



Myrtha Pools technology at the 15th FINA World Swimming Championship in Abu Dhabi in 2021.

# Stainless Reputation

Alessandro Fochi considers the evolution and potential for modular technology in the aquatic industry

**A** global leader in the design and manufacturing of modular stainless-steel swimming pools, A&T Europe with their Myrtha Pools brand has installed thousands of pools across more than 70 countries since its establishment in 1962 as a family-owned company, as it is today.

After steady growth over the first 15 years of the business, A&T acquired the Myrtha technologies' German patent in 1977. This technology, which is the process of laminating thin low plasticiser PVC material to a stainless steel sheet, was the technology that started a revolution in how commercial modular swimming pools were to be manufactured and installed.

The use of modular technology is increasing exponentially across all sectors of the construction industry. Pre-manufactured, modular components often offer cost and construction program savings, at the same time improving quality control, due to the manufacturing process being completed within a controlled environment.

And the aquatic industry is no exception.

Through steady growth and modernisation of the manufacturing process, based on a CAD/CAM process, Myrtha Pools went on to construct their first major competition pool for the 1987 European Championships and in 1996 Myrtha Pools supplied and installed their first Olympic Games swimming pool, which was a water polo pool at the Atlanta Olympics.

These initial high profile installations, have been followed by many more Olympic Games and FINA World Swimming

Championships. Innovation and product development have been key to the success of Myrtha Pools and the product that is manufactured today, while still similar in many ways, is greatly evolved from the early pools that the company produced.

Today, Myrtha structural supports (including the base frame), wall panels and gutters are manufactured from AISI441 grade stainless steel that is factory laminated with a hard PVC material, with a shore hardness of A97 and low plasticiser content.

All panels are folded and punched in accordance with the CAD design specific to each project. Welding is excluded from the manufacturing and installation process, due to the risk of localised corrosion in the weld area. The materials are then assembled on site by Myrtha trained installers. Every component of a Myrtha Pool is mechanically secured, making for a very fast assembly and a high-quality finish. Water proofing is achieved through a combination of liquid PVC sealing to panel joins and flexible PVC bandages. The floor is finished with a 2.2mm thick reinforced PVC membrane, which is heat sealed to the wall panels ensuring a fully watertight pool structure.

The result is a light weight and durable pool structure that is, in most cases, cheaper and faster to construct than traditional concrete construction methods. Maintenance is minimal and when it is required can often be carried out without the need to empty the pool. Although best practice would indicate emptying



Myrtha Pools installation at Aquatopia in Western Sydney (and below).

pools every five years or so, there are many examples of Myrtha Pools that haven't been emptied for 15 to 20 years. With a structural warranty of 25 years (expected operational life of 50+ years) and a water-tight guarantee of 10 years (extended to 15 years when an annual maintenance inspection is carried out) a Myrtha Pool offers a functional and cost-effective alternative to traditional construction methods.

Today Myrtha offers a range of pool systems, for competition, community use, wellness, learn-to-swim and waterparks.

Myrtha Pool Technology also offers a range of pool systems that cater to different needs. The company's competition pools are designed to meet the requirements of international swimming federations and are used in major swimming events around the world. Its community pools, on the other hand, are designed for recreational use and can be customised to meet the needs of different users while the wellness pools are designed for relaxation and therapy and are equipped with a range of features, such as massage jets and underwater lighting.

One of the unique features of Myrtha Pool Technology is its ability to customise pools to meet the specific needs of clients. The company works closely with clients to understand their requirements and design pools that meet their needs. The pools can be customised in terms of size, shape, depth, and features.

In Australia and New Zealand, Myrtha has been active since mid-1990s with more than 200 projects completed and backed by a network of local partners and distributors in the region, who can provide support and assistance with the installation and maintenance.

Recent and soon-to-open projects include, in Australia, the Parramatta Aquatic and Leisure Centre, Aqua Culture Brookvale and the wave pool at Aquatopia in Western Sydney, each in NSW; Carlton FC's Ikon Park and St Kilda Football Club's recovery pools and a 25 metre indoor (including water polo/dive boards), both in Melbourne; and the Palmerton and Casuarina Aquatic Centres in the Northern Territory and, in New Zealand, Wai Ariki Hot Springs and Spa in Roturua; Mosgiel Aquatic Centre in Dunedin and the Hornby Pool and Community Centre in Christchurch.

Just this short list demonstrates Myrtha Pools diversity



## POOLS MADE FOR CHAMPIONS

### BUILT WITH MYRTHA

QUICK INSTALLATION | FIXED COST | 25 YEARS STRUCTURAL WARRANTY

As a World Aquatics (formerly known as FINA) partner since 2009, whether it's Myrtha technology or RenouAction technology, we are the international leader in swimming pool design and construction.

Our special RenouAction technology has been developed based on our pre-engineered modular stainless-steel system, for swimming pool refurbishment and renovation of existing pools.

Thanks to its wide range of experience, Myrtha Pools is proud to support architects and designers for green buildings certification and with a BIM digital approach.

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Myrtha Pools' wellness concepts in renders for the new Wai Ariki Hot Springs and Spa in Rotorua (above and below left).



Myrtha construction in the sky pool at the Hawthorn Park apartments in Melbourne (above and below).



and flexibility with projects varying from community pools, waterparks, hotel pools, health and wellness centres, learn-to-swim and recovery pools for elite sport. This diversity is further reflected by a partnership agreed with wave park developer Endless Surf, that aims to alleviate many of the common challenges that surf lagoon developers face when constructing and operating their attractions.

This partnership will see Myrtha's stainless steel pool technology available exclusively for Endless Surf projects.

Commenting on the partnership, Endless Surf President, Paul Chutter stated "we are focused on offering a product that delivers and lasts a lifetime without having to address maintenance issues down the line. Having a pool building partner with the same relentless commitment to innovation is a must."

Chutter cites issues with surf lagoon construction becoming more common, with many problems arising well into the operating phase, causing lengthy downtime and pool closures. Problems with cracking/splitting concrete, and leaks are becoming common, and this new partnership between two companies that have a collective experience of over 100 years in the aquatic entertainment space aims to eliminate these headaches that developers face. A more durable pool construction paired with the reliability and redundancy that is

built into the Endless Surf system makes having to drain the pool for maintenance an anomaly, ensuring smooth operations year-round.

Stainless steel pools are up to three times lighter in weight than rigid concrete pools and benefit from watertight fabrication backed by a vinyl membrane. This is particularly interesting in high rise settings where Myrtha is the perfect solution.

This versatility can be seen at the award-winning Hawthorn Park apartments in Melbourne which features the city's first sky pool, suspended seven storeys high between two apartment buildings.

The signature feature of the Dahua Group's \$300 million development, the transparent 32 metre sky pool consists of a 82,000 litre, 25-metre lap pool and a 75,000 litre, 35-metre-long family pool with the durability and integrity of Myrtha Pools' stainless steel construction key to its success.

In addition, because of the durable nature and flexibility of stainless steel, Myrtha Pools are able to withstand the natural movement of its surrounds better than concrete - a particularly valuable attribute with a sky pool or in tectonically unstable environments.

However, one area of misconception over Myrtha Pool



Myrtha partner Endless Surf' wave pool concept.



Myrtha introduced a clear acrylic wall for the International Swimming League finals in 2019.



Myrtha Pools construction.

technology has been its use in the Moree Artesian Aquatic Centre in Northern NSW where, during construction early in the last decade, the ground condition of the 50 metre pool was underestimated and the reactive nature of the soil caused the concrete base to fail.

As Myrtha's Technical Delivery and After Sales Manager - Australia New Zealand, Bruno Antonioli explains "design considerations should have been made to ensure the stability of the pool base and contain the extreme forces that caused around 100mm lift on one side.

"Under these circumstances, the Myrtha pool reacted particularly well due to its flexibility and has allowed the community to use the pool for a longer period of time. In the absence of design consideration for reactive soils, similar ground movement on a concrete pool would have caused cracking of the rigid pool wall, concrete cancer and failure to hold water."

Antonioli adds "on new builds, independent environmental impact studies show that the carbon footprint for building a 50 metre pool is reduced by 46% compared to a traditional concrete build. Myrtha pools qualify to LEED, BREEAM and GREEN certification representative of its sustainability advantages.

"This number is even bigger when refurbishing an old concrete pool with the Myrtha RenovAction technology as it can attach to the existing concrete shell avoiding demolition and considerably diminishing the construction time that will leave the community without pools.

"In most cases the modular, engineered system can be used for the walls, floor or the entire existing concrete pool structure that has deteriorated and needs to be replaced."

Antonioli goes on to say "the Myrtha RenovAction technology is ideal to bring an old concrete pool to a new condition including upgrading the water circulation to meet new Australian standards. While called a refurbishment - because it reuses the existing pool shell - it offers a brand new pool, durable, aesthetic and state-of-the-art sustainable solution to upgrading old facilities and maintaining the heritage structures.

"For waterproofing, Myrtha then uses a strong PVC laminate that is resistant to UV rays and chemical agents, that can be cleaned easily and feels good to the touch. To ensure a complete, water-tight seal, a PVC liquid is used to bond all floor and wall panel joints and is used in all new Myrtha Pools and RenovAction projects."

With Australia and New Zealand's ageing stock of public pools (Royal Life Saving Society - Australia last year released a report revealing that up to 40% of public aquatic facilities that local governments own will need serious refurbishment or outright replacement at a cost of more than \$8 billion in the next 10 years), Myrtha's RenovAction system is the perfect solution for both complete and partial refurbishment of existing swimming pools.

**Alessandro Fochi is Export Manager and Pools, Aquatic and Wellness Advisor for Myrtha Pools.**

## Myrtha Pools and World Aquatics

Myrtha has also enjoyed a long relationship with World Aquatics (formerly FINA - Fédération Internationale de Natation/International Swimming Federation) which earlier this year saw it recognised as the World Aquatics Official Pool Partner.

World Aquatics advised "Myrtha Pools has a worldwide reputation for the quality of its pool products and pool installations and is a global leader in this industry and, World Aquatics is proud to have the company as its partner.



**WORLD  
AQUATICS**

"The choice of Myrtha Pools as Official Partner is based on the great experience the company has demonstrated not only for World Aquatics since 2009, but also with hundreds of world-class facilities built worldwide and on the unique characteristics of the company's technology, that uses maintenance-free stainless-steel panels and guarantees extreme construction precision.

"This aspect is particularly important for World Aquatics, which demands great attention to the dimensional tolerances of the facilities used for World Aquatics' competitions. "For these reasons, World Aquatics has appointed Myrtha Pools as its exclusive Official Pool Partner and Supplier worldwide. "World Aquatics unreservedly recommends the use of Myrtha's pre-engineered pool technology over and above outdated concrete construction methods. "Myrtha's technology is superior in terms of attaining World Aquatics technical standards and compliances. World Aquatics counts on this quality, excellence, and flexibility of the Myrtha technology for World Aquatics biggest events."

Myrtha Pools Chief Executive Roberto Colletto previously commented "at Myrtha Pools we are determined to help World Aquatics promote swimming as a sport and an essential life skill worldwide."



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