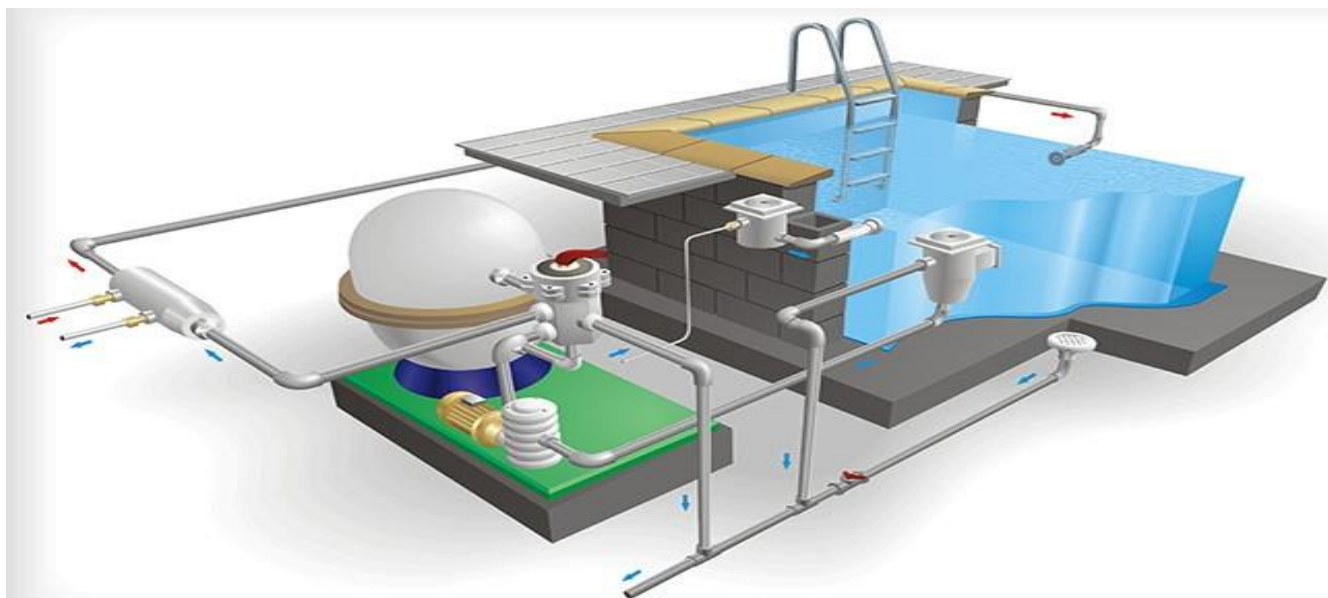


## Swimming Pools Construction Works



A swimming pool is a water retaining structure used for purposes such as leisure and exercise. Pools can be sunk into the ground or built above it, as a freestanding construction or as part of a building or other structure such as a ship.

We design & build swimming pools in UAE. We are specialists in residential and commercial swimming pool design, swimming pool construction, swimming pool maintenance, swimming pool repair and swimming pool servicing UAE. We offer turnkey solutions, taking care of every single aspect of construction or we work as a subcontractor when required. We work closely with clients and architects, discuss the pool concept, agree every detail of the project, and provide precise costs for all components. This approach ensures that we deliver exactly what is required at the agreed budget. Through our dedicated approach and technical expertise, we are confident that we can offer you a superior swimming pool construction and maintenance service throughout UAE.

we are capable to carry out all the work with our subcontractors using quality construction methods and superior construction materials, our skilled subcontractor engineers can create excellent Swimming Pools, both commercial and residential, that are supreme in beauty, quality and strength.

When we build your swimming pool, we consider carefully the environment in which the pool is to be built and, when construction begins, we follow a strict developmental strategy. We are conversant with the rapid changes taking place with technological innovations, new ideas and products being applied to swimming pools and their environment. Critically, we understand the need to meet new challenges of energy conservation and low energy consumption on installations.

### Design and construction considerations

\* Sun and shadow position during the day.

- Location of existing trees, leaves and possible rooting systems.
- Landscaping.
- Existing electrical cables.
- Pool safety.
- Existing water pipes.
- Existing sewerage lines.

## Scope of Works

Construction Works

MEP Works

Finishing Works

### WHY US

- ✚ **Fast:** concrete works in 1 day. the concrete sets in one go this ensures a perfectly homogeneous one-piece structure.
- ✚ **Solid:** Strength and durability with mono-block construction process self-supporting not deformable not crackable earthquake resistant.
- ✚ **Water Proof:** watertight by itself on both sides. The concrete is poured in only one go without any splice no structure brittleness.
- ✚ **Custom:** any finishing. free form or rectangular made to order, beautiful designs that are individual and unique.



DESIGN

We work closely with your architect and construction team to realise your specific requirements



BUILD

We work onsite alongside the construction team to install, build and complete the perfect project

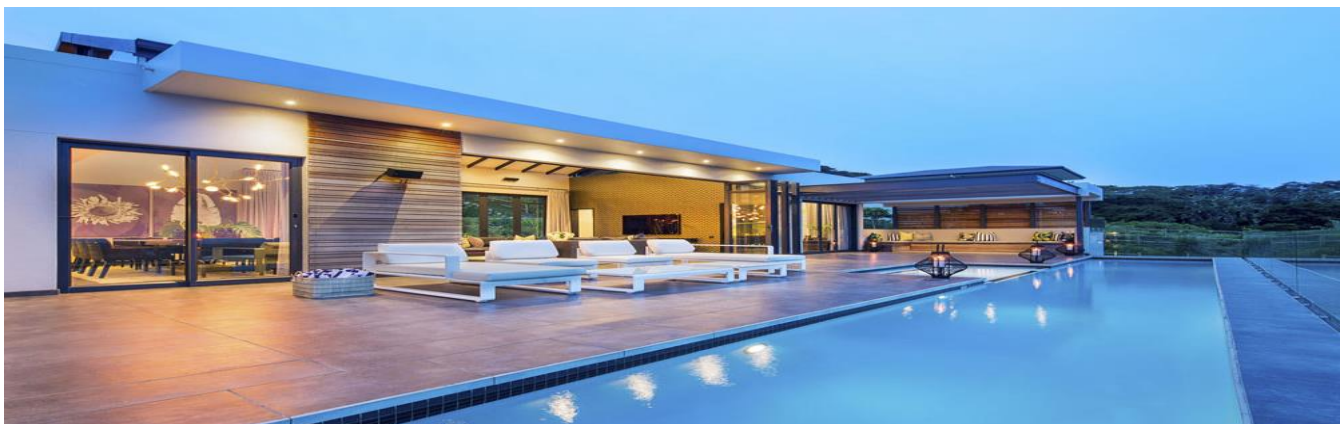


SERVICE

To ensure you are consistently well looked after, we provide local, onsite servicing and annual maintenance checks

### Our Swimming Pool Services

- Swimming Pools Construction in Villas.
- Tiled Swimming Pools.
- Swimming Pools Remodeling.
- Swimming Pools Maintenance / Repair.
- Swimming Pools Construction in Buildings.
- Swimming Pools Fibre Composites.
- Swimming Pools Customized Designs.
- Swimming Pools Equipment.



There are many different types of pool, including:

### Private pool



These might be constructed in a garden, inside a building or built into a basement. Sizes vary but average between 3.7 m x 7.3 m to 6.1 m x 12.2 m.

### Competition pool



These must conform to the standards set by FINA, the International Swimming Federation, which requires that pools are 25 or 50 m long, at least 1.35 m deep, and at least 8-lanes wide. These pools are generally indoors to conform to heating and lighting requirements, and may have starting blocks, electronic timing, results screens, warm up and warm down areas, and so on.

### Public pool



Most public swimming pools are rectangular, 25-50 m in length. They can vary in size, shape, and depth, and can include artificial waterfalls, fountains, wave machines and bridges.

### Infinity pool



Typically found in luxurious resorts or hotel settings, an infinity pool features water flowing over one or more edge, giving the visual impression of merging with the ocean or sky. A 'weir' is constructed slightly below the pool level where the pool edge terminates. Below the weir, collects water spilling over the weir before being pumped back into the pool.

### Construction methods

Pools must be designed and installed to meet water-tightness criteria set out in British Standard 8007:1987. This states: 'During the 7 day test period the total permissible drop in water level after allowing for evaporation should not exceed 1/500th of the average water depth of the full tank, 10 mm or another specified amount.' While pool design and construction methods vary, typically they rely on the similar plumbing and filtering systems.

## Filtration

There are different filtration systems, such as:

- 1) **Diatomaceous Earth (DE)**  
This uses mined fossilized exoskeletons of tiny diatoms to act as tiny sieves to remove debris. They are capable of filtering particles as small as 5 microns, although they are the most expensive option and require more maintenance.
- 2) **Sand**  
Water is pushed through a bed of filter sand and removed at the bottom through a set of lateral tubes. As the filter sand becomes plugged with debris from the pool, the pressure increases on the filter and the water flow drops, at which point the sand needs to be replaced.
- 3) **Cartridge**  
Water passes through a filter material which captures debris. These are economical as they don't need to be replaced as often as sand.

## Method of construction

The main difference between pool types is the method of construction for the 'basin'.

### 1. Above-ground pools

These tend to be the cheapest and easiest to construct and are usually assembled from pre-fabricated kits. However, there can be safety concerns, as it can be difficult to see into the pool from the surroundings.

### 2. Concrete pools

These are similar to gunite pools, but rather than spraying gunite, concrete is poured into conventional timber formwork. An alternative method is for walls to be constructed using concrete blocks. These have become less common as gunite techniques have developed.

### 3. Gunite pools

Once a hole has been excavated and the plumbing is in place, a framework grid of rebar is laid. This is sprayed with a heavy coating a gunite, a mixture of cement and sand. This is trowelled smooth and left to cure. The pool may be finished with plaster, concrete paint, tile, exposed aggregate (placing concrete before removing the outer 'skin' of cement paste to reveal decorative coarse aggregate), or fibreglass.

### 4. Fibreglass pools

Fibreglass-reinforced plastic can be moulded into a basin shape to the required specifications. A hole is excavated, the necessary plumbing laid, and the pool is lowered into the hole, with sand filler used to fit the exact shape. The area around the pool is backfilled and usually a concrete deck structure is constructed around the perimeter.

### 5. Vinyl-lined pools

A hole is excavated, and a metal, plastic or timber frame wall assembled around the perimeter. Sand filler laid at the bottom of the hole, and a vinyl-lining secured to the perimeter wall. These tend to be cheaper than other in-ground designs but are less durable, as the liner requires replacement typically every ten years.

Other items that may be included in swimming pool construction include:

- ✚ Recessed rest ledges.
- ✚ Overflow channels.
- ✚ Starting platform upstands.
- ✚ Ladders: Types include recessed into pool tank, built-in and tiled, face-fixed stainless steel.



## Tiles

Where tiles are installed in swimming pools onto renders and screeds the levelling mortars should be cured and then allowed to air dry. Tiles should have a low water absorption of 3% or less, and adequate slip resistance for the use location.

It is important that the adhesive and grout used for the bedding and grouting of tiles can resist the effects of the pool water and chemicals, or long-term durability may be compromised. The type of adhesive and grout to be used is dependent on several factors, such as:

- ✚ The type of tiling.
- ✚ The mains water quality.
- ✚ The chemicals used for pool water treatment and maintenance.
- ✚ The pool design and location of tiling.

There are two main types of sealant used in pools as a means of sealing leaks:

- ✚ Epoxy-based sealants.
- ✚ Unplasticised polysulphide sealants.

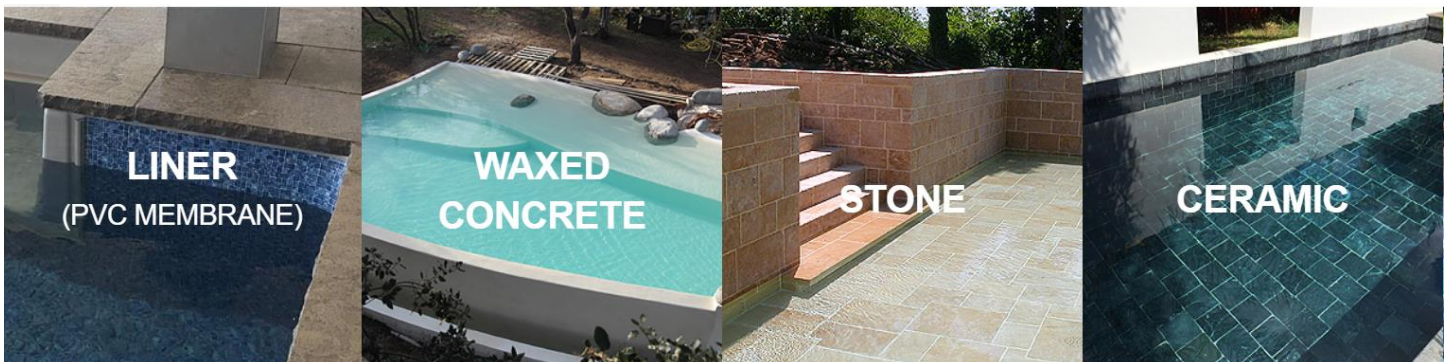
## Lines

Demarcation lines, pool guidelines and warning lines can be incorporated in the design of the tile layout with contrasting colours. Common colours include white, black, turquoise and blue. For safety reasons, dark tiles should not be used for the pool base they make it difficult to perceive the depth of the water. Special screen-printed tiles can be used for lane or depth markers.

## Stainless steel

Stainless steel provides a wide ranging and vital service to industry, the leisure market and other sectors, stemming from its very specific properties. The characteristics most commonly relied upon are its resistance to corrosion and its appearance. However, it also exhibits other benefits such as low susceptibility to bacteriological retention and improved fire resistance and ductility compared to carbon steels.

## All Kind of Finishing customized to your taste and budget



## Our Products

### A. Nelco Mono-Block Pool



Advantage on Mono-Block Concrete:

- ✚ It adapts to any grounds. shoring walls on uneven grounds. seismic areas.
- ✚ Welded wire mesh structure: anti-cracking guaranteed.
- ✚ Homogeneous pouring of concrete.
- ✚ One-piece construction watertight guaranteed, Even without A liner.
- ✚ Strength and durability.

