



Company overview

Established in 1934, VolkerMarine Services is a specialist service provider to the civil engineering and maritime sectors, offering a range of construction and marine plant and equipment for hire and sale, including Linkflote™ pontoons and temporary site accommodation.

VolkerMarine Services is a division of VolkerStevin, one of the UK's leading construction and engineering contractors, providing complex engineering solutions across a wide range of sectors.

VolkerMarine Services has an extensive marine fleet which includes tugs, workboats, safety boats, motorfloats, walkways, propulsion units and winches for manoeuvring and securing Linkflote™ barges, working platforms, pontoon-ferries and a hydraulic piling frame; all of which can be used to assist the Linkflote™ pontoons.

In addition, VolkerMarine Services supplies pontoons and spud poles, ramps, scow ends, anchors, fairleads, timber decking and various other pieces of ancillary equipment to use with our Linkflote™ pontoons.

VolkerMarine Services has the largest for hire stock of Linkflote™ and Uniflote modular pontoons in the UK. The fleet consists of over 200 standard pontoon units, complete with a full range of pontoon accessories. Whatever the application, our Linkflote™ units can be assembled to give an effective and economical solution, irrespective of configuration.

VolkerMarine Services provide plastic pontoons alongside the Linkflote™ pontoon system. These durable and lightweight units can be used to provide walkways, jetties, boat moorings, access, working platforms and are quickly and easily mobilised. With a range of mooring systems from spud poles, piles, deadweights, we can also provide fendering, ladders, mooring cleats and gangways. These units come in a variety of depths and sizes and can support small plant.

VolkerMarine Services design, manufacture and install an extensive range of products, that can be exported worldwide. With an expert in-house design team, we are able to offer bespoke solutions to meet your requirements.





Linkflote™ pontoons are versatile, road transportable and easily handled modular flotation pontoons used for both temporary and permanent marine infrastructure, transportation applications, civil engineering and marine developments across the globe.

VolkerMarine Services is the only manufacturer of this type of pontoon unit in the world. The Linkflote™ units, which are fully compatible with existing Uniflote pontoons, are sold and hired to a range of customers both in the UK and overseas.

Using location lugs and couplers, fixed to the sides and ends of each Linkflote™, our units can be easily connected to form almost any pontoon shape, configuration and/or specific requirement.

Linkflote™ pontoons can be easily formatted for use as marine work platforms, ferries, barges, causeways, floating and swing bridges, access ramps and landing stages. Linkflote™ units can

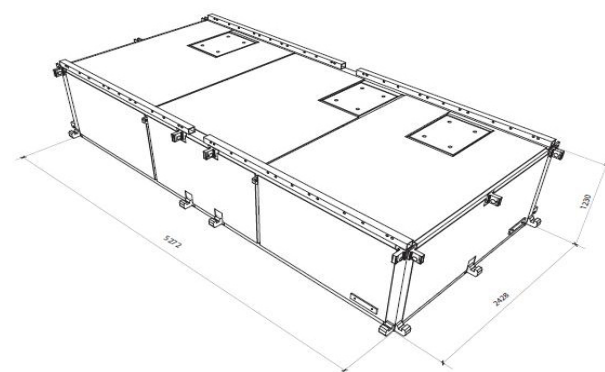
also be used with panel bridges and a range of standard

accessories to suit a wide variety of applications, including floating roads with our bespoke road deck units.

Linkflote's™ modular design and robust construction provides flexibility and strength, which combine to give a long and effective working life. Whatever the application, units can be assembled to provide an effective and economical solution.

VolkerMarine Services can provide advice on Linkflote™ configurations and applications.

All buoyancy and stability checks, specific to an application.



Linkflote™ applications

■ Rafts and platforms:

Linkflote™ pontoons can be easily configured to meet the most varied of needs. Whatever the application, units can be assembled to provide an effective and economical solution. For example, a simple square or H shape configuration should be appropriate when producing a crane platform for all round cranes. For pile driving or dredging applications, a U shape may be more appropriate. Other applications may require a hollow square or rectangle configuration. Irrespective of configuration, all rafts and platforms are constructed using the basic Linkflote™ unit, which ensures complete stability. Buoyancy checks are kept as simple as possible to allow the most suitable configuration of platform or raft to be easily and quickly selected.

■ Ferries and barges:

Linkflote™ shore loading ferries can be independently powered with propulsion units, or towed using either underwater or overhead wire rope and shore-based winches. Ship to shore and offloading ferries can be constructed with ramps at the bow end and propulsion units at the stern. VolkerMarine Services maintains a hire fleet of workboats and winches that can be used for the movement of ferries and barges.

■ Landing stages and causeways:

With the simple addition of decking, mooring bollards and ramps, a wide range of landing stages and causeways can be formed using Linkflote™ units. Linkflote™ landing stages can be constructed in any size or shape to suit customer requirements. Where heavy loads are placed on a long landing stage it may be necessary to fit articulating connections to reduce bending stresses. By fitting ramps at each end of the pontoon's landing stages and causeways, vehicles can drive straight across without difficulty. Depending on customer requirements, steel or timber decking/mats may be used, to spread loads.

Linkflote™ specification

Our standard paint system is a two-component, polyamine cured glass flake epoxy paint. Specifically designed as an abrasive and impact resistant coating, the system has a dry film thickness of 250µm and the surface is prepared to an SA2.5 standard. Other paint specifications, to meet customer requirements, are available upon request.

Each Linkflote™ has two watertight bulkheads, which divide the units into three equal compartments for safety and to allow ballasting and/or trimming. The bulkheads also serve to significantly increase the rigidity of the Linkflote™ unit. Access to each compartment is via a watertight hatch in the Linkflote™ deck.

Strong sledge-type runners, fitted to the base of the Linkflote™, assist with skidding the units on shore and lifting points are provided, as an integral part of each unit, to facilitate handling by crane.

The standard Linkflote™ is constructed with steel gunwales, standing 80mm proud of the deck plates, and which facilitate the fitting of a removable timber deck, hand railing, winches, saddles and bollards. The deck of the standard unit is constructed from 5mm steel plates. Chequer plate or reinforced steel decks can be provided to meet specific customer requirements.

Dimensions

Each Linkflote™ unit is comprised of a robust, all welded structural steel frame, with steel skin plates and a reinforced deck. A standard Linkflote™ unit is:

- Length - 5,272mm
- Width - 2,428mm
- Depth - 1,230mm
- Weight – 4,000kg (approx.)

1,840mm deep Linkflote™ pontoons and special units can also be manufactured to order.

Standard Linkflote™ units will support a uniformly distributed load of 95kN whilst maintaining a freeboard of 225mm.

The maximum permissible uniformly distributed deck load on each Linkflote™ is 20kN/m².

To ensure these loads can be safely applied to a particular Linkflote™ arrangement, stability analysis and buoyancy checks need to be demonstrated.

VolkerMarine Services can provide advice on the adequacy of units, to resist different loading conditions.

■ Articulating connectors

Where a long raft or block of Linkflote™ units are coupled together as a causeway, or similar floating bridge structure, articulating connectors are incorporated to prevent bending moments when the structure is loaded.

■ Decks

Timber decking should be fitted to distribute the load when vehicles are on the Linkflote™. Each Linkflote™ decking is comprised of two pre-assembled mats. The top surface of the timber mats stands 50mm above gunwale level. End and side junction mats are used to bridge the gap between the Linkflote™s creating a deck which is level throughout the ferry or platform.

■ Inter-connectors

Inter-connectors help increase pontoon stability and reduce the number of Linkflote™ units required on floating rafts and platforms, where increased buoyancy is not required. Various inter-connector sizes are available.

■ Linkflote™ ramps

Linkflote™ ramp units share the same robust design and construction as pontoon units and can be connected to the ends or sides of the basic Linkflote™ unit. Ramp connectors allow movement of the ramps and facilitate shore loading and access, whilst accommodating a wide range of tidal heights; relative to the shore or bank.

■ Linkflote™ scow ends

These strong and robust units are used to reduce water resistance on the flat sides and ends of a Linkflote™ pontoon. When used on a pier or ferry application the 30° angular shape deflects the water flow under the Linkflote™, aiding buoyancy.

■ Spud units and poles

Based on the basic Linkflote™ unit, spud pontoons are constructed with a central sleeve opening which accommodates a spud pole. Used in pairs on Linkflote™ assemblies, spud units are particularly useful as an alternative to anchors, when operating floating platforms in shallow waters.

■ Winches

Winches can be fitted to Linkflote™ rafts and platforms and used for mooring or operational requirements. Winches can be hand or air operated and specific configurations can be provided.

Linkflote™ ancillary equipment



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