

# AQUABELLA®



## NATURAL STONE INSTALLATION GUIDE

Aquabella® provides these instructions as general guidelines only. The contractor and/or installer shall be responsible for ensuring that all applicable local building codes are followed, which may require modification of these general guidelines. Aquabella assumes no liability for personal injury or property damage resulting from improper or careless application of the described techniques.



# PAVERS INSTALLATION GUIDE ON POOL DECKS - DRY-SET METHOD

Please note that all information in this document should be considered a guide only and should be checked against your state and local requirements before installation.

## PREPARING THE GROUND

- Mark the area of your project with wooden stakes and string lines where you would like the top of your pavers.
- Remove sod and dig out the area at least 7 3/8" below the string line (if installing a residential driveway or parking area, you need to dig out at least 9 3/8").

## MAKING THE SUB-BASE BED

- Bring crushed rock for your sub-base (or whatever type of material is recommended for your specific location).
- Bring the crushed rock level up to 3 1/2" below your string line - the rock should be at least 4" deep in all places (if installing a residential driveway or parking area, the rock should be at least 6" deep in all places).
- Level and compact the crushed rock using a manual compactor, compacting the material every 2" of depth. This sub-base provides a level surface upon which the pavers are laid and is very important to the quality of the finished pavement.
- You can add a thin layer of course sand to the top layer of your sub-base, and as you compact the area, the sand will settle between rocks in the sub-base, adding to the stability of the sub-base.

## PREPARING SAND BED

- Screed the bedding sand in place using two pieces of 1" PVC pipe for spacing. Place them parallel to one another on the base rock. The sand should be coarse concrete sand that water will pass easily through. We want water to drain through the sand bed and the sub-base, permitting the water to drain away from the pavers.
- Remove the pipe conduit and fill in voids (do not compact or walk on sand). **Screed only as much sand as you can cover with pavers in one day. Sand left overnight, or longer**

*can become unlevelled or wet, affecting the leveling process.*

## LAY PAVERS

- Before beginning the installation process, it is advised to remove the pavers from the crates and arrange them in place. As this is a natural stone, we recommend blending materials from the different pallets to achieve a smooth color transition from pallet to pallet. Lay pavers in your desired pattern.
- Start laying pavers outward in a staggered way.
- For borders, smaller sizes are suggested. If cut pavers are necessary, you can use a wet masonry saw
- Cutting with a dry method requires additional safety equipment to protect your health and is not recommended without proper safety equipment.
- Measure over to your string line every few feet to ensure that you stay on track.

## COMPACTING

- Sweep sand diagonally across the pavement into the joints. Use a hand tamper or rubber mallet to set the pavers.
- Work from the perimeter inward, going over the surface at least twice until the surface is level to your satisfaction.

## SAND JOINTS

- Most stone pavers are installed without joints between them. After installing pavers with joints, we suggest using polymeric sand to fill the gaps between the pavers and to fill any holes on the travertine pavers' surface if desired.
- Filling the holes in the surface is an aesthetic decision.

## CLEANING YOUR PAVERS

- After installing your pavers, if the overall project is still under construction, cover them to prevent them from becoming dirty or stained before

# PAVERS INSTALLATION GUIDE ON POOL DECKS - DRY-SET METHOD (CONT.)

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sealing them.

- It is much easier to protect your pavers to keep them clean than soil them with construction traffic and try to clean them afterward. Kraft paper, plywood (ink stamps facing up), or many other commercial products can be used to cover and protect your job. When the project is ready for final cleaning, clean them to your satisfaction level.

## SEALERS

- To extend the life of your pavers and enjoy their natural color, we recommend using a natural stone sealer. Treated surfaces are easier to clean and will keep looking good for longer.
- STAIN-PROOF Premium Impregnating Sealer from Dry-Treat is our standard recommendation. To see what sealer you feel will work the best for your project and how it will affect your job's color, please go to <https://www.drytreat.com/> for complete sealers and cleaners information.

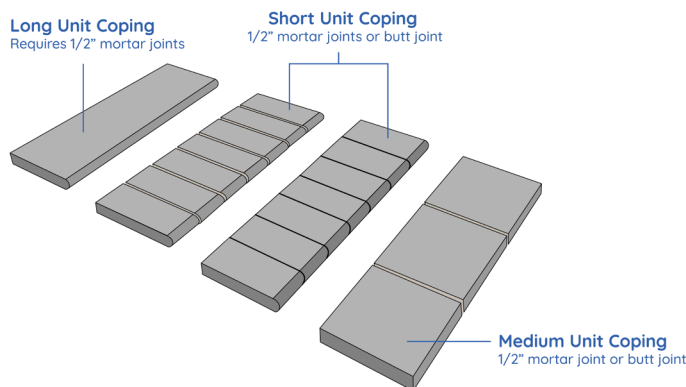
## COPING TYPES

### USAGE BY SIZE

- There are many manufactured and natural stone coping options to choose from. Longer units tend to be for straight designs and shorter units used for free form pool designs.

### TYPE OF JOINTS

- Some designs are more suited to mortar joints instead of tight-fitting butt joints. Butt joints are more work when it comes to cutting but time is saved because there are no mortar joints. Mortar joints can make things easier by allowing you to fine tune spacing on radius projects. Mortar joints also provide added visual texture.



### FINISH

- **Tumbled:** Pavers and coping with tumbled finish are slowly tumbled in a drum to give them a look and feel of time-worn and aged. All our Natural Stone series have this finish.
- **Sand Blasted:** A high-pressure air gun applies small pits of silica sand to the natural stone, highlighting the colors and adding grip and friction to originally smooth stones, like marble. It is usually mixed with other finishes like brushed or tumbled. Our Blue Stone and Glacier series have a sand-blasted finish.
- **Brushed:** Smooth textures to the touch, with a casual worn look and vivid colors, are achieved with the brushed finish when using different tools, like a rotary wire wheel or brushes. Our Blue Stone series has a brushed finish.

### THICKNESS

- **3CM:** Primarily used as pavers in pool decks and other outdoor areas.
- **5CM:** Mainly used as the cap of raised walls or pool edges.

### EDGES

- **Single Bullnose:** Round edge on one side, the perfect finish edge around the pool. Ideal for pool coping, steps, paving edges or wall caps.
- **Double Bullnose:** Ideal use for raised spas or walls that will be exposed on both sides.
- **Single Eased Edge:** Straight side with edges eased at the corner for safety. Edges are not sharp or rounded and give a more modern look.

# COPING INSTALLATION GUIDE ON DECKS & CONCRETE POOLS

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This is the easiest method since the pool wall provides the structural support for the coping units.

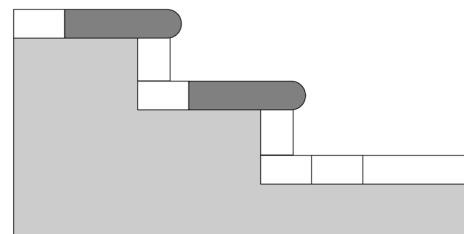
## PREPARING THE AREA

- Clean concrete bond beam or concrete slab surfaces to be free of dirt, oils or other contaminants prior to placement of bedding material for the coping stone.
- Roughen up the top of the pool's concrete wall. This will ensure good adhesion of the mortar and the coping.

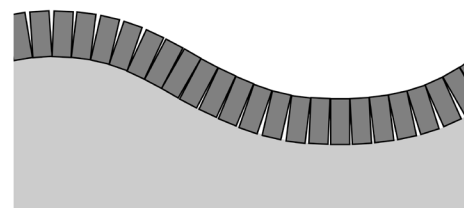
## LAY COPING

- Dry-fit all coping before cutting.
- Install all your 90° corners before installing the rest of the coping around the pool.
- Coping should overhang approximately 2" (50mm) and slope at a 2% grade away from the pool. Use a string line to maintain straightness and a torpedo level to maintain the slope of each unit.
- Make appropriate cuts (refer to cutting techniques covered later in this guide)
- Coping pieces shall be level from unit to unit.

## Installation Patterns

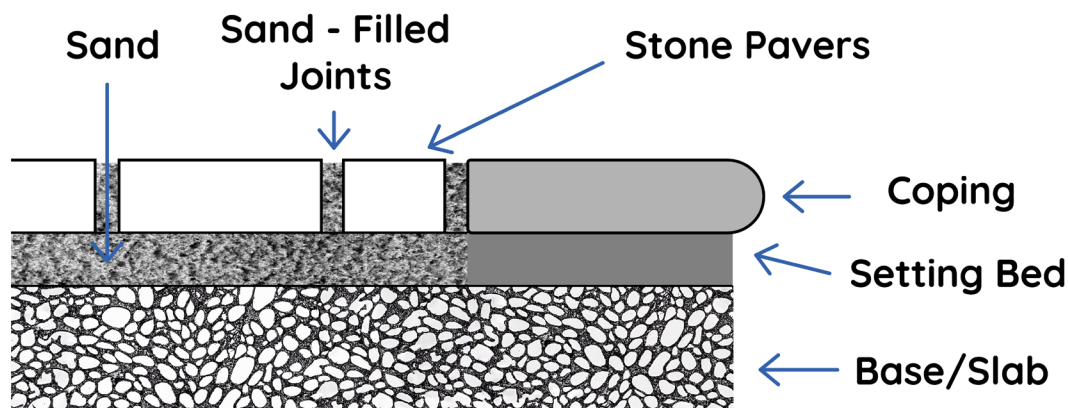


Coping Step Stairs



Pool Coping

## TYPICAL CROSS SECTION OF COPING STONE INSTALLATION

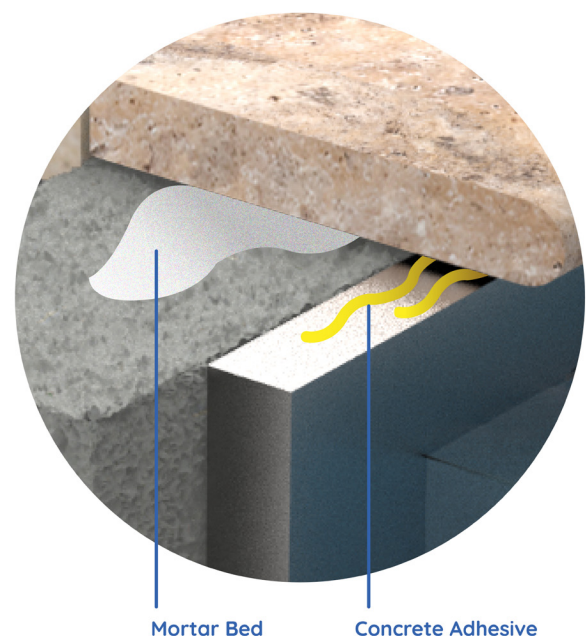
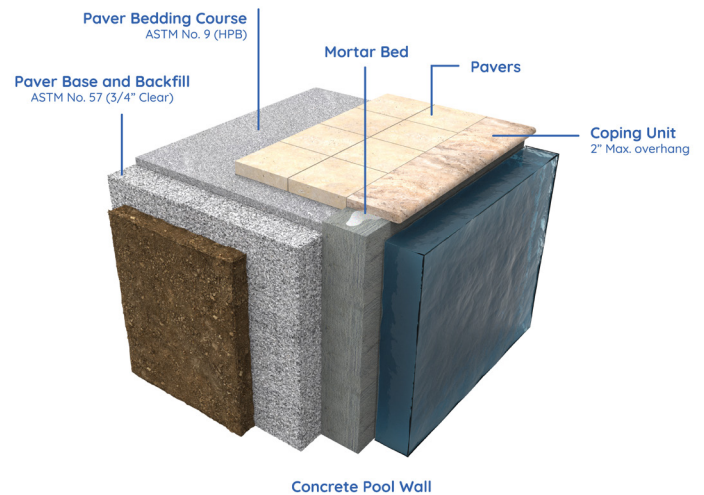


# COPING INSTALLATION GUIDE ON DECKS & CONCRETE POOLS

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## ADHERING THE COPING & GROUTING

- Adhere coping to the pool perimeter with concrete adhesive between the coping and the pool wall, and a bed of mortar between the concrete collar and the remaining of the coping's underside. The mortar bed allows you to tweak the slope of each unit, while the concrete adhesive will provide longevity of the installation.
- Make sure the coping is clean.
- For straight-sided pools, always construct the corners first and work towards the middle. This way you can make cuts to adjust lengths where required.
- Use a modified mortar to adhere units to the concrete collar, and always follow the manufacturer's instructions. Apply the mortar using a 1/4" notched trowel. Pre-wetting the concrete collar and using a slightly wetter mix of mortar will help units adhere better.
- Do not let grouting mortar cure on surface of the coping. Always clean any mortar residue off the surface of the coping and adjacent pavers with a soft brush, warm water and a sponge as you go.
- Fill the joints between units with an exterior tile grout.



## SEALERS

- Extend the life of your pavers and enjoy their natural color, we recommend using a natural stone sealer.
- STAIN-PROOF Premium Impregnating Sealer from Dry-Treat provides premium long term protection for natural stone, tiles, pavers, concrete, brick and grout from water and oil based stains and damage caused by water and dissolved salts. Treated surfaces become easier to clean and keep looking good for longer.



# COPING INSTALLATION GUIDE ON VINYL LINER OR FIBERGLASS

Please note that all information in this document should be considered a guide only and should be checked against your state and local requirements before installation.

**Vinyl Liner and Fiberglass are the most common pool types. The method for installing pool coping is basically the same for both.**

## CONCRETE COLLAR

- Frame and pour a reinforced concrete collar around the perimeter of the pool. Minimum size should be 6 x 6 x 6" (150 x 150 x 150mm).
- Ensure the top of the collar is recessed ½" (12mm) down from the top of pool and troweled to an even surface. Brush finish.
- Let the collar cure for minimum of 3 days.

## LAY COPING

- Dry-fit all coping before cutting.
- Install all your 90° corners before installing the rest of the coping around the pool.
- Coping should overhang approximately 2" (50mm) and slope at a 2% grade away from the pool. Use a string line to maintain straightness and a torpedo level to maintain the slope of each unit.
- Make appropriate cuts (refer to cutting techniques covered later in this guide)
- Coping pieces shall be level from unit to unit.

## ADHERING THE COPING

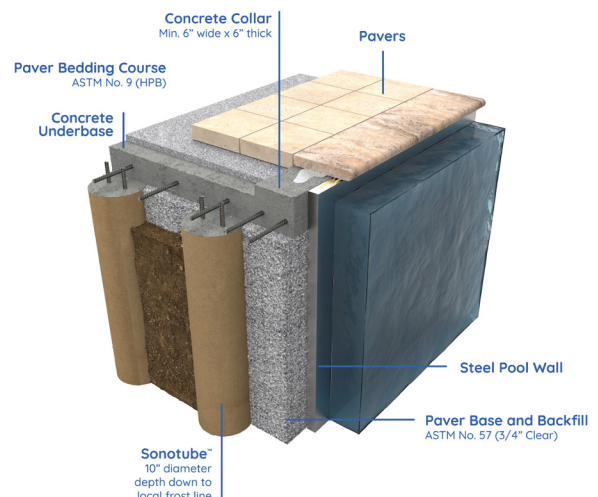
- Adhere coping to the concrete collar and steel pool wall. The mortar bed allows you to tweak the slope of each unit, while the concrete adhesive will provide longevity of the installation.
- Make sure the coping is clean.
- For straight-sided pools, always construct the corners first and work towards the middle. This way you can make cuts to adjust lengths where required.
- Use a modified mortar to adhere units to the concrete collar, and always follow the manufacturer's instructions. Apply the mortar using a 1/4" notched trowel. Pre-wetting the concrete collar and using a slightly wetter mix of mortar will help units adhere better.
- Do not let grouting mortar cure on surface of

the coping. Always clean any mortar residue off the surface of the coping and adjacent pavers with a soft brush, warm water and a sponge as you go.

- Fill the joints between units with an exterior tile grout.

## SEALERS

- To extend the life of your pavers and enjoy their natural color, we recommend using a natural stone sealer. Treated surfaces are easier to clean and will keep looking good for longer.
- STAIN-PROOF Premium Impregnating Sealer from Dry-Treat is our standard recommendation. To see what sealer you feel will work the best for your project and how it will affect your job's color, please go to <https://www.drytreat.com/> for complete sealers and cleaners information.



# COPING INSTALLATION GUIDE ON VINYL LINER OR FIBERGLASS WITH RECESSED CONCRETE OVERLAY

Please note that all information in this document should be considered a guide only and should be checked against your state and local requirements before installation.

**This method is very similar to the previous method with the exception of an additional concrete underbase over which pavers can be placed to eliminate any possibility of paver settlement.**

## CONCRETE COLLAR

- Frame and pour a reinforced concrete collar around the perimeter of the pool. Minimum size should be 6 x 6 x 6" (150 x 150 x 150mm).
- Ensure the top of the collar is recessed ½" (12mm) down from the top of pool and troweled to an even surface. Brush finish.
- Let collar cure for minimum of 3 days.

## CONCRETE UNDERBASE

- Frame the concrete underbase at least 4" (200mm) thick and provide enough recess from top of collar to underbase surface to accommodate the paver thickness plus ¾" of HPB bedding material.

*You may eliminate the ¾" of bedding if you are installing the pavers directly over the concrete in which case you must ensure that the surface is troweled to an accurate fine finish. NOTE: Direct concrete overlays will not allow paver surface leveling with a tamper to remove height variances.*

- Reinforce the concrete underbase with ½" (12mm) rebar and support it on Sonotubes spaced at 4 ft intervals.
- Ensure that the underbase slopes away from the pool edge approximately 2%.

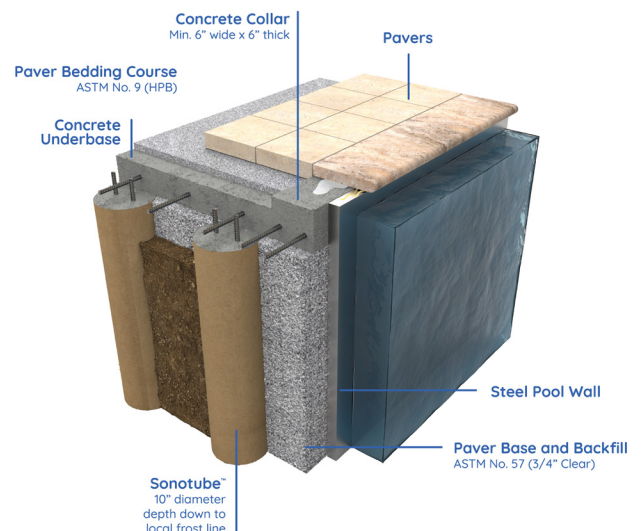
## LAY COPING

- Dry-fit all coping before cutting.
- Install all your 90° corners before installing the rest of the coping around the pool.
- Coping should overhang approximately 2" (50mm) and slope at a 2% grade away from the pool. Use a string line to maintain straightness and a torpedo level to maintain the slope of each unit.

- Make appropriate cuts (refer to cutting techniques covered later in this guide)
- Coping pieces shall be level from unit to unit.

## ADHERING THE COPING

- Adhere coping to the concrete collar and steel pool wall. The mortar bed allows you to tweak the slope of each unit, while the concrete adhesive will provide longevity of the installation.
- Make sure the coping is clean.
- For straight-sided pools, always construct the corners first and work towards the middle. This way you can make cuts to adjust lengths where required.
- Use a modified mortar to adhere units to the concrete collar, and always follow the manufacturer's instructions. Apply the mortar using a ¼" notched trowel. Pre-wetting the concrete collar and using a slightly wetter mix of mortar will help units adhere better.
- Do not let grouting mortar cure on surface of the coping. Always clean any mortar residue off the surface of the coping and adjacent pavers with a soft brush, warm water and a sponge as you go.





# COPING INSTALLATION GUIDE ON VINYL LINER OR FIBERGLASS WITH RECESSED CONCRETE OVERLAY

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- Fill the joints between units with an exterior tile grout.

## **SEALERS**

- To extend the life of your pavers and enjoy their natural color, we recommend using a natural stone sealer. Treated surfaces are easier to clean and will keep looking good for longer.
- STAIN-PROOF Premium Impregnating Sealer from Dry-Treat is our standard recommendation. To see what sealer you feel will work the best for your project and how it will affect your job's color, please go to <https://www.drytreat.com/> for complete sealers and cleaners information.

# SPLIT FACE VENEERS INSTALLATION GUIDE

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**Ensure all surfaces to be covered are clean and free of all loose material and dust. Surfaces to be covered must be structurally sound and comply with local building codes.**

## MORTAR RECOMMENDATION

- For all installations, a polymer modified mortar is recommended. For commercial installations, as well as exterior installations over 10' in height, a polymer mortar with a latex additive is strongly recommended.

## SPLIT FACE INSTALLATION

- Apply the mortar to the substrate using a minimum 3/8" notched trowel, or alternatively apply the mortar to the back of each piece of stone using a flat hand trowel.
- Place the stone in place and ensure proper adhesion is achieved by pressing firmly on the face of the stone.

## UN-GROUTED APPLICATIONS

- When installing, ensure all mortar is removed from the edges of the stone prior to installing the adjacent pieces.
- This will ensure that all adjacent pieces are installed as tight as possible and thus eliminating unsightly gaps.
- During the installation and after the installation is completed, wipe the surface clean with clean water only ensuring to remove all mortar and dust from the stone surface.
- Where needed, individual pieces should be cut with a wet saw to ensure accurate and clean cuts. Never mark the surface of the stone with a permanent marker as this will be absorbed by the stone.
- Prevent any vibration or hammering of the wall for a period no less than 24 hours after the stone has been applied to prevent the possibility of compromising the adhesion of the stone to the wall.

## GROUTED APPLICATIONS

- The use of spacers may be needed to maintain uniform joint widths. During the installation and after the

- installation is completed, wipe the stone surface clean with clean water only ensuring to remove all mortar and dust from the stone surface.
- Where needed, individual pieces should be cut with a wet saw to ensure accurate and clean cuts. Never mark the surface of the stone with a permanent marker as this will be absorbed by the stone and cannot be removed. Cut edges should then be chipped with a chipping hammer.
- After the mortar has set, remove the spacers and using a grouting bag, apply the recommended grout in accordance with the manufacturer's instructions.
- Do not allow grout to dry on the surface of the stone before cleaning.
- Allow the grout to set until it is fairly stiff before tooling the joints. Tool the horizontal joints first, then the vertical joints. Tooling the joints will ensure uniform grout joints.

# LEDGERSTONE INSTALLATION GUIDE

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**Aquabella's Ledgerstone Panels can be used to create beautiful stone veneer on interior or exterior walls. Substrate should be structurally sound, clean, dry and free of debris. Our Ledgerstone can be installed directly onto brick, masonry block, cured concrete, or cement board. Smooth, nonporous or polished surfaces should be avoided to adhere to.**

## MORTAR RECOMMENDATION

- For all installations, a polymer modified mortar is recommended. For commercial installations, as well as exterior installations over 10' in height, a polymer mortar with a latex additive is strongly recommended.

## LEDGERSTONE PANEL INSTALLATION

- If you have corners to install, begin your stone installation with corners first. Start at the bottom, and work your way up the wall and horizontally, keeping the corner progress ahead of filling in the horizontal flat pieces. For tighter-fitting corner pieces, you may need to rasp the inside corner with a general purpose file.
- Working from the bottom of the wall upward, coat the wall with 0.5inch plus layer of mortar, covering slightly more than the width of each panel.
- Apply layer of mortar to the back of the ledger panel and press the panel firmly in place. To ensure maximum bond of each panel to the wall surface, use a rubber mallet to tap each ledger panel in to its final position Repeat the previous steps, adding panels in a linear direction (end-to-end, rather than stacking) to create multiple layers of panels until the desired height is reached.

## CORNER PANEL INSTALLATION

- Corner panels are used to finish outside corners with natural edges. Inside corners should be mitered from plain panels.
- Corner panels have natural rock faced ends on both sides and are shaped as shown. They are 24" long and 6" high with approximately one square feet coverage.

- Corner panels should be cut into two pieces at desired length and finger joined around the outside corner as shown. One corner panel is needed to complete on linear foot of outside corner.
- Continue installation by removing one staggered end of the plain ledger stone piece and place adjacent to the installed corner piece to continue same row.
- Alternate the size of the corner pieces to help stagger the joints. Do not stagger in a brick fashion, but randomly alter the size to conceal the joint patterns.

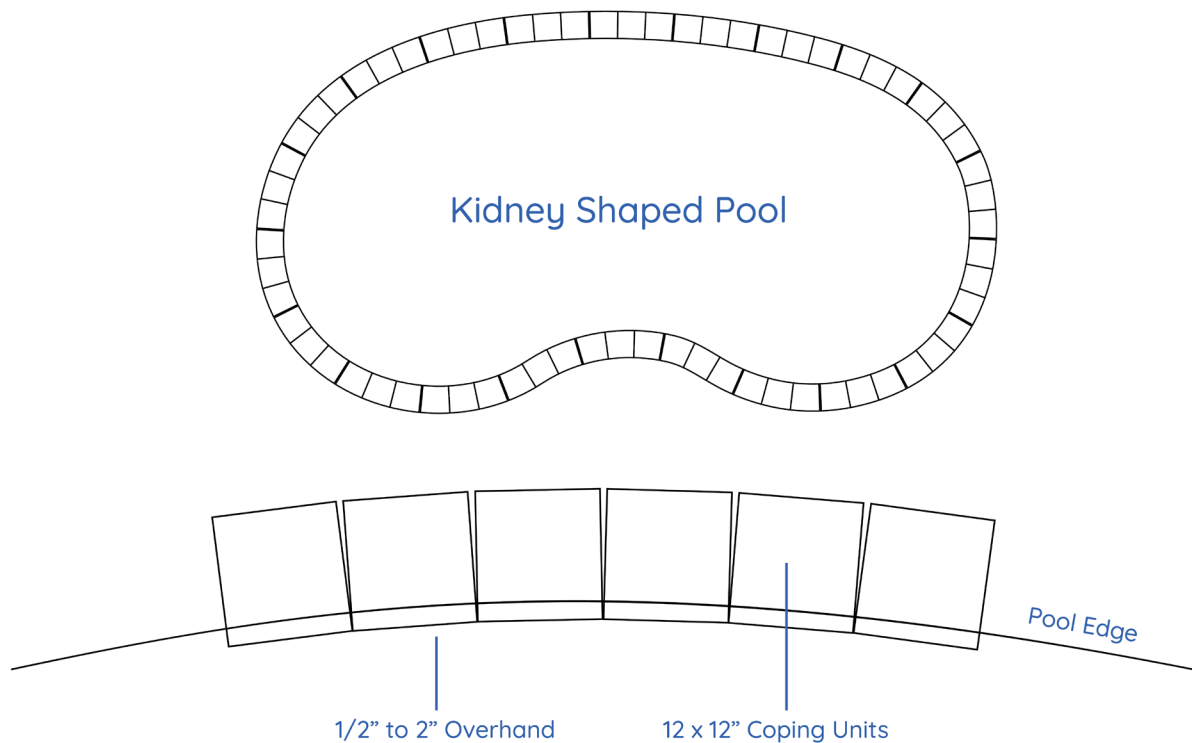


## CUTTING GUIDE

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### CURVED WALL COPING

- Mitering coping units around curved pools is a combination of mathematics and art. Whether you are planning a mortar joint or a tight fit joint, you may need to miter some or all of the coping units. This illustration shows 12 x 12" (30 x 30cm) coping units. The same process applies regardless of the size of the coping units.
- Note: Shorter coping units will "flow" better and not look choppy. Avoid units longer than 18" (45cm) for radius pools.



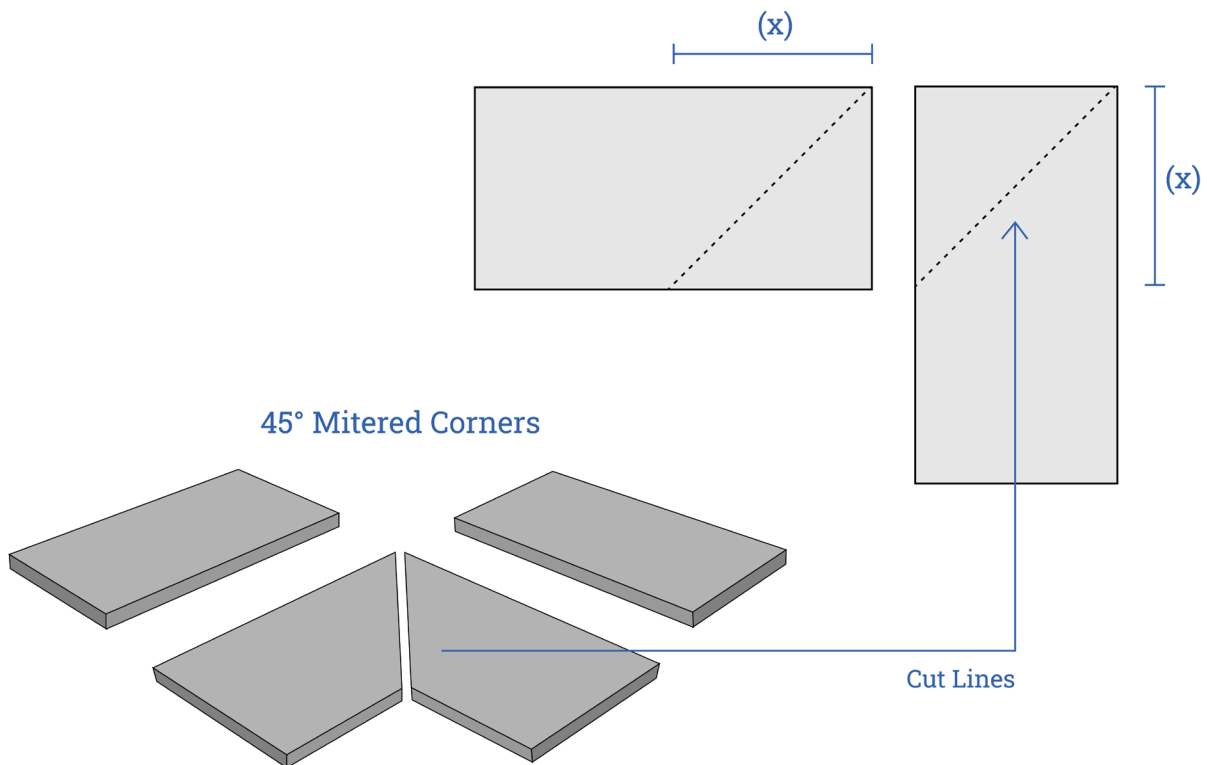
# CUTTING GUIDE

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## 90° CORNER - MITER JOINT

Miter cuts are generally the preferred cut as they result in the best appearance. However, making miter cuts can be tricky and may take several tries. Accurate measurements are the key to a successful cut.

- Make all your 90° corners before installing the rest of the coping around the pool.
- Use a hand-held masonry saw or a wet masonry table saw. Wet masonry table saws are the most accurate.
- If your plan is to use a grouted joint, your cuts can be slightly more forgiving. Allow 1/4" between units for the grout.
- For tight joints, you may need a small grinder with a diamond blade to fine tune the edge.



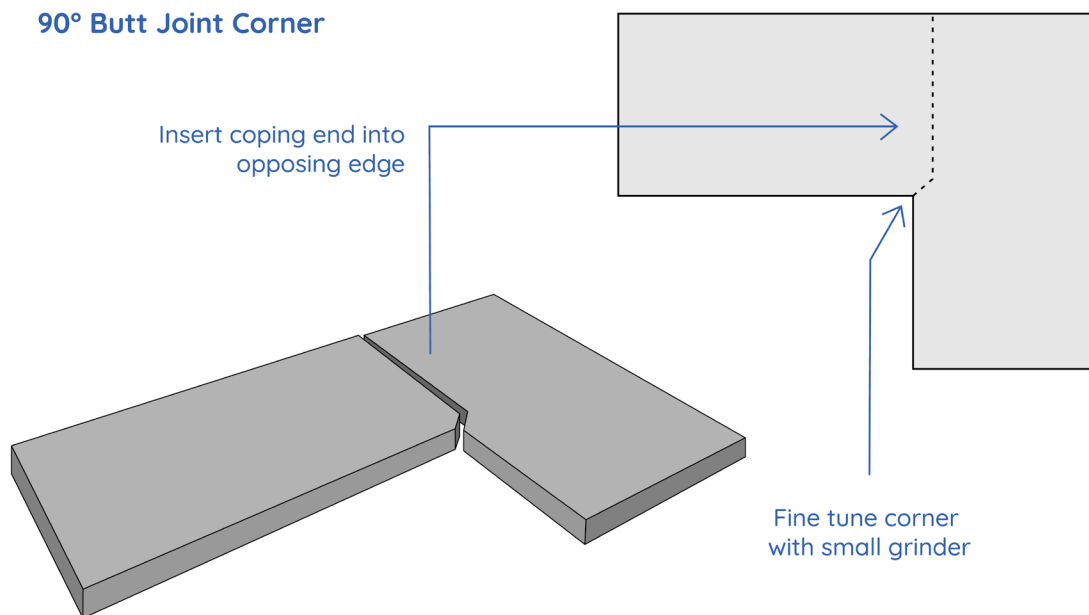
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## 90° CORNER - TIGHT-FIT BUTT JOINT

**A tight fit butt joint is easier to fit than a mitered joint. A butt joint also avoids the long points of a mitered joint which can get damaged while cutting or during installation.**

- Make all your 90° corners before installing the rest of the coping around the pool.
- Depending on the style of coping, tight fit butt joints may require an indentation cut to one unit to accommodate the end of the opposing unit.
- A hand-held saw along with the help of a small hand grinder will make this easy.
- A flexible grout is recommended between all coping joints with 1/4" spacing between units. If your plan is to have 1/2" (12mm) mortar joints, then your cuts can be modified slightly to accommodate the spacing. Apply grout between units before sliding them together.





## CUTTING GUIDE

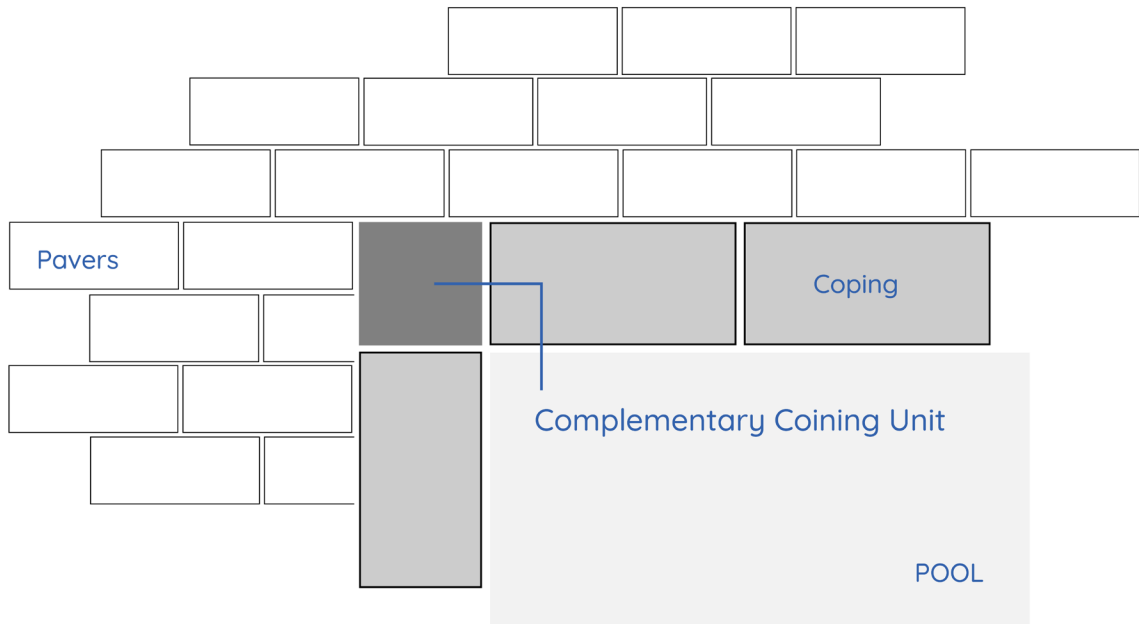
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### 90° CORNER - COINED

Coining a corner is by far the easiest way to construct a corner and saves cutting. Choosing a different color or texture for the “coin”, can add visual interest.

- Make all your 90° corners before installing the rest of the coping around the pool.

Acent Corner Stone (Square)



## CUTTING GUIDE

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### STRAIGHT WALL COPING

- Longer units install faster and look better. Shorter units install slower but are generally less expensive.
- A tight-fit butt joint is easier to fit than a mitered joint. Always install corners first and then fill in up to corners.
- Dry fit your coping first and work out cuts strategically to avoid short awkward cuts and unbalanced lengths that are not visually pleasing.
- Think about balance prior to ordering coping units.
- Always order units that are longer than you need to give you some flexibility.

