# Pool Coping & Expansion Joints – Gunite

## Why Is an Expansion Joint Required?

Natural stone coping is installed directly on the pool's bond beam, which is relatively rigid. The decking material, however, is subject to thermal expansion, settlement and freeze-thaw cycles. Without a gap and flexible sealant between them, movement in the deck can exert force on the coping and bond beam, causing cracks or spalling. This risk exists regardless of whether the deck is natural stone, poured concrete or a manufactured paver system; therefore, Marmiro Stones insists that **every pool deck incorporates a proper expansion joint behind the coping.**

## Recommended Construction

1) **Expansion joint dimensions and timing** – Form a continuous gap around the perimeter of the pool, typically ½ – 1 inch wide and extending the full depth of the deck. If a concrete slab is used for decking wait at least 30 days after pouring the deck before caulking to allow for initial curing and shrinkage.
2) **Preparation** – Before sealing the expansion joint, clean the sides of the joint thoroughly. Remove any old caulk, debris, dirt or loose material using a razor knife, wire brush, and let the joint dry completely.
3) **Backer rod installation** – Insert a closed cell foam backer rod or preformed expansion joint filler so it sits about 3/8 inch below the surface. This controls the depth of the sealant and allows it to flex properly.
    a) **NOTE: Do not fill the joint with sand or polymeric sand**; industry guides warn against using sand because it does not compress and will transfer deck movement to the coping. Polymeric sand, commonly used between pavers, cures to a semi-rigid mass and is therefore **NOT PERMITTED** in Marmiro Stones installations as an expansion joint material.
4) **Elastomeric sealant** – Over the backer rod, apply a pool-grade, elastomeric caulk (for example, LATICRETE® LATASIL™ silicone or another polyurethane based sealant) to a depth of roughly ¼ – ⅜ inch. Tape off the coping and deck edges for a clean line, fill the joint and smooth, then remove tape before the sealant skins over. Self leveling sealants are generally best for horizontal joints.
5) **Maintenance** – Inspect the expansion joint annually. Replace or repair the caulk whenever it cracks, pulls away or deteriorates; most elastomeric caulks last five to ten years. Keep the joint free of dirt, plants and standing water so it can compress and expand properly.

## Best Practices Summary

1) A properly constructed expansion joint is critical to protect the pool's bond beam, waterline tile and Marmiro Stones coping. It allows the deck to expand and contract independently and keeps moisture and debris from infiltrating and damaging the structure.
2) **Marmiro Stones requires an expansion joint between our natural-stone coping and any type of pool deck — natural stone, concrete or man-made products — and specifically prohibits the use of polymeric sand as joint filler.**
3) Following the preparation, backerrod and elastomeric sealant steps outlined above will help ensure the longterm beauty and performance of your pool surround.