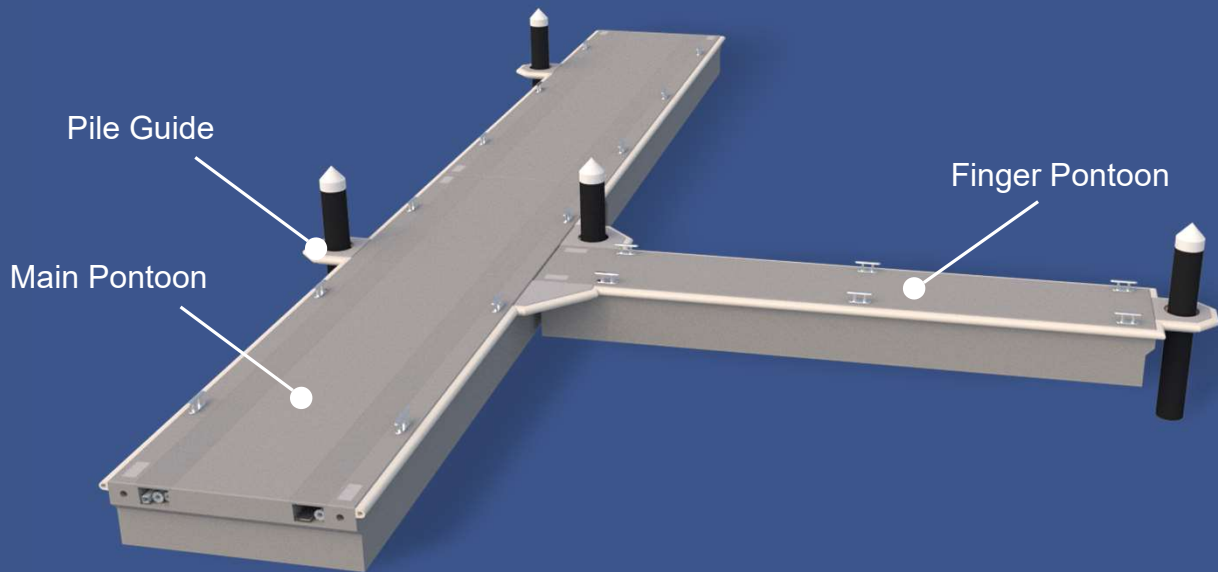


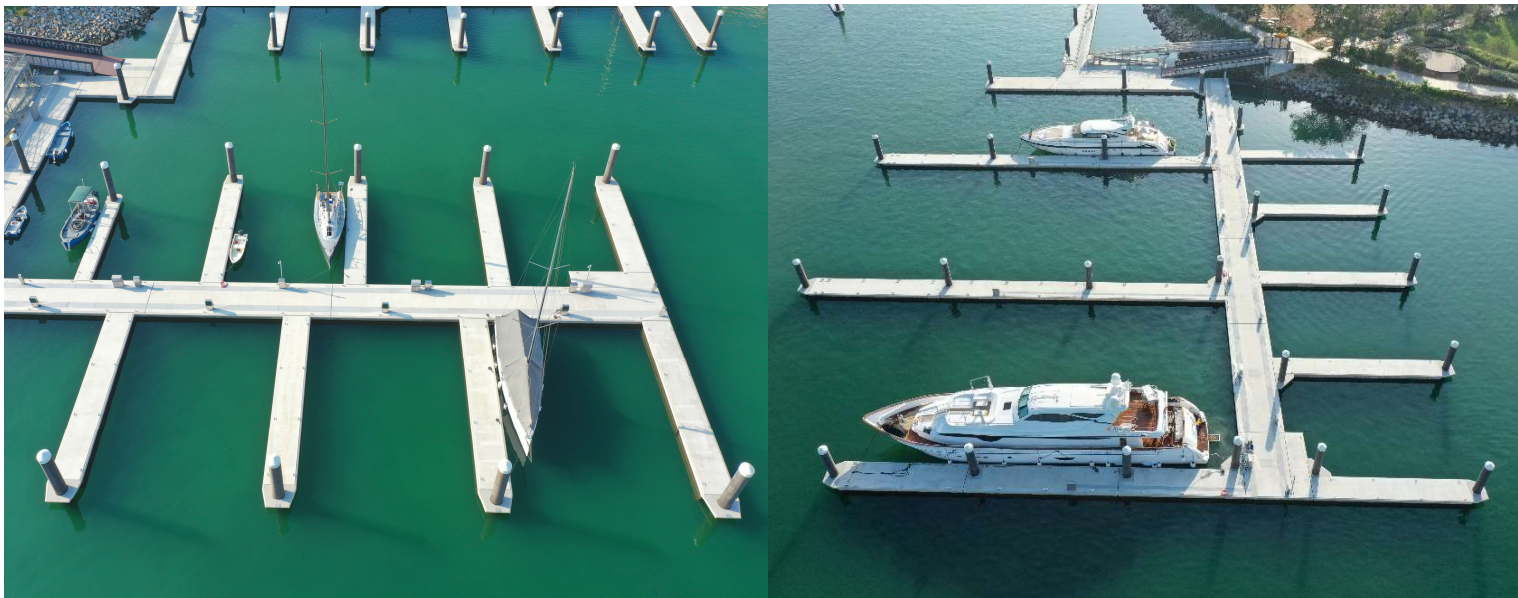


## 1. Concrete Floating Pontoon System

I came to the sea for a pontoon.



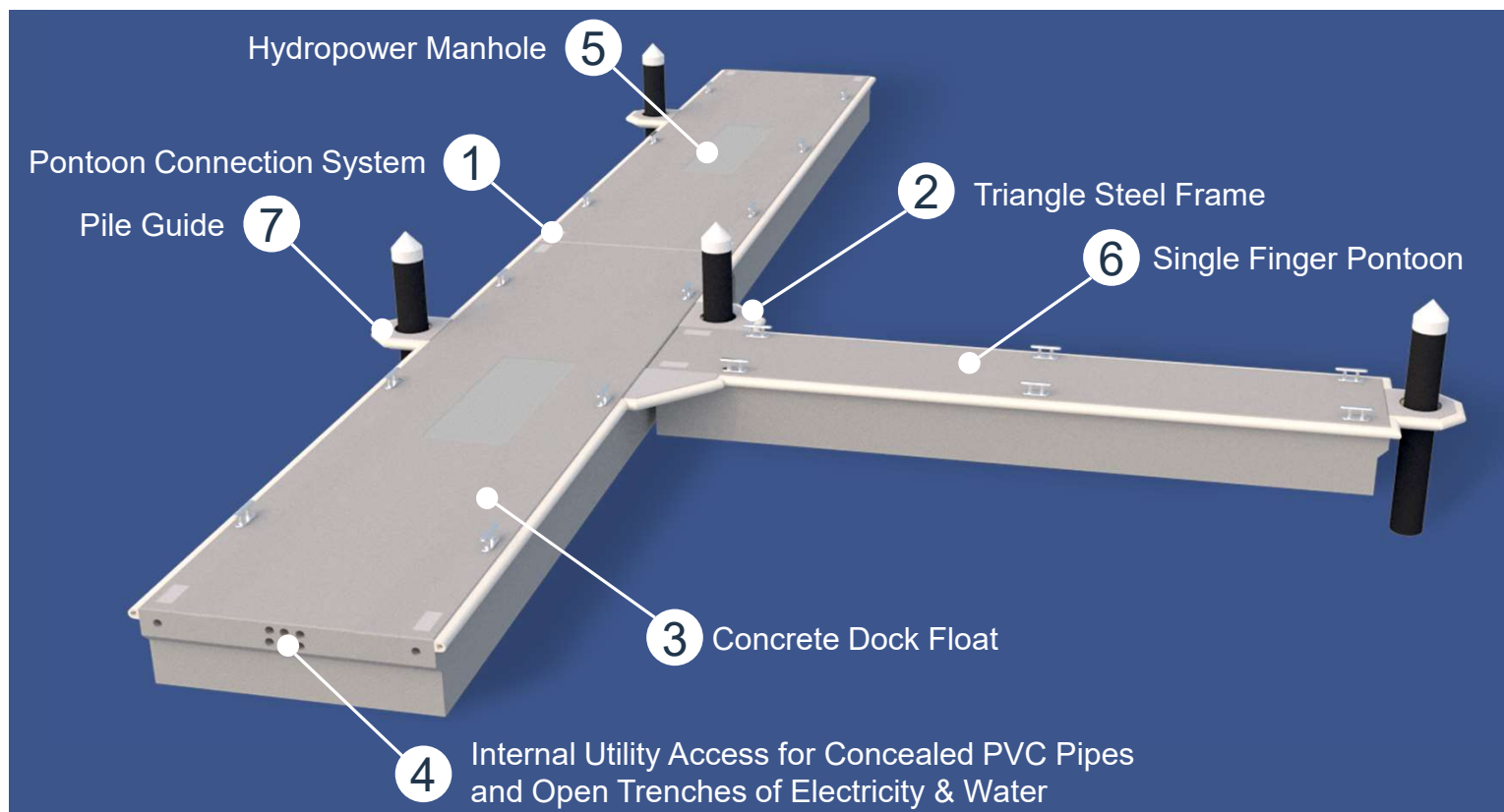
GOODOCKS' concrete floating pontoon has been the best choice for many customers owing to its features of heavy weight, good stability and long service life. On the basis of principle of physics, the heavier the weight of an object floating on the water, the less affected by waves, and GOODOCKS' concrete pontoon system is with enough weight to eliminate the influence of waves. Concrete with density of  $2600\text{kg/m}^3$  is one of the main components of the pontoon, and the pontoon can become strong enough after the concrete combined use with steel reinforcement. As the concrete shell is filled with foam, the concrete pontoon can float on the water like a ship. This combination of "concrete+foam" makes this kind of pontoon theoretically can be made into any shape and size, based on that, GOODOCKS has developed various pontoon systems specially for yacht berthing as well as different concrete pontoon systems such as water platforms for people's entertainment.





## 1. Concrete Floating Pontoon System

I came to the sea for a pontoon.



### 1. Pontoon Connection System

Flexible thru-rods and pressure-resistant rubber blocks are used to form a connection system between floating monomer pontoons. Within a certain range, the flexible thru-rods can be form universal joints, so that the pontoons can adapt to the arbitrary floating of waves in all directions. Pressure-resistant rubber block as a buffer system can reduce the extrusion between floating pontoons and eliminate the noise generated at the joint.

### 2. Triangle Steel Frame

The high-strength triangle steel frame is a reliable connector between the main pontoon and the finger pontoon, which can make the finger pontoon more stable and firm. Meanwhile the triangle steel frame can provide installation space for public service facilities and increase the utilization rate of pontoon berths.

### 3. Concrete Dock Float

A standard concrete dock float is with 5-sided concrete surface layer whose average thickness can reach to 100mm, and the uniform live load of a float is 5kPa. To avoid seawater corrosion and prolong service life of the product, concrete dock floats are made of high-performance concrete and hot-dip galvanized steel bars. With enough floats weight and flexible pontoon connection system, more floating monomer pontoons can be connected in a whole to form a strong wave barrier, which makes the pontoon system more stable and safe.

### 4. Internal Utility Access for Concealed PVC Pipes and Open Trenches of Electricity & Water

Standard pontoon products are with concealed PVC pipes and corresponding pipes and lines for water, electricity and hose reel based on berths configuration. No exposed pipelines can be seen while walking on the pontoons, it makes the whole pontoon system more beautiful and cleaner.

The heavy-duty pontoon products are with enough space for the open service trenches to meet different countries' approval standards of water, electricity and hose reel etc, and are convenient to installation works. Enough space for the open services trenches facilitates dealing with extreme power, water and electricity supply and sewage discharge etc of super yacht facilities. All service trenches are covered with Fiber-Reinforced Plastic(FRP) plates whose color can be customized.

### 5 Hydropower Manhole

Embedded manholes can provide convenient accesses for all public facilities, and facilitate installation works of hydropower pipelines, as well as the inspection and maintenance works. Optional FRP cover plates are with seamless and cohesive appearance, and different surface patterns (such as yacht club name or logo etc) can be customized on the cover plate.





## 1. Concrete Floating Pontoon System

### 6. Single Finger Pontoon

A finger pontoon below 20 meters usually adopts single floating structure. A finger pontoon of the super yacht berth over 20 meters is connected by double or multiple floats structures, the overall structural performance is excellent.

### 7. Pile Guide

GOODOCKS' s unique design of the adjustable roller of pile guide can adjust to the optimum distance between piles and rollers, which greatly improves the mechanical performance of a whole floating pontoon system.

## Fabricate Each Pontoon with Heart





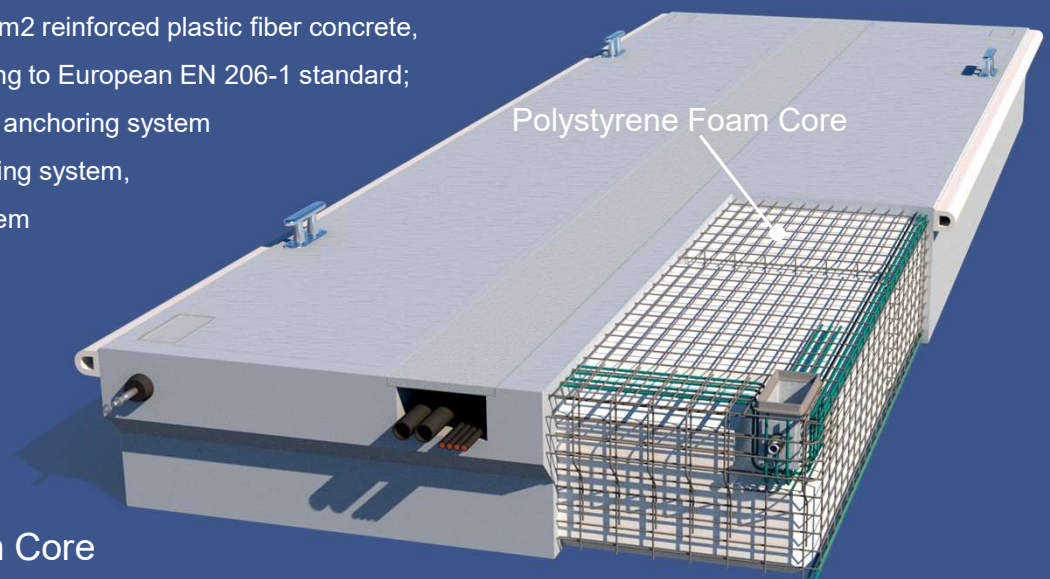


## 2. Single Concrete Pontoon Module

GOODOCKS' concrete pontoon system is favored by private customers and large yacht club investors. GOODOCKS is committed to providing customers with excellent concrete pontoon system, professional design combined with high-quality and sufficient materials, so that the products can be with high stability, safety and durability.

### ● Technical Data

- Strength of Concrete: 40 N/mm<sup>2</sup> reinforced plastic fiber concrete, with exposure grade conforming to European EN 206-1 standard;
- Anchoring System: pile guide anchoring system (steel pile guide), elastic mooring system, shore slide rail anchoring system



### ● Polystyrene Foam Core

The polystyrene foam is cut into the shape of a pontoon by numerical control processing and installed in the pontoon mold. Concrete casting makes polystyrene foam perfectly stick together with concrete to form a seamless floating structure. The foam density is 15kg/m<sup>3</sup> with high compressive strength and low water absorption, which can make the concrete pontoon never sink.

A variety of standard sizes of single pontoon, with a length of 6-20m, a width of 2.4-5 m and a single weight of 15-70t, can be used for building concrete pontoon system in GOODOCKS. Although the structure of concrete pontoon system is more complex than the usual one, after the standardized products design, the on-site installation can be as simple as building LEGO blocks. Flexible thru-rods and pressure-resistant rubber blocks are used to form a connection system between floating monomer pontoons. Within a certain range, the flexible thru-rods can be form universal joints, so that the pontoons can adapt to the arbitrary floating of waves in all directions. Pressure-resistant rubber block as a buffer system can reduce the extrusion between floating pontoons and eliminate the noise generated at the joint.



## 2. Single Concrete Pontoon Module

### Standard Concrete Pontoon

### Heavy-duty Concrete Pontoon

Item	Unit	CTM2400	CTM3000	CTM4000	CTM5000	Item	Unit	CHM2400	CHM3000	CHM4000	CHM5000
Pontoon Length	m	*The standard pontoon is 15m in length. *6-20m long pontoon can be customized.				Pontoon Length	m	The standard pontoon is 15m in length. 6-20m long pontoon can be customized.			
Width with Fender	m	2.7	3.3	4.3	5.3	Width with Fender	m	2.7	3.3	4.3	5.3
Pontoon Width	m	2.4	3	4	5	Pontoon Width	m	2.4	3	4	5
Height	m	1.0	1.0	0.9	0.9	Height	m	1.2	1.1	1.0	1.0
Average Weight	T/m	1.38	1.65	1.90	2.38	Average Weight	T/m	1.8	2.03	2.41	2.87
Live Load	kPa	5	5	5	5	Live Load	kPa	5	5	5	5
Freeboard	mm	500	500	500	500	Freeboard	mm	500	500	500	500
Connection Joints	Pcs	2	2	2	2	Connection Joints	Pcs	2	2	2	2
Gap of Joints	mm	30	30	30	30	Gap of Joints	mm	30	30	30	30

### ● Optional Accessories

- Mooring Cleat: aluminium alloy or 316 stainless steel
- Fender: softwood, rubber
- Decking:

There are two types for concrete pontoon decking, fair-faced concrete surface and deck paving.

- Anti-slid Fair-faced Concrete Surface: after finishing concrete casting works for the pontoon, the concrete surface will be treated with wire-drawn workmanship by professional tools at the initial coagulating stage, which can play an anti-skid role, be beautiful and easy to clean.
  - Deck Paving: WPC(Wood-Plastic Composites) decking or PE(polyethylene) and FRP decking can be used for paving, and the periphery of the pontoon is covered with aluminum alloy frame structure, which is known for its beautiful appearance, high-end visual sense and environmental protection, and is suitable for luxury and top-class super yacht clubs.
- Other Equipment: water and electricity pedestal with aluminium alloy case, hose reel equipment and sewage disposal facilities.

