



SH DEFENCE
PART OF SH GROUP

**Patent
pending**

The Cube™ System

Future-proof Containerized Multi-Mission Modules
For Coast guard, SAR and Navy vessels

About SH Defence

SH Defence originates from three decades of turnkey equipment and service solutions to various national navies, delivered by the central organisation SH Group A/S.

Founded in 1974, SH Defence has always been compliant with the security regulations in force. The company currently employs about 350 employees at its headquarter in Denmark, where all engineering, production, assembly and testing is carried out.

SH Defence's activity comprises sale, development and design and production, installation and servicing of advanced hydraulic, electric and mechanical lifting and handling systems for operations focusing on operational reliability, primarily in the defence industry.

Key products include:

The Cube™ – Containerized Multi-Mission Modules. SH Defence is the inventor and manufacturer of The Cube™ system.



Rene Bertelsen
CEO



Member of
NavalTeamDenmark™

Custom-made equipment and retrofit solutions:

Launch & Recovery Systems for seismic or hydrographic explorations – Baskets, survey equipment, oceanographic instruments, etc.

High-performance winches and A-Frames for WROV operations and CTD, towing and hydrographic winches. Multi-Purpose Handling Systems for large equipment such as Mini-sub.

Skidding systems, hose reels and hydraulic power packs (HPU) and Control Systems.

Special marine cranes. Lifting decks and platforms. Steering gear. Side/bow and stern doors and ramps.

Launch & Recovery System - Cube™ Modules
HDMS Lauge Koch / Arctic Inspection vessel

Containerized interchangeable mission modules for Air, Surface and Subsea capabilities

SH DEFENCE

OMT

Multi-Mission
Patrol Vessel by
OMT Ship Design
with Cube™
Multi-Mission
Modules



The Cube™ System is both equipment modules and a handling system to replace and move the modules around.

With The Cube™ System – Any Navy can turn almost any platform into a true multi-mission capability.

It takes a Cube™-ready platform, a Cube™ Side or Stern Loader, and Cube™ Certified payloads.

Additionally, it takes the Cube™ Skidding System and elevator to move payloads around on decks or between decks.

With The Cube™ System Coast guard, SAR and Navy vessels can reconfigure new mission profiles on all domains without costly rebuilding or interchange payloads between platforms in less than four hours.

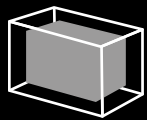
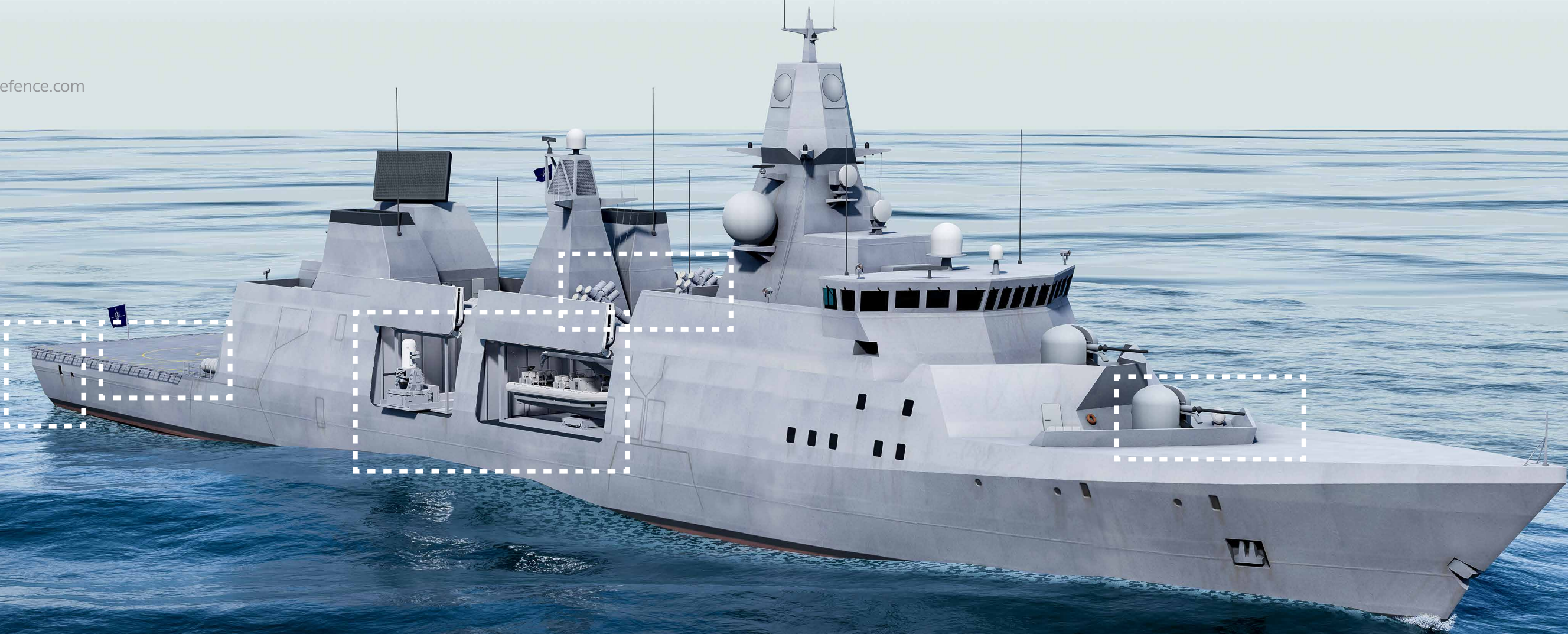
When Cube™ Modules are not on board, they are ashore for maintenance, the crew's training or as part of a harbour integrated emergency preparedness capability. This is performed on a special stand.

The Cube™ System is designed according to DNV GL ST-0378 and is NATO STANAG compliant. It provides a safe and robust foundation for any mission equipment.

300+

Available payloads
Interchangeable containerized mission modules





The Cube™
Certified

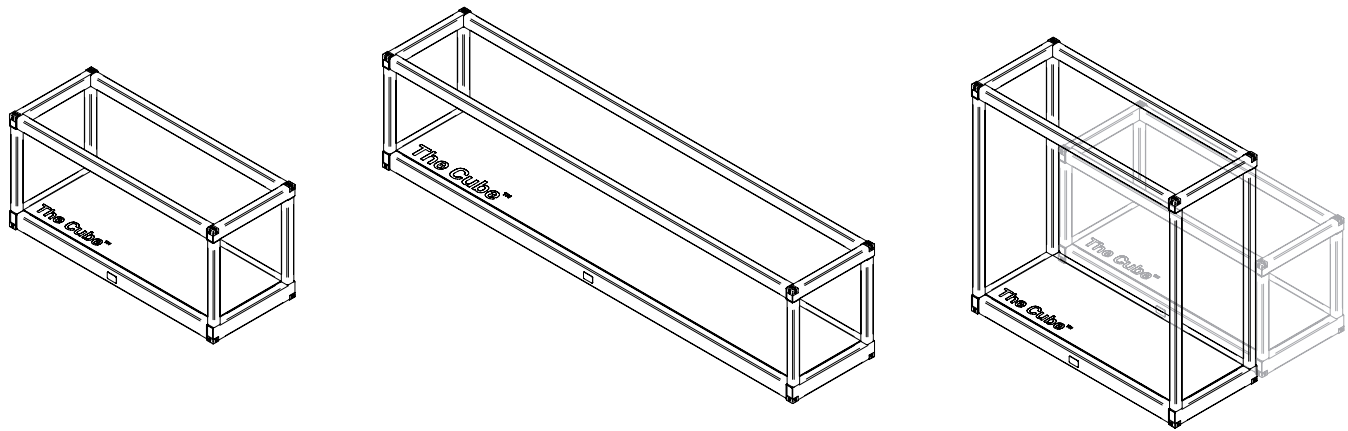
Containerized interchangeable mission modules for Air, Surface and Subsea capabilities

Selection of Cube™ Mission Modules:

- | | | |
|------------------------------------|--|--------------------------------|
| SATCOM | Medical treatment | 127 mm gun turret |
| Drone control system line of sight | Pandemic Test Module | SSM |
| ISR Module | Morgue | ASM |
| Transportable Command Center | Fire Fighting | Research Lab |
| Decoy-system (Chaff/flares) | Rescue & Evacuation Net | CTD Module |
| Counter UAV | Vaccination Center | Workshops |
| Counter torpedo | Staff workplaces/offices | Towed Active Sonar |
| Mine clearance, UUW-ROV | Additional accommodation | Mobile and deployable radar |
| Floating barrier | Detention | Fased array |
| Skimmer system | Small weapon stations | Rotation search radar |
| Grap system | Mobile & Deployable 12.7 mm weapon station | Fire control radar |
| Surface Work Boat | Laser/directed energy | FLIR-system |
| Chemical dispensator | 30-35 mm gun turret/CIWS | Drone-system (UAV) |
| Oil spill tank | 76/62 mm gun turret | Retractable sonar |
| Chemical spill tank | 40 mm gun turret | Multi beam sonar |
| CBRN Module | 54 mm gun turret | Mine clearance, Sidescan sonar |
| Plastic collection module | Gun turret | Hydraulic power pack |
| Medical Lab | | A/C unit |



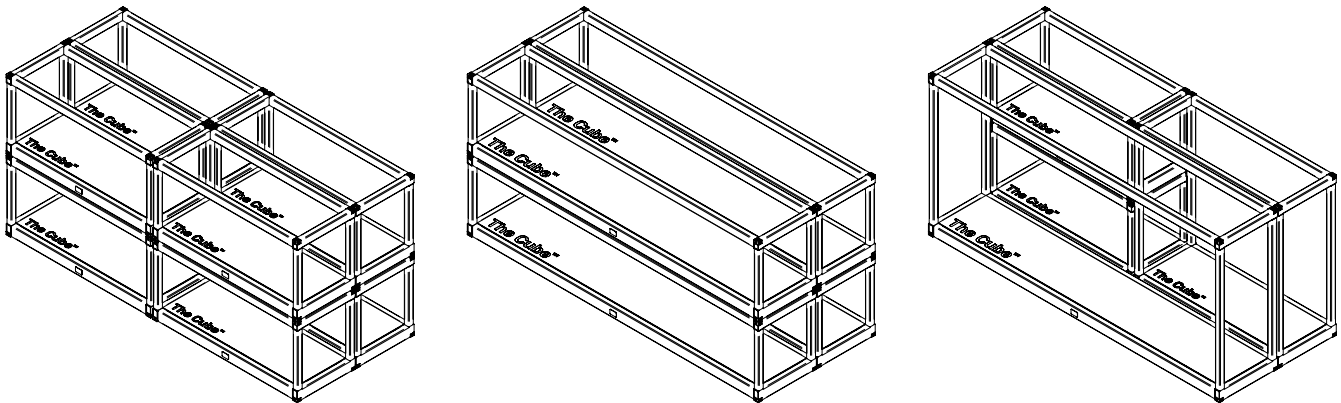
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|-----------------------------|-------------------------------------|----------------------------|
| Sewage unit | Air Diving Module | UAV, Camcopter S-100, VTOL |
| Generator unit | Hyperbaric chamber | UAV, Fulmar |
| Fresh water plant | Submarine 12m XLUUV | UAV, AeroSonde HQ, VTOL |
| Disasters relief packages | RHIB 10m, Fast interceptor | UAV |
| Maintenance & Repair Module | RHIB, Man Over Board | UAV, Puma |
| Helicopter re-fueling | USV 20 foot, Seagull | UAV, Raven |
| Battery power plant | USV Recovery Cradle | UAV, Vapor, VTOL |
| Ballast water treatment | Surface drone (USV) | ScanEagle |
| Ballast water treatment | Special Forces RHIB 8m Seaboat | |
| Incineration plant | Special Forces Tactical Water Craft | |
| Special Forces armoury | Torpedo | |
| Special Forces Snowmobile | UAV, V-200, VTOL | |



Standard 20'

Standard 40'

2x 20'



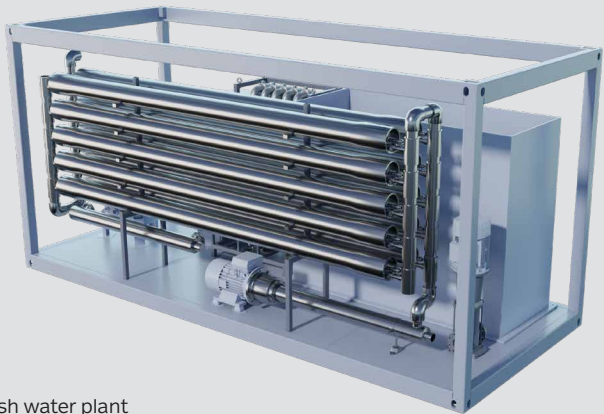
8x 20'

4x 40'

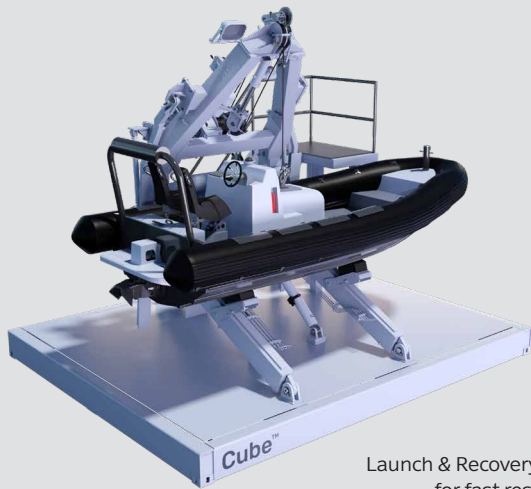
Mix of 20' + 40'

The Cube™ Frame concept

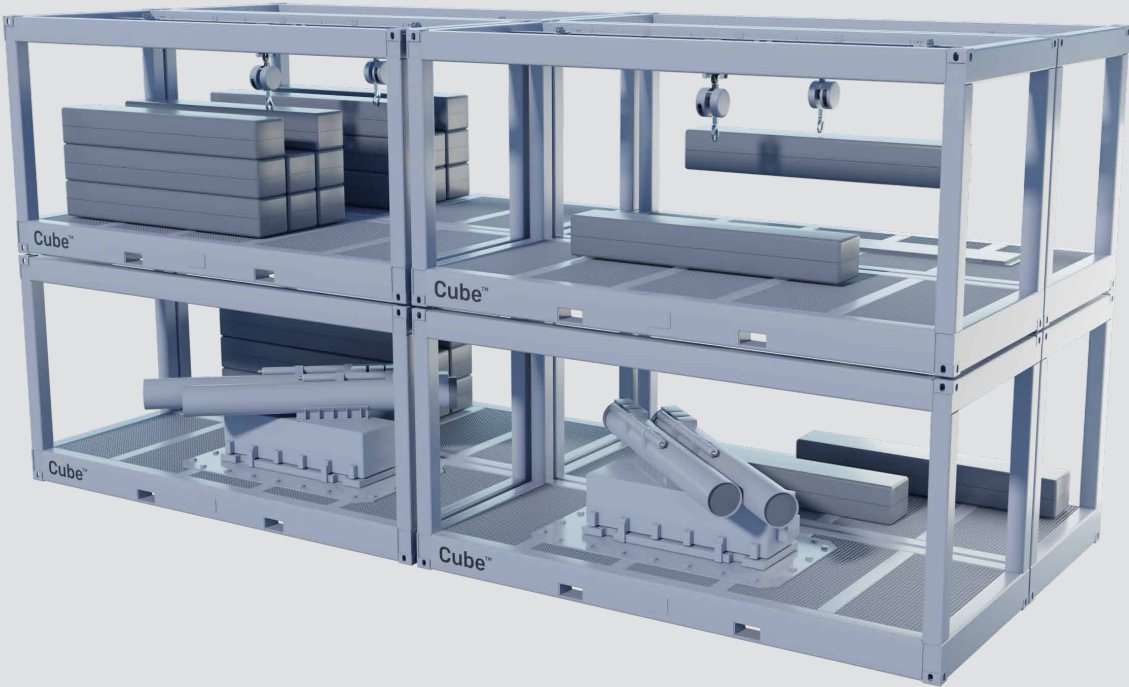
Fully compliant with NATO STANAG 4830 / ANEP-99 - Design and Interface Standards for Containerized Mission Modules



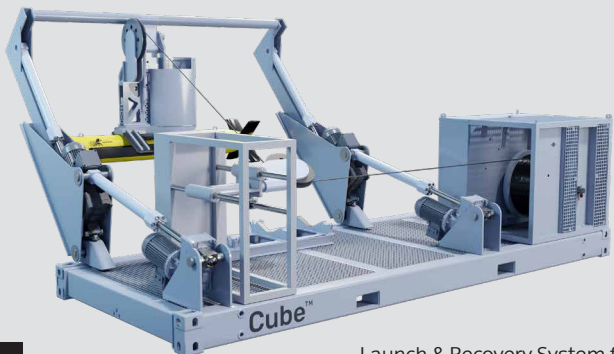
Fresh water plant module



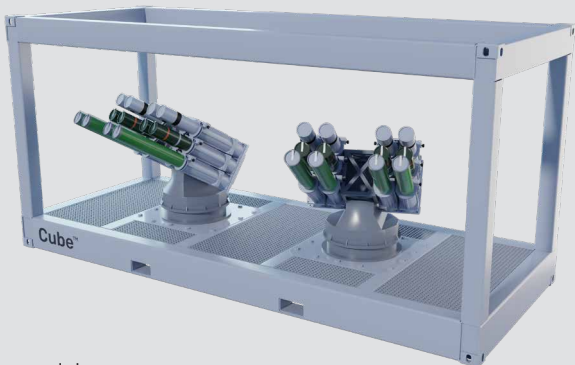
Launch & Recovery System for fast rescue boat



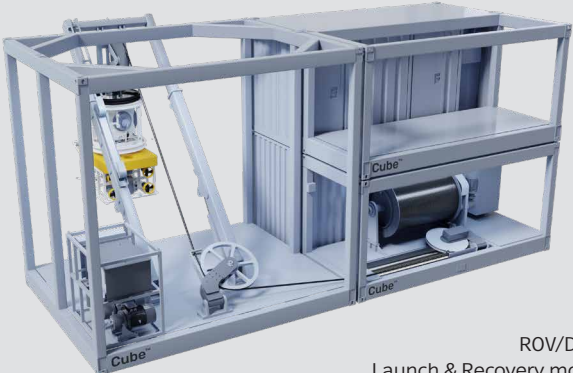
Lightweight Torpedo module



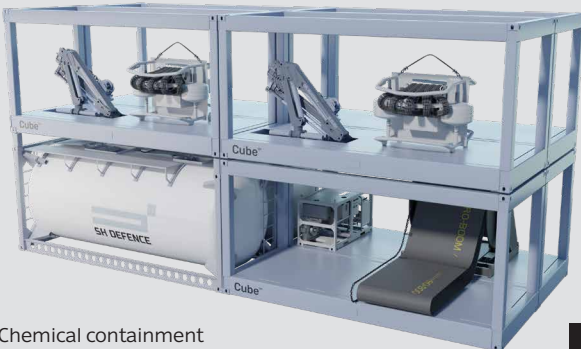
Launch & Recovery System for probes and towed vehicles



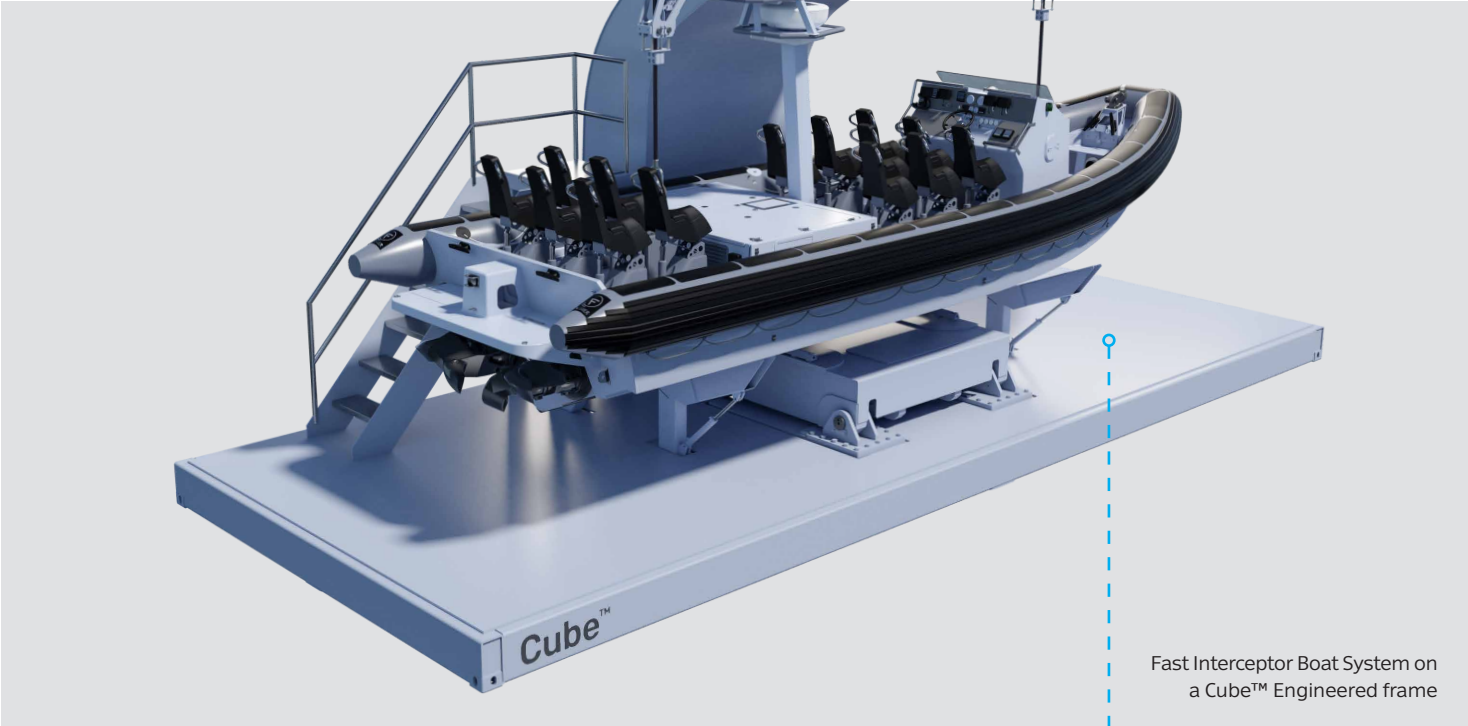
Decoy module



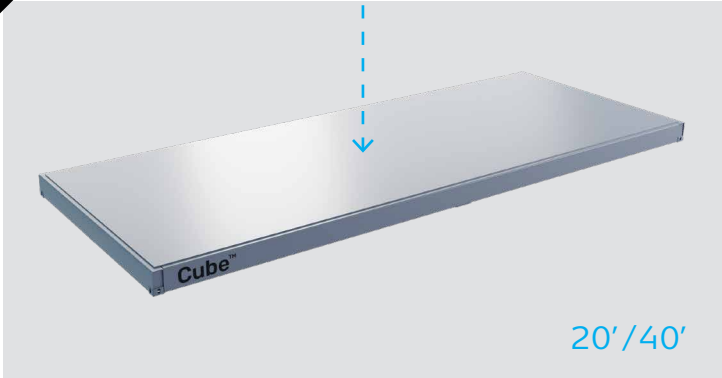
ROV/Drone Launch & Recovery module



Oil / Chemical containment module



The Cube™ Frame concept

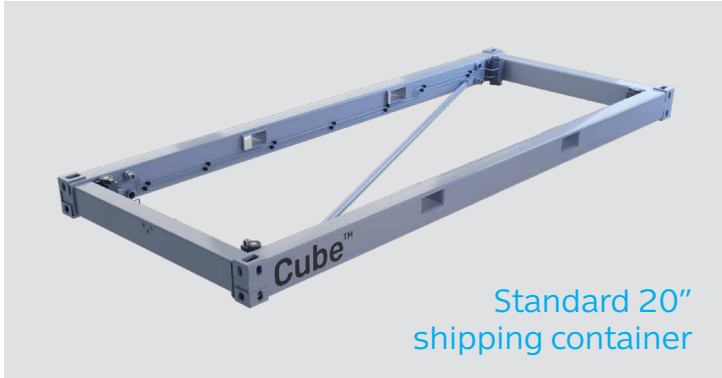
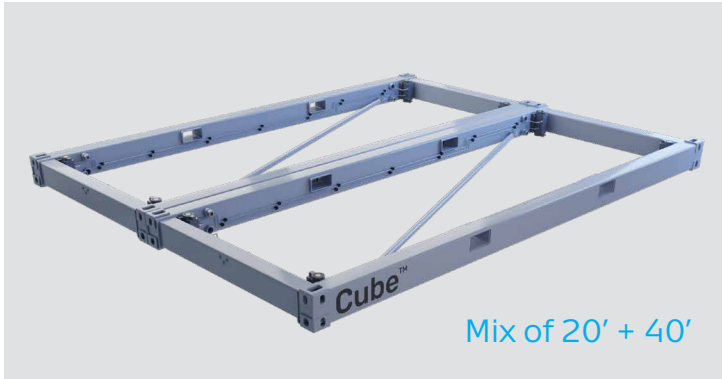
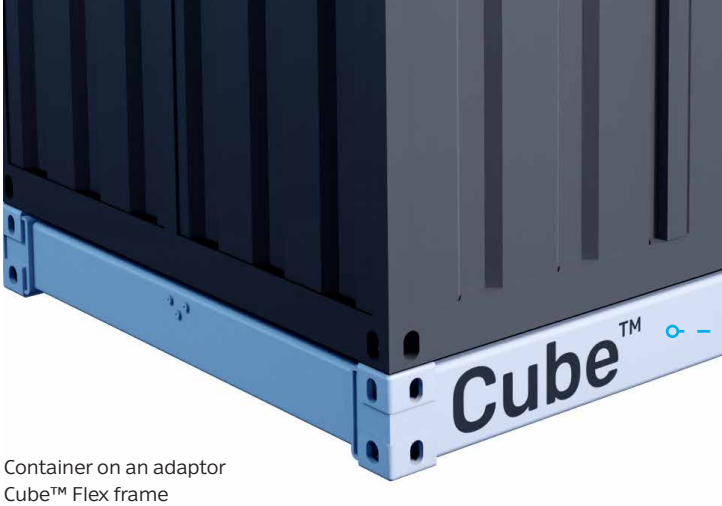


Base Frame
Reinforced Cube™ base frame for mounting of mission equipment.

With the Cube™ 20' or 40' Base Frame, any light and mediumweight mission equipment that has a footprint smaller than a standard 20' container can be turned into a Cube™, and if SH Defence mounts the equipment on the base frame, the Cube™ will be delivered with a Cube™ – Ready certificate.

Engineered Frame
Custom frame for mounting of complex mission equipment.

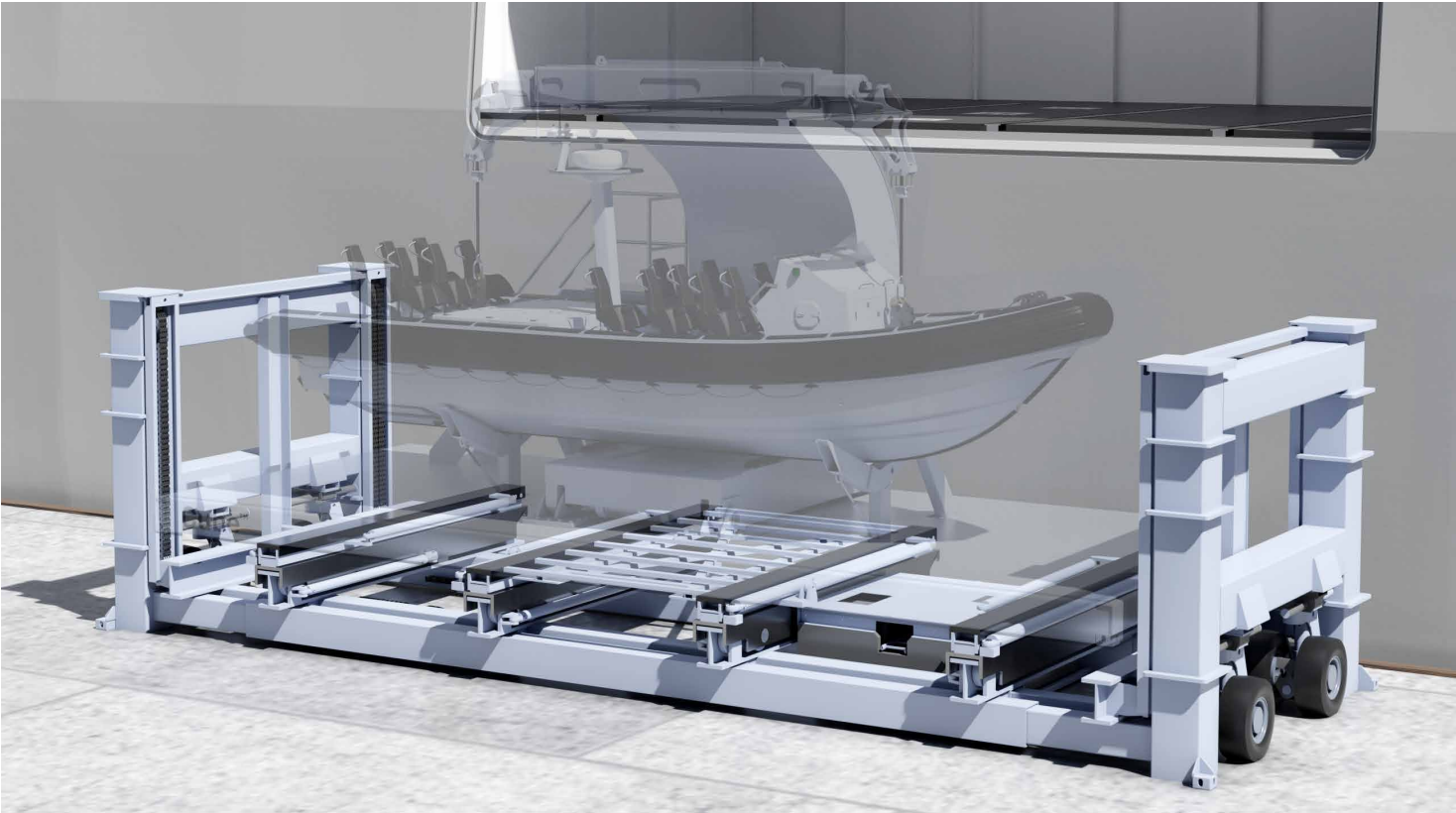
A strong foundation for your Cube™ Module
The Cube™ Engineered Frame provides a strong and safe foundation for any mission payload that is either too heavy, too large or too complex to be mounted on the Cube™ 20' Base Frame.
The frame is provided with ISO corner castings enabling secure sea fastening by means of the fully automatic, retractable twist-lock system developed by SH Defence.



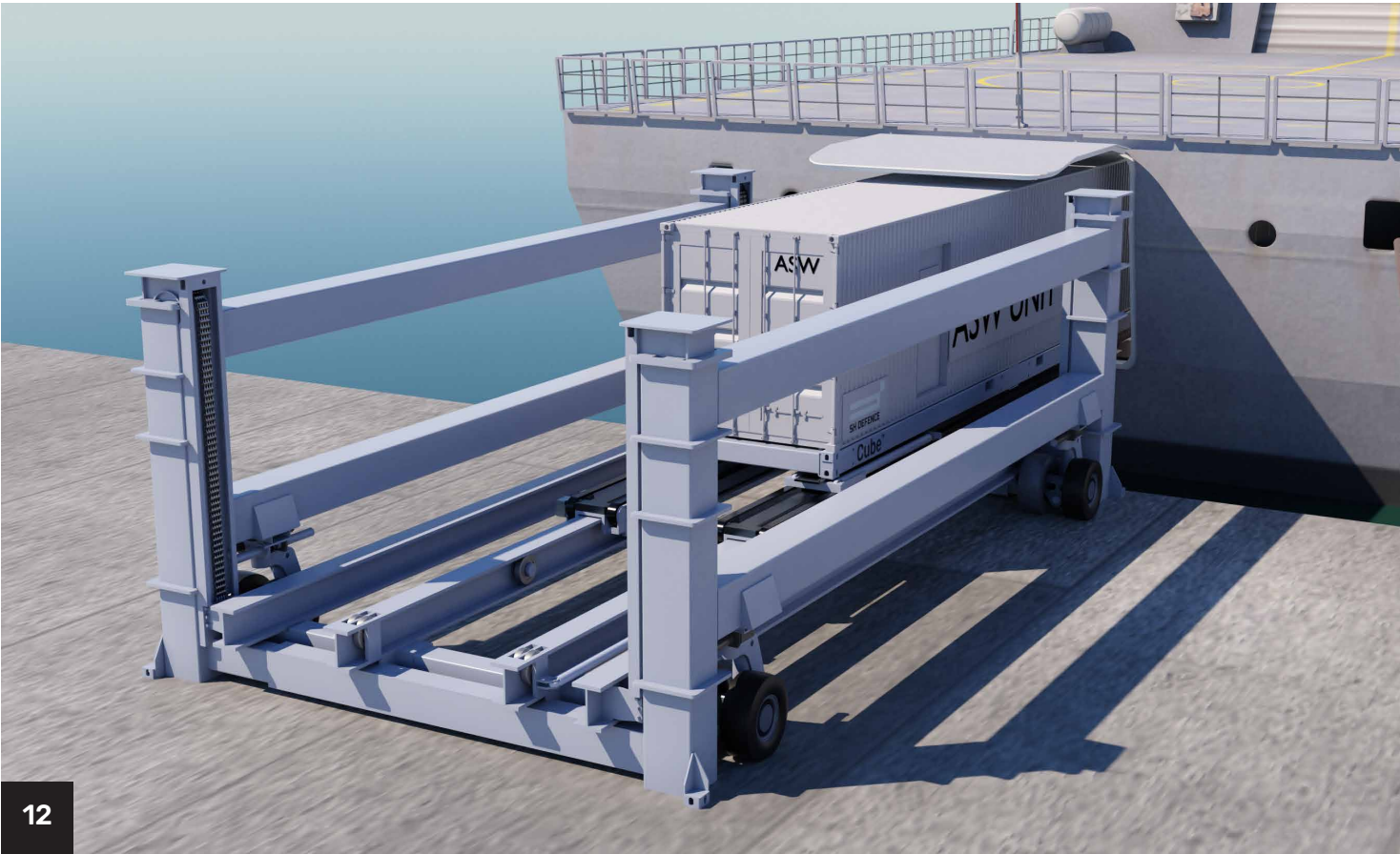
Flex Frame
Adaptor frame to turn standard 20' and 40' shipping containers into a Cube™ module.

The purpose of the Cube™ 20' and 40' Flex Frame is to convert standard 20' shipping containers into Cube™ – Ready high-cube containers that can be loaded and unloaded using the Mobile Cube™ Side Loader or the Mobile Cube™ Stern Loader.





The Cube™ Loader System



Flex Frame

Adaptor frame to turn standard 20' and 40' shipping containers into a Cube™ module.

The purpose of the Cube™ 20' and 40' Flex Frame is to convert standard 20' shipping containers into Cube™ – Ready high-cube containers that can be loaded and unloaded using the Mobile Cube™ Side Loader or the Mobile Cube™ Stern Loader.





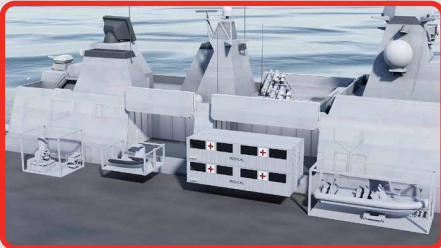
Link to movie on **YouTube**



The Cube™ System introduction

Modern naval vessels must be capable of carrying out different missions and roles in both peacetime and wartime.

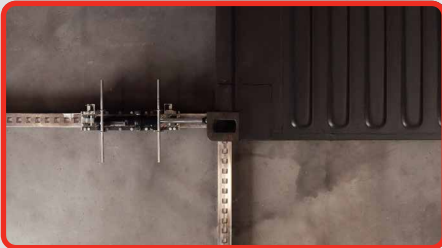
<https://youtu.be/QgnsOr5sVmM>



The Cube™ System

The Cube™ is a Multi-mission module system developed to reduce the cost and time required to reconfigure multi-purpose Coast guard, SAR and Navy vessels to new missions.

https://youtu.be/_KULqdzBRn8



Sea Stage Skidding System for containerized modules

The system makes it possible to quickly move Cube™ compatible modules around inside the hangar or replace modules in the missions bay.

https://youtu.be/_zhjh0NtWfE



Our Mission

To standardise containerized payloads to fit naval platforms within NATO and its allies



Link to movie on **YouTube**



The Cube™ Mine Counter Measurements

This Cube™-ready launch and recovery system for probes and towfish ensures reliable deployment of hydrographic survey equipment from the stern of the vessel.

<https://youtu.be/oxV-PeiSIM7c>



Fast swap of modules between an OPV and a Frigate.

A solutions that enables a platform to quickly adapt to any new mission profile without a costly rebuild.

https://youtu.be/EhJ-OKR_tCGI



The Cube™ Multi-Mission Module Lifecycle.

Train your crew with operational equipment while the vessel is in operation somewhere else.

<https://youtu.be/rZ9E-E6vZVpY>



How

Uniting navies and equipment manufacturers on containerized flexible platform integration