

Case study

150 tonne installation buoy



RESULT

Matrix developed the IsoBlox™ modular system which allows the client to assemble multiple buoyancy blocks in an almost infinite number of 3D configurations. Assembly can be tailored to meet the most challenging requirements. Despite many firsts and a tight deadline Matrix delivered a modular structure to the client on time and on budget. All 6 ILT structures were subsequently installed safely and efficiently using the Buoy.

Client

Heerema Marine Contractors/INPEX

Project location

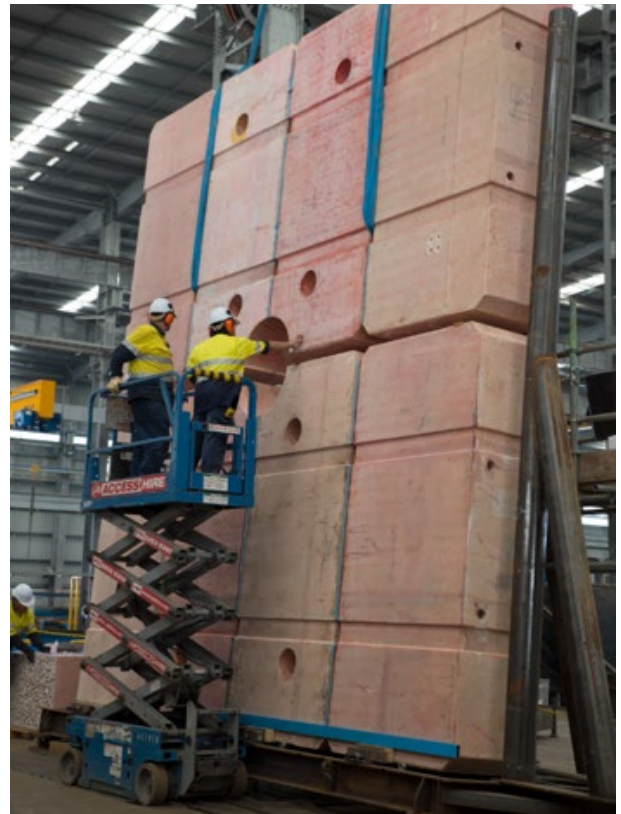
Ichthys Gas Field, West Australia

Product

Composite Foam ILT Installation Buoyancy

Time period

Q2 2014



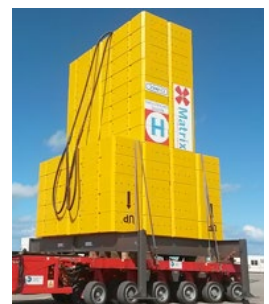
CHALLENGE

Our client needed to safely install 6 x 150 tonne (330,693 lbs) ILT steel structures onto the seabed of the Ichthys Gas Field located off the coast of Western Australia from a deep water construction vessel.

SOLUTION

Collaborate with the client and end user to maximise the design limits of the vessel and engineer a suitable solution that would meet tight deadlines and the high safety and quality requirements to design and manufacture one of the largest composite syntactic foam Installation Buoys in the world.

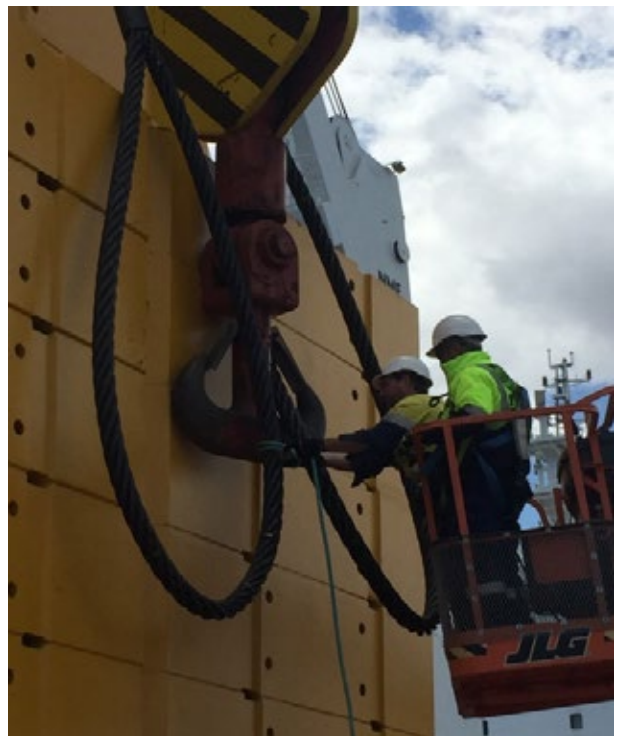
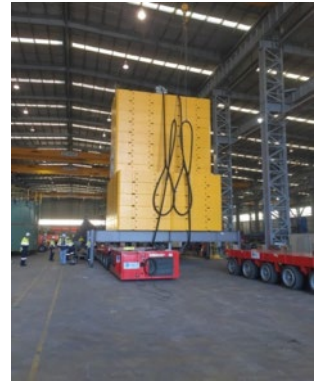
The structure weighed 103 tonnes in air and was to provide 150 tonnes of uplift in seawater, the equivalent of eight large public buses.



CONSTRUCTION PROCESS

Consisting of 92 off modular blocks bonded together in sequence utilising a Matrix formulated adhesive. A Steel fabricated through member weighing approx. 16 tonnes and load tested to 440 tonnes was fitted and secured through the centre of the structure before load out onto a Self-Propelled Modular Transporter (SPMT) and subsequently onto a waiting vessel to transport the Buoy to the client destination before deployment to the gas field.

Watch 150 tonne buoy construction



To find out more, visit our website, email matrix@matrixengineered.com or call:
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