



SH DEFENCE



Patent
pending

The Cube™ System

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

Cutting-edge equipment solution that allows conversion of navy and coast guard vessels in less than 4 hours – without costly rebuilding between missions.

Flexible and cost-efficient vessel conversion

Modern naval vessels must be capable of carrying out different missions and roles both in peacetime and in wartime. Reconfiguring vessels for new missions can be both costly and time consuming. That is why SH Defence developed The Cube™.

The Cube™ is a flexible and cost-efficient solution consisting of modular equipment that enables reconfiguration of vessels in less than 4 hours. All you need to do is unload the Cube™ modules that are no longer required and load the modules that support the vessel's next mission.

Modular system with standardised interface

The Cube™ is a system developed by SH Defence to reduce the cost and time required to reconfigure multipurpose naval vessels to new missions.

The idea is that mission equipment is installed in the Cube™. Cubes are standard 20' and 40' high-cube container units that are provided with the necessary

connections (compressed air, clean air, water, power, communications etc.) to provide a plug-and-play system that fits in any Cube™-ready mission bay.

New build or retrofit

For a mission bay to be Cube™-ready it must be provided with a standard connection cabinet CubedIn™, fully automatic twist-lock system, dedicated tracks and pockets for Mobile Cube™ loaders and hydraulic jacks. The system is mainly intended for new-built navy vessels, but can also be included in a retrofit.

Simple system, endless possibilities

When you have your Cube™-ready mission bays in place, there is no limit to the equipment that can be transformed into a Cube™, so your vessel truly becomes a multi-mission vessel that can be reconfigured in just hours.

The flex frame, base frame and engineered frame offer a plug-and-play solution for equipment of almost any kind. So far, we have identified 120+ mission modules, but with this system, the sky is the limit!

The Cube™ concept consists of the following components and equipment:



Base Frame



Flex Frames - 20' and 40'



Engineered Frame



Fully aut. twist-lock system



Mobile Side Loader



Mobile Stern Loader



Deck hatch cover



Mission Bay Doors



OMT

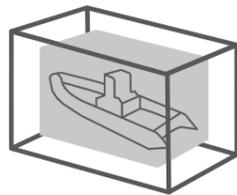
Multi-Mission Patrol Vessel
by OMT Ship Design with
Cube™ Multi-Mission Modules



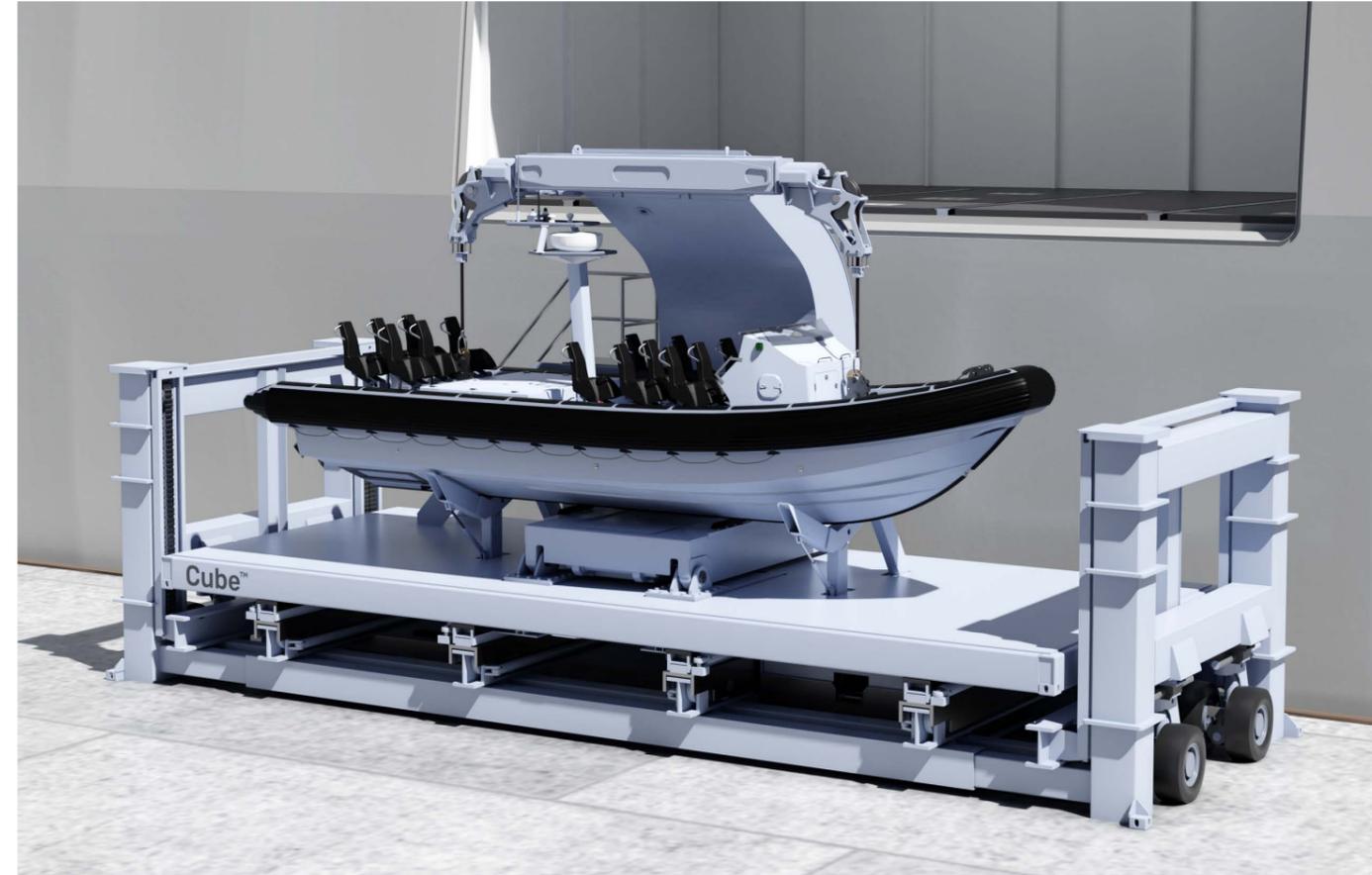
Mobile Cube™ Side Loader

MCL 350-700

The Cube™



Multi-Mission Module



Self-contained, multi-functional and automatic mobile transporter and loader.

Flexible and cost-saving vessel conversion

Modern naval vessels must be capable of carrying out different missions and roles in both peacetime and wartime. Reconfiguring vessels for new missions can be both costly and time consuming. That is why SH Defence developed The Cube™.

The Cube™ is a flexible and cost-saving solution consisting of modular equipment with standardized interfaces enabling reconfiguration of vessels in less than 4 hours. All you need to do is unload the Cube™ modules that are no longer required and load the modules that support the vessel's next mission.

Heavy lifting equipment moved to the quayside

The fast conversion is enabled with the Mobile Cube™ Side Loader, capable of loading and unloading Cube™ modules

into and out of Cube™-ready mission bays along the vessel's side, thus eliminating the need to install heavy lifting equipment in the vessel's mission bays.

For mission bays to be Cube™-ready, they must have dedicated tracks for the Mobile Cube™ Side Loader roller beams and dedicated pockets for the loading beams along the front edge of the mission bay.

The mission bay must also be provided with a fully automatic twist-lock system for sea fastening of the Cube™ modules, a standardized connection cabinet CubedIn™ for all other interfaces, e.g. power, air, water, communication etc. and integrated hydraulic jacks for jacking up the Cube™ to allow the Mobile Cube™ Side Loader to retract or place its roller beams during loading and unloading.

No need for additional transport solutions

The self-contained, multi-functional Mobile Cube™ Side Loader can transport and lift mission-ready 20' and 40' Cube™ modules to 6 metres above quayside level and into the vessel's Cube-ready mission bays.

The Mobile Cube™ Side Loader is fitted with four pairs of wheels with fail-safe spring-activated brakes. A diesel hydraulic pump unit (HPU) supplies power for the wheels and all other hydraulic functions.

Automatic positioning relative to vessel

The operator of the Mobile Cube™ Side Loader has a dedicated platform to stand on during driving and loading.

For correct placing of the Mobile Cube™ Side Loader relative to the vessel and vessel mission bay, the loader is provided with a laser distance measuring unit front and aft.

These assist in orientating the Mobile Cube™ Side Loader parallel to the vessel, and a camera helps center the Mobile Cube™ Side Loader in front of the mission bay.

Loading towers and loading beams are operated with a semi-automated control system. Guide pins ensure correct placing of Cube™ modules on the loader before the modules are lifted into the mission bay.

The Mobile Cube™ Side Loader loading beams must be secured in the pockets in the mission bay before the Cube™ module is loaded into the bay.

When the beams are secured in the pockets, the Mobile Cube™ Side Loader enters floating mode, which means that it automatically adapts to vessel movements, surge, roll and heave, during loading and unloading. Tilt monitoring is active in both drive and floating mode.

During maneuvering, flashing lamps and sounds alert personnel close to the loader that equipment is live and that there is a potential hazard.

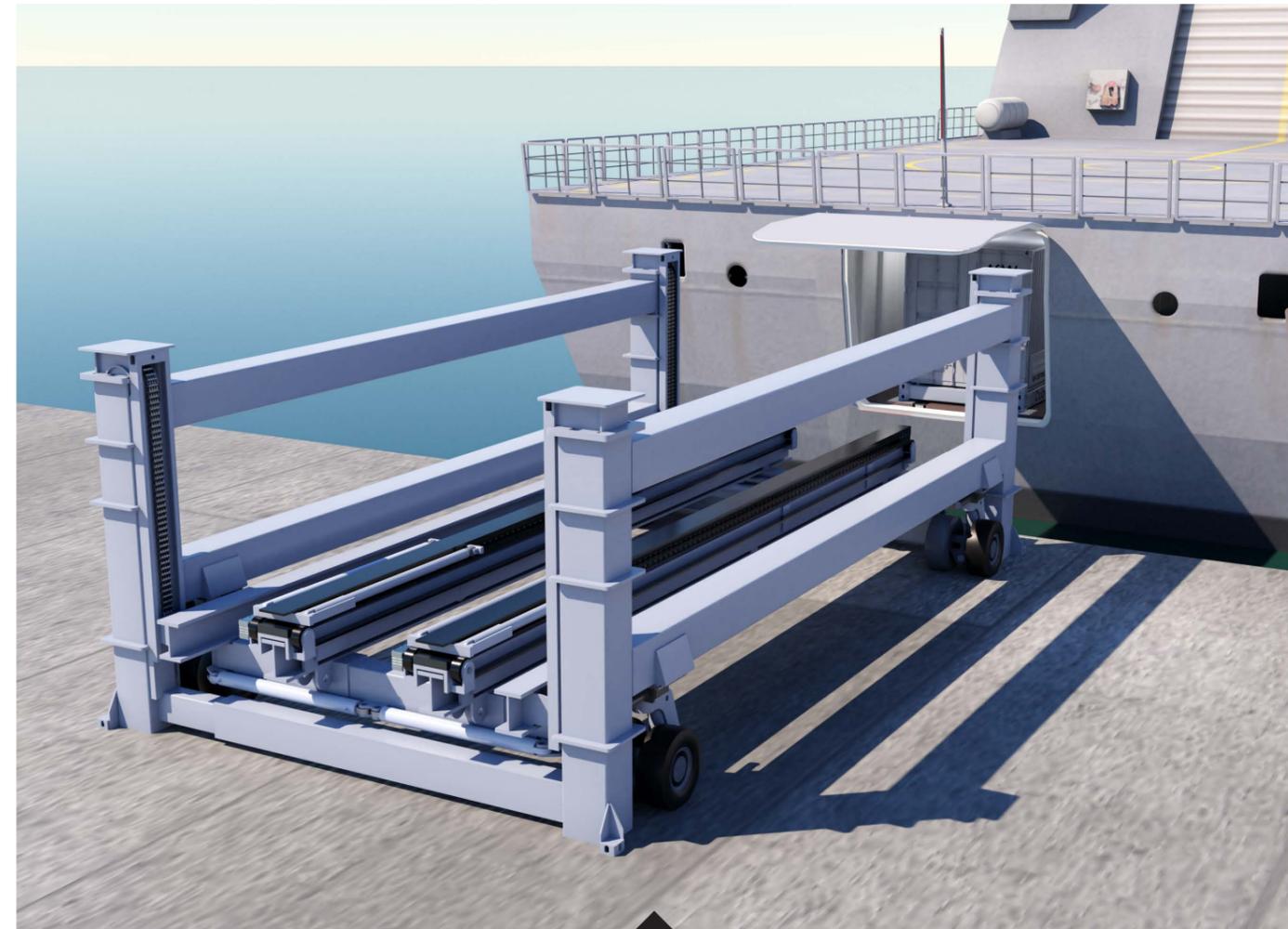
Take it with you

The Mobile Cube™ Side Loader is equipped with cylinders and a telescopic frame, allowing the operator to reduce the length of the loader for shipping as a Cube™.

The reduced size is equal to two 40' shipping containers side-by-side.

The Mobile Cube™ Side Loader can be lifted by means of a dedicated lifting yoke and a standard crane. The Mobile Cube™ Side Loader is equipped with container corners for sea fastening. The loader can only be shipped as top load.

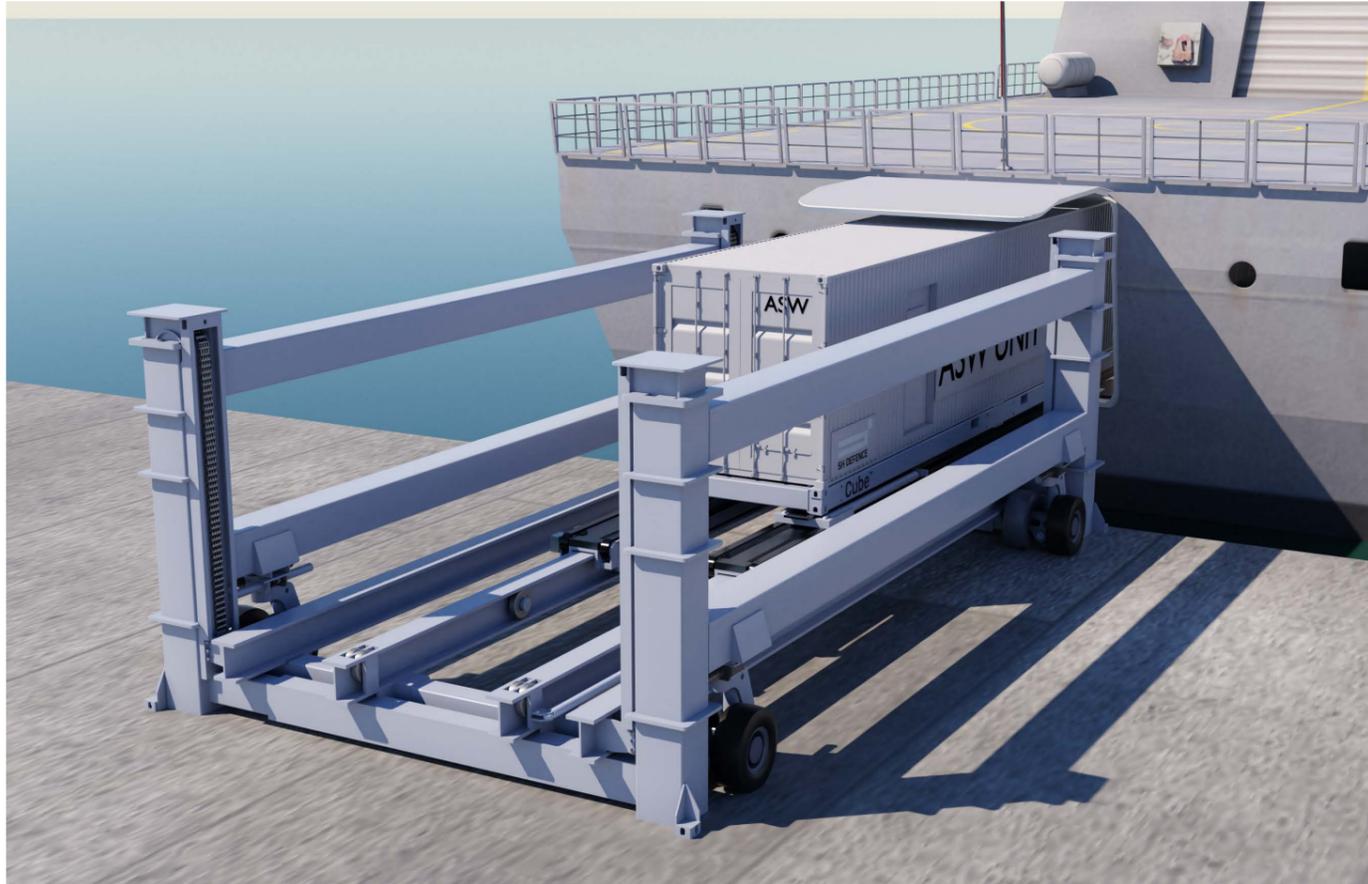
| Description | Value |
|--|-----------------------------|
| Speed unloaded | Up to 5 km/h |
| Maximum allowable payload in drive mode (1 km/h) | 35 MT |
| Maximum allowable payload in lifting mode | 70 MT |
| Lifting height | 1500-6000 mm |
| Loading distance to vessel side | 1750 mm |
| Dimensions when ready to ship (H x W x L) | 4050 mm x 490 mm x 12192 mm |
| Hydraulic operation | Semi-automatic |
| Gross weight | 60 MT |



Mobile Cube™ Stern Loader

MCSL 350-700





Self-contained, multi-functional and automatic mobile transporter and loader.

Flexible and cost-saving vessel conversion

Modern naval vessels must be capable of carrying out different missions and roles in both peacetime and wartime. Reconfiguring vessels for new missions can be both costly and time consuming. That is why SH Defence developed The Cube™.

The Cube™ is a flexible and cost-saving solution consisting of modular equipment with standardized interfaces enabling reconfiguration of vessels in less than 4 hours. All you need to do is unload the Cube™ modules that are no longer required and load the modules that support the vessel's next mission.

Heavy lifting equipment moved to the quayside

The fast conversion is enabled with the Mobile Cube™ Stern Loader, capable of loading and unloading Cube™ modules

into and out of Cube™-ready mission bays in the vessel's stern, thus eliminating the need to install heavy lifting equipment in the vessel's mission bays.

For mission bays to be Cube™-ready, they must have dedicated tracks for the Mobile Cube™ Stern Loader roller beams and dedicated pockets for the loading beams along the front edge of the mission bay.

The mission bay must also be provided with a fully automatic twist-lock system for sea fastening of the Cube™ modules, a standardized connection cabinet CubedIn™ for all other interfaces, e.g. power, air, water, communication etc. and integrated hydraulic jacks for jacking up the Cube™ to allow the Mobile Cube™ Stern Loader to retract or place its roller beams during loading and unloading.

No need for additional transport solutions

The self-contained, multi-functional Mobile Cube™ Stern Loader can transport and lift mission-ready 20' and 40' Cube™ modules to 6 metres above quayside level and into the vessel's Cube™-ready mission bays.

The Mobile Cube™ Stern Loader is fitted with four pairs of wheels with fail-safe spring-activated brakes. A diesel hydraulic pump unit (HPU) supplies power for the wheels and all other hydraulic functions.

Automatic positioning relative to vessel

The operator of the Mobile Cube™ Stern Loader has a dedicated platform to stand on during driving and loading.

For correct placing of the Mobile Cube™ Stern Loader relative to the vessel and vessel mission bay, the loader is provided with a laser distance measuring unit left and right. These assist in orientating the Mobile Cube™ Stern Loader parallel to the vessel, and a camera helps center the Mobile Cube™ Stern Loader in front of the mission bay.

Loading towers and loading beams are operated with a semi-automated control system. Guide pins ensure correct placing of Cube™ modules on the loader before the modules are lifted into the mission bay.

The Mobile Cube™ Stern Loader loading beams must be secured in the pockets in the mission bay before the Cube™ module is loaded into the bay. When the beams are secured in the pockets, the Mobile Cube™ Stern Loader enters floating mode, which means that it automatically adapts to vessel movements, surge, roll and heave, during loading and unloading. Tilt monitoring is active in both drive and floating mode.

During maneuvering, flashing lamps and sounds alert personnel close to the loader that equipment is live and that there is a potential hazard.

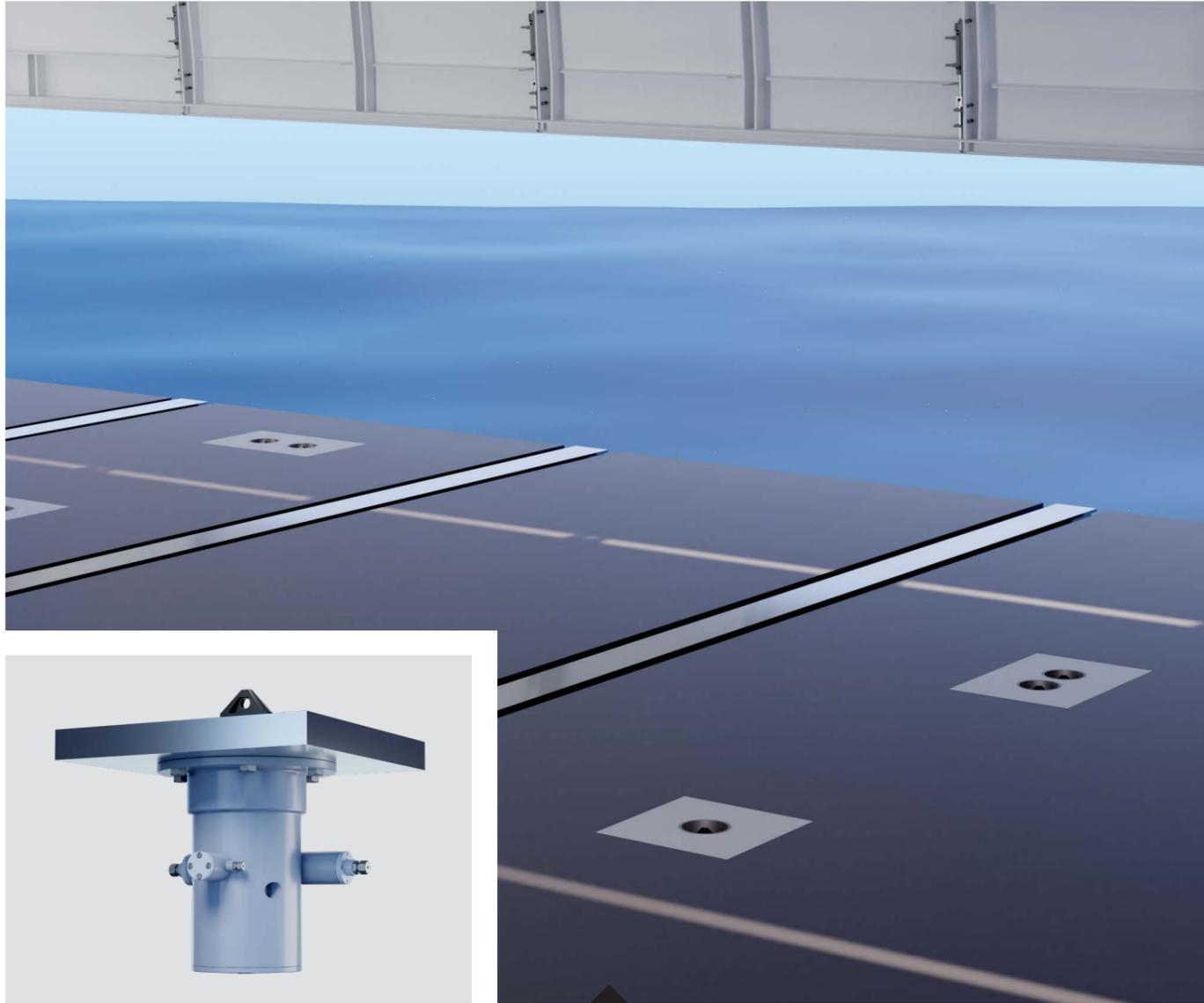
Take it with you

The Mobile Cube™ Stern Loader is equipped with cylinders and a telescopic frame, allowing the operator to reduce the width of the loader for shipping as a Cube™.

The reduced size is equal to two 40' shipping containers side-by-side.

The Mobile Cube™ Stern Loader can be lifted by means of a dedicated lifting yoke and a standard crane. The Mobile Cube™ Stern Loader is equipped with container corners for sea fastening. The loader can only be shipped as top load.

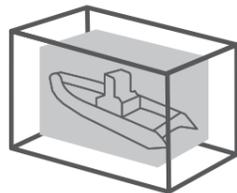
| Description | Value |
|--|------------------------------|
| Speed unloaded | Up to 5 km/h |
| Maximum allowable payload in drive mode (1 km/h) | 35 MT |
| Maximum allowable payload in lifting mode | 70 MT |
| Lifting height | 1500-6000 mm |
| Loading distance to vessel side | 1750 mm |
| Dimensions when ready to ship (H x L x W) | 4050 mm x 12192 mm x 4901 mm |
| Hydraulic operation | Semi-automatic |
| Gross weight | 60 MT |



Twist lock system

Remote-controlled

The Cube™



Multi-Mission Module

Remote-controlled, fully automatic, retractable twist lock system.

Rethinking conventional twist lock sea fastening

Conventional manual and semi-automatic twist locks are widely used for sea fastening of containers around the world. However, manual operation of the twist locks can be time-consuming and sometimes it even poses a risk to the crew.

SH Defence's remote-controlled, fully automatic, retractable twist lock system sets a new standard for easy and reliable sea fastening of The Cube™ Multi-Mission Modules as well as standard containers with ISO corner castings. The twist lock system is remote-controlled, eliminating the need for manual operation of twist locks and reducing the risk of human error.

Increased safety

An adapter plate for each twist lock will be welded into the deck structure. Deck penetration is sealed and watertight. When not in use, the individual twist locks are lowered to be flush with the deck, providing a clear deck without any trip hazards.

Intuitive control interface

The Automatic Twist Lock System comprises a centralized hydraulic power unit (HPU), a number of hydraulically activated twist locks with individual feedback on all functions. The number of twist locks depends on the size of the mission bay: a 20' mission bay has 8 fully automatic twist locks and a 40' mission bay has 16 fully automatic twist locks. Each twist lock comes with built-in sensors enabling fully automatic remote control and monitoring.

The twist locks can be controlled, from the intuitive control panel, in independent groups of 4 that equals a 20' container footprint.

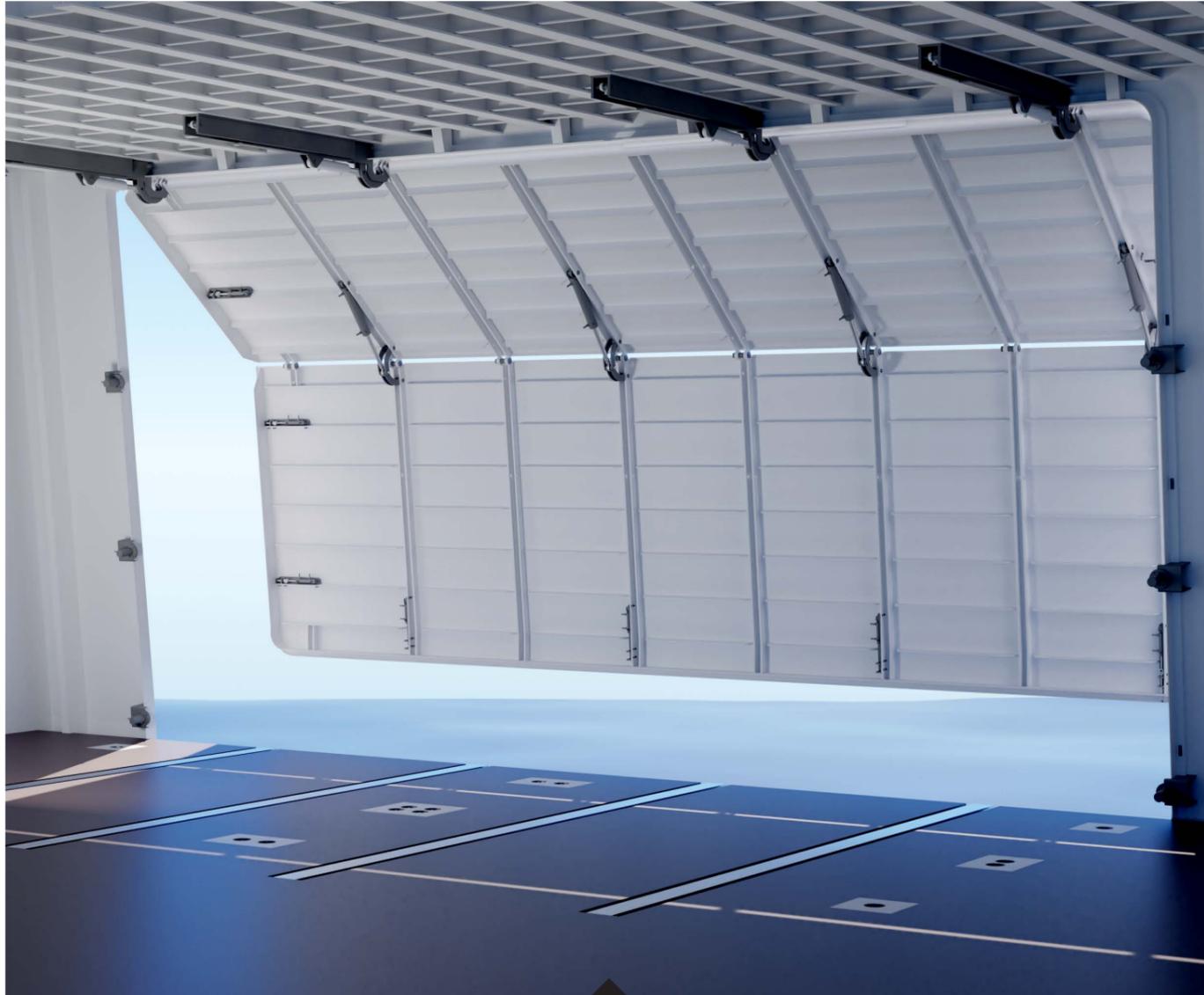
The control panel has a 9" colour touch display showing the status of each individual twist lock. The control is sequential to ensure that it is, for example, not possible to lock the twist locks before the system confirms that all of the required twist locks have been extended above deck level. The control is provided with a manual override function.

Durable and reliable design

The twist lock housing is of mild steel grade S355 and painted to corrosion class C4. Twist lock piston and cone are made of duplex stainless steel.

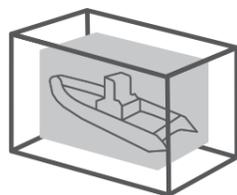
The Automatic Twist Lock System is type-approved according to DNV GL ST-0068 on certification of container securing devices and ISO 1161.

| Description | Value |
|---------------------|--------|
| Tension max | 250 kN |
| Compression | 250 kN |
| Shear max | 210 kN |
| Deck height minimum | 450 mm |



Mission Bay door

The Cube™



Multi-Mission Module

Retractable gull-wing type mission bay door designed for all weather conditions.

Reliability and speed are key

High reliability, maximum clear opening and opening/closing speed are essential features when designing mission bay doors for multipurpose naval vessels. In the design of this gull-wing type mission bay door, the SH Defence engineering team has applied its many years of experience designing for naval vessels.

Even though this high-quality mission bay door would be the perfect solution for any naval vessel, it has been optimised for the Cube™ Multi-Mission Module concept invented by SH Defence to enable flexible and cost-efficient vessel conversion.

The Cube™ consists of modular equipment that fits the footprint of 20' and 40' containers, enabling reconfiguration of vessels in less than 4 hours. All you need to do is unload the Cube™ modules that are no longer required and load the modules that support the vessel's next mission.

The mission bay door is available in two versions: one for 20' mission bays and one for 40' mission bays.

Easy access and deployment

The gull-wing design of the mission bay door ensures maximum loading clearance, enabling easy access to and deployment of Cubes™ and equipment stored in the mission bay. When closed, the door is 100% flush with the hull for minimum radar reflection.

The door is hydraulically operated and provided with weather protecting seals. Opening and closing times are approximately 1 minute.

Prepared for operation in cold temperatures

The door is locked using hydraulic cleats/batten system. To ensure safe and reliable operation of the door even in sub-zero temperatures, it is fitted with four ice breaker units in the form of push-out cylinders on the inside of the door.

Control

The fully integrated control system is provided with a failsafe logic controller with manual override capability.

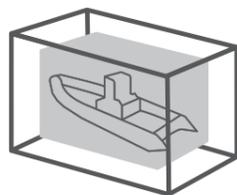
Hydraulic power unit (HPU) for operation of the mission bay door can be supplied as an option.

| Description | Value |
|---|---|
| Clear opening when 20' door is open (H x W) | 6100 mm x 6510 mm |
| Clear opening when 40' door is open (H x W) | 6100 mm x 12640 mm |
| Side door locking system | Hydraulic cleats/batten system |
| Seal type | Weather protecting |
| Gate retraction rail system | Hydraulic |
| Gate opening mechanism | Hydraulic cylinders |
| Feedback | Electrical end stop switch – all cylinders |
| Display | Control panel with push buttons and control lamps |
| Security/safety | Failsafe logic control system with manual override capability |
| Opening/closing cycle speed | 1 min. |
| Ice breakers | Push-out cylinders in door bottom and side edges |



The Cube™ 20' Base Frame with crash frame

The Cube™



Multi-Mission Module

Reinforced Cube™ base frame for mounting of mission equipment.

The Cube™ – revolutionising vessel conversion

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The Cube™ is a flexible and cost-saving solution consisting of modular equipment with standardised interfaces enabling reconfiguration of vessels in less than 4 hours. All you need to do is unload the Cube™ modules that are no longer required and load the modules that support the vessel's next mission.

A strong foundation for your Cube™

With the Cube™ 20' Base Frame, any light and medium-weight mission equipment that has the 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.

The base frame is a welded steel structure with four profiles for optimum strength, and ISO corner castings are fitted at the top and bottom for lifting and sea fastening. The surface of the Cube™ 20' Base Frame is made of glass-reinforced plastic (GRP) grating, which provides a very strong and anti-slip surface.

The Cube™ Base Frame is a plug-and-play structure provided with standard connections compatible with the mission bay standard connection cabinet CubedIn™.

Furthermore, the base frames are provided with forklift pockets for empty handling.

Designed to the highest standards

The Cube™ 20' Base Frame is designed according to DNV GL ST-0378 for offshore and platform lifting appliances and it conforms to ISO 668.

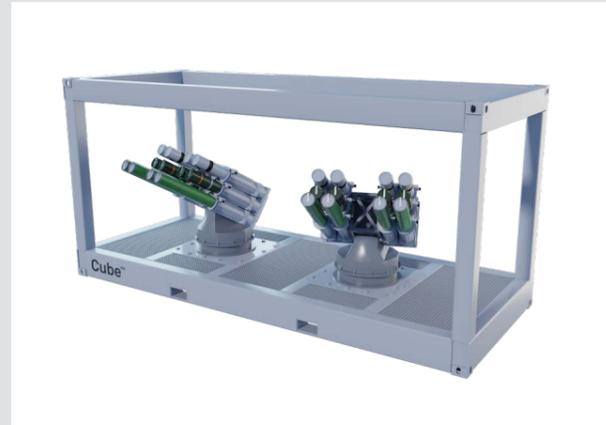
The Cube™ 20' Base Frame is type approved, so no lengthy approval process is required to have your Cube™ approved and ready for deployment.

The Cube™ 20' Base Frame is delivered with a CSC certificate for shipping.

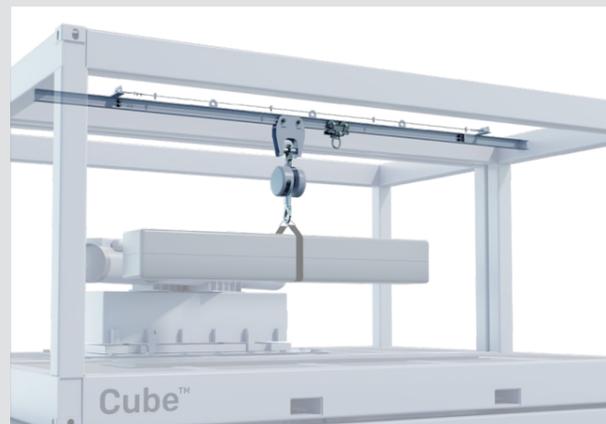
| Description | Value |
|---------------------------------------|---|
| Cube™ 20' Base Frame | |
| Weight | 2 MT (without crashframe) |
| Dimensions (H x L x W) | 275 mm x 6058 mm x 2438 mm (without crashframe) |
| Max gross weight | 24 MT |
| Cube™ 20' Base Frame with Crash Frame | |
| Weight | 3,5 MT |
| Dimensions (H x L x W) | 2896 mm x 6058 mm x 2438 mm |
| Max gross weight | 24 MT |

Standardised design, endless options.

The Cube™ 20' Base Frame is designed for equipment that introduces moderate forces such as a missile launch system.



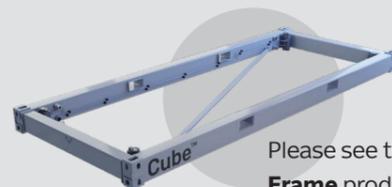
The base frame can also be supplied with a crash frame to protect mission equipment and enable stacking of Cube™.



Base frames can be assembled two and two, side-by-side by means of the included bolts stored in the frame during transport, eliminating the need for additional storage of bolts.

Heavier, larger and more complex equipment can also be turned into a Cube™ with the Cube™ Engineered Frame, which is a customisable frame for equipment introducing heavier forces on the structure.

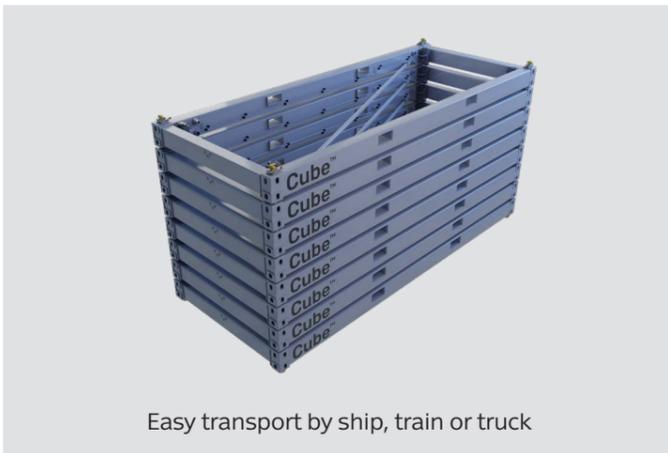
The crash frame also allows installation of a ceiling-mounted crane suitable for loading consumables stored on the frame itself to a neighbouring frame with, for example, a launcher or similar equipment.



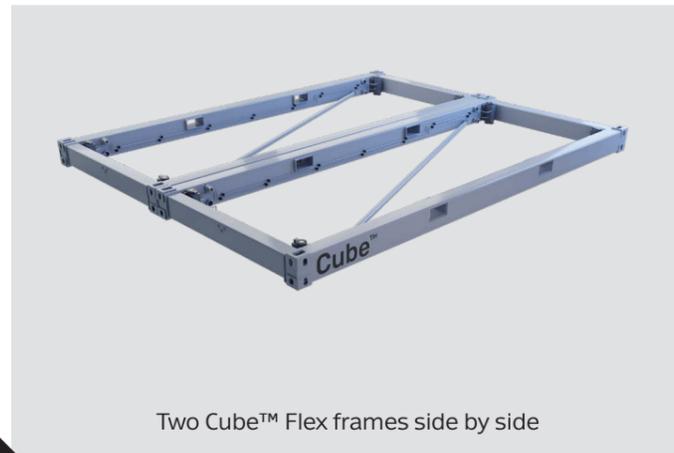
Please see the Cube™ **Engineered Frame** product sheet for further information.



Watch product movies on YouTube.
Scan QR Code with your smartphone.

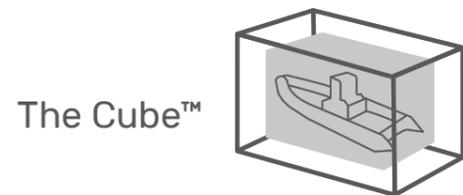


Easy transport by ship, train or truck



Two Cube™ Flex frames side by side

Cube™ Flex frame 20'



The Cube™

Multi-Mission Module

Adaptor frame to turn standard 20' shipping containers into Cube™

Flexible and cost-effective vessel conversion

Modern naval vessels must be capable of carrying out different missions and roles in both peacetime and wartime. Reconfiguring vessels for new missions can be both costly and time consuming. That is why SH Defence developed The Cube™.

The Cube™ is a flexible and cost-saving solution consisting of modular equipment with standardized interfaces enabling reconfiguration of vessels in less than 4 hours. All you need to do is unload the Cube™ modules that are no longer required and load the modules that support the vessel's next mission.

Turning standard containers into Cube™

The purpose of the Cube™ 20' 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 20' Flex Frame is a flexible welded steel structure with container corners for lifting and sea fastening and with forklift pockets for empty handling.

The flex frames can be assembled two and two, side-by-side by means of the included bolts stored in the frame during transport, eliminating the need for additional storage of bolts.

Empty flex frames can be stacked up to eight high for easy transport by ship, train or truck.

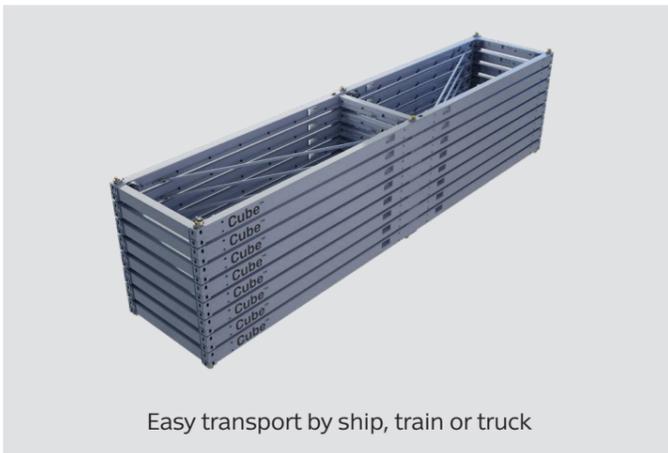
Type-approved design

The flex frames are designed and type-approved according to DNV GL ST-0378 for offshore and platform lifting appliances. They also conform to ISO 668 and are delivered with a CSC certificate for shipping.



Mobile Cube™ Side and Stern Loader

| Description | Value |
|------------------------|------------------------------|
| Weight | 1.6 MT |
| Max gross weight | 24 MT |
| Dimensions (H x L x W) | 275 mm x 6058 mm x 2438 mm |
| Forklift pockets | 130 mm x 280 mm - CC 2050 mm |



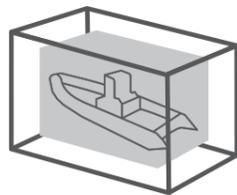
Easy transport by ship, train or truck



Two Cube™ Flex frames side by side

The Cube™ Flex frame 40`

The Cube™



Multi-Mission Module

Adaptor frame to turn standard 40' shipping containers into Cube™

Flexible and cost-effective vessel conversion

Modern naval vessels must be capable of carrying out different missions and roles in both peacetime and wartime. Reconfiguring vessels for new missions can be both costly and time consuming. That is why SH Defence developed The Cube™.

The Cube™ is a flexible and cost-saving solution consisting of modular equipment with standardized interfaces enabling reconfiguration of vessels in less than 4 hours. All you need to do is unload the Cube™ modules that are no longer required and load the modules that support the vessel's next mission.

Turning standard containers into Cube™

The purpose of the Cube™ 40' Flex Frame is to convert standard 40' 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 40' Flex Frame is a flexible welded steel structure with container corners for lifting and sea fastening and with forklift pockets for empty handling.

The flex frames can be assembled two and two, side-by-side by means of the included bolts stored in the frame during transport, eliminating the need for additional storage of bolts.

Empty flex frames can be stacked up to eight high for easy transport by ship, train or truck.

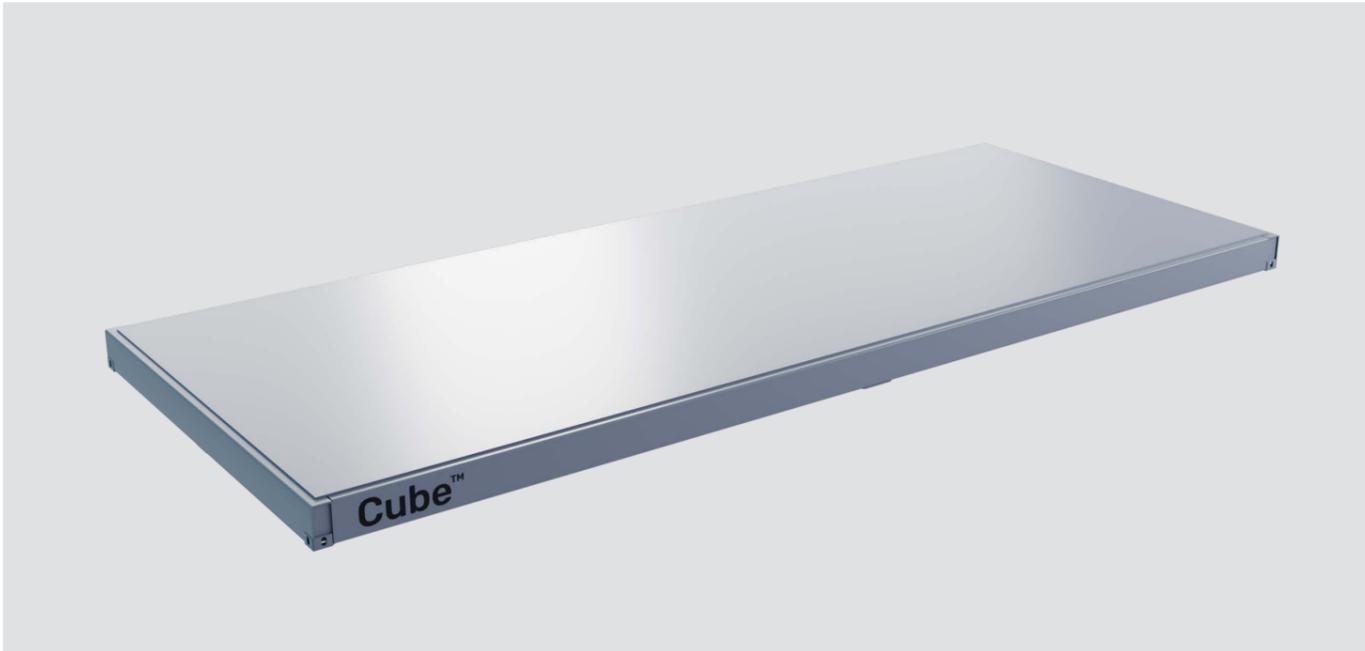
Type-approved design

The flex frames are designed and type-approved according to DNV GL ST-0378 for offshore and platform lifting appliances. They also conform to ISO 668 and are delivered with a CSC certificate for shipping.



Mobile Cube™ Side and Stern Loader

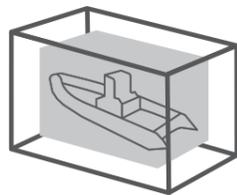
| Description | Value |
|------------------------|------------------------------|
| Weight | 3 MT |
| Max gross weight | 30 MT |
| Dimensions (H x L x W) | 275 mm x 12192 mm x 2438 mm |
| Forklift pockets | 130 mm x 280 mm - CC 2050 mm |



Launch & Recovery System
ROV/Drone

The Cube™ Engineered Frame

The Cube™



Multi-Mission Module

Custom frame for mounting of complex mission equipment.

The Cube™ – revolutionising vessel conversion

Modern naval vessels must be capable of carrying out different missions and roles in both peacetime and wartime. Reconfiguring vessels for new missions can be both costly and time consuming. That is why SH Defence developed The Cube™.

The Cube™ is a flexible and cost-saving solution consisting of modular equipment with standardised interfaces enabling reconfiguration of vessels in less than 4 hours. All you need to do is unload the Cube™ modules that are no longer required and load the modules that support the vessel's next mission.

A strong foundation for your Cube™

The Cube™ Engineered Frame provides a strong and safe foundation for any mission equipment 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. The frame is customised to withstand the forces introduced by the equipment to be mounted on the frame. The surface of the Cube™ Engineered Frame is made of glass-reinforced plastic (GRP) grating, which provides a very strong and anti-slip surface.

The Cube™ Engineered Frame can be delivered with crash frame and tarpaulin as an option.

Standardised design offers plug-and-play functionality

Even though the frame is customised to the mission equipment, it is always compatible with the Cube™ concept: It fits in standard 20' or 40' Cube™-ready mission bays, can be sea fastened using the fully automatic, retractable twist lock system and can be loaded and unloaded using the hydraulic jacks fitted in the mission bay in combination with either the Cube™ Mobile Side Loader or the Cube™ Mobile Stern Loader.

The Cube™ Engineered Frame is a plug-and-play structure provided with standard connections compatible with the mission bay standard connection cabinet CubedIn™.

Designed to the highest standards

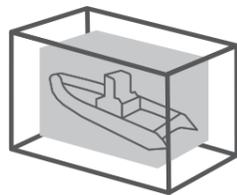
The Cube™ Engineered Frame is designed according to DNV GL ST-0378 for offshore and platform lifting appliances.

| Description | Value |
|-------------------|--------------------------------|
| Main Structure | Steel |
| Sea fastening | ISO standard cornercasting |
| Bottom lining | GRP/FRP |
| Lifting structure | Marine standard/ DNVGL ST-0378 |



Missile Containerized System

The Cube™



Multi-Mission Module

Cube-ready containerized missile system with CMS interface.

Cube-ready plug-and-play solution

Missile systems installed in standard shipping containers offer highly mobile weapons systems. With The Cube™ Multi-Mission Modules, SH Defence takes this technology to the next level, offering a Cube-ready plug-and-play container missile system.

The system is installed in a 20' standard container, which can be loaded into any Cube™-ready mission bay and connected to the standard connection cabinet CubedIn™. The Container Missile System comes with an interface to the CMS and is provided with hydraulic input, which can be connected to the SH Defence Deck Hatch Cover HPU, enabling hydraulic actuation of the missile cradle to firing position.

The container is provided without top, which means that a SH Defence Deck Hatch Cover is required to protect the missile system from weather impact. The SH Defence Deck Hatch Cover, however, also ensures that it is easy to access and deploy the missile system. See the relevant product sheet for further information on the Deck Hatch Cover or contact SH Defence (see contact details below).

Safety first

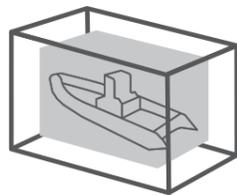
The Container Missile System Cube™ is equipped with a strong door designed to resist the recoil from firing the missiles. The CMS is provided with sensor input from the container to ensure that the door is locked and secured before missiles are launched.

| Description | Value |
|------------------------|-----------------------------|
| Dimensions (H x L x W) | 2896 mm x 6058 mm x 2438 mm |
| Weight | 7 MT |
| Material | Structural steel S355 |
| Force absorption | Up to 53 kN |
| Weight of carriage | 1.7 MT |



Skidding system With Tractor

The Cube™



Multi-Mission Module

Skidding system on wheels with battery-driven tractor designed for handling of Cube™ Multi-Mission Modules.

The Cube™ Multi-Mission Modules

SH Defence has developed the multi-mission modules concept called The Cube™ to enable reconfiguration of naval vessels from one mission to another in less than 4 hours. All you need to make this happen is Cube™-ready mission bays and equipment installed in 20' or 40' Cubes™. We have already identified 120+ different mission modules, but with this system, the sky is the limit!

Easy and compact onboard skidding system on wheels

The SH Defence Skidding System with Tractor is ideal when you need to rearrange your Cubes™ on board the vessel.

The system consists of four separate bogie wheel units with a hydraulically operated lifting function that can lift and shift 20' and 40' Cubes™ weighing up to 10 MT. Two of the bogie wheel units are connected to the manoeuvring mechanism which is connected to the battery-driven tractor. The hydraulic lifting operation can be either manual or remote, and the battery-driven tractor is manually operated by the crew.

Secure and compact storage during sea voyage

The system is provided with a docking station for secure storage of all system components. The docking station footprint is very small and provides optimum and compact storage during sea voyage. The docking station is welded onto the deck.

| Description | Value |
|------------------------------|---------------------------|
| Bogie wheel units | |
| Bogie dimensions (H x L x W) | 1577 mm x 700 mm x 400 mm |
| Unit weight | 195 kg |
| Lifting capacity | 10 MT |
| Lifting height (10 MT) | 500 mm |
| Hydraulic operation | Manual (ill.) or remote |

| Description | Value |
|-----------------------------|-----------------------------|
| Tractor | |
| Unit dimensions (H x L x W) | 1670 mm x 1660 mm x 1010 mm |
| Unit weight | 1500 kg |
| Motor | 3 kW |
| Battery | 24V DC Exide Tensor |
| Pull/push capacity | 22.5 MT |
| Operation | Manual |

| Description | Value |
|--|--|
| Docking station | |
| Unit dimensions (H x L x W) | 2000 mm x 2350 mm x 1690 mm Optional: 10' ISO footprint |
| Weight (incl. skidding system + tractor) | 2,6 MT Optional: 10' ISO: 3,8MT |
| Mounting | Welded to deck optional with twist lock |

The Cube™

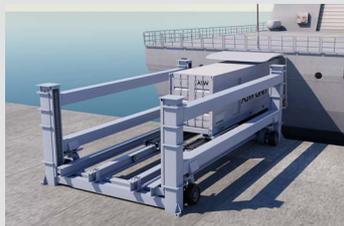
Future-proof Containerized Multi-Mission Modules for Coast guard, SAR and Navy vessels

The Cube™ is a **flexible** and cost-efficient solution consisting of **modular equipment** that enables **reconfiguration of vessels** in less than 4 hours.

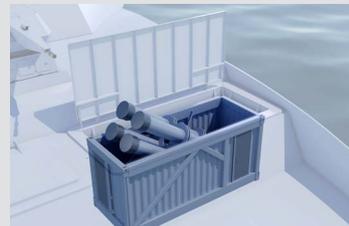
All you need to do is unload the Cube™ modules that are no longer required and load the modules that support the vessel's next mission.



Side Loaded



Stern Loaded



Deck loaded

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



Member of
Naval Team Denmark™



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