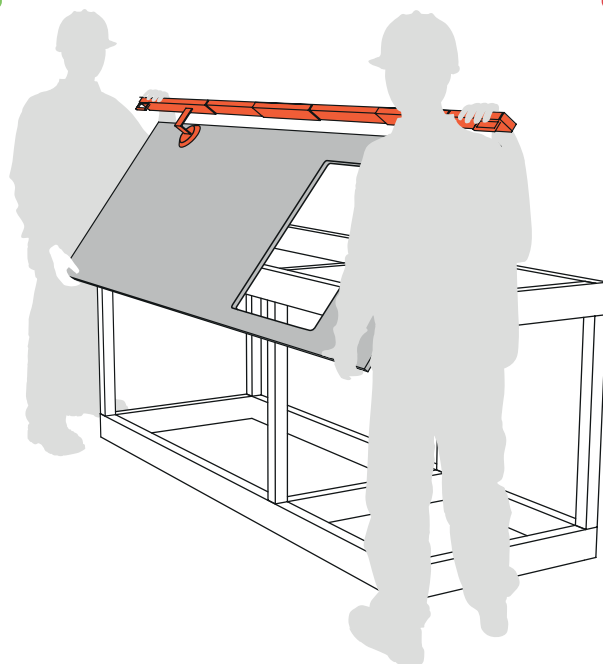
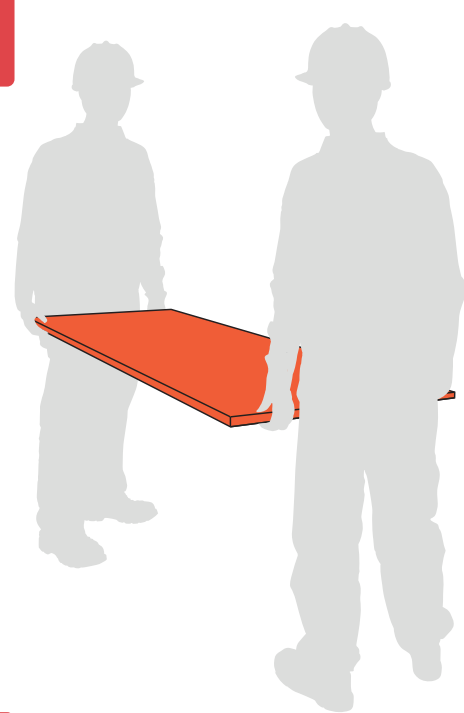
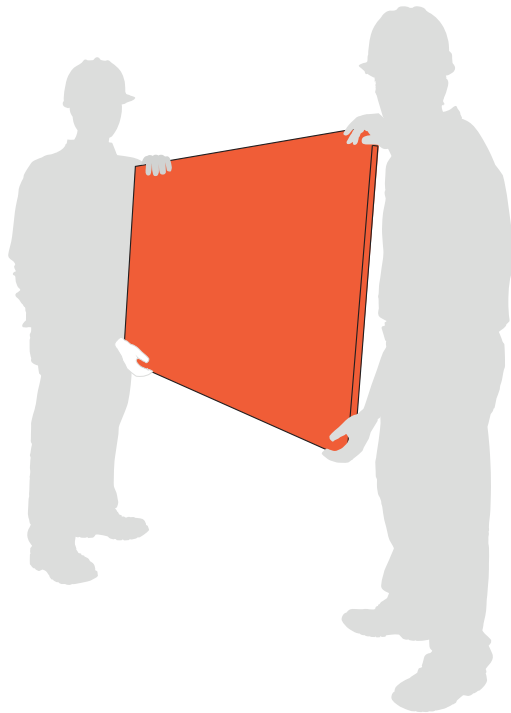


Finished products intended for installation should be carried in a vertical position using special handles and tools dedicated to such elements.



An example of the proper use of a handle for transporting finished products.

Slabs should be manually carried in a vertical position, with particular care, by qualified individuals and while wearing personal protective equipment (gloves, safety footwear). It is important to insert the slab onto the furniture surface during placement to minimize slab deflection.



The material is supplied in the form of slabs with irregular edges that require processing: cutting, drilling, generating a large amount of dust during material grinding. This dust, when in contact with the water used for cooling, dries on the slab surface, giving an unfavourable appearance. Therefore, it is important to properly clean the slab immediately after cutting. If done incorrectly, it may result in the presence of stains. Residues from cutting should be rinsed off the plate surface with a large amount of water, and repeat the procedure until the surface is completely clean. Do not leave the wet surface with dust on top to air dry.

Sintered stones are easy to clean and keep hygienic; it can be washed with water and popular conventional detergents. They also do not retain dirt that can lead to the accumulation of bacteria and microorganisms on their surface. All these properties remain valid as long as the product is selected and installed considering its intended use and expected mode of operation. For removing everyday dirt, use alkaline cleaning agents, while periodically using acidic agents is recommended for removing scale from evaporated water. It is essential that each cleaning or surface reconditioning process involves the interaction of three complementary factors: the activity of the cleaning agent, mechanical action, and time. The initial stage, which is the dissolution of contaminants aimed at separating them from the porcelain surface, determines the effectiveness of cleaning the cladding. The selection of cleaning agents should be consulted with manufacturers and distributors of chemistry intended for the maintenance of porcelain products.

Examples of stain removal agents:

- cleaning agents with acidic pH, e.g., descaling agents (remove rust, cement, plaster, wine, aluminium scratches),
- cleaning agents with alkaline pH, e.g., degreasers, ammonia (remove grease, oil, coffee, tea, ice cream),
- solvents, e.g., universal solvent, thinner, turpentine, acetone, alcohol (remove grease, oil, ink, coffee, gum, epoxy adhesives, candle wax, resin, markers),
- oxidants, e.g., diluted hydrogen peroxide or bleach (remove ink, iodine, blood, fruit juices).

The dosing of cleaning agents should be done in accordance with the manufacturer's recommendations. Before using them, a test should be conducted in the least visible area. The manufacturer bears no responsibility for any surface changes resulting from the use of an improper cleaning agent or its application method.

11. Warnings

- ◆ When maintaining sintered stone, avoid products that contain wax and other glossing agents. These kinds of products are difficult to remove and often require the use of suitable strippers – agents that remove these coatings.
- ◆ Avoid using cleaning agents with abrasive particles on sinter surfaces.
- ◆ Metal objects such as cutlery, pots, and knives can cause metallic scratches on the surface. The sintered surface is resistant to indentation scratches.
- ◆ Do not use ceramic knives directly on countertops, as they can scratch the sintered surface regardless of the finish. Use coasters and cutting boards on countertops.
- ◆ Avoid direct contact with flames to prevent the accumulation of stubborn soot.
- ◆ Avoid overloading the surface, such as standing or sitting on the countertop. This may cause cracks, especially in delicate areas such as sink and hob cutouts or less supported, narrower spaces.
- ◆ Do not use sintered stone in a manner inconsistent with their intended use.
- ◆ Avoid twisting slabs, when carrying.

12. Waste management

Sintered stone is an environmentally sound product. Waste generated during construction, renovation, or dismantling can be reclaimed and reused, for example, for land consolidation. They can also be disposed of with municipal waste according to local waste management regulations. Packaging materials should be collected selectively for recovery and recycling, following the categories below:

- paper and cardboard,
- plastics (film, straps),
- wood.

The delivered product is classified as safe under normal conditions and does not pose a threat to health and the environment. However, dust generated during cutting, grinding, or mechanical processing of the product may cause irritation. Therefore, it is recommended to use wet methods for mechanical processing. Where there is a risk of inhaling dust, mechanical exhaust ventilation is recommended. Use the required personal protective equipment (safety glasses, protective gloves, dust mask). Handling, storage, assembly and other phases that do not involve machining and cutting the panels do not involve the risk of inhaling mineral particles or dust.

13.1 Manual handling

The term “manual handling” refers to any type of transporting or supporting objects, loads, or materials by one or more persons, including lifting, carrying, stacking, moving, sliding, or transporting.

When performing manual handling, adhere to several main principles: - use auxiliary equipment to reduce the strain on the musculoskeletal system, especially the spine,

- avoid large twisting movements and unnecessary bending of the torso,
- strive for a body position as close to natural as possible,
- the most advantageous height for lifting objects is the height of the table surface, and this height should be individually adjusted,
- the base area between an individual and an object should be as large as possible, but should not increase the load on the lower limbs,
- use appropriate methods when lifting atypical objects of large size or weight,
- large-size and heavy objects should be carried by a team while observing all safety measures and recommendations regarding lifting and carrying objects.

Auxiliary equipment refers to means aimed at reducing hazards and discomfort associated with manual moving of objects, loads, or materials, as well as facilitating the performance of these activities. These means include, in particular, straps, ropes, slings, levers, grippers, clamps, handles, manual hoists and winches, rope rings and multiple rings, movable ramps, trolleys, etc.

Note!

To prevent occupational diseases, accidents, and reduce risks, it is necessary to comply with preventive and protective safety measures in accordance with the applicable health and safety legislation.

Cleaning and daily care of sintered countertops

Sintered stones made of natural minerals is extremely easy to clean and keep clean; it can be washed with water and popular conventional detergents. They ensure a very high level of hygiene. They exhibit almost zero absorption which means that they resist soaking, and contaminants do not penetrate the ceramic material. They also do not retain dirt that can lead to the accumulation of bacteria and microorganisms on their surface. Stains from food and any substances used in kitchens are easy to remove. Use alkaline detergents to wash away dirt from daily use, while acidic detergents are recommended periodically to remove scale from evaporated water. The surface of the sinters is not affected by aggressive cleaning agents either. It is essential that each cleaning or surface reconditioning process involves the interaction of three complementary factors: the activity of the cleaning agent, mechanical action, and time. The initial stage, which is the dissolution of contaminants aimed at separating them from the porcelain surface, determines the effectiveness of cleaning the surface.

Countertops, back panels and sintered furniture should be cleaned with a cloth or sponge dampened in warm water using a generally available cleaning product that does not contain any polishing agents/polymers. The selection of cleaning agents should be consulted with manufacturers and distributors of chemistry intended for the maintenance of porcelain products.

The cleaning agents dosage should be in accordance with the manufacturer's recommendations. Before using them, a test should be conducted in the least visible area. Ceramika Paradyż bears no responsibility for any surface changes resulting from the use of an improper cleaning agent or its application method. Do not leave the wet surface to dry off the cleaning agent used.

Examples of stain removal agents:

Cleaning agents with acidic pH, e.g., descaling agents (remove rust, cement, plaster, wine, aluminium scratches);

◆ Cleaning agents with alkaline pH, e.g., degreasers, ammonia (remove grease, oil, coffee, tea, ice cream);

◆ Solvents, e.g., universal solvent, thinner, turpentine, acetone, alcohol (remove grease, oil, ink, coffee, gum, epoxy adhesives, candle wax, resin, markers);

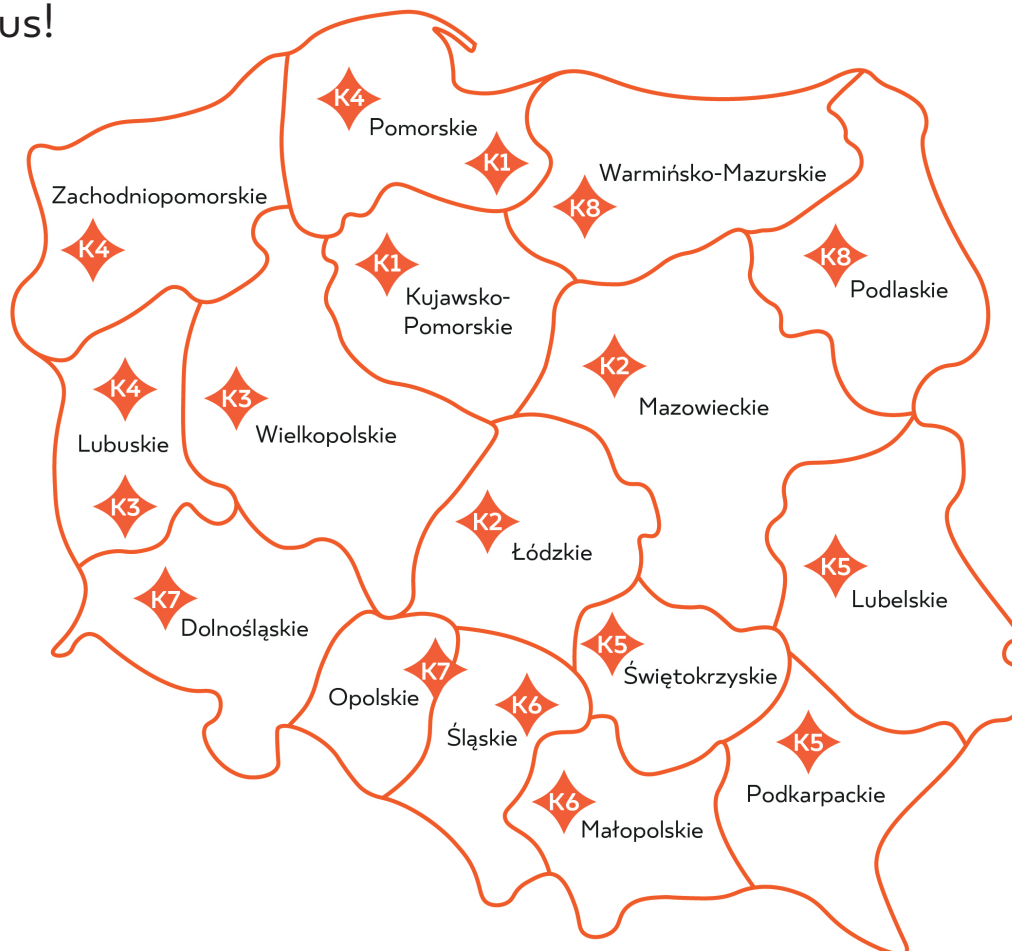
◆ Do not use ceramic knives directly on countertops, as they can scratch the sintered surface regardless of the finish. Use coasters and cutting boards on countertops;

◆ Oxidants, e.g., diluted hydrogen peroxide or bleach (remove ink, iodine, blood, fruit juices).

All the declared properties of the sintered stone from Ceramika Paradyż remain valid as long as the product is selected and installed considering its intended location and expected use.

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