



# LIVART GROUP

**GLOBAL MARINA  
INFRASTRUCTURE**

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# PREMIUM FLOATING SOLUTIONS



# ABOUT LIVART

For over 18 years, Livart Marine has set the global standard in the delivery of world-class marinas, pontoons, and floating structures, serving a portfolio as diverse as the coastlines we inhabit.

With strategically located offices and manufacturing facilities worldwide, Livart is more than just a supplier; we are a long-term strategic partner to developers, governments, and marina operators. By combining innovation with global collaboration, we deliver efficient, scalable, and durable waterfront solutions that are engineered to perform in any environment, ensuring that we remain a trusted name in maritime infrastructure across the globe. As a primary entity within the Livart Group, we bring together a century of combined expertise, uniting industry-leading brands into a single, coordinated platform. This synergy allows us to offer one of the most comprehensive ranges of marina infrastructure in the world, encompassing everything from versatile aluminium and concrete systems to high-stability concrete pontoons, wave attenuation technologies, advanced elastic mooring solutions, and high-density dry stack storage.

We provide a truly seamless turnkey service that manages every phase of the project lifecycle, ensuring consistency and quality from the initial proposal and engineering design through to manufacturing, global logistics, and final commissioning. Our expertise extends beyond simple floatation to include the integration of complex gangways, protective fender systems, and full utility services, all delivered under ISO-certified quality standards.



## WHY CHOOSE LIVART



### PROVEN GLOBAL EXPERIENCE

Projects successfully delivered across APAC, the Middle East, Europe and the Americas.



### MANUFACTURING EXCELLENCE

Modern facilities equipped with CNC machinery, MIG/TIG welding and heavy-duty cranes.



### FULL TURNKEY SOLUTIONS

From design and manufacturing to project completion, Livart provides a full turnkey service.



### ISO-CERTIFIED

Proudly certified to ISO 9001, ISO 14001 and ISO 45001 to ensure the highest standards.



# GROUP PHILOSOPHY

At Livart Group, our philosophy is built on the belief that the most successful marina developments are delivered through integration, expertise and collaboration.

Rather than operating as standalone entities, our group brings together a portfolio of specialised brands, each contributing deep technical knowledge and proven product capability. By aligning these strengths under a single group structure, we provide clients with a seamless and efficient pathway from concept through to completion.

Our approach is defined by three core principles:



## INTEGRATION

We deliver complete marina solutions by combining multiple systems into one coordinated offering. From pontoons and wave attenuation to mooring systems and dry stack infrastructure, Livart Group provides a unified platform that simplifies procurement, design and delivery.



## EXPERTISE

Each brand within the Livart Group has been selected for its proven performance and industry reputation. Together, they represent over a century of combined experience in marina design, engineering and construction, ensuring that every project benefits from specialist knowledge and global best practice.



## GLOBAL DELIVERY

With an expanding international footprint, Livart Group is structured to support projects across diverse regions and environments. Our global network enables consistent quality, efficient manufacturing and reliable project execution, regardless of location.

By combining these principles, Livart Group offers more than individual products — we provide a complete, scalable solution tailored to the evolving needs of modern marina developments.

## OUR GUIDING PRINCIPLES



### VALUE

**FOCUSED ON CLIENT'S NEEDS**



### VISION

**A GLOBAL BRAND FOR GENERATIONS**



### SPIRIT

**CRAFTED TO PERFECTION**



### MISSION

**DEDICATED TO THE ART OF LIVING**

# OUR BRANDS

Livart Group brings together a portfolio of specialised brands, each delivering proven solutions across key areas of marina infrastructure.

Individually, each brand represents expertise and innovation within its field. Together, they form a comprehensive and integrated platform capable of supporting every aspect of modern marina development.

By aligning these brands under the Livart Group, we provide our clients with a single, coordinated solution — simplifying project delivery while maintaining the highest standards of quality, performance and reliability.

- Integrated Capabilities Across the Group
- Floating pontoon systems (aluminium and concrete)
- Wave attenuation and marina protection
- Advanced mooring technologies
- Dry stack vessel storage solutions
- Engineering, design and project delivery



### LIVART MARINE

Aluminium and concrete pontoon systems designed for flexibility, efficiency and global application.



### WALCON MARINE

Premium aluminium pontoon systems backed by decades of proven performance in demanding marine environments.



### PACIFIC PONTOON & PIER SYSTEMS

High-performance concrete decking pontoon systems engineered for marine environments.



### ASTRA

Floating wave attenuation systems designed to protect marina basins and enable development in exposed conditions.



### SUPFLEX

Elastic mooring systems that enhance safety, reduce structural loads and improve long-term performance.



### DRYSTACK AUSTRALIA

Advanced vertical vessel storage systems that maximise marina capacity and operational efficiency.

## WORKING AS ONE

While each brand operates with its own distinct technical specialisation and area of expertise, they are all strategically aligned under the Livart Group to deliver fully integrated, end-to-end marina solutions.

This unified structure enables seamless collaboration across our teams, allowing us to combine the right systems, materials, and expertise for every project. By leveraging the strengths of each division, we ensure tailored, efficient delivery and consistently high standards—resulting in optimal outcomes for our clients, regardless of project scale, complexity, or location.

# INTEGRATED SOLUTIONS

At Livart Group, we deliver more than individual products — we provide fully integrated marina infrastructure solutions designed to work together as one complete system.

By combining the strengths of our specialised brands, we are able to design, engineer and deliver marina environments that are efficient, scalable and built for long-term performance. Each component is carefully selected and integrated to ensure compatibility, reliability and optimal functionality across the entire marina.

## COMPLETE MARINA SOLUTION

A modern marina requires the seamless integration of multiple systems. Livart Group brings these elements together into one coordinated solution:

Unlike traditional procurement models where systems are sourced independently, Livart Group ensures that all elements of a marina are designed and delivered as a unified solution.

This integrated approach provides:

- ✓ Improved design efficiency and coordination
- ✓ Reduced risk during installation and operation
- ✓ Enhanced performance across all systems
- ✓ Streamlined procurement and project management
- ✓ Flexible by design

Every marina project presents unique environmental, operational and commercial requirements. Livart Group's integrated model allows for the selection and combination of the most suitable systems across our brand portfolio.

Whether delivering a boutique marina, a large-scale commercial facility or a super yacht destination, our solutions are tailored to meet the specific needs of each project.



**FLOATING PONTOON SYSTEMS (ALUMINIUM AND CONCRETE)**



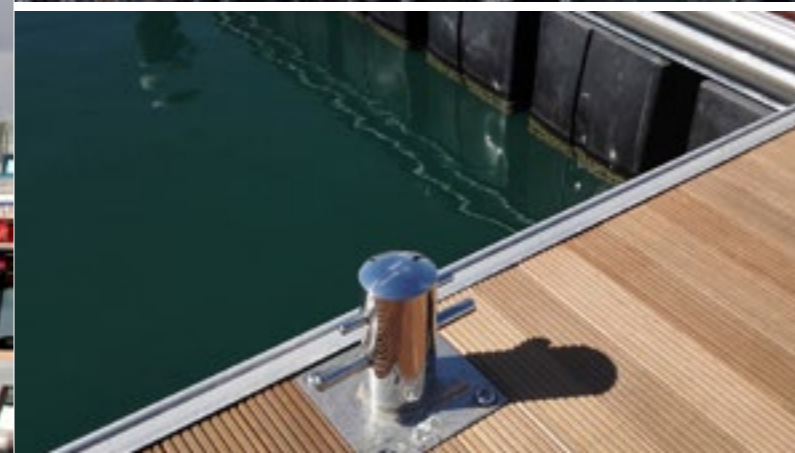
**WAVE ATTENUATION AND MARINA PROTECTION**



**MOORING AND ANCHORING SYSTEMS**



**VESSEL STORAGE SOLUTIONS INCLUDING DRY STACK**



**ACCESS SYSTEMS AND MARINA INFRASTRUCTURE**



# FROM CONCEPT TO COMPLETION

Livart Group supports clients at every stage of the project lifecycle:



## CONCEPT & PLANNING

Feasibility, layout design and system selection



## ENGINEERING & DESIGN

Detailed design, technical documentation and compliance



## MANUFACTURING & SUPPLY

Global production and logistics coordination



## INSTALLATION & DELIVERY

On-site support, installation and project management

## THE LIVART ADVANTAGE

By working with Livart Group, clients benefit from a single, integrated partner capable of delivering complete marina solutions — reducing complexity while improving project outcomes

## STRATEGIC MANUFACTURING & SUPPLY

Our international manufacturing capabilities allow Livart Group to deliver projects efficiently and competitively across global markets.

By combining in-house expertise with trusted manufacturing partners, we are able to:

- Optimise production costs
- Maintain strict quality control standards
- Adapt to regional project specifications
- Deliver scalable solutions for projects of all sizes
- Local Understanding, Global Capability

Every marina project is influenced by local environmental conditions, regulatory requirements and operational needs. Livart Group combines global experience with local knowledge to ensure each solution is fit for purpose.

*Note: Some products and brands may not be available in all regions; please consult Livart Group to confirm availability for your project location.*

# GLOBAL PRESENCE

Livart Group operates as a truly international marina infrastructure provider, with the capability to support projects across multiple regions and diverse marine environments.

Through a network of offices, manufacturing facilities and strategic partners, the group is positioned to deliver consistent quality, technical expertise and efficient project execution on a global scale.

## INTERNATIONAL REACH

Livart Group has established a strong presence across key global markets, including:

- Asia-Pacific
- Australia and New Zealand
- Middle East
- Europe
- The Americas
- Africa

This global footprint enables us to respond effectively to regional project requirements while maintaining a consistent standard of delivery.



Our approach ensures:

- Compliance with local standards and regulations
- Adaptation to environmental conditions
- Efficient coordination with local stakeholders
- Smooth project delivery across international locations
- Supporting Global Projects

Livart Group's structure allows us to deploy resources, expertise and systems wherever they are needed.

From initial concept through to final delivery, we provide coordinated support across all stages of the project, ensuring consistency and reliability regardless of location..





# PROJECT EXPERIENCE

Livart Group's experience spans a diverse range of marina developments across multiple regions, environments and project scales.

Through our portfolio of specialised brands, we have contributed to the successful delivery of marinas for resorts, commercial developments, yacht clubs and waterfront precincts. Each project reflects our commitment to quality, engineering excellence and long-term performance.

## PROVEN DELIVERY ACROSS GLOBAL MARKETS

- Our experience includes projects in:
- Asia-Pacific
- Australia and New Zealand
- Middle East
- Europe
- Emerging international markets

This broad project exposure enables us to apply proven solutions with confidence while remaining adaptable to local conditions, site-specific challenges, and evolving project requirements.

## DIVERSE PROJECT APPLICATIONS

Livart Group has delivered solutions across a wide range of marina types, including:

- Resort and lifestyle marinas
- Super yacht facilities
- Commercial and public marinas
- Waterfront developments and mixed-use precincts
- Government and infrastructure projects

Each project is approached with a clear focus on functionality, durability and user experience.

## ENGINEERING CONFIDENCE

Our project portfolio demonstrates not only the quality of our products, but our ability to integrate multiple systems into cohesive and efficient marina environments.

From floating pontoons and wave attenuation systems to mooring solutions and dry stack infrastructure, Livart Group delivers fully coordinated outcomes that perform in real-world conditions.

## BUILT FOR PERFORMANCE

Every project delivered by Livart Group is carefully designed with long-term performance and durability in mind. Our systems are engineered to withstand demanding marine environments while consistently maintaining reliability, safety, and ease of operation over time.

# ENGINEERING PHILOSOPHY

At Livart Group, engineering sits at the core of everything we deliver.

Our approach is built on the principle that successful marina infrastructure must combine technical precision, environmental understanding and practical constructability. Every system we provide is engineered to perform reliably in real-world marine conditions, ensuring safety, durability and long-term value.

## PERFORMANCE BY DESIGN

We design all marina systems with a clear focus on performance. This includes:

- Structural integrity under varying load conditions
- Stability and user comfort
- Adaptation to tidal movement and environmental forces
- Long-term durability in harsh marine environments

Our engineering process ensures that each solution is fit for purpose and optimised for its specific application.

## INTEGRATED ENGINEERING APPROACH

By operating as a unified group, Livart is able to integrate multiple systems into a single coordinated design. This includes:

- Pontoon systems (aluminium and concrete)
- Wave attenuation structures
- Mooring and anchoring systems
- Vessel storage solutions

This integrated approach reduces design conflicts, improves efficiency and ensures that all components work seamlessly together.



## ADAPTED TO ENVIRONMENT

Every marina project is influenced by local environmental conditions, including wind, waves, currents and seabed characteristics.

Livart Group applies detailed engineering analysis to ensure each system is designed to suit its environment, delivering reliable performance across:

- Sheltered marina basins
- Open and exposed coastal locations
- Tidal and variable water level conditions
- Efficiency Through Engineering

Our engineering philosophy also focuses on efficiency – both in construction and long-term operation.

Through modular design and optimised material selection, we deliver solutions that:

- Reduce installation time and complexity
- Minimise maintenance requirements
- Improve lifecycle performance and cost efficiency

## CONTINUOUS IMPROVEMENT

Livart Group is committed to ongoing refinement of its systems and processes.

By continuously evaluating materials, manufacturing methods and installation techniques, we ensure our solutions remain at the forefront of marina infrastructure design.

This includes adopting principles of efficiency and process optimisation to deliver consistent quality and long-term value across all projects.

# OUR PRODUCTS

Livart Group provides a comprehensive suite of high-performance marine infrastructure by integrating specialized brands into a single, coordinated lifecycle. Their end-to-end capability ensures that every waterfront development is tailored to its specific environmental and operational requirements.

## ALUMINIUM PONTOON SYSTEMS

Designed for high-performance in sheltered to moderate environments, these systems combine a high strength-to-weight ratio with excellent corrosion resistance. Their modular design allows for flexible configurations and efficient installation for resort and lifestyle marinas.

## CONCRETE PONTOON SYSTEMS

These systems are engineered for maximum stability and high load capacity, making them ideal for permanent installations and high-traffic commercial environments. They provide a low-maintenance solution with a long service life and high resistance to degradation.

## HYBRID PONTOON SYSTEMS

These systems integrate different materials—such as combining concrete pontoons with other structural components—to deliver the right solution across a wide range of project requirements.

## WAVE ATTENUATOR SYSTEMS

Utilizing floating breakwater technology, these systems reduce wave energy to protect vessels and waterfront assets. They create calmer, safer water conditions and are modularly designed to suit various site layouts.

## DRY STACK SYSTEMS

These vertical berthing solutions provide efficient land-based storage that integrates seamlessly with water-based marina infrastructure.

## ELASTIC MOORING SYSTEMS

These advanced elastic mooring systems are designed to coordinate with floating pontoons, providing reliable positioning and load management in varied marine environments.

## ACCESSORIES

A complete range of integrated marina components, including specialized pile guides, mooring cleats, fire-fighting equipment, and service pedestals for power and water.

# TAILORED SOLUTIONS FOR EVERY WATERFRONT



# ALUMINIUM PONTOON SYSTEMS

Aluminium pontoon systems are designed for lightweight performance, corrosion resistance, and long term reliability, making them ideal for a wide range of marine environments. Easy to install and maintain, they provide a cost effective solution where flexibility, durability, and low lifecycle costs are important.

## Key Benefits

- Lightweight construction for easier transport and installation
- Excellent corrosion resistance in marine environments
- Low maintenance requirements over the asset lifecycle
- Cost effective solution with reduced lifecycle costs
- Flexible and modular designs to suit various applications
- Strong performance without the weight of traditional materials

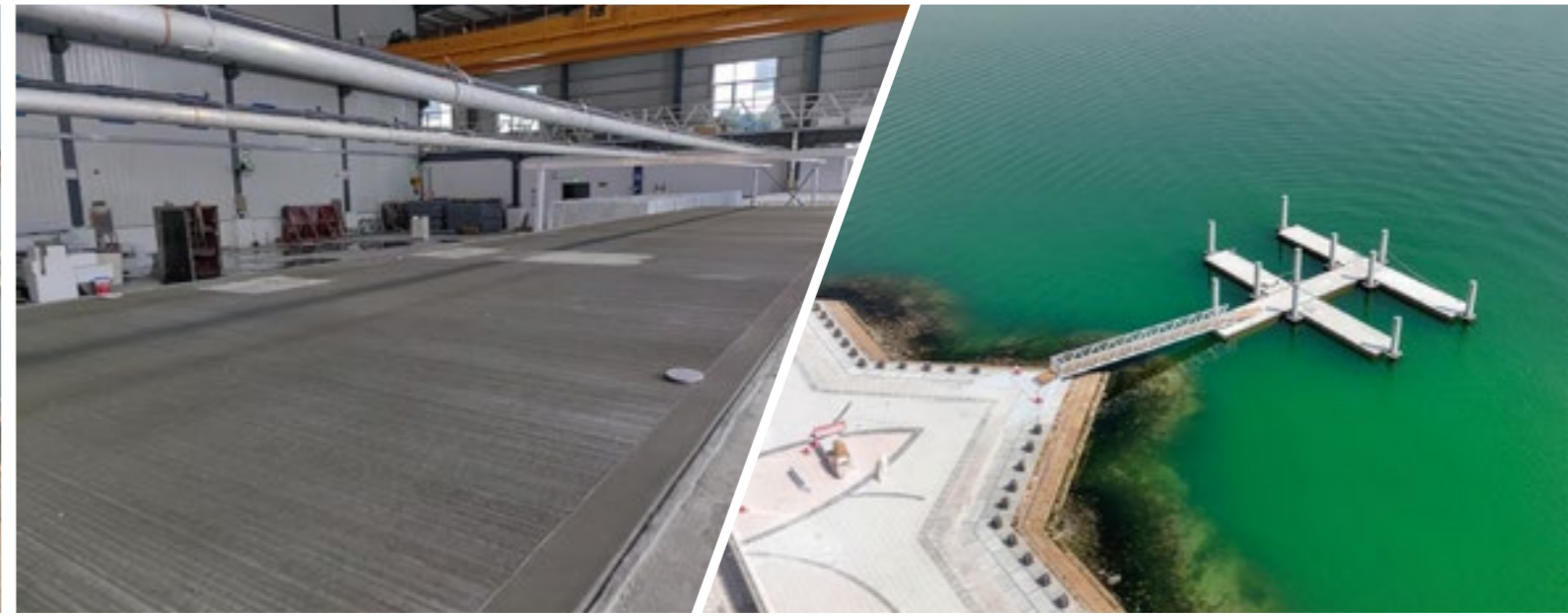


# CONCRETE PONTOON SYSTEMS

Concrete pontoon systems are designed for maximum stability, durability, and long term performance, making them ideal for permanent marine infrastructure and high load applications. With strong resistance to harsh marine conditions, they provide a reliable, low maintenance solution where longevity and structural integrity are critical.

## Key Benefits

- Exceptional stability for fixed and high traffic applications
- High load capacity for commercial and industrial use
- Excellent durability in harsh marine environments
- Low maintenance requirements over the asset lifecycle
- Long service life with minimal degradation
- Suitable for large scale and permanent installations



# HYBRID PONTOON SYSTEMS

With capability across both aluminium and concrete construction, each solution can be tailored to meet specific performance requirements, environmental conditions and project budgets.

## Key Benefits

- Dual capability in aluminium and concrete pontoon systems
- Cost-efficient solutions without compromising quality
- Scalable production for projects of any size
- Flexible configurations to suit diverse applications
- Efficient global manufacturing and supply
- Versatile Applications

# WAVE ATTENUATOR SYSTEMS

Engineered to dissipate wave energy, these floating breakwater systems safeguard marine assets by creating stable, calm-water environments for vessels and infrastructure. They provide a high-performance, durable solution for locations where operational safety and effective wave attenuation are critical requirements.

## Key Benefits

- Significantly reduces wave impact to maintain tranquil conditions within the marina.
- Acts as a primary shield for vessels, pontoons, and essential waterfront infrastructure.
- Improves the overall usability and safety of the waterfront for staff and visitors.
- Adaptable designs configured for specific site layouts and varying environments.
- Constructed for long-term resilience and consistent performance in demanding marine climates.
- Supports both temporary and permanent installations with streamlined logistics.



# DRystack SYSTEMS

Delivered through DryStack Australia, these vertical berthing solutions maximize land-use efficiency by providing secure, land-based storage for vessels. These systems integrate seamlessly with existing water-based marina infrastructure, offering an effective alternative for projects requiring scalability and high-density boat storage.

## Key Benefits

- Maximizes land-use through high-density vertical boat storage.
- Provides a secure, dry-land alternative to traditional in-water berthing.
- Offers an effective solution for projects requiring high-density, scalable storage capacity.
- Designed to integrate perfectly with water-based marina infrastructure.
- Supports modern marina developments by accommodating evolving storage and operational needs.

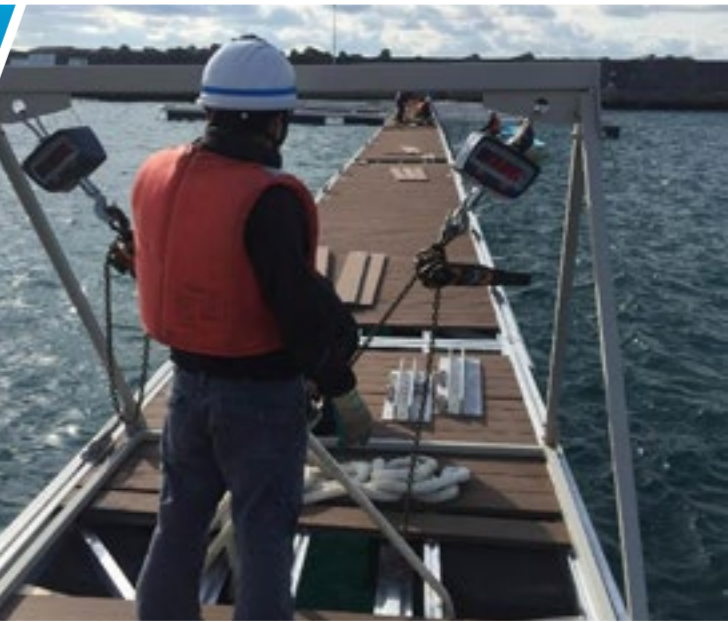


# ELASTIC MOORING SYSTEMS

The Supflex range represents a sophisticated approach to marina stabilization, offering high-performance elastic mooring systems specifically engineered to coordinate with floating pontoons and wave attenuation infrastructure. These systems are designed to address the dynamic challenges of a marine environment through the following key functions:

## Key Benefits

- Advanced mooring technology that manages loads while adapting to tidal changes and wave energy.
- Ensures floating assets remain securely and consistently positioned in varied marine environments.
- Specifically designed to work in tandem with floating pontoons and wave attenuation systems.
- Engineered to maintain performance under varying environmental energy conditions.
- Provides durable, consistent performance as part of a fully coordinated marina solution



# ACCESSORIES

Beyond pontoons and breakwaters, Livart Group provides a range of accessories and support systems that ensure every marina operates safely, efficiently and with long-term reliability. From floats and fenders to decking, mooring systems, pile guides and integrated utilities, our accessories are designed to complement and enhance our core structures.

## FLOATS

Livart Group's floats are made from high-density polyethylene (HDPE) with two mono-bloc rotational skins. They feature UV resistance, fire-retardant properties, and closed-cell expanded polystyrene (EPS) foam with a density of at least 15 kg/m<sup>3</sup>. Each float is attached to the main pontoon chassis with SS316L stainless steel bolts. Concrete ballasts are used to maintain a stable buoyancy. With no detrimental corrosion or electrolytic action under salt-water circumstances, these floats ensure durability.



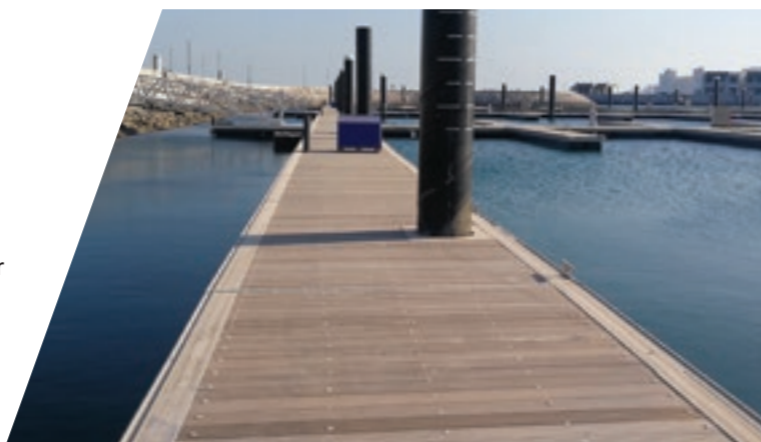
## FENDERS

Livart Group's fenders are designed for high energy absorption while maintaining flexibility. With a lower spring constant in the early stage of deflection, these fenders compress more easily before reaching full resistance, therefore making installation less reliant on precise anchor bolt positioning.



## DECKING

Livart Group offers a range of decking solutions, including Balau hardwood, valued for its strength, aesthetics, and wear resistance. Balau's high density makes it less prone to cracking and water penetration, extending its life. Other options include composite and fibre-reinforced decking, ensuring durability, safety, and aesthetic appeal across a variety of applications.



## ALUMINIUM GANGWAYS

Livart Group's aluminium gangways are built from 6061 alloy sections using advanced TIG/MIG welding for strength and durability. Decking options include composite, hardwood or softwood, all securely fixed with SS316L stainless steel screws and bolts. Designed for safe and reliable performance in all conditions, our gangways deliver long-lasting access solutions for marinas and waterfronts.



## MOORING

Livart Group's mooring cleats are fixed to buoys with SS316L stainless steel screws and bolts. Designed for standard working loads of 3–5 tonnes and up to 10 tonnes for heavy-duty buoys, they provide heat resistance, corrosion resistance, and durability in saltwater environments. Environmentally friendly and non-polluting, our mooring solutions ensure safe and reliable vessel berthing.



## PILE GUIDES

For locations with significant water level variation, pile guides provide a secure mooring system to the pontoon. Livart Group's pile guides are engineered with dynamic load calculations and built from 6061 T6 aluminium, with strong welded connections, rubber blocks, and rubber fenders installed all around. Their adjustable positioning ensures compatibility with piles already driven on site.



## UTILITIES

Livart Group can integrate a suite of utilities into marina infrastructure, including service bollards for water, electricity, and SOS access, sanitation pump-out systems to suit any budget, and solar lighting systems. Our pedestal design combines the proven reliability of our classic units with modern marine-grade anodised and extruded aluminium for strength, durability, and aesthetics.



# ALUMINIUM & CONCRETE PONTOON SYSTEMS

Livart Marine specializes in the engineering and manufacturing of both aluminium and concrete pontoon systems, offering a dual-material capability that ensures every project is matched with the most appropriate structural solution. By maintaining expertise in both materials, Livart can provide high-performance, lightweight aluminium systems for moderate marine environments while simultaneously offering heavy-duty, industrial-grade solutions for high-traffic or high-load applications. This specialized approach allows for a high degree of customization, enabling the team to tailor configurations to meet specific performance requirements, environmental conditions, and project budgets without compromising on quality.

# THE ART OF LIVING





**THE POLICE OFFICERS CLUB**

**📍 KUWAIT**

**PROJECT OVERVIEW**

Livart Marine was commissioned to design and construct a complete marina system for the Police Officers Club in Kuwait. The project formed part of a private waterfront facility for the Kuwait Ministry of Interior, providing secure berthing and access for official and recreational vessels.

**DESIGN & CONSTRUCTION**

The installation utilised Livart's Aluminium Pontoon System, chosen for its corrosion resistance, strength, and ease of maintenance in the harsh Gulf environment. Covering a total area of 6,800m<sup>2</sup>, the system was prefabricated in Livart's QA-controlled factory to ensure accuracy, quality, and longevity. Modules were configured to provide flexible berthing layouts and integrated service infrastructure suitable for both operational and leisure use.

**OUTCOME**

The Police Officers Club Marina demonstrates Livart's capability to deliver secure, efficient, and high-quality pontoon systems for government and institutional facilities, combining functionality with refined presentation.

FEATURE	DETAILS
System type	Aluminium Pontoon System
Total area	6,800 m <sup>2</sup>
Purpose	Government / Private Marina
Accessories	Service pedestals, firefighting points, fenders, mooring cleats
Client	Ministry of Interior, Kuwait
Completion	2015



**MINA RASHID MARINA**

**📍 DUBAI, UNITED ARAB EMIRATES**

**PROJECT OVERVIEW**

Livart Marine was contracted to design, manufacture, and deliver a large-scale pontoon system for the prestigious Mina Rashid Marina in Dubai. Developed as part of Dubai's luxury waterfront precinct, the marina was designed to accommodate both private super yachts and smaller leisure vessels within a world-class destination.

**DESIGN & CONSTRUCTION**

The project utilised Livart's Concrete Pontoon System, providing exceptional stability, strength, and durability suited to high-load applications and year-round operation. Across multiple project stages, more than 8,300m<sup>2</sup> of pontoons were prefabricated in Livart's QA-controlled facility and installed on-site with precision.

Each module incorporated reinforced concrete decks, EPS flotation cores, and integrated service ducts, ensuring long-term performance with minimal maintenance.

**OUTCOME**

The Mina Rashid Marina showcases Livart's ability to deliver large-scale, high-quality marina infrastructure for premium waterfront developments, establishing a benchmark for luxury marina design and construction in the region.

FEATURE	DETAILS
System type	Concrete Pontoon System
Total area	8,300 m <sup>2</sup>
Purpose	Super yacht and Recreational Marina
Accessories	Service pedestals, firefighting points, fenders, pile guides
Client	DP World
Completion	2015–2017



**FISHING PORT**

**SAUDI ARABIA**

**PROJECT OVERVIEW**

Livart Marine supplied and installed a purpose-built pontoon system for a major fishing port in Saudi Arabia. The project provided durable, low-maintenance berthing infrastructure to support the region's expanding commercial fishing fleet.

**DESIGN & CONSTRUCTION**

The system features Livart's Aluminium Pontoon System, chosen for its strength, corrosion resistance, and ease of installation. Over 3,200m<sup>2</sup> of pontoons were fabricated in Livart's QA-controlled facility and delivered in modular form for efficient on-site assembly. The design allowed for flexible berthing arrangements while maintaining high load capacity and long-term durability in harsh marine conditions.

**OUTCOME**

The completed facility has significantly improved operational efficiency and safety for local fishermen, demonstrating Livart's capability to deliver robust, practical pontoon systems for commercial applications.

FEATURE	DETAILS
System type	Aluminium Pontoon System
Total area	3,200 m <sup>2</sup>
Purpose	Commercial Fishing Facility
Accessories	Service pedestals, fenders, mooring cleats
Client	Agriculture Ministry Of Saudi Arabia
Completion	2015



**WORLD CUP SPORT MARINA**

**DOHA, QATAR**

**PROJECT OVERVIEW**

Livart Marine designed, manufactured, and installed a complete marina system to support Qatar's hosting of major international sporting events, including the FIFA World Cup preparations. The World Cup Sport Marina was developed to provide temporary and permanent berthing for visiting vessels, event support craft, and VIP hospitality boats.

**DESIGN & CONSTRUCTION**

The marina features Livart's Aluminium Pontoon System, offering strength, lightweight efficiency, and corrosion resistance ideally suited to Qatar's coastal environment. Over 7,000m<sup>2</sup> of pontoons were prefabricated in Livart's QA-controlled facility and assembled on-site within a tight project timeline.

The modular design allowed for flexible layout configurations and future adaptability for ongoing use beyond the event period.

**OUTCOME**

Delivered ahead of schedule, the World Cup Sport Marina provided reliable, high-performance berthing during international sporting events. The system continues to serve as a premium facility showcasing Livart's engineering precision and installation capability under demanding project timelines.

FEATURE	DETAILS
System type	Aluminium Pontoon System
Total area	7,000 m <sup>2</sup>
Purpose	Event Marina / VIP and Service Berthing
Accessories	Service pedestals, firefighting points, fenders, mooring cleats
Completion	2019



**PHNOM PENH PRINCE CLUB**



**ISTANA JETTY**

**PHNOM PENH, CAMBODIA**

**PROJECT OVERVIEW**

Livart Marine designed and delivered a premium pontoon system for the Phnom Penh Prince Club, a private leisure and lifestyle facility located along the Mekong River. The project was developed to provide high-end berthing for club members and visiting guests, enhancing the waterfront experience within the resort's luxury setting.

**DESIGN & CONSTRUCTION**

The marina features Livart's Heavy-Duty Aluminium Pontoon System, chosen for its strength, durability, and resistance to fluctuating river conditions. The installation accommodates 15 berths, with all modules prefabricated in Livart's QA-controlled facility to ensure precision and quality.

The lightweight yet robust system allowed efficient transport and assembly in a challenging inland location, while maintaining the polished finish expected of a premium facility.

**OUTCOME**

The completed pontoon system provides secure, easy-to-access berthing for members and guests, combining functionality with an elegant aesthetic that complements the club's waterfront architecture.

FEATURE	DETAILS
System type	Heavy-Duty Aluminium Pontoon System
Berth capacity	15 vessels
Purpose	Private Club Marina
Accessories	Service pedestals, fenders, cleats, custom access gangway
Client	Private
Completion	2018

**BRUNEI**

**PROJECT OVERVIEW**

Livart Marine was engaged to design and supply a high-performance pontoon system for the Istana Jetty in Brunei. The project required a premium-grade floating structure to service government and private vessels, with a focus on safety, reliability, and aesthetics suitable for a prestige facility.

**DESIGN & CONSTRUCTION**

The installation utilised Livart's Heavy-Duty Aluminium Pontoon System, providing excellent structural strength and long-term corrosion resistance in tropical marine conditions. The system was designed to accommodate 16 berths, incorporating robust pile-guided modules for stability and secure mooring. All components were precision-fabricated in Livart's QA-controlled facility and assembled on-site for a seamless installation.

**OUTCOME**

The Istana Jetty delivers exceptional stability, durability, and visual quality, reflecting Livart's ability to deliver specialised floating infrastructure that meets high security and operational standards.

FEATURE	DETAILS
System type	Heavy-Duty Aluminium Pontoon System
Berth capacity	16 vessels
Purpose	Government / Private Jetty
Accessories	Service pedestals, fenders, mooring cleats
Client	Falcon Engineering
Completion	2017

# ALUMINIUM SYSTEMS

Walcon Marine is a global leader in the design and manufacture of high-end marina infrastructure, specifically renowned for its premium aluminium pontoon systems. With a heritage spanning over 60 years, the company has established itself as an industry benchmark for engineering quality and durability in demanding marine environments. Their systems are trusted globally for projects that demand precision, reliability, and long-term performance. By combining robust structural integrity with a modular approach, Walcon provides versatile solutions that cater to everything from commercial working waterfronts to elite international yacht clubs.



Walcon aluminium pontoons are engineered using high-grade marine aluminium, providing an optimal balance of strength, weight and corrosion resistance.

The systems are designed to perform consistently across a wide range of conditions, from sheltered marinas to more exposed environments.

#### Key Benefits

- High-strength aluminium construction for long-term durability
- Corrosion-resistant materials suited to marine environments
- Lightweight design for efficient transport and installation
- Low maintenance requirements over the asset lifecycle
- Proven performance across international marina projects
- Engineered for Versatility

*Note: Some products and brands may not be available in all regions; please consult Livart Group to confirm availability for your project location.*

# DESIGNED FOR PERFORMANCE AND LONGEVITY

Walcon systems are fabricated using advanced manufacturing processes, ensuring consistency, precision and quality control at every stage. The use of proven engineering design and high-quality materials ensures each system meets rigorous performance standards.

Walcon systems are suitable for a wide range of marina applications:

- Reduces wave impact to create calmer water conditions
- Protects vessels, pontoons, and marine infrastructure
- Improves safety and usability of marinas and waterfront areas
- Modular designs to suit varying site conditions and layouts
- Durable construction for long term performance in marine environments
- Flexible installation for temporary or permanent applications

#### PROVEN GLOBAL TRACK RECORD

Walcon pontoons have been successfully deployed across a wide range of international projects, consistently delivering dependable performance and long term value in diverse marine environments

#### INTEGRATED WITHIN LIVART GROUP

As part of the broader Livart Group offering, Walcon systems integrate seamlessly with complementary solutions including concrete pontoon systems (PPP), wave attenuation systems (ASTRA), and elastic mooring systems (SUPFLEX). This integrated approach ensures a cohesive, efficient, and fully coordinated marina





**MARASSI MARINA**

**MARASSI, EGYPT**

**PROJECT OVERVIEW**

A luxury marina development within a large-scale coastal resort on the Mediterranean Sea. The project required premium infrastructure to support high-end leisure vessels within a masterplanned tourism destination.

**DESIGN & CONSTRUCTION**

Walcon supplied and installed multiple dock systems forming part of a 23-dock marina layout. The system was engineered for open coastal conditions, incorporating durable floating pontoons and integrated services.

**OUTCOME**

Delivered a flagship marina facility supporting luxury tourism and waterfront living. The project highlights Walcon's capability in delivering large-scale international marina developments in demanding environments.

FEATURE	DETAILS
System type	Luxury resort marina system
Berth capacity	Multi-berth (large-scale marina)
Water depth	4.0–8.0m
Accessories	Service pedestals, mooring systems, gangways
Client	Marassi Development
Completion	2021



**SWAN YACHT CLUB MARINA & WAVE ATTENUATOR**

**EAST FREMANTLE, WA, AUSTRALIA**

**PROJECT OVERVIEW**

A marina upgrade project incorporating a floating wave attenuator and berth expansion to improve vessel protection and usability within the Swan River. The project addressed wave penetration issues impacting marina performance.

**DESIGN & CONSTRUCTION**

Walcon delivered a 200m-long floating concrete wave attenuator, combined with an aluminium-framed pontoon system. Modular components were fabricated offshore and assembled on-site, ensuring efficient installation and high structural integrity.

**OUTCOME**

The upgrade significantly reduced wave energy and improved berthing conditions, while adding 32 new berths. The project demonstrates Walcon's capability in combining marina infrastructure with advanced wave attenuation solutions.

FEATURE	DETAILS
System type	Concrete wave attenuator + aluminium pontoon system
Berth capacity	32 new berths
Water depth	Approx. 3.0–5.0m
Accessories	FRP decking, pile guides, connection jetty
Client	Swan Yacht Club
Completion	2025



**AUGUSTA BOAT HARBOUR**

**AUGUSTA, WA, AUSTRALIA**

**PROJECT OVERVIEW**

A regional marina facility located at the mouth of the Blackwood River, designed to provide safe and reliable berthing in a highly dynamic coastal environment. The project supports both recreational and commercial users in a key South West boating destination.

**DESIGN & CONSTRUCTION**

Walcon delivered a heavy-duty floating marina system engineered to withstand tidal variation, river flows, and coastal wave influence. The system incorporated concrete pontoons, robust pile guides, and flexible connections to accommodate environmental movement and loading.

**OUTCOME**

The completed marina provides a durable and low-maintenance berthing solution, significantly improving safety and accessibility for local users. The project demonstrates Walcon's ability to deliver resilient infrastructure in exposed regional locations.

FEATURE	DETAILS
System type	Aluminium pontoon marina
Berth capacity	Multi-berth regional facility
Water depth	Approx. 2.0–4.0m
Accessories	Pile guides, gangways, mooring cleats
Client	WA Department of Transport
Completion	2014



**ELIZABETH QUAY MARINA & FERRY TERMINAL**

**PERTH, WA, AUSTRALIA**

**PROJECT OVERVIEW**

A high-profile public marina and ferry terminal forming part of the Elizabeth Quay urban waterfront redevelopment. The project required a visually refined yet robust solution in a prominent civic location.

**DESIGN & CONSTRUCTION**

Walcon delivered floating marina berths and a ferry terminal pontoon using its proprietary system. The design prioritised aesthetics, accessibility, and durability, integrating seamlessly with surrounding public infrastructure.

**OUTCOME**

The completed facility provides a key transport and recreational hub for Perth, supporting visiting vessels and ferry operations while enhancing the city's waterfront activation.

FEATURE	DETAILS
System type	Public marina and ferry terminal system
Berth capacity	Multi-berth (public and commercial use)
Water depth	Approx. 3.0–6.0m
Accessories	Ferry pontoons, gangways, utilities
Client	WA State Government
Completion	2015



**PORT COOGEE MARINA**



**BATEMANS BAY MARINA REDEVELOPMENT**

**PERTH, WA, AUSTRALIA**

**PROJECT OVERVIEW**

A premium residential marina forming part of the Port Coogee coastal redevelopment. The facility was designed to provide high-quality berthing within a protected harbour environment integrated with luxury waterfront housing.

**DESIGN & CONSTRUCTION**

Walcon designed and installed a 143-berth marina using its proprietary floating pontoon system. The layout maximised berth efficiency while integrating with breakwater protection and shoreline infrastructure within the masterplanned estate.

**OUTCOME**

Delivered a high-end marina that significantly enhanced property value and lifestyle appeal. The project remains a benchmark for integrated residential marina developments in Western Australia.

FEATURE	DETAILS
System type	Residential / leisure marina system
Berth capacity	143 berths
Water depth	Approx. 2.5–4.5m
Accessories	Service pedestals, finger pontoons, gangways
Client	Frasers Property
Completion	2011

**BATEMANS BAY, NSW, AUSTRALIA**

**PROJECT OVERVIEW**

A major marina redevelopment project replacing outdated timber infrastructure with a modern floating system. The project was designed to support both commercial and recreational vessels in a high-use coastal harbour.

**DESIGN & CONSTRUCTION**

Walcon undertook demolition of existing structures and installation of new piled floating pontoons with GRP micro-mesh decking. The design focused on durability, reduced maintenance, and improved vessel access across varying tidal conditions.

**OUTCOME**

Delivered a modern, high-performance marina capable of accommodating over 120 vessels. The redevelopment significantly improved safety, usability, and long-term operational efficiency.

FEATURE	DETAILS
System type	Heavy-duty floating marina system
Berth capacity	120+ berths
Water depth	Approx. 2.5–4.5m
Accessories	GRP decking, service pedestals, launching ramps
Client	Department of Transport (NSW)
Completion	2014–2015 (staged)



**FLOATING BREAKWATER**



**OMAN COAST GUARD BERTHING FACILITY**

**TAICHUNG PORT, TAIWAN**

**PROJECT OVERVIEW**

A specialised floating breakwater installation designed to provide wave protection for marina and coastal infrastructure. The project addressed exposure to significant wave climates in an open-water environment.

**DESIGN & CONSTRUCTION**

Walcon deployed its Astra concrete floating breakwater system, engineered to attenuate wave energy while maintaining flexibility and durability. The modular system allowed efficient fabrication, transport, and installation.

**OUTCOME**

Successfully enhanced marina protection and operational safety, enabling reliable vessel berthing in previously exposed conditions. The project demonstrates Walcon's expertise in hydrodynamic infrastructure solutions.

FEATURE	DETAILS
System type	Concrete floating breakwater (Astra system)
Berth capacity	N/A (protection infrastructure)
Water depth	Variable (coastal installation)
Accessories	Mooring systems, connection pontoons
Client	Regional authority / marina developer
Completion	2024

**SULTANATE OF OMAN**

**PROJECT OVERVIEW**

A specialised berthing facility designed for coast guard and patrol vessels. The project required a highly durable solution capable of supporting operational marine vessels in a demanding working harbour environment.

**DESIGN & CONSTRUCTION**

Walcon supplied heavy-duty steel pontoon systems engineered for high loads and frequent vessel impact. The design incorporated reinforced structures, high-capacity mooring points, and robust access systems.

**OUTCOME**

Delivered a reliable and resilient working harbour facility supporting critical maritime operations. The project highlights Walcon's capability beyond leisure marinas into defence and commercial marine infrastructure.

FEATURE	DETAILS
System type	Heavy-duty steel pontoon system
Berth capacity	Patrol vessel berths
Water depth	Approx. 4.0–7.0m
Accessories	Bollards, fender systems, access bridges
Client	Government (Coast Guard Authority)
Completion	2019

# CONCRETE DECKING PONTON SYSTEMS

Pacific Pontoon & Pier Systems deliver high-performance concrete decking pontoon systems engineered for demanding marine environments. Designed to provide superior stability, durability and load capacity, these systems are ideally suited to large-scale marina developments and high-traffic applications.

With decades of experience in concrete decking pontoon engineering, PPP has established a reputation for delivering robust solutions that perform consistently in both sheltered and exposed conditions.

## ENGINEERED FOR DEMANDING ENVIRONMENTS

Concrete decking pontoon systems are the preferred solution where strength, mass and long-term durability are critical. PPP systems are specifically designed to withstand environmental forces including wave action, tidal movement and heavy vessel loading.

Each pontoon is engineered to provide structural integrity while maintaining stability and user comfort across a wide range of marina applications.

### Key Benefits

- Exceptional stability due to high mass construction
- Long design life with minimal maintenance requirements
- High load capacity for large vessels and heavy infrastructure
- Superior performance in exposed and high-energy environments
- Robust structural integrity under continuous marine conditions
- Flexible System Design



# PACIFIC PONTOON & PIER SYSTEMS



Pacific Pontoon & Pier (PPP) systems is a specialist marina infrastructure brand within the Livart Group, delivering advanced concrete decking pontoon systems engineered for long-term performance, durability, and low maintenance in demanding marine environments. With a proven track record across a wide range of marina and waterfront projects, PPP systems are recognised for their reliability, structural integrity, and refined finish.

Supported by Livart Group's global manufacturing capability, engineering expertise, and project delivery experience, PPP system combine established system design with modern production efficiencies to deliver high-quality floating infrastructure solutions for projects of all scales.

PPP concrete decking pontoon systems are available in a wide range of configurations, allowing tailored solutions for each project:

- Heavy-duty marina berthing systems
- Superyacht and commercial applications
- Fuel docks and service pontoons
- Public access and waterfront infrastructure
- Custom-designed layouts for complex developments

Each system is designed to integrate seamlessly with access systems, services infrastructure and mooring solutions

## PRECISION MANUFACTURING

PPP pontoons are manufactured under strict quality control processes using high-grade materials and proven construction methodologies. Backed by Livart Group's production capabilities, each unit is delivered with consistency, strength, and durability suited to harsh marine conditions.

## PROVEN PERFORMANCE

PPP systems have been successfully deployed across a diverse range of marina and waterfront developments, demonstrating long-term reliability and performance in real-world environments.

- Floating concrete systems
- Flexible connection and mooring solutions
- Integrated utility and service infrastructure

This integrated approach ensures a seamless transition from concept through to delivery, providing clients with a complete and dependable marina solution..



## KEY PACIFIC PONTOON PIER PROJECTS



# SANDSPIT YACHT CLUB MARINA

## 📍 SANDSPIT, NORTH ISLAND, NEW ZEALAND

### PROJECT OVERVIEW

A 131-berth marina development positioned within the Matakana River, directly adjacent to the Sandspit Yacht Club. The project was designed to support recreational boating growth while integrating seamlessly with existing club infrastructure and waterfront operations in a sensitive tidal estuary environment.

### DESIGN & CONSTRUCTION

The marina utilised a modular concrete pontoon system with HDPE-encased flotation and aluminium framing. Designed for tidal variation and river currents, the layout maximised berthing efficiency while maintaining navigational safety. Installation included piled mooring systems and precision alignment to existing shoreline assets.

### OUTCOME

Delivered a highly functional and durable marina facility that significantly enhanced vessel capacity and user experience. The project strengthened the club's operational capability and established a long-term, low-maintenance solution suited to the environmental conditions of the river system.

FEATURE	DETAILS
System type	Concrete pontoon marina system
Berth capacity	131 berths
Water depth	Approx. 2.0–4.0m
Accessories	Service pedestals, gangways, pile guides
Client	Sandspit Marina Society Incorporated
Completion	2016



**TRIABUNNA MARINA**

**📍 TRIABUNNA, TASMANIA**

**PROJECT OVERVIEW**

A 34-berth commercial marina developed in stages to support regional marine activity and ferry operations. The project formed a key piece of infrastructure for the local economy, improving access and berthing capacity in a growing coastal destination.

**DESIGN & CONSTRUCTION**

Constructed using reinforced concrete pontoons up to 18 metres in length, the marina incorporated staged expansion capability. The system was pile-supported and engineered to withstand local wind and wave conditions, while allowing flexibility for future upgrades.

**OUTCOME**

The completed marina delivered reliable, high-quality berthing infrastructure, enhancing marine access and supporting commercial and tourism-related operations. Its staged construction allowed cost-effective expansion while maintaining consistent system performance.

FEATURE	DETAILS
System type	Commercial concrete pontoon marina
Berth capacity	34 berths
Water depth	Approx. 2.5–5.0m
Accessories	Gangways, service pedestals, mooring cleats
Client	Glamorgan Spring Bay Council
Completion	Stage 1 & 2 completed



**GLEBE ISLAND FERRY TERMINAL**

**📍 SYDNEY, NSW, AUSTRALIA**

**PROJECT OVERVIEW**

A purpose-built ferry terminal pontoon providing access to the Sydney Exhibition Centre during major events. The facility was designed to accommodate high passenger volumes while ensuring safe and efficient vessel interface in a busy harbour environment.

**DESIGN & CONSTRUCTION**

The 20m x 9m pontoon was engineered for stability and heavy pedestrian loading. Constructed with a reinforced concrete deck and integrated flotation system, it was pile-fixed to ensure minimal movement and reliable vessel berthing under varying conditions.

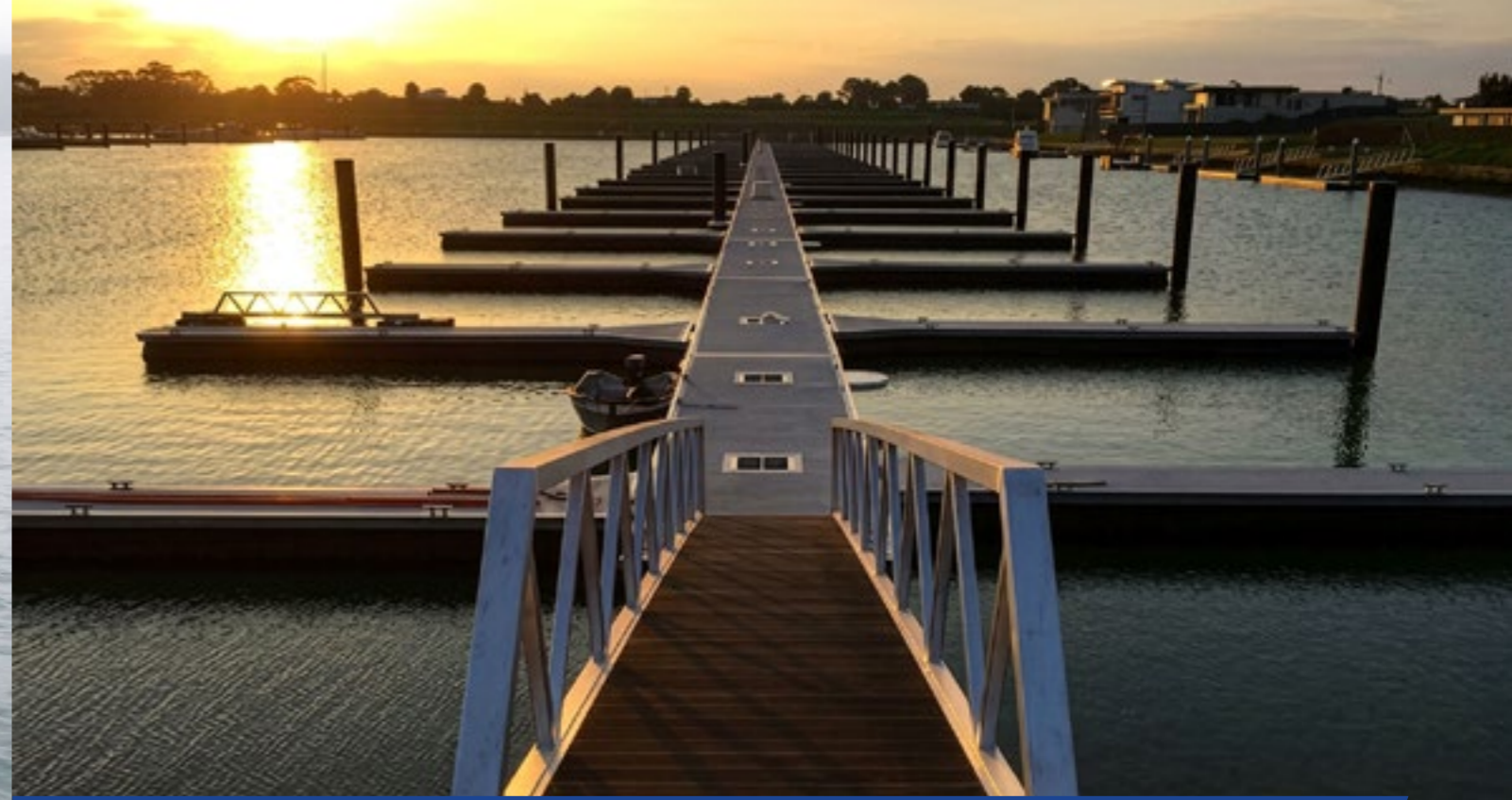
**OUTCOME**

Successfully delivered a robust and efficient transport interface, improving ferry access and event logistics. The terminal enhanced public transport capability while maintaining high safety and durability standards in a high-traffic marine environment.

FEATURE	DETAILS
System type	Commercial ferry terminal pontoon
Berth capacity	Ferry berth (single large vessel)
Water depth	Approx. 4.0–6.0m
Accessories	Gangway access, fender systems, cleats
Client	Infrastructure NSW / Sydney Harbour Expo Consortium
Completion	Completed



**PORT ARTHUR CRUISE SHIP ACCESS PONTOON**



**HIDDEN HARBOUR MARINA EXTENSION**

**📍 PORT ARTHUR HISTORIC SITE, TASMANIA**

**PROJECT OVERVIEW**

A specialised pontoon system designed to accommodate cruise vessel tenders at the historic Port Arthur site. The facility supports tourism operations by enabling safe and efficient passenger transfer in a culturally significant and environmentally sensitive location.

**DESIGN & CONSTRUCTION**

The project included three large commercial pontoons connected via gangways. Engineered for durability and stability, the system utilised reinforced concrete construction and pile moorings to withstand variable marine conditions and vessel loads.

**OUTCOME**

Delivered a critical tourism infrastructure asset, significantly improving accessibility for cruise passengers. The system provides long-term reliability with minimal maintenance, supporting continued growth in visitor numbers to the historic site.

FEATURE	DETAILS
System type	Commercial access pontoon system
Berth capacity	Multi-vessel tender berthing
Water depth	Approx. 3.0–6.0m
Accessories	Gangways, fendering, mooring systems
Client	Port Arthur Historic Site Management Authority
Completion	Completed

**📍 SAFETY BEACH, VICTORIA, AUSTRALIA**

**PROJECT OVERVIEW**

A 102-berth marina extension designed to expand an existing waterfront development. The project focused on increasing capacity while maintaining consistency with the original marina infrastructure and enhancing overall usability for boat owners.

**DESIGN & CONSTRUCTION**

The extension utilised modular concrete pontoons integrated with the existing marina layout. The system incorporated pile guides, service infrastructure, and flexible configuration to maximise berth density and accommodate various vessel sizes.

**OUTCOME**

Successfully expanded marina capacity while maintaining operational continuity. The project delivered a cohesive and high-quality extension that improved asset value and provided reliable, low-maintenance infrastructure for long-term use.

FEATURE	DETAILS
System type	Multi-berth marina extension
Berth capacity	102 berths
Water depth	Approx. 2.5–4.5m
Accessories	Service pedestals, cleats, pile guides
Client	Hidden Harbour Marina Pty Ltd
Completion	Completed



**DOUBLE BAY MARINA**



**PORT OF AIRLIE FERRY TERMINAL**

**SYDNEY HARBOUR, NSW, AUSTRALIA**

**PROJECT OVERVIEW**

A full marina replacement project within Sydney Harbour, designed to modernise existing infrastructure and improve berth quality. The project required careful integration within a premium urban waterfront environment.

**DESIGN & CONSTRUCTION**

The marina was rebuilt using a concrete pontoon system with upgraded structural and service components. The design prioritised durability, aesthetics, and efficient berth configuration while meeting modern compliance standards.

**OUTCOME**

Delivered a high-end marina facility aligned with its prestigious location. The upgrade significantly improved usability, longevity, and visual appeal, ensuring long-term value for stakeholders and users.

FEATURE	DETAILS
System type	Multi-berth marina redevelopment
Berth capacity	Multi-berth (capacity upgrade)
Water depth	Approx. 3.0–5.0m
Accessories	Service pedestals, cleats, utilities
Client	Double Bay Marina
Completion	Completed

**AIRLIE BEACH, QUEENSLAND, AUSTRALIA**

**PROJECT OVERVIEW**

A major commercial ferry terminal supporting the Cruise Whitsundays fleet. The facility integrates passenger handling and vessel operations within a high-traffic tourism hub, forming a critical gateway to the Whitsunday Islands.

**DESIGN & CONSTRUCTION**

The terminal incorporated heavy-duty concrete pontoons designed for frequent vessel berthing and passenger movement. The system included integrated services, pile fixing, and robust fendering to accommodate commercial vessel operations.

**OUTCOME**

Delivered a high-performance ferry terminal that enhances operational efficiency and passenger experience. The facility supports ongoing tourism growth and provides a durable, low-maintenance solution in a demanding marine environment.

FEATURE	DETAILS
System type	Commercial ferry terminal
Berth capacity	Multi-vessel commercial berths
Water depth	Approx. 3.0–6.0m
Accessories	Service pedestals, gangways, fender systems
Client	Cruise Whitsundays Pty Ltd
Completion	Completed

# WAVE ATTENUATOR SYSTEMS

High-performance wave attenuation systems specifically engineered to dissipate wave energy and safeguard valuable marine infrastructure. These floating breakwater systems act as a primary shield, protecting vessels, pontoons, and waterfront assets to create safer, more stable conditions within the marina. Developed for long-term durability in demanding environments, the systems utilize modular designs that can be configured to suit specific site layouts and varying environmental conditions. As a core component of the integrated Livart service model, these attenuators work in coordination with Astra technology and Supflex mooring systems to improve the overall safety and usability of waterfront areas while providing a flexible solution for either temporary or permanent installations.



Astra provides specialized, high-performance wave attenuation services designed to dissipate energy and safeguard waterfront assets. As a specialized division within the Livart Group, Astra focuses on creating calmer, safer water conditions by engineered dissipation of wave energy that would otherwise impact vessels and infrastructure. Their approach integrates seamlessly with the broader Livart service model, ensuring infrastructure to deliver a fully protected and stable marina environment.

#### Key Benefits

- Significantly reduces wave impact to maintain tranquil water conditions within the marina basin.
- Primary shield for vessels, pontoons, and essential waterfront infrastructure against environmental energy.
- Improves the overall usability and safety of the waterfront for staff, visitors, and vessel operators.
- Adaptable designs that can be configured to suit specific site layouts and varying environmental conditions.
- Constructed for long-term resilience and consistent energy management in demanding marine climates.



## SWAN YACHT CLUB MARINA & WAVE ATTENUATOR

### 📍 EAST FREMANTLE, WA, AUSTRALIA

#### PROJECT OVERVIEW

A floating wave attenuation system installed to significantly reduce wave penetration into an existing marina basin. The project was driven by the need to improve vessel safety and berthing conditions within a highly active river environment.

#### DESIGN & CONSTRUCTION

Astra delivered a 200-metre-long floating concrete breakwater system, engineered to attenuate wave energy while maintaining flexibility. The modular units were pile-guided and designed to perform under varying river and wind-driven wave conditions.

#### OUTCOME

The installation achieved a substantial reduction in wave activity, dramatically improving marina usability and vessel protection. The project demonstrates Astra's capability in retrofitting effective wave attenuation solutions within existing marina environments.

FEATURE	DETAILS
System type	Offshore floating breakwater system
Wave Climate	Moderate river and wind-driven waves
Water depth	Approx. 3.0–5.0m
Length	Approx. 200m
Mooring	Pile-guided
Client	Swan Yacht Club
Completion	2025



## TAIWAN COASTAL BREAKWATER SYSTEM

**SPECIALISING IN THE ENGINEERED DISSIPATION OF WAVE ENERGY, ACTING AS A PRIMARY SHIELD TO SAFEGUARD VESSELS AND WATERFRONT INFRASTRUCTURE.**

### TAIWAN

#### PROJECT OVERVIEW

A coastal wave attenuation system designed to protect marina infrastructure from open-water wave exposure. The project required a high-performance solution capable of reducing wave energy in a dynamic marine environment.

#### DESIGN & CONSTRUCTION

Astra supplied a modular floating breakwater system designed for offshore deployment. The units were engineered for durability and flexibility, allowing efficient installation and long-term performance in exposed conditions.

#### OUTCOME

Delivered a significant reduction in wave energy, enabling safe marina operations and improved vessel protection. The system provides a scalable solution for coastal developments facing similar environmental challenges.

FEATURE	DETAILS
System type	Offshore floating breakwater system
Wave Climate	Open coastal exposure
Water depth	Variable (coastal installation)
Length	Scalable system
Client	Regional Authority / Marina Developer
Completion	Completed



# DRYSTACK SYSTEMS

Drystack Australia offers specialized vertical berthing systems that significantly enhance the efficiency and capacity of modern marina infrastructure. By providing high-density, secure storage for vessels on land, these systems offer an effective alternative to traditional water-based berthing, allowing projects to scale their storage capabilities while maximizing land-use efficiency. Engineered for seamless integration, the drystack solutions coordinate with Livart Marine's floating infrastructure to provide a fully integrated and adaptable marina development. This approach is particularly valuable for waterfronts requiring long-term durability and the ability to accommodate evolving operational needs as project requirements grow.



DryStack Australia systems are engineered to maximise marina capacity while improving operational efficiency and vessel protection.

Designed as a high-density storage solution, DryStack systems allow vessels to be stored safely out of the water, reducing maintenance requirements and optimising the use of valuable waterfront space. The systems are designed to perform efficiently in a wide range of marina environments, from compact urban developments to large-scale commercial facilities.

#### Key Benefits

- Maximised vessel storage capacity within limited marina space
- Increased revenue potential per square metre for operators
- Reduced vessel maintenance through dry storage
- Enhanced protection from marine growth and environmental exposure
- Efficient vessel handling and retrieval systems
- Improved marina organisation and operational flow

#### ENGINEERED FOR EFFICIENCY

DryStack systems are designed to streamline marina operations through integrated lifting and storage solutions. High-strength structural systems combined with precision handling equipment ensure safe, reliable and efficient vessel movement.

Each system is tailored to suit vessel sizes, site constraints and operational requirements, delivering a solution that enhances both performance and user experience.

#### OPTIMISED FOR MODERN MARINAS

DryStack Australia systems provide a scalable solution for:

- Commercial marina operators
- High-density waterfront developments
- Yacht clubs and private facilities



## GOLD COAST CITY MARINA DRY STACK

### 📍 GOLD COAST, QLD, AUSTRALIA

#### PROJECT OVERVIEW

A large-scale dry stack storage facility within one of Australia's premier marine service hubs. The project was designed to support high-volume vessel storage and rapid launch/retrieval operations within a busy commercial marina environment.

#### DESIGN & CONSTRUCTION

Drystack Australia delivered a multi-level steel rack system integrated within a purpose-built structure. The design optimised storage density while maintaining efficient forklift access and circulation for high turnover operations.

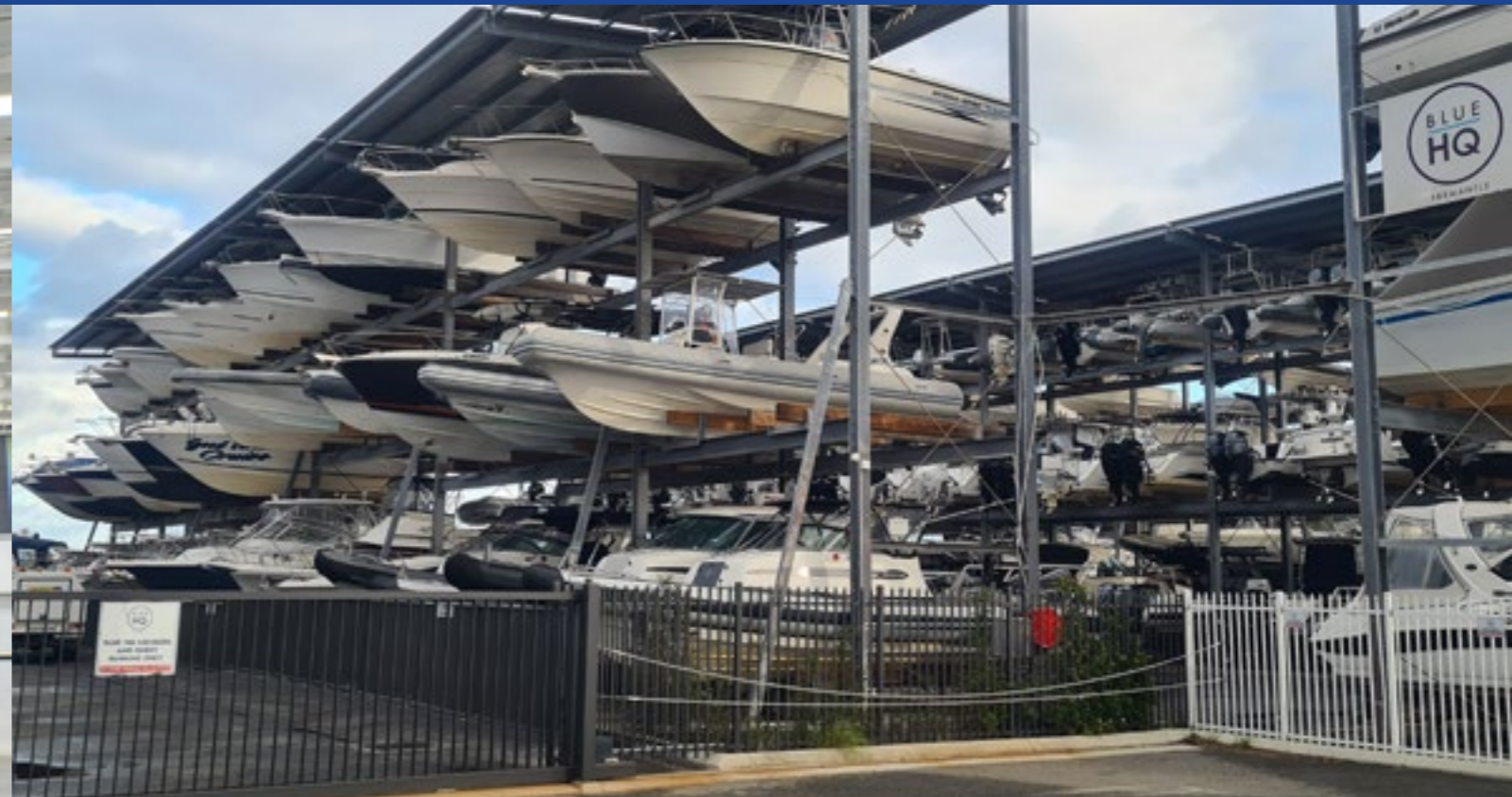
#### OUTCOME

The facility significantly increased vessel storage capacity while improving operational efficiency. It remains a key asset within the marina, supporting commercial activity and delivering strong return on investment.

FEATURE	DETAILS
System type	Multi-level steel dry stack system
Berth capacity	High-density (multi-hundred vessels)
Accessories	Forklift systems, wash-down bays, service areas
Client	Gold Coast City Marina
Completion	Completed



**PIER 35 DRY STACK FACILITY**



**FREMANTLE BOAT PARK DRY STACK**

**MELBOURNE, VIC, AUSTRALIA**

**PROJECT OVERVIEW**

A major dry stack development located at Pier 35, designed to accommodate approximately 260 vessels. The facility forms part of a broader marina and waterfront activation strategy along Melbourne's Yarra River.

**DESIGN & CONSTRUCTION**

The structure incorporates a multi-level rack system with provision for future expansion. Designed for urban conditions, the system balances storage density with operational efficiency and visual integration into the surrounding precinct.

**OUTCOME**

Delivered a scalable dry stack solution that maximises land use and supports growing boating demand. The facility provides long-term flexibility and strong commercial performance.

FEATURE	DETAILS
System type	Enclosed multi-level dry stack building
Berth capacity	Approx. 260 vessels
Accessories	Gantry/forklift systems, storage racks, service zones
Client	Pier 35 Development
Completion	Completed

**FREMANTLE, WA, AUSTRALIA**

**PROJECT OVERVIEW**

A dry stack facility designed to support recreational boating within the Fremantle marine precinct. The project provides efficient vessel storage in a high-demand coastal location.

**DESIGN & CONSTRUCTION**

Drystack Australia delivered a modular rack system allowing staged expansion. The design focused on durability, corrosion resistance, and efficient layout to maximise storage within a constrained site.

**OUTCOME**

The facility improved storage availability and reduced pressure on in-water berthing. It provides a cost-effective and low-maintenance solution for vessel owners and operators.

FEATURE	DETAILS
System type	Open rack dry stack system
Berth capacity	Multi-level storage
Accessories	Forklift access systems, storage racks
Client	Fremantle Boat Park
Completion	Completed



**MANDURAH JETTIES DRY STACK**



**KURNELL DRY STACK DEVELOPMENT**

**MANDURAH, WA, AUSTRALIA**

**PROJECT OVERVIEW**

A dry stack storage solution developed to support one of Western Australia's most active recreational boating regions. The project addresses increasing demand for vessel storage within a constrained marina environment.

**DESIGN & CONSTRUCTION**

The system incorporates multi-level racking designed for vessels up to 12–14 metres. The layout ensures efficient circulation and rapid launch/retrieval operations, with provision for future expansion.

**OUTCOME**

Delivered a high-efficiency storage facility that enhances marina capacity without requiring additional water-based infrastructure. The project supports strong utilisation and operational performance.

FEATURE	DETAILS
System type	Multi-level dry stack rack system
Berth capacity	High-density storage
Accessories	Forklift systems, access lanes, storage infrastructure
Client	Mandurah Jetties
Completion	Completed

**SYDNEY, NSW, AUSTRALIA**

**PROJECT OVERVIEW**

A dry stack facility designed to support growing boating demand within the Sydney region. The project provides an alternative to traditional marina berthing in a highly constrained coastal environment.

**DESIGN & CONSTRUCTION**

Drystack Australia developed a rack-based system tailored to site constraints, incorporating efficient layout design and structural optimisation. The system allows for scalable expansion as demand increases.

**OUTCOME**

Delivered a flexible and cost-effective vessel storage solution, improving accessibility and reducing reliance on in-water berths. The project demonstrates the viability of dry stack systems in urban markets.

FEATURE	DETAILS
System type	Modular dry stack rack system
Berth capacity	Scalable multi-level storage
Accessories	Storage racks, handling equipment
Client	Private Development
Completion	Completed



**QUEENSCLIFF DRY STACK FACILITY**

**📍 QUEENSCLIFF, VIC, AUSTRALIA**

**PROJECT OVERVIEW**

A dry stack facility developed to support recreational boating in a regional coastal environment. The project enhances storage capacity while maintaining a compact footprint.

**DESIGN & CONSTRUCTION**

The system features a multi-level rack structure designed for durability in coastal conditions. The layout allows efficient vessel handling and maximises storage density within the available land area.

**OUTCOME**

Delivered a practical and reliable storage solution that supports local boating activity. The facility provides long-term operational benefits with reduced maintenance requirements.

FEATURE	DETAILS
System type	Multi-level dry stack rack system
Berth capacity	Multi-level storage
Accessories	Handling systems, storage racks
Client	Regional Marina Operator
Completion	Completed



**ORAMS BOAT PARK DRY STACK**

**📍 AUCKLAND, NEW ZEALAND**

**PROJECT OVERVIEW**

A large-scale dry stack and marine precinct development accommodating approximately 310 vessels. The project forms part of a modern boating village integrating storage, servicing, and waterfront amenities..

**DESIGN & CONSTRUCTION**

Drystack Australia delivered a comprehensive rack system integrated within a broader marine facility. The design supports high-volume operations while maintaining accessibility and operational flow.

**OUTCOME**

The facility significantly enhances vessel storage capacity and supports a thriving marine services hub. It demonstrates large-scale dry stack capability within a premium waterfront environment.

FEATURE	DETAILS
System type	Large-scale dry stack facility
Berth capacity	Approx. 310 vessels
Accessories	Storage racks, service areas, handling systems
Client	Orams Marine
Completion	Completed

# ELASTIC MOORING SYSTEMS

High-performance elastic mooring systems are essential for maintaining the stability and precise positioning of floating infrastructure in dynamic marine environments. These advanced systems are specifically engineered to manage heavy tension loads while adapting seamlessly to tidal fluctuations and varying wave energy levels. By utilizing elastic technology, they provide a flexible yet secure connection that reduces stress on both the anchors and the pontoons, ensuring long-term durability and structural integrity for the entire marina development. As a core component of a coordinated project lifecycle, these systems integrate with wave attenuators and pontoon networks to create a safe, stable waterfront that remains reliable under diverse environmental conditions.

## RESPECT NATURE



Established in 2003, Supflex Systems specialises in high-performance elastic mooring solutions engineered to integrate seamlessly with floating pontoons and wave attenuation infrastructure. With products tested through more than 100 hurricanes globally and proven across 75,000+ cycles at 50% elongation, Supflex systems deliver over two decades of reliable performance in demanding marine environments.

By utilising advanced elastic technology, these systems provide precise load management, secure positioning, and the ability to naturally adapt to tidal movements and environmental forces. This reduces structural stress, manages heavy tension loads, and enhances the long-term durability of complex marina developments. Through a fully integrated approach, Supflex delivers tailored mooring solutions designed to meet the specific performance requirements and budget considerations of each waterfront project.

#### Key Benefits:

- Advanced technology effectively manages tension loads while adapting to tidal fluctuations.
- Ensures floating infrastructure and vessels remain securely and consistently positioned.
- Specifically designed to work in tandem with floating pontoons and wave attenuation systems.
- Engineered to maintain structural performance under high environmental and wave energy conditions.
- Constructed for consistent performance as part of a fully coordinated, low-maintenance marina lifecycle.
- Stabilizes floating infrastructure to improve overall safety and usability for vessels and pedestrians.



#### STRONG & DURABLE

Engineered to withstand extreme conditions while maintaining safe and stable performance.



#### ENVIRONMENTALLY FRIENDLY

Engineered with Nano technology and cutting-edge materials that are environmental friendly.



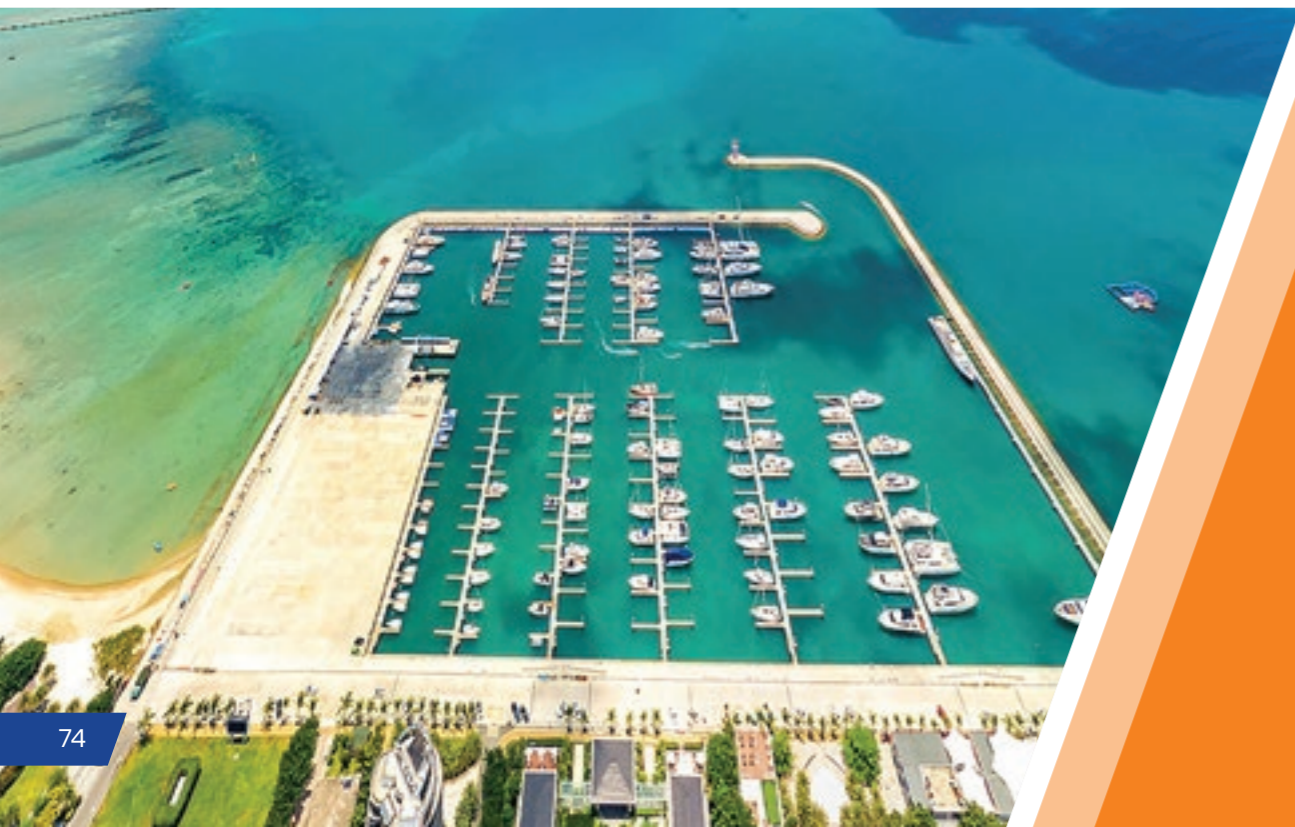
#### CLIMATE RESILIENT

Advanced nano-fibre rubber technology provides true hurricane-proof shock absorption.



#### TESTED & CERTIFIED

Independently tested and certified by ABS, DNV, Zwick/Roell and global marine engineering institutes.



## HKIA SKY PIER PASSENGER BARGE

### HONG KONG

#### PROJECT OVERVIEW

Supflex supplied the 3,650-ton Sky Pier Passenger Barge with Supflex mooring system for Hong Kong International Airport. Located in a high-exposure typhoon zone, the structure required a heavy-duty mooring solution capable of absorbing extreme dynamic loads while ensuring uninterrupted passenger operations.

#### DESIGN & CONSTRUCTION

**Dynamic Stability:** Supflex elastomeric technology allows controlled movement, significantly reducing peak loads on the hull and anchors during severe weather.

**Typhoon Resilience:** Designed specifically for the harsh hydrodynamic environment of the South China Sea.

As of 2026, this system has maintained an outstanding safety record for more than 19 consecutive years.

#### OUTCOME

This project represents the first application of Supflex elastic mooring technology supporting a 3,650-ton floating terminal within an international airport, setting a benchmark for mega-structure maritime safety.

FEATURE	DETAILS
System type	Heavy-duty Supflex elastic mooring technology
Scale	64m x 24m x 7m
Client	HK International Airport Authority
Completion	2007&2009

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