



PHAROS

OFFSHORE GROUP

SPECIFICATION SHEET FOR

iMDS2

**Intelligent Mattress Deployment
System - Two Release**

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Intelligent Mattress Deployment System: Two-Release (iMDS2)

The frame is designed to support standard size 6mx3m mattresses and incorporates two sets of pin linkages, allowing two mattress loads to be deployed independently during a single dive. The system allows for a range of release methodologies, including:

1. Remote release via hydraulically operated deck mounted HPU.
2. ROV operated release handles
3. Diver operated release handles

The upper pin linkage facilitates the release of the first load utilising 12 loading pins rated to 850Kg each (maximum overall load 10,000Kg). The lower pin linkage releases the secondary load utilising 24 loading pins rated to 850Kg each (maximum overall load 20,000Kg). The layout allows for single high load or dual low load operation. The maximum combined loading should not exceed a gross load of 20,000kg.

The mattress frame can be used for deep water operations incorporating breather ports to allow flooding of the members. The maximum combined loading should not exceed a gross load of 18,500kg in this configuration.

Primary Loads

DESCRIPTION	APPROXIMATE DIMENSIONS L*W*H	TARE WEIGHT	SWL
Mattress Frame	6.1m * 2.3m * 1.6m	2,900kg (sealed)	20,000kg
		4,400kg (flooded)	18,500kg
Hose Reeler	1.8m * 1.8m * ???	3,000kg	N/A
37kW HPU for Hose Reeler	1.7m * 0.9m * 1.9m	1,500kg	
Tether Management System (TMS) (built in HPU)	2.0m * 1.8m * 1.8m	3,000kg	
Control Van	6.2m * 2.5m * 2.5m	10,000kg	
Oil storage bund	1.6m * 1.1m * 1.8m	800kg	
Overboard chute	2.1m * 0.6m * 1.1m	450kg	

Note: A complete list of spread components and a deck layout can be supplied when project specific requirements have been clarified.

Depth Rating: 0-3,000m (configuration and vessel dependent).

Environmental Limitation: HS 3.0m.

Recommended 3rd Party Hire Surveillance/ Inspection equipment (Optional):

Subject to availability at time of order. Items may be substituted with equipment of a similar spec.

- Innova Topside PC
- SUBC 6-Ch DVR + Overlay
- MacArtney NEXUS MUX Mk8
- Tritech Gemini 720is Multibeam Imaging Sonar (4000m) x4
- Pan & Tilt Kongsberg OE10-104
- STR SeaLight LED-5-DC Underwater LED x2
- Exail Octans 3000 G4 Fibre Optic Gyrocompass (FOG)
- Valeport Mini Intelligent Pressure Sensor (IPS)(30)BAR
- STR SeaSpectrum HD-SDI Camera

Recommended 3rd Party Hire Surface Control/ Hydraulic Feed Equipment (Optional):

- HR300 Hydraulic Hose Reeler
- Hose Reeler 37kW Deck HPU

Positioning

The frame is fitted with two Sub-Atlantic SA380 Hydraulic thrusters that are used with auto-heading control to adjust and maintain the position and heading of the iMDS2 when submerged. Minor heading changes combined with controlled vessel movements will be used in combination with optional sensor feedback to achieve precise mattress positioning and deployment.

Beacons

We recommend that Hydroacoustic Positioning Reference beacons are supplied by the client/vessel operator to ensure compatibility.

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