



# The Vessel

## 3 CRITICAL STEPS TO A PERFECT SWIMMING POOL



The GUNITE VESSEL is the foundation of the pool structure. It is the most critical element of a swimming pool. All our pool vessels are built to rigid specifications to ensure a lifetime of STABILITY, INTEGRITY, & RELIABILITY.

**EXCAVATION:** The vessel is excavated 9” to 12” larger than the finished pool interior. Much care is taken to ensure the integrity of the walls, coves, floor, and other excavated options such as spas, submerged water falls, beach entries or water lounges, and other structural features. After excavation and prior to the steel phase the main drains of the swimming pool are installed. All under-vessel plumbing uses schedule 80 PVC.

**STEEL:** Once the vessel is properly excavated #4 (1/2”) steel re-enforcing rods (re-bar) are laid in a matrix on 8” centers. The vessel perimeter is additionally re-enforced with a rigid beam of horizontal re-bar structures to create what is referred to as the Bond Beam. All re-bar ties are made from galvanized wire and care is taken to ensure the re-bar ties are hammered down to ensure there are no potential tie wires that may extend into the interior of the vessel. Additional re-bar (8”x 4” centers or greater) would be applied for weight bearing features such as water falls, rock walls, swim-outs, beach/lounge features, or for other loading requirements. Once all the re-bar is properly in place the entire re-bar structure is then lifted onto “chairs” that raise the steel structure off the excavated walls and floors to ensure the re-bar is properly positioned inside the final gunite vessel. At this point the entire steel structure perimeter is grounded with #8 bare copper and the interior pool plumbing such as returns, skimmers, lights, and other suction or return requirements are plumbed and installed to prepare for the final vessel phase: The gunite application.

**GUNITE:** Gunite is a mixture of cement and sand that is delivered to the site in a “dry” state. It is then pneumatically applied and sprayed onto the excavated vessel walls and floor as it is mixed with water by an experienced craftsman called a “Nozzle Man”. A “finish crew” follows behind the Nozzle Man to trowel out the interior gunite walls, steps, swim-outs, lugs, bond beam, and other features.

The newly applied gunite is then allowed to “cure” for 7-10 days before any interior work is started. The pool owner may be asked to lightly spray the vessel with water one or two times a day to ensure even curing. If this is not possible Custom Pools by Reynolds will provide a misting system on a timer to ensure this critical piece of work is accomplished.

