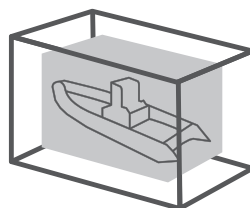


A-frame with Winch

Launch & Recovery System

The Cube™



Multi-Mission Module

Complete Cube-ready launch and recovery system with winch for deployment of unmanned and remotely operated vehicles and drones. Fits in a 40' Cube-ready mission bay.

Reliable and safe deployment of equipment

Modern navy vessels must be capable of carrying out different missions in both peacetime and wartime. Unmanned underwater vehicles (UUVs or drones) and remotely operated vehicles (ROVs) are used in many types of missions and thus there is a great need for reliable and safe launch and recovery of such equipment.

In the design of this versatile Cube-ready LARS, SH Defence has applied several decades of experience designing and delivering launch and recovery systems (LARS) for the offshore segment.

The system can be provided in many different configurations and sizes depending on the specific type of equipment to be launched. Examples of equipment could be an ROV with a floating umbilical, an ROV with a tether management system, scientific probes or underwater drones.



ROV / Drone
Launch & Recovery System

Standardised modules, easy connection and sea fastening

In this example, the 3.5-tonne A-frame is mounted on a double 20' Cube™ Engineered Frame which is combined with two 20' Cube™ One engineered frame containing an appropriately dimensioned winch, a 20' container equipped with operators cabin. The entire LARS Cube™ with winch and storage modules is ready for installation in a 40' Cube-ready mission bay.

The Cube™ Engineered Frame and the Cube™ Base Frame come with standard corner castings for reliable sea fastening by means of the Fully Automatic Twist Lock System from SH Defence and with standard connection interfaces for easy connection to the mission bay standard connection cabinet CubedIn™. The surface of the frames is made of glass-reinforced plastic (GRP) grating, which provides a very strong and anti-slip surface.

For further information on the Cube™ Engineered Frame, the Cube™ Base Frame and the Automatic Twist Lock System, please refer to the relevant product sheets or contact SH Defence (see contact details below).

Versatile application

In this configuration, drones are handled with a tailored gripper that is lowered from the A-frame with a double-line winch system. If you replace the gripper with a latch beam, the A-frame can be converted to handle survey ROVs. If the ROV has an umbilical, an optional umbilical winch can be added. Thus, by changing the handling tools, this LARS is capable of launching and recovering a wide range of equipment.

The SH Defence LARS is designed according to DNV GL ST-0378 Offshore and platform lifting appliances.

Description	Value
Dimensions (H x L x W)	5800 mm x 12192 mm x 4901 mm
SWL	3.5 MT
Maximum extension over Cube™ edge	3500 mm
Optional umbilical winch	
Umbilical diameter	Ø25 mm
Drum capacity at started diameter	2250 m
SWL	24 kN