CASE STUDY

Premium private mooring for estuary with high tidal range

Tregothnan Estate, Cornwall

WALCON



With a combination of powerful tides and the wooded nature of the River Fal this presented a very real risk. With these challenges in mind plus a brief for a working life of at least 20 years the Walcon design reviewed a range of alternative solutions. The berthing pontoon was to be positioned off a stone boathouse (pictured

In 2019 Walcon Marine was approached by the historic Tregothnan estate on the River Fal in Cornwall looking for a high quality berthing solution to meet a specific need. With the estuary well known for its large tidal range the estate required a berth for a motor yacht that would enable it to be afloat and accessible from the shore at all states of the tide.

Given the profile of the river bed this meant that a long structure would be needed to reach a mooring pontoon out in the main channel. This in turn required a design that would be capable of withstanding the local winds and the impact of debris carried up and down the river.

above and below) directly on the River Fal, but from there to the channel is around 50 metres and the distance magnified the already considerable challenges. A continuous walkway of pontoons out to the berth would be very exposed to the tidal currents and piling was not a realistic option given the rocky river bed.





To deliver a stable solution with minimal exposure to the strong currents and waterbourne debris it was decided to connect the berthing pontoon in the channel to the shore using two bridges, each 19.5 metres in length and fixed on the shore and berth respectively, and have them meeting midway on a 12-metre pontoon where ramps would allow them to move with the tidal rise and fall (see crosssection above).

For impact resistance combined with a long, maintenance-free lifespan, the commercialgrade Walcon Docking Solutions product with its catamaran-configured tubular steel floats and steel frames (shown right) was selected as the optimal candidate.

These are designed to withstand the rough and tumble of commercial boat operations and so are ideal for this kind of application. In order to hold the berthing and bridge pontoons in place without piling, the Seaflex self-tensioning mooring system (www.seaflex.net) was requested by the client. This holds the pontoons in position using concrete anchors placed on the riverbed (see plan below) yet still able to rise and fall with the tide. The overall result is a premium quality, custom berthing installation suitable for the most challenging environments and built for minimal maintenance over many years.





Founded in 1963, Walcon Marine is the market leader in the design, construction and installation of marinas, yacht harbours and berthing facilities around the world. As probably the longest established and most experienced company in its field, Walcon Marine is a global organisation with manufacturing facilities in the UK, Australia and Dubai. Its pontoons are now installed in over 30 different countries on five continents.

www.walconmarine.com Tel. +44 (0) 1489 579977 Email: sales@walconmarine.com Due to our policy of continuous product development we reserve the right to change specifications without prior notice.