

World's largest Fiber Reinforced Polymer composite Mitre Gates for a new Lock in the Netherlands



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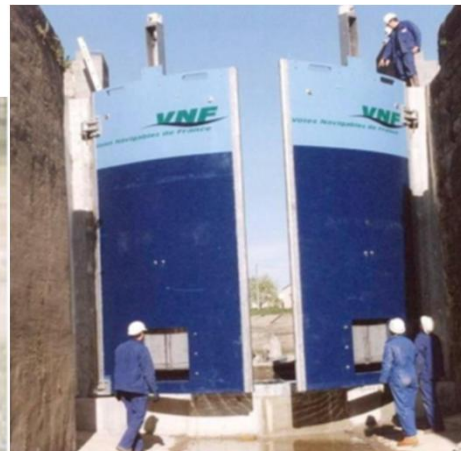
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1 EXISTING FRP COMPOSITE MITRE GATES

- Spiering Lock, The Netherlands
- Goleby Lock, France
- Erica - Ter Apel Lock, The Netherlands



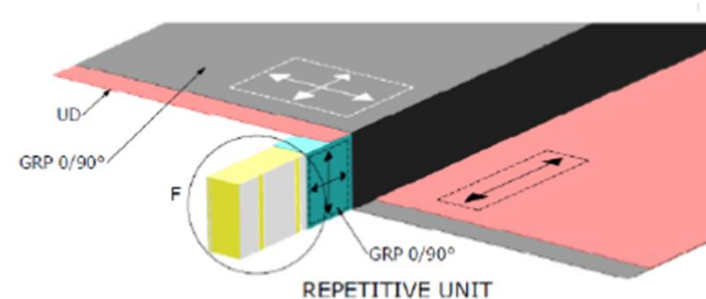
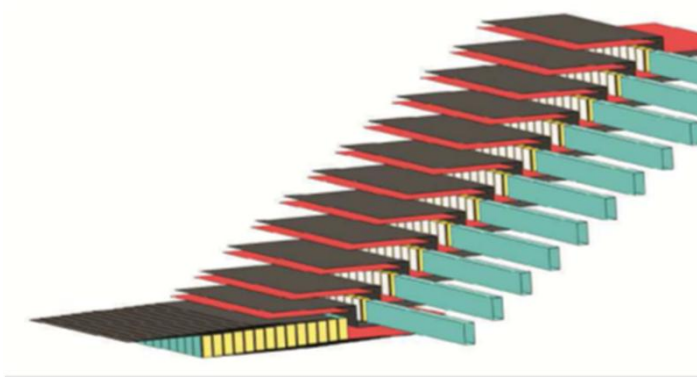
2 WOLRD'S LARGEST FRP MITRE GATE

- One piece Polyester and Glass fiber composite closed structure of 6.3 x 12.3 x 0.51 meters.
- Skin solid 30 mm thick. 5 mm solid webs spaced 102 mm



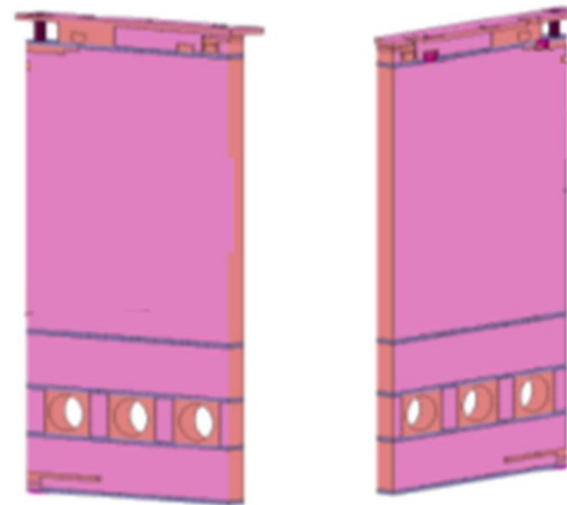
3 GENERAL CONSTRUCTION

- Z-shaped fiber and PU foam build-up used in the FRP Composite Mitre Gates.
- Fibers connecting the skin and de webs are continuous



4 GENERAL CONSTRUCTION

- Flow holes 1000 mm in diameter
- Structural solid Polyester - Glass fiber beams (blue lines) on locations of high stresses and deflection.



5 PRODUCTION

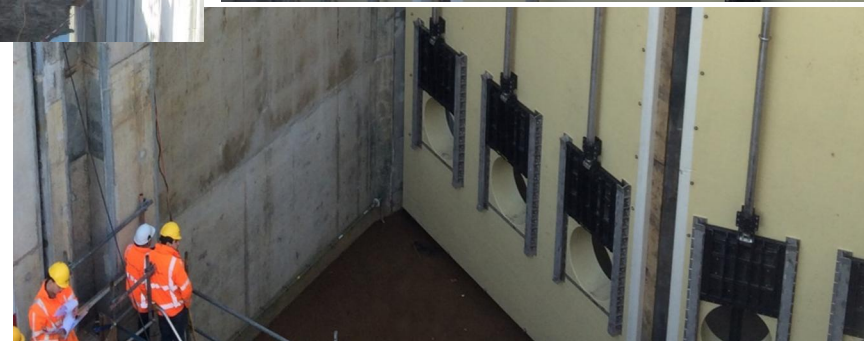
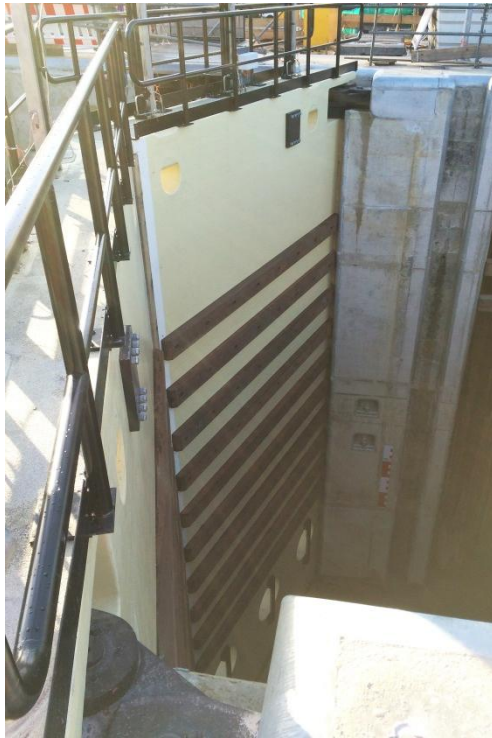
- Vacuum assisted resin injection on one side stiffened mold covered by foil (0.2 bar)



Hinge construction



6 INSTALLATION



Lower head leaf & flow gates drive systems.

