High payload multi-handling / installation system for the optimisation of vessel utilisation and time / cost reduction

The SUPER-MAT
Cost Reduction Initiative

PATENT APPLIED Application No. 1702092.6
THE SUPER-MAT SOLUTION

Cost reduction initiative for handling & installation of mattress supports and crossings

The SUPER-MAT is an high payload concrete mattress, designed in effect as an alternative to conventional speedloaders. The mattress itself is connected directly to the rigging of the specialist lifting frame as the base mat, and a number of standard concrete mattresses are then lifted in a single lift using the SUPER-MAT to carry the load.

Once deployed, the SUPER-MAT is left in place as a standard mattress. This is ideal for deploying stacks of mattresses either to be left as stacks or for further deployment from the seabed. This patent applied solution (Application #1702092.6) offers huge savings both during installation and loadout.

We have used an example hourly vessel rate to demonstrate potential time/cost savings during loadout and installation.

Using your own rates you will see that huge cost and time savings can be achieved using the SUPER-MAT system.

Pipeshield CTR Solution (Cost Time Reduction)
(EXAMPLE)

1. Installing mattresses - INDIVIDUALLY

Approximate numbers of stacks/supports : 20 (x3 mats per stack)
Total quantity of mattresses : 60
Total number of offshore lifts : 60

Estimated time on average to rig mattress to frame, overboard, place mattress and retrieve frame to surface = 30 minutes.

60 x 30 minutes = 30 hours installation time.

2. Installing mattresses - SUPER-MAT system

Approximate numbers of stacks/supports : 20 (x3 mats per stack)
Total quantity of mattresses : 60
Total number of offshore lifts : 20

Estimated time on average to rig base mattress to frame, overboard, place mattresses and retrieve frame to surface = 30 minutes.

20 x 30 minutes = 10 hours installation time.

Potential cost & time saving calculator

Based on the aforementioned reduction of 20 hours installation time using the SUPER-MAT system.

Reduction in Installation time = 20 hours
20 hours @ e.g. $10,000* / hr = $200,000 savings

(*$10K used as an indicative hourly vessel rate)
Further time/cost optimisation is achieved during vessel loading at the port and a similar number of lifts are reduced, therefore cost savings are further increased using Pipeshield’s SUPER-MAT system. Our 150mm SUPER-MAT can lift up to 4 standard 150mm mattresses meaning loading and installation can be five times faster!

Below we have shown rigging arrangements for using the system in both loading and installation configurations.

FACT: The SUPER-MAT system has been a revelation, saving handling & installation costs as well as deck space and additional equipment hire charges.

Multi-mattress loadout / handling rigging arrangement

Multi-mattress installation rigging arrangement
Pipeshield International are a multi-award winning UK company and Global leaders in subsea cable & pipeline protection, stabilisation and anti-scour solutions.

Established in 1999, Pipeshield work to the latest ISO standards and Safe Contractor accredited.

The company has the capability to manufacture across 5 continents, specialising in Oil & Gas, Renewables & Marine Civils.

ACCREDITATIONS AND AWARDS

Multiple Queen’s Award for International Trade & Innovation

East of England Energy Group Innovation Award

FPAL Verified Industry Accreditation

SafeContractor

Investors In People – Gold

ISO 9001 and 14001

OHSAS 18001 Safety Standard

Contact us to discuss your project today

+44 (0)1502 560900 or info@pipeshield.com