



CUPACLAD

DIRECT APPLY

NATURAL SLATE
CLADDING SYSTEMS



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 **CUPACLAD**

DIRECT APPLY

If you purchase our products you agree, as a condition to the applicability of any CUPA PIZARRAS warranty, to install them in accordance with the CUPACLAD Installation Guideline (available in our website www.cupapizarra.com, as amended from time to time), CUPA PIZARRA'S recommendations, and any applicable building codes, laws, rules, regulations and ordinances.

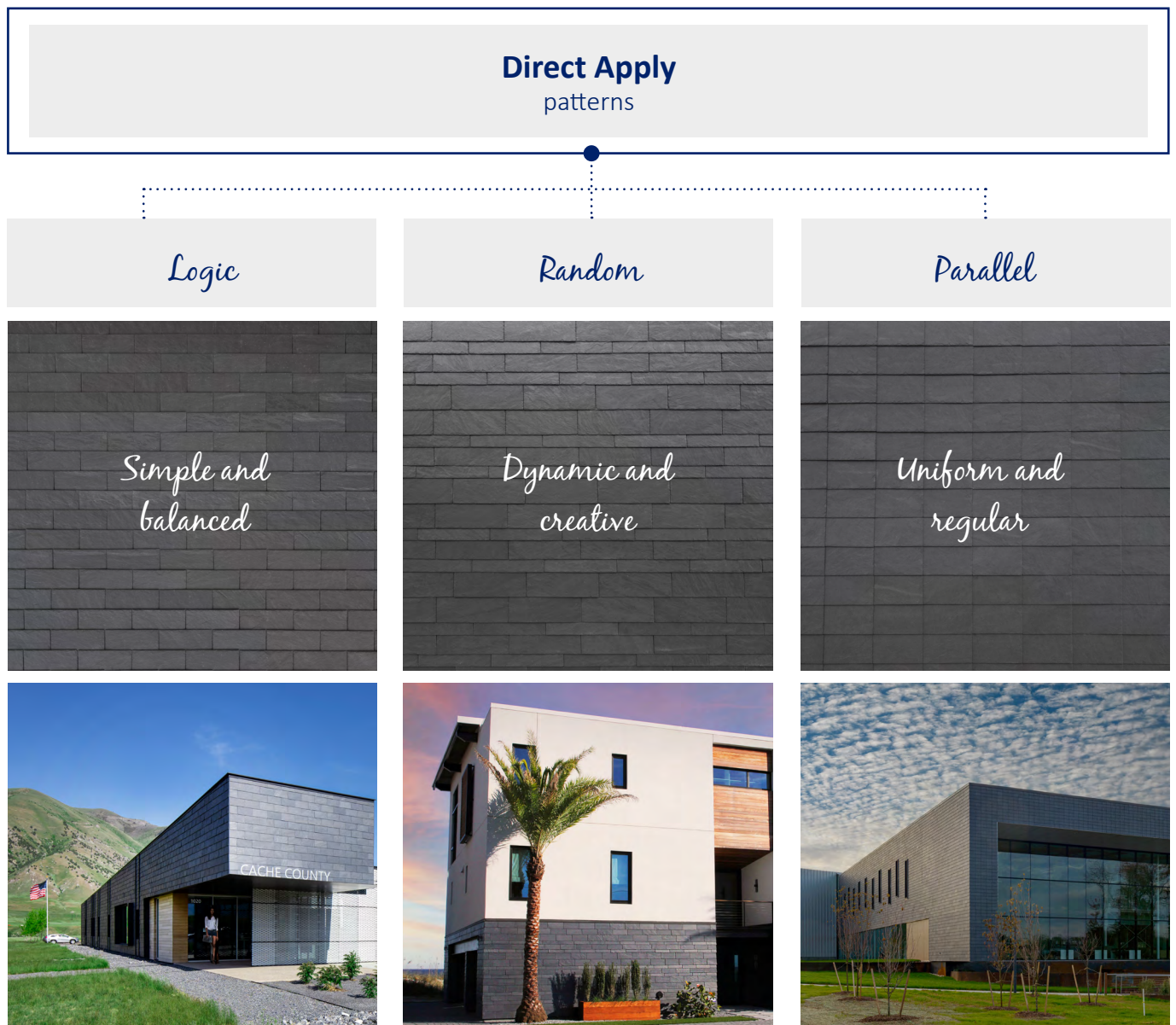
Direct Apply

1. INTRODUCTION TO SYSTEMS

CUPACLAD® direct-applied façade cladding systems are born from the need to adapt natural slate to new architectural trends and styles that demand a more sustainable approach. The slate used in our systems is a natural product carefully selected for its durability and characteristics from our 25 quarries.

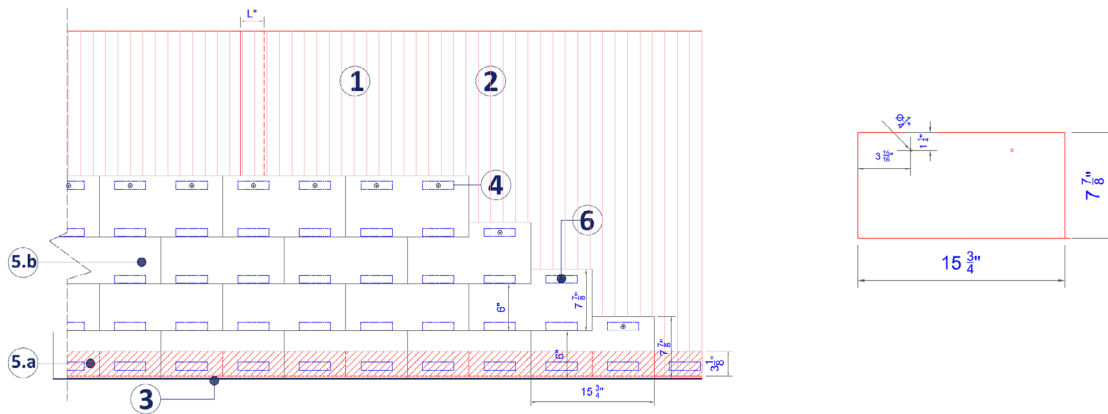
The CUPACLAD® Direct Apply range offers a number of alternatives adaptable to a wide variety of projects and styles. The Direct Apply system was developed for CUPACLAD after a thorough design process to ensure quick and easy installation, aided by the property of natural slate, thus providing a competitive and sustainable alternative for different cladding needs.

CUPACLAD® Direct Apply offers a new world of design possibilities using natural slate.



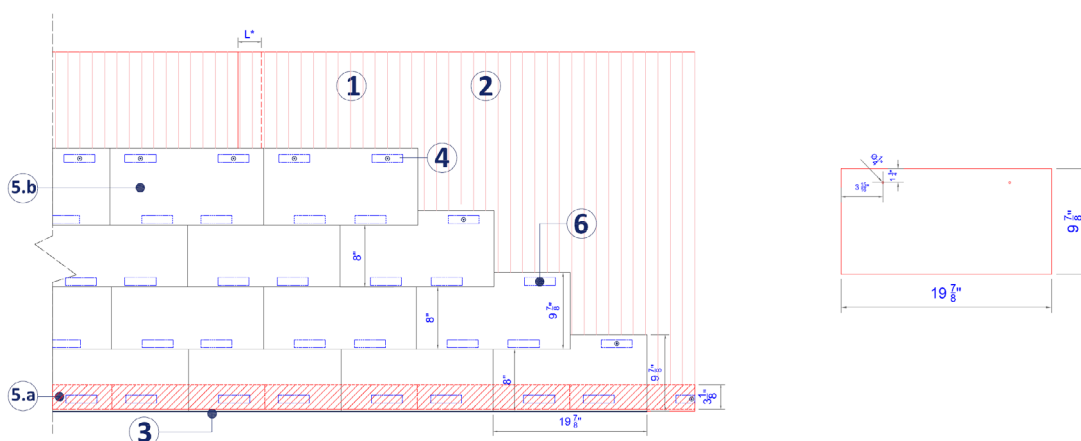
CUPACLAD® DIRECT APPLY LOGIC

1 LOGIC 16 X 8 (NOMINAL)



	NOMINAL
Slate size	16" x 8"
Thickness	1/4"-to-3/8"
Slate required to cover 1 ft ²	1.55
Square feet covered by one slate	0.86
Weight/ft ² (slate only)	5.86

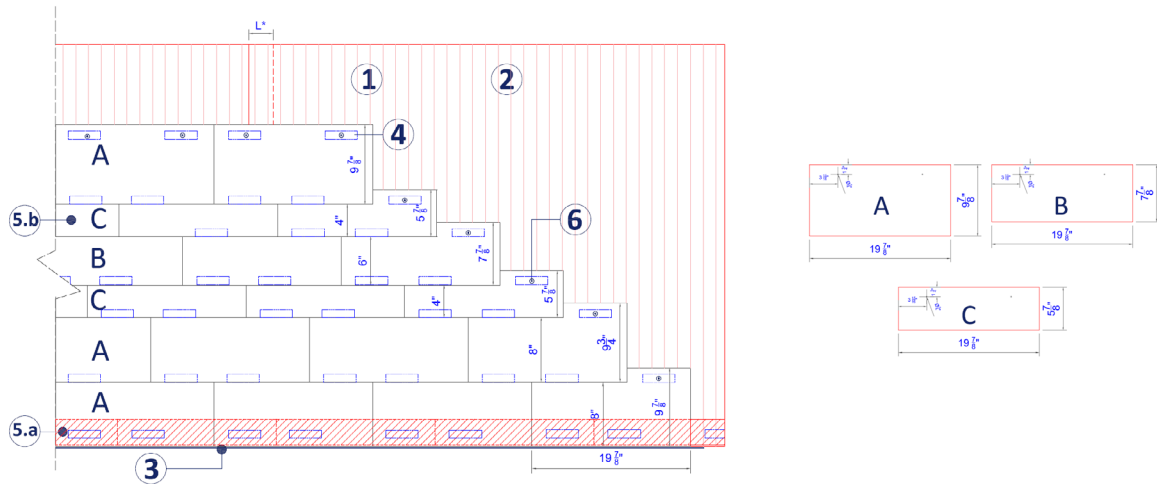
2 LOGIC 20 X 10 (NOMINAL)



	NOMINAL
Slate size	20" x 10"
Thickness	1/4"-to-3/8"
Slate required to cover 1 ft ²	0.93
Square feet covered by one slate	1.35
Weight/ft ² (slate only)	5.48

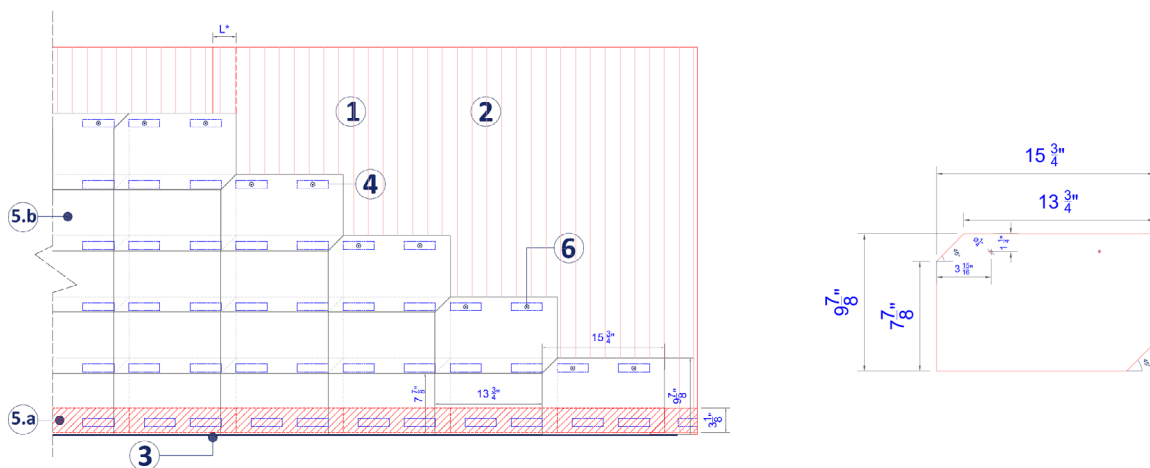
1. 1/2" plywood or 5/8" OSB Sheathing / 2. WRB: Panel Shield SA / 3. Drip Trim (optional, not a part of the system) / 4. VaproShims (1/7" Neoprene) self adhere to slate
 5a. Cupaclad Natural Slate starter course / 5b. Cupaclad Natural Slate cladding / 6. Self tapping SS screw for wood

CUPACLAD® DIRECT APPLY RANDOM



	NOMINAL
Slate size	20" x 10"
	20" x 8"
	20" x 6"
Thickness	1/4"-to-3/8"
Slate required to cover 1 ft ²	1.39
Square feet covered by 20"x10"	1.35
Square feet covered by 20"x8"	1.08
Square feet covered by 20"x6"	0.81
Weight/ft ² (slate only)	6.58

CUPACLAD® DIRECT APPLY PARALLEL



	NOMINAL
Slate size	16" x 10"
Thickness	1/4"-to-3/8"
Slate required to cover 1 ft ²	1.33
Square feet covered by one slate	1.08
Weight/ft ² (slate only)	6.15

1. 1/2" plywood or 5/8" OSB Sheathing / 2. WRB: Panel Shield SA / 3. Drip Trim (optional, not a part of the system) / 4. VaproShims (1/7" Neoprene) self adhere to slate
 5a. Cupaclad Natural Slate starter course / 5b. Cupaclad Natural Slate cladding / 6. Self tapping SS screw for wood

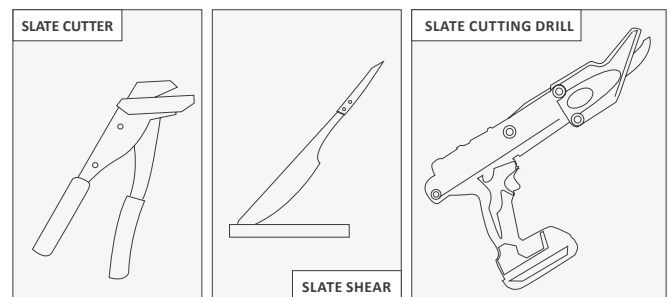
2. TOOLS REQUIRED



The following tools are required for the installation of Direct Apply systems, including the machining of the slate: Slate cutting scissors, drill- clutch drill (tightening torque)/ drilling Holes, utility blade, tape measure, chalk line, slate Drill bit (3/16"), level, square, pencil/marker, and scissors for aluminium.

1. SLATE CUTTER

The slate may be cut on site using a manual cutter to create corners and detailing. Extra care must be taken when handling the slate.



2. DRILL (with torque limiting coupling)

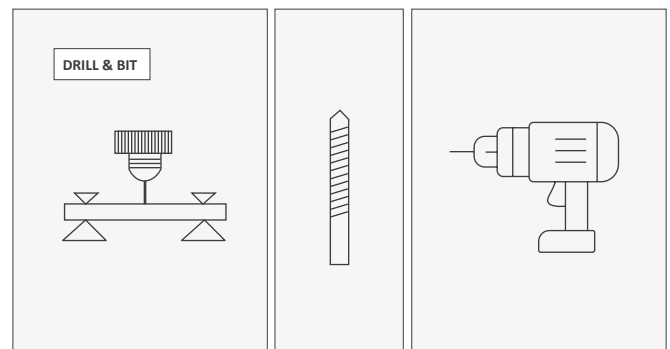
• Clutch Drill (Tightening torque)

All fixings must be installed using a drill with torque settings.

* See point 4_ Machining Instructions- Tightening torque text

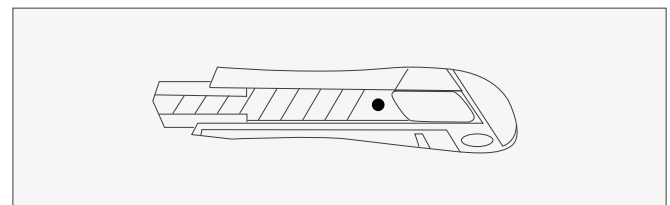
• Drilling Holes+ Bit

The slate must always be drilled on the reverse side. Slate can be drilled according to the recommendations detailed in point 4_ Machining instructions. Slate drilling (drill bit \varnothing ¼ mm)



3. UTILITY BLADE

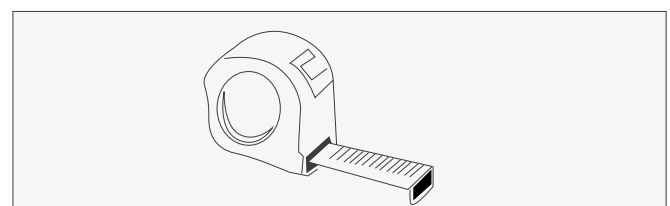
For cutting Vapro Panel Shield SA and/or Vapro Shim foil.



4. TAPE MEASURE

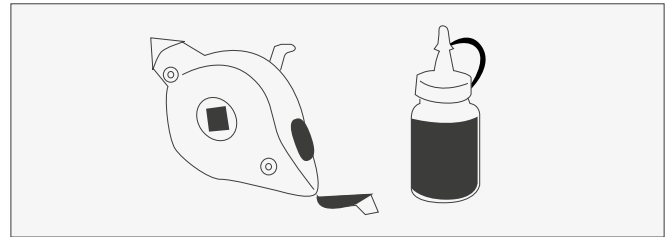
Used for various processes during installation:

- Taking measurements for laying/cutting the Vapro Panel Shield.
- Staking out to mark the slate laying line.
- Marking the slate for cutting or drilling new holes



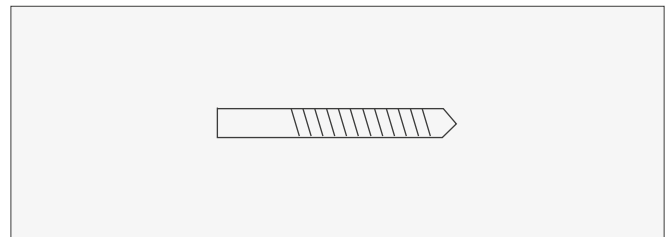
5. CHALK LINE

For marking the reference line during slate installation.



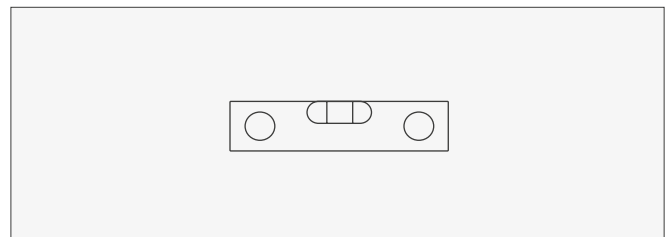
6. SLATE DRILLING BIT

If necessary, perforate the slate according to the recommendations detailed in the 'Machining Instructions.'



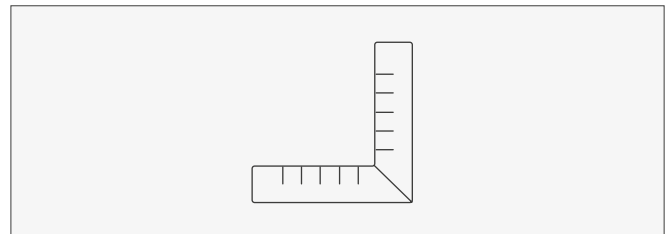
7. LEVEL

A level or laser level must be used to verify that the installed slate is levelled correctly (horizontally).



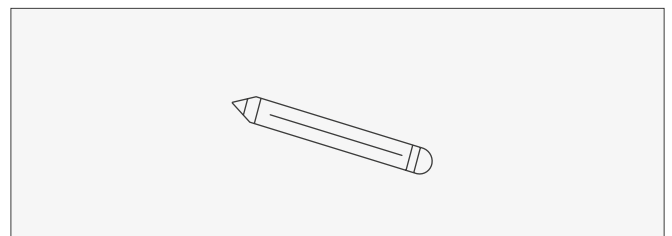
8. SQUARE

A square should be used to mark the slate and/or Va-pro Panel Shield SA accurately.



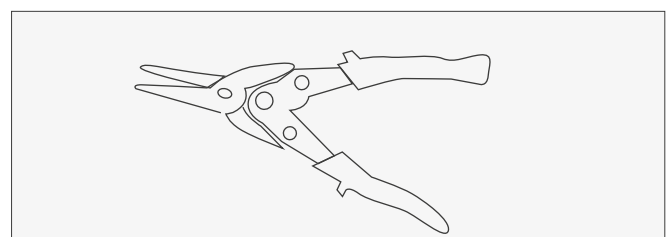
9. PEN / MARKER

Marking the desired points on the slate with a pencil facilitates the layout process on the facade



9. SCISSORS FOR ALUMINIUM

Used for trimming aluminum sheet metal when placing finishing elements (coping, jamb, lintel, etc.).

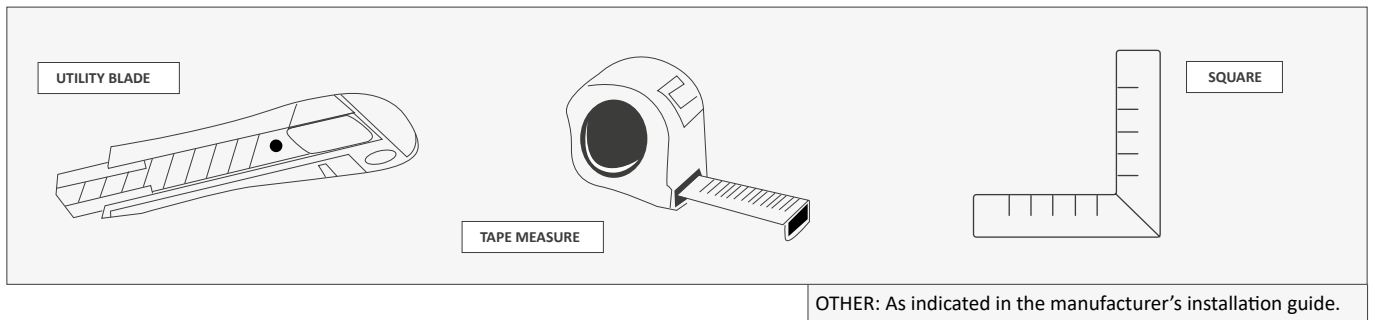


3. INSTALLATION GUIDE

■ 1st FITTING OF WRB: PANELSHIELD SA BY VAPROSHIELD

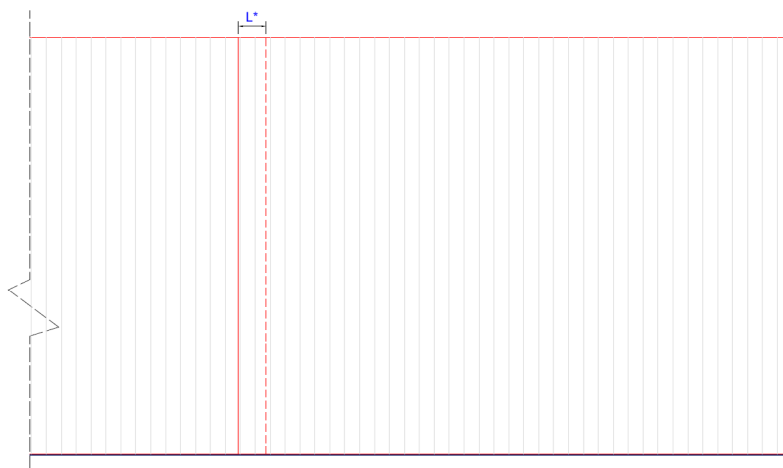
- Follow the manufacturer’s instructions/recommendations:
<https://vaproshield.com/products/wall-wrb-ab/panelshield-sa>

- **Tools:**



- **Steps to follow:**

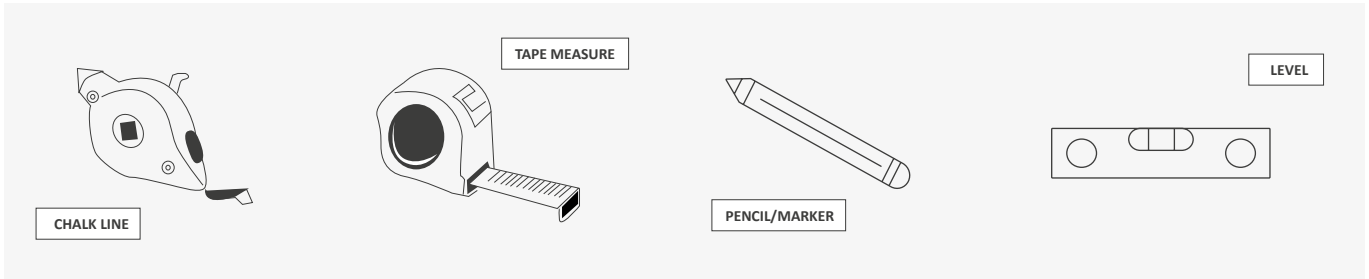
- Lay the PanelShield SA (either vertically or horizontally) of the film on the supporting wall.
- Lay the second strip with the overlap specified by the manufacturer (either horizontally and/or vertically).
- Continue this process along the entire length/height of the façade.



* Layout (vertical example)

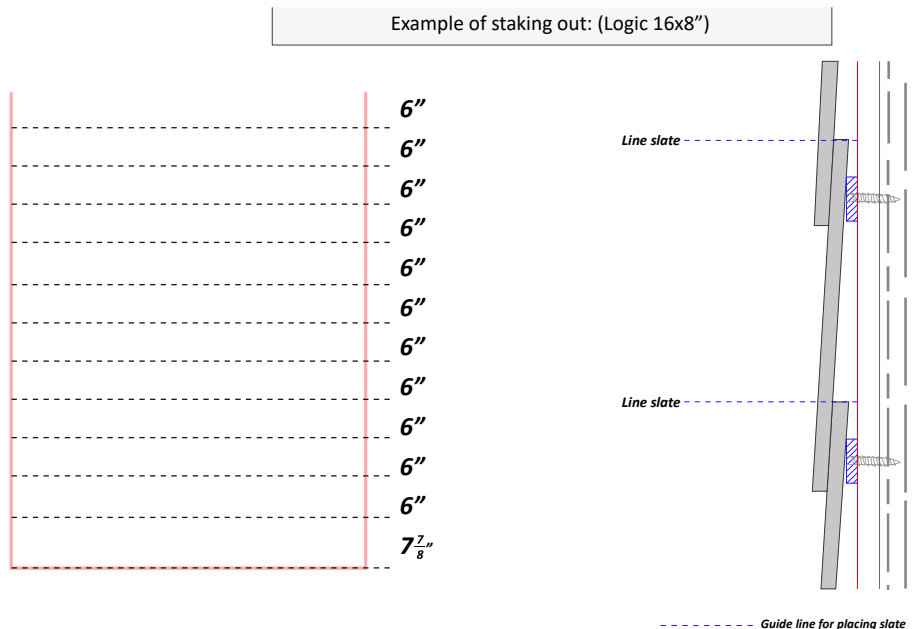
■ 2nd _ GUIDE LINE FOR PLACING SLATE

• Tools:



• Steps to follow:

- Stake out the distances according to the system (using a tape measure and pen/marker).
- Once the stakeout is complete, mark the reference lines that will be used to place the slate (using a chalk line).
- Use the level to check if the layout and marking are correct.



■ 3rd _ INSTALLATION/PLACEMENT OF METAL TRIMS (OPTIONAL, NOT PART OF THE SYSTEM)

If you choose to install metal sheet finishes, their installation will be carried out before starting with the slate installation.

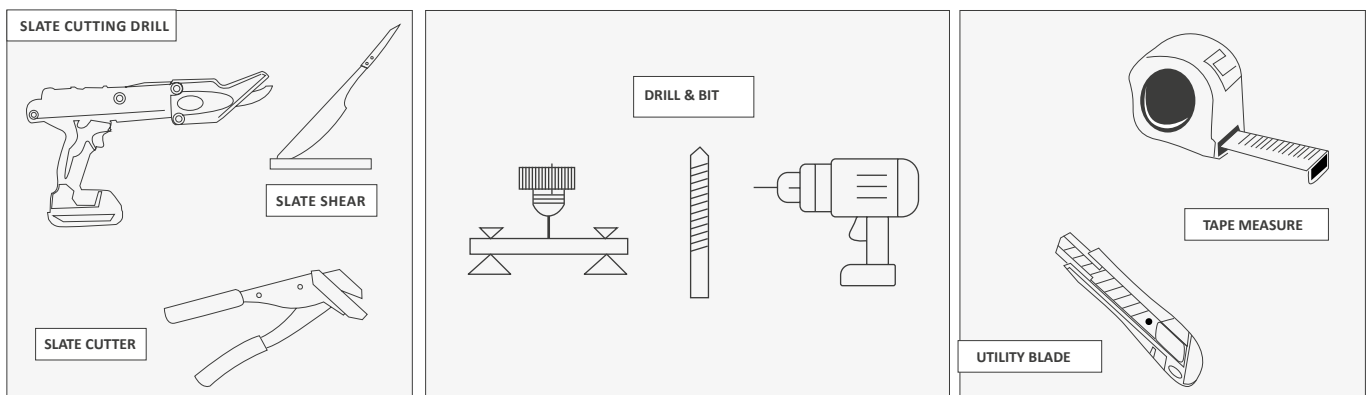
Use the necessary tools for a correct installation that ensures they are level and plumb.

■ 4th_ SLATE INSTALLATION

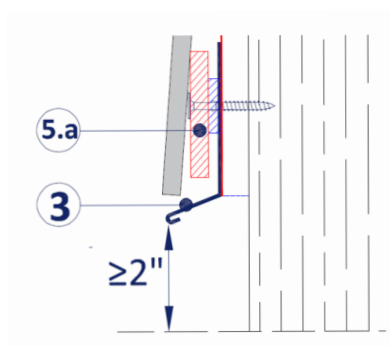
Note: When screwing the slate, keep in mind:

- **Tightening torque (point 2 of this guide).**
- **Machining instructions (point 4 of this guide).**

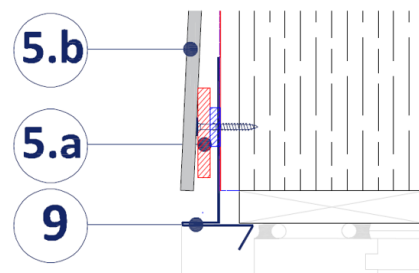
• Tools:



A) First course slate:



Detail 4: First course slate

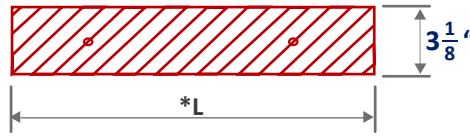


Detail B: Header trim

*L

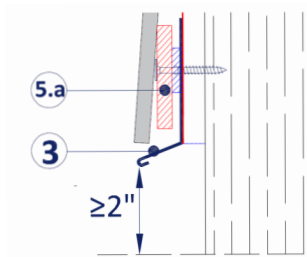
• Steps to follow:

- Cut slate to 3 1/8" tall or use treated wood.

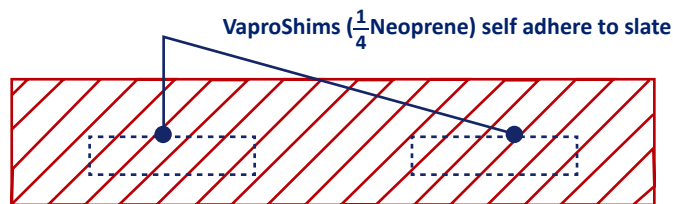


*L: variable length depending on the size of the slate.

- Keep existing holes or re-drill (drill holes if necessary, using a slate with holes as a guide for location).
- Stake out the line for the first course of slate at a distance of $\leq 2''$ from the ground level.



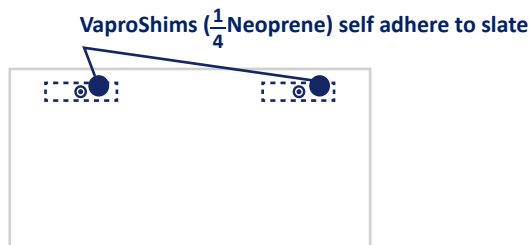
- Positioning of the VaproShims on the back of the slate where the pre-drilled holes are for screwing.



- These parts should be installed in all areas where the facade begins (at the start of the facade, above doors and windows, etc.)

B) Installation of slate on the façade:

- Adhere the VaproShims to the back of the slate where the pre-drilled holes are for screwing.



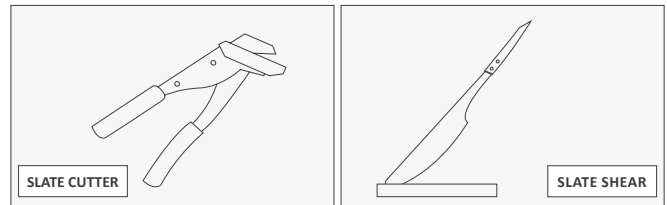
- Install the slate, following the lines previously marked, and screw it in, considering the tightening torque specified in this guide (point 2- Guille and 4- Machining instruction).
- In areas where trimming the slate is necessary, follow the steps outlined in point 4- Machining instruction.

4. MACHINING INSTRUCTION

The following tools are required to perform the CUPACLAD system installation:

- **SLATE CUTTER**

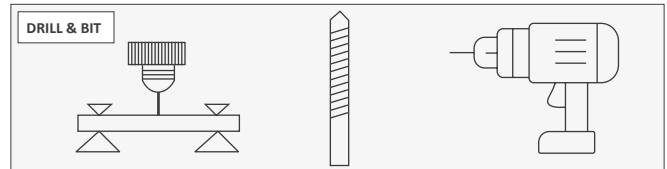
The slate may be cut on site using a manual cutter to create corners and detailing. Extra care must be taken when handling the slate.



- **DRILL (with torque limiting coupling)**

All fixings must be installed using a drill with torque limiting settings.

* See point 4_ Machining Instructions- Tightening torque text



- **GLOVES & GOOGLES**

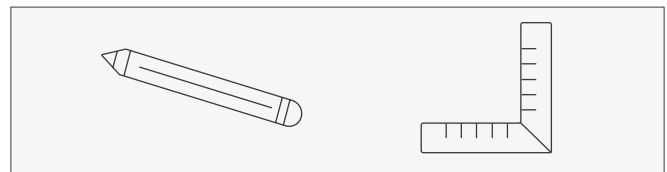
Protective gloves and goggles must always be used.



- **PEN & CARPENTER'S SQUARE**

A pen can be used to mark the slate pieces.

A carpenter's square should be used to correctly mark the slate cut.



Drill drivers have different power levels, so CUPA PIZARRAS advises always conducting a preliminary screwing test of the slates on the load-bearing wall after previously placing the Vapro membrane and Shims before starting the installation of CUPACLAD® Direct Apply systems. To determine the optimal working point, it is recommended to start the screwing test with slightly lower power than the maximum of the machine and gradually increase this power until the machine fully screws in the screw, without, in any case, damaging the slate due to excessive tightening. As an example, CUPA PIZARRAS conducted a screwing test of the slates of the CUPACLAD® Direct Apply system with the Makita drill driver model DDF485, which has the following characteristics:

High speed: 0-1,900 rpm

Low speed: 0-500 rpm

Maximum torque: 50 Nm

To determine the optimal working position with this drill driver, the following procedure was followed:

Started with low torque: position 2, speed 9. It was observed that the screw did not fully enter, as the machine's clutch disengaged.

Switched to a higher speed: position 2, speed 17. In this case, the screw entered without damaging the slate.

When reaching the maximum, the clutch disengaged, and the machine prevented applying more force, ensuring secure screw fixation without damaging the slate.

As a reference, the maximum torque that should be applied to the screw to prevent slate damage can be established at 2 Nm.

CACHE COUNTY

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4.1. DRILLING GUIDELINES

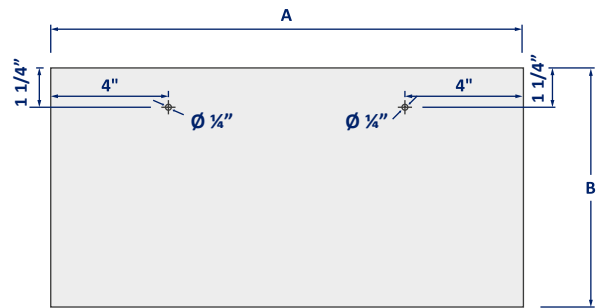
In the event that you need to cut slate and drill new holes, follow these guidelines.

A NEW DRILL IN A CUT SLATE

Standard Drill

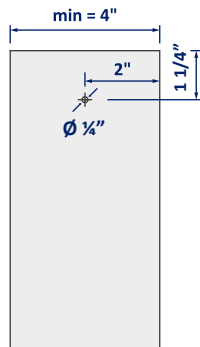
Slate supplied by CUPA PIZARRAS, already pre-drilled:
 15 3/4"x7 7/8" / 19 7/8" x 9 7/8" / 19 7/8" x 7 7/8" /
 19 7/8" x 5 7/8" / 15 3/4"x9 7/8"

A= 15 3/4", 19 7/8"
 B= 9 7/8", 7 7/8", 5 7/8"



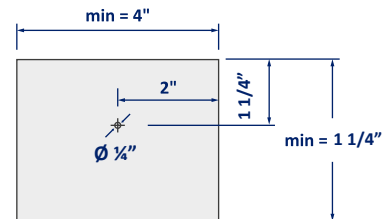
B SLATE CUT

These two cuts are intended for resolution of singular points: e.g. windows, doors, corners, first course slate...



Minimum length cut

Minimum distance drill = 2" from slate side

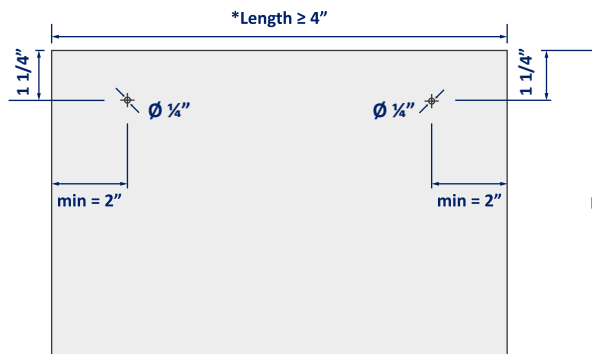


Minimum height cut

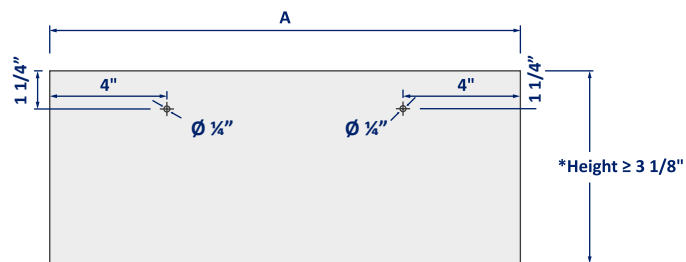
Minimum distance drill = 2" from slate side
 *First course slate



If necessary, the new holes must be drilled per:



**Different length than that supplied by CUPA PIZARRAS
B= 9 7/8", 7 7/8", 5 7/8"*



**Different height than that supplied by CUPA PIZARRAS
A= 15 3/4", 19 7/8"*



6. MAINTENANCE

CUPACLAD Direct Apply requires minimum maintenance.

Follow these simple steps to ensure continued peak performance:

• **Annual maintenance** inspections should be carried out to ensure that:

- **No slates are damaged**, the ventilation protection mesh, gutters and downspouts are clean and in good condition, and that items such as flashing (if installed) and expansion joints (if applicable) are in place and in good condition.

• **Cleaning** of several forms of pollution can be performed as defined:

- **Air pollution** (dust, dirt, soot, etc.) – clean with water solution.

- **Natural pollution** (moss, algae) – clean with water solution.

- **Graffiti** (spray cans) – clean with acetone or Duplicolor Graffiti-Ex, always following the instructions provided by the furnisher.

When detected, **damaged slate** must be replaced quickly.

The replacement procedure of slate. Replacing slate is different for each of the CUPACLAD systems. Instructions for each are below:

/ CUPACLAD® 101

Required tools to replace a slate in CUPACLAD® system:



- ✓ **1 x** slate:
 - CUPACLAD® 101 Logic
(15 3/4" x 7 7/8" / 19 7/8" x 9 7/8")
 - CUPACLAD® 101 Random
(19 7/8" x 9 7/8" / 19 7/8" x 7 7/8" /
19 7/8" x 5 7/8")
 - CUPACLAD® 101 Parallel:
15 3/4" x 9 7/8"
- ✓ **2 x** screws
- ✓ **1 x** hammer
- ✓ **1 x** saw
- ✓ **1 x** drill (Ø 1/4")
- ✓ **2 x** VaproShims

REPLACEMENT OF A DAMAGED SLATE IN CUPACLAD® DIRECT APPLY SYSTEM



Completely break the damaged slate using a hammer or any other tool you find suitable. Remove all broken pieces and slate debris.



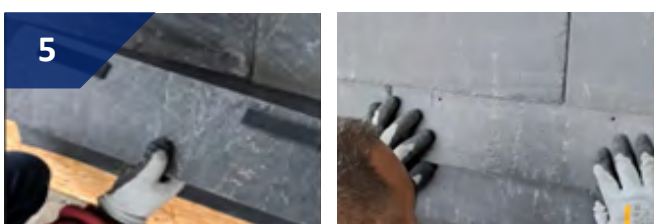
Use a saw to cut the heads of the screws holding the slate to facilitate the removal of the VaproShims.



Remove the VaproShims and use the saw again to cut the screw shank completely.



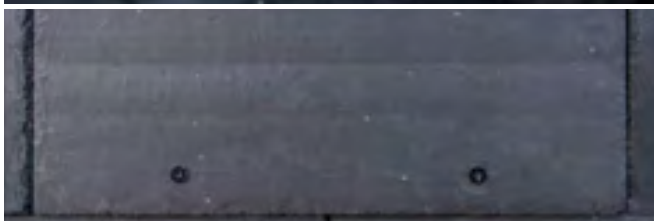
Drill a hole in each corner of the slate with
 - 2, 56" from de bottom
 - 4" from the lateral (right and left).



Place the VaproShims in the usual place to prevent the new slate from lifting. / Place the new slate in place using a hammer.

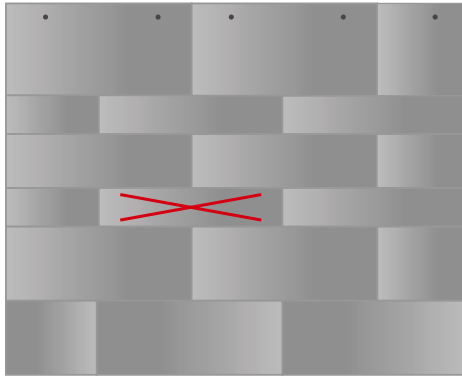


Fix the slate with 2 new screws lacquered in black.

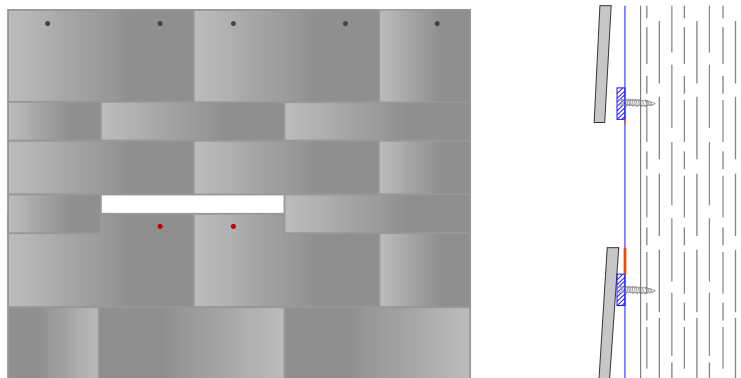


7. SLATE REPLACEMENT

① Identification of the damaged slate.

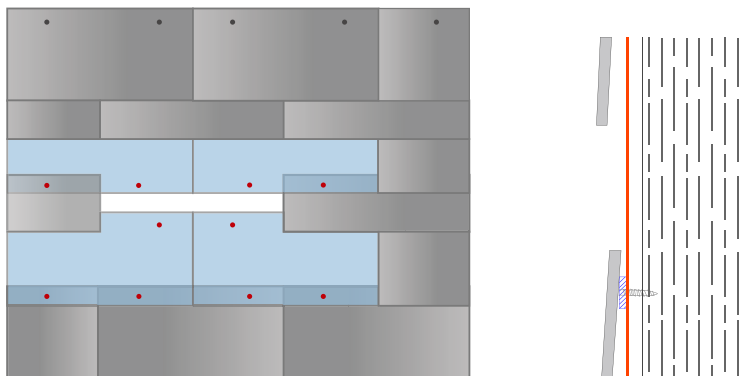


② Removal of slate piece

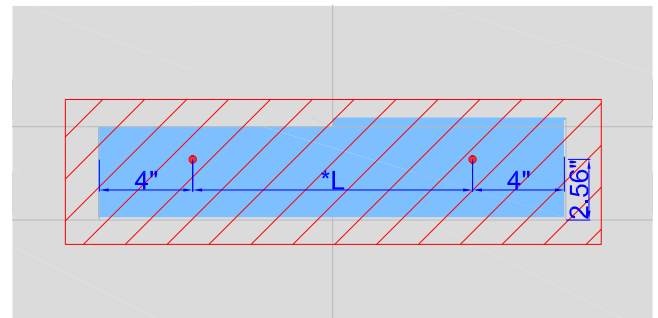
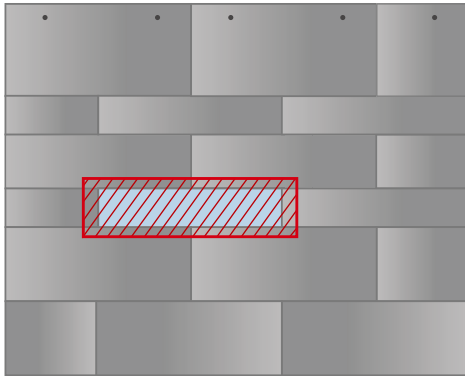


③ Locate the screws and VaproShims that held the damaged slate and remove them as follows:

Cut off the screw head, remove the VaproShims and re-cut the shank portion flush with the Panel Shield SA. If the Panel Shield is damaged during this step, it can be repaired with Black UV VaproTape.

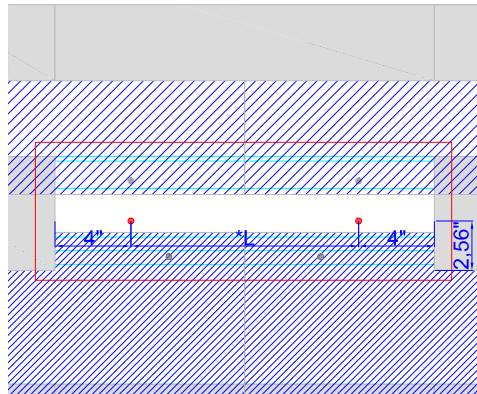
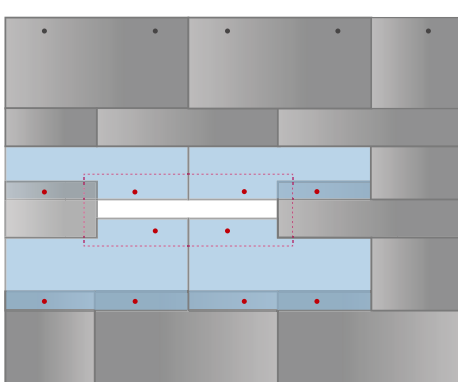


4 Placement of the new slate



*L: variable length depending on the size of the slate.

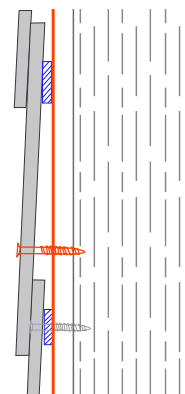
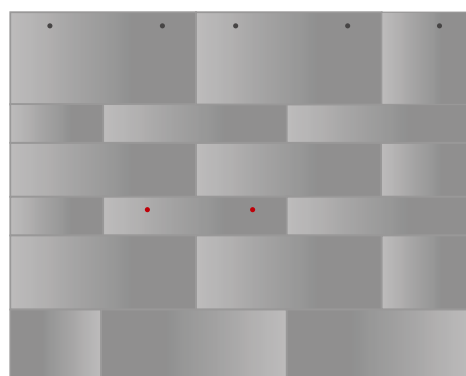
The most convenient option would be to fix the new slate in its bottom edge, following the instructions of the next drawing:



*L: variable length depending on the size of the slate.

Thus, after placing the new slate in its position, two holes must be drilled 2.56" from the edge of the bottom slate. Additionally, an offset of 4" from the left lateral edge must be maintained.

5 To achieve a correct positioning-fixing we must place the VaproShim in the usual place, i.e. in the pre-drilled holes provided with the slate and fix the slate to the supporting wall with the screws using the new holes. As specified in the procedure, these new screws can be hidden using a black lacquered screw.



8. STORAGE

1 Slate:

The slates are distributed on wooden pallets (3' 99/32" x 2' 623/32" x 2' 315/16"). Each pallet has the CE mark, the product label with its origin, size, quantity and traceability code.

The **internal storage** of CUPACLAD pallets requires following safety and quality standards. It is recommended to stack them in two heights, optimizing space and avoiding risks. Only in exceptional situations and under supervision, they could be stacked three high, always ensuring stacking stability.

Outdoor storage can damage and deform CUPACLAD pallets. It is advisable to cover them with waterproof tarpaulins and ventilate them well to avoid humidity.



2 Screws:

The boxes with the screws should be stored in a humidity-free environment to avoid damage.

3 Fitting of WRB: Vapro Panel Shield SA and VaproShims.

Follow the manufacturer's instructions.

Fitting of WRB: Vapro Panel Shield SA.

9. MANIPULATION

1 Slate:

- The slate must be handled with care to avoid any damage or breakage.
- It is necessary to choose a suitable location to avoid damaging the slate and accessories.

2 Installation of WRB: Vapro Panel Shield SA and VaproShims:

- Follow the manufacturer's instructions and recommendations.

The required safety and protective clothing must be worn, and safety and health regulations must be followed.



10. TECHNICAL GLOSSARY

A Facade selection slate, the CUPACLAD systems slate.

The CUPA PIZARRAS slate used for the CUPACLAD® systems has a 1/4"-3/8" nominal thickness and a textured surface. It has been carefully selected for its technical properties to offer a flawless installation and performance.

The slate supplied for the invisible fixing systems is always pre-drilled at the required position, making its installation quicker and problem free.

The amount of slate needed for a certain project must be always increased by 10%-15% overage to allow for the waste generated by the finishing details on the cladding (corners, window sills...).

B Fitting of WRB: PanelShield SA by VaproShield

A permeable polyester air barrier WRB membrane designed for use in panelization/modular and commercial construction.

(more information on vaprosshield.com)

C VaproShim

VaproShim SA Self-Adhered Neoprene accessory is used to create drainage and air flow while sealing fastener penetrations.

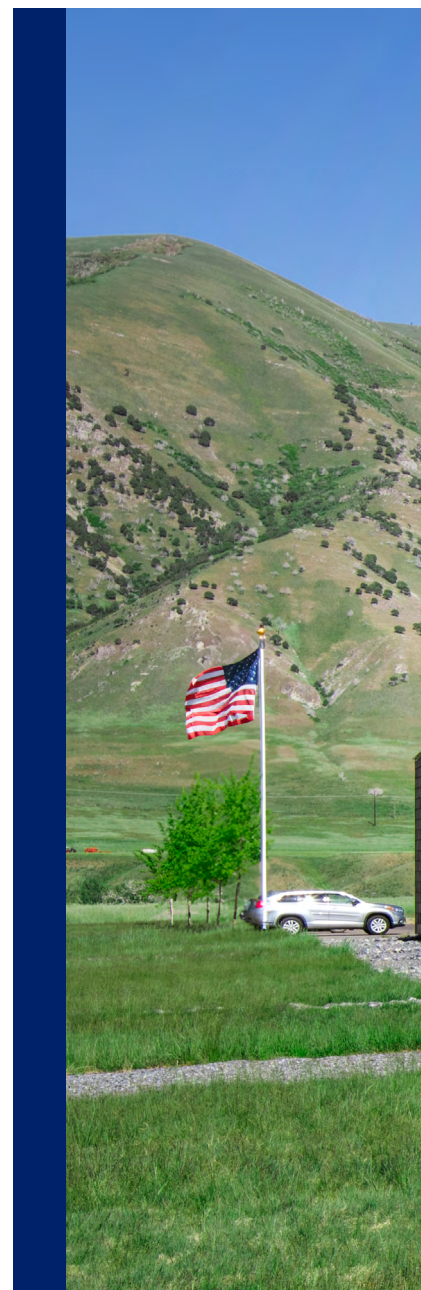
(more information on vaprosshield.com)

D Flashing and Corner Trim

The supporting wall is responsible for ensuring the stability of the building and must be stable enough to support the weight of the covering.

F Support wall

The load-bearing wall is responsible for ensuring the stability of the building and must be stable enough to support the weight of the cladding.



11. TECHNICAL ADVICE

CUPA PIZARRAS has a dedicated technical department for CUPACLAD, providing clients with advisory services to define their projects, ensuring maximum quality, and committing to delivering the most suitable solutions for each need. We analyze project plans, conduct detailed studies, and recommend the most appropriate system for each case.

Our services include façade disassemblies, preparation of construction solution details tailored to each project, and offering personalized systems for various requirements. The technical department is responsible for guaranteeing the highest quality of materials, coordinating commercial and productive activities internally, and overseeing logistics until the product reaches its destination.

Contact us for personalized advice at cupaclad.com or cupaclad@cupagroup.com without any obligation.





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