



FRP constructions: Internal walkways for pump rooms of lock gates

Problem	The steel, internal walkways of the pump rooms of several lock gates on the river 'Samber' showed severe corrosion problems and needed to be replaced and modified in order to meet all present safety regulations.
Solution	The customer was looking for a material that was corrosion resistant and colored in mass, in short a material needing virtually no maintenance. Furthermore the materials needed to meet the strict safety and strength regulations for a lasting performance. Composite profiles and gratings were used to bring the lifetime up and life-cycle-cost down of these constructions.
Materials	U 200/80/8 and U150/50/6 Handrail system: square box 60, kneerail dia. 38mm, handrail and kickplate Vikugrate 38x38xH38mm with grid Security gate: Double gate 81 cm.
Size	18 pump rooms containing each 2 walkways with handrails and security gates.
Year of construction	2008.
Benefit	Today, more and more composite materials are used in aggressive surroundings. The harsher the environment, the more they get used. Where metal profiles have to be maintained and replaced regularly, composites don't need maintenance. To design and fabricate these constructions, several standards are available and applied: EN 13706 for pultrusion profiles, EN ISO 14122 for access structures and the 'Eurocomp Desing Guide' providing design rules for safe constructions.