

## INTELLIGENT MATTRESS FRAME

### SPECIFICATION SHEET



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#### KEY FEATURES

DeepOcean's Intelligent Mattress Frame (IMF) has been developed to provide a cost effective solution for mattress installation without the need for ROV or diver intervention. This sophisticated tooling can be used to monitor and deploy concrete mattresses to the seabed, disconnect the deployment rigging and conduct a visual / sonar confirmation of the mattress location.

The IMF is a stand-alone unit, fitted with four vectored Thrusters and a standard fibre optic gyro for movement in the X and Y axis. It is operated from a remote location via a laptop computer using standard serial and Ethernet communications.

Have been used on a number of projects, the IMF system has built a successful track record working in low visibility, high currents and shallow water, and has achieved installation rates of fewer than twenty minutes per mattress.

DeepOcean can provide project management, operational planning, engineering, mobilisation and demobilisation, installation vessel and offshore crew as part of the IMF project scope of work.

- MATTRESS DEPLOYMENT IN UNDER 20 MINUTES
- ADDITIONAL SUPPORTING ROV OR DIVER NOT REQUIRED
- REMOTELY OPERATED USING A LAPTOP COMPUTER
- ABILITY TO WORK IN LOW VISIBILITY, HIGH CURRENTS AND SHALLOW WATER

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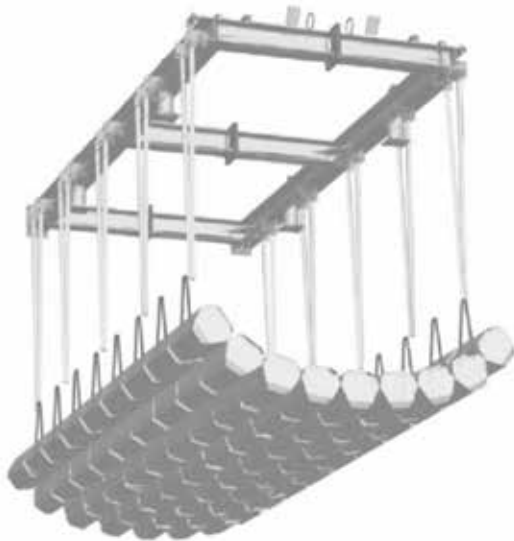
The Intelligent Mattress Frame is not limited to these parameters and can be modified by DeepOcean to complete worksopes in excess of its current configuration.

## PARTICULARS

<b>SAFE WORKING LOAD (SWL)</b>	15te
<b>WEIGHT</b>	1.3te
<b>LENGTH</b>	5.15m
<b>WIDTH</b>	2.46m
<b>THRUSTERS</b>	4 x SubAtlantic 300

## FRAME INTERFACE

The installation frame will be provided with its own hydraulic supply for navigation in the X-Y plane and interface for navigational inputs, camera, sonar and other navigational systems through the installed fibre multiplexer. Hydraulic release mechanism for the mattress lay. No need for a supporting WROV or other external interfaces during lay sequence.



## NAVIGATION

Octans Gyro or similar
Tritech Gemini Sonar (optional)
Navigation camera, both forward and aft Transponder
Mux unit for signal transfer
Topside controlled valve pack for thruster control.
Other project specific navigation sensors (Depth, altimeter)

## HPU

The mattress system will be delivered with a suitable Hydraulic Power Unit (HPU) of 210-220 bar pressure and 120l flow and hoses, in addition to valve pack and thrusters.

