



FRP Structures











Infracore FRP Structures

Infracore FRP solutions combine well proven FRP composite materials, with an innovative and patented manufacturing process. This allows large structures to be moulded in one piece to project specific dimensions, with a custom lay-up that can be tailored to meet any loading condition.

The final solution offers a combination of strength, lightweight construction, high durability and cost effectiveness that surpasses the properties of traditional construction materials.

Bridges

Infracore FRP structures make ideal foot, cycle, road and rail bridges. Bridges up to 42m in length can be moulded in a single piece deck, and an integrated, bonded non slip wearing course can be applied at the factory.

Infracore FRP bridges can be installed quickly and the lightweight nature reduces transport, installation and foundation costs for static bridges, which reduces the size of actuation for moving bridges. Infracore bridge decks are maintenance free, and never need re-painting.

Bridge Decks

The lightweight nature of Infracore bridge decks makes them the perfect option for use in refurbishment and replacement of the traditional deck surface of any existing bridge with a conventional sub-structure.

In many cases the entire replacement bridge deck can be manufactured as a single piece, with no joints and the overall imposed weight on the bridge can be reduced.

On moving bridges, this reduced weight lowers operational costs and maintenance.



- 50 year warranty
- 100 year expected service life





Water Control

The material properties of Infracore FRP structures make them ideal choices for large water control structures such as mitre gates, lock gates and other sluice gates.

The material is unaffected by immersion in water and remains maintenance free, with no need for painting. Excellent impact resistance properties reduce damage from boats and debris, and the weight of the finished structure can be tuned to have near neutral buoyancy, reducing bearing loads and operating costs.

Stoplogs

FRP cannot rot or corrode, it is resistant to moisture, salt and UV-radiation and does not decay over time. This gives reassurance that FRP stoplogs will always fit and perform their task, no matter how long they may have remained in storage. The weight of FRP stoplogs is specially tuned to give a suitable negative buoyancy without the need to add metal sub-frames or ballast.

Retrofit projects can be designed to use existing concrete channels, new stainless or galvanised steel guides that can be installed by certified dive teams under the expert guidance of ECS project engineers.



Turnkey Solutions

In all these solutions, ECS is able to work with end clients, developers or architects to offer a full turnkey service for the design, construction and installation of the entire project.

We can undertake the full provision of the civils elements of a scheme, or work in close partnership with main contractors.

For water control projects we can provide detailed mechanical and electrical expertise to supply the complete engineering requirements including all operating mechanisms.





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