

survitec

# MARINE EVACUATION SYSTEMS

PROVIDING CRITICAL SAFETY SOLUTIONS



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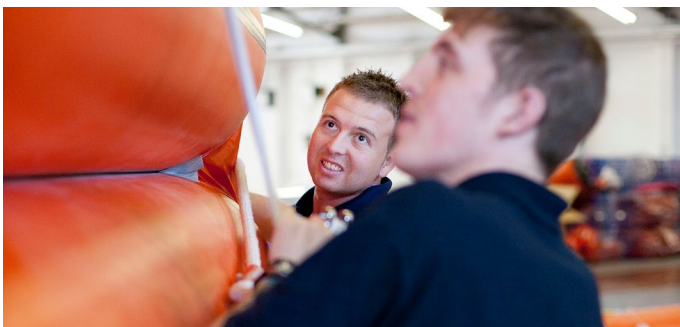
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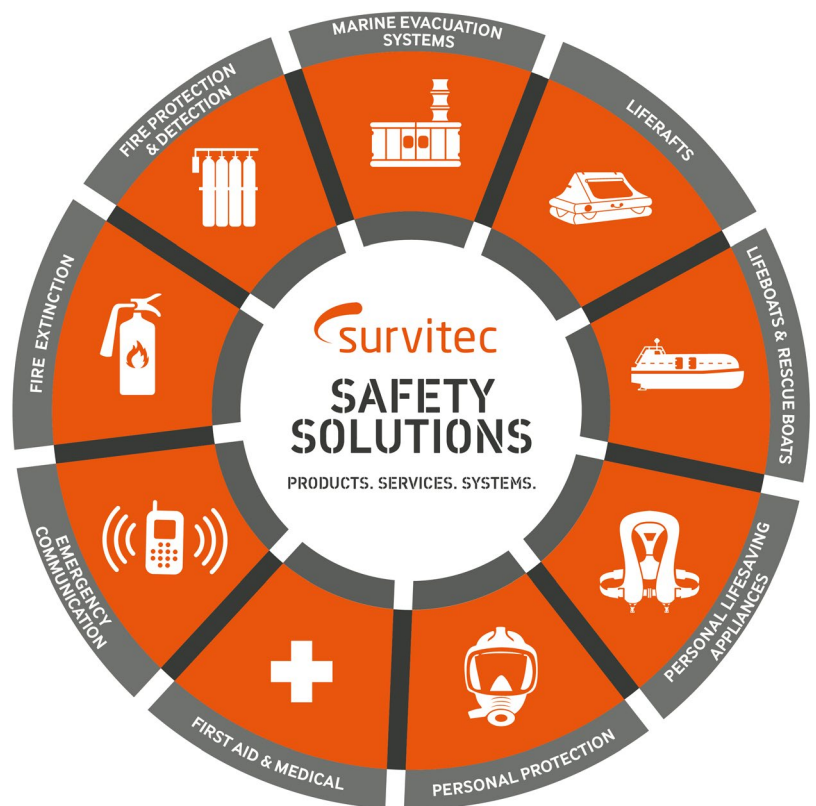
# COMPLETE SAFETY SOLUTIONS PROVIDER - EVERYTHING YOU NEED TO REMAIN SAFE AND COMPLIANT.

Now that Survitec is the world's largest maritime safety business, we are in a position to turn the whole industry onto a different heading. We are already thinking more radically about how we can assist our customers in their pursuit of continuous improvement – how to do things faster, better, cheaper or easier.

With more liferafts, lifejackets, fire systems, safety products and service stations around the world than our nearest competitor, nobody can offer better last mile global coverage than Survitec can. We are determined to use our size and strength to take maritime safety in a different direction – one that delivers new benefits to your business.

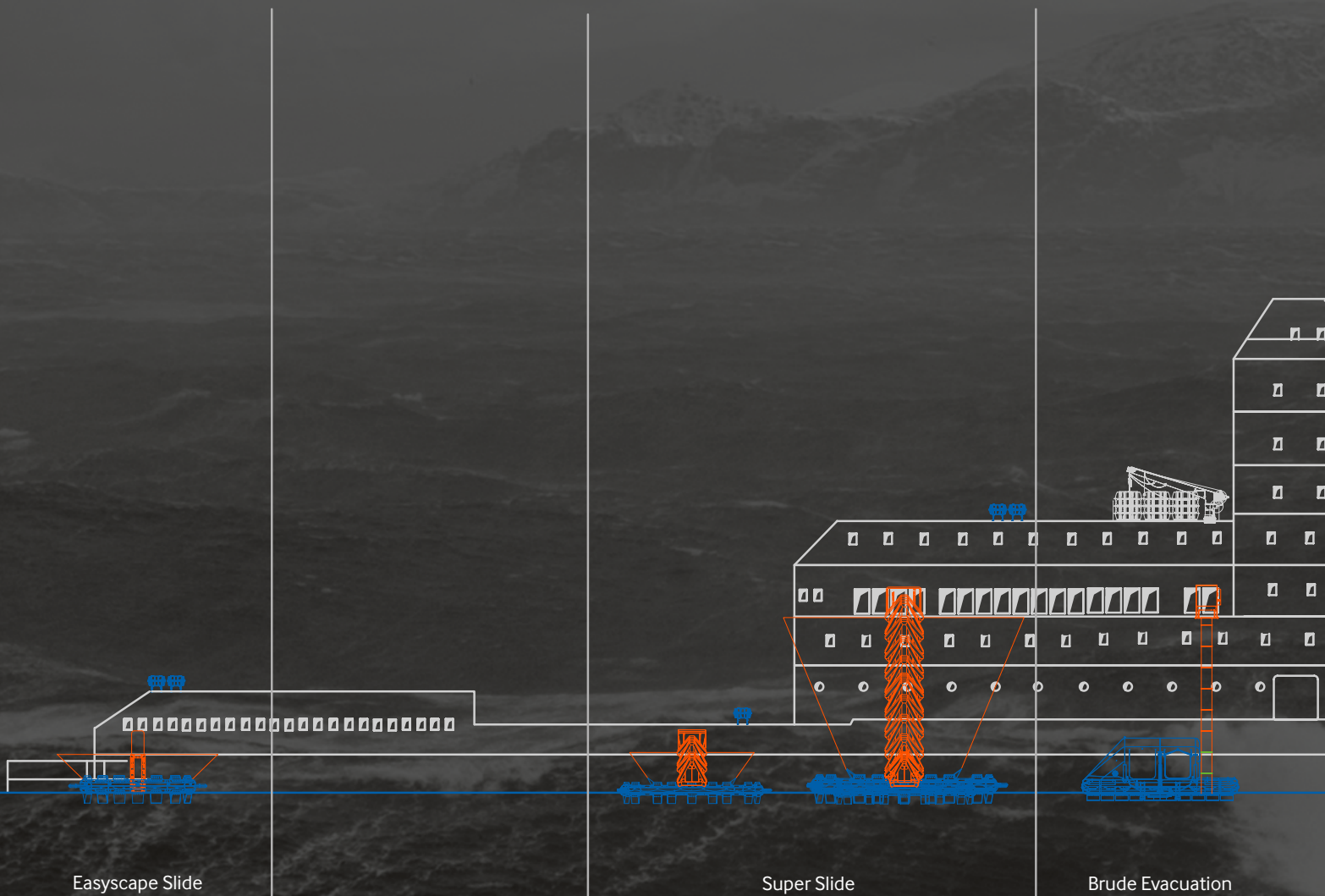
Whether your requirements are for one-off product sales or complete safety asset supply and management, our dedicated teams are always ready to listen to your challenges and are on hand to offer a comprehensive solution, built for your business.

Throughout our 160-year history, Survitec has remained at the forefront of innovation, design and application engineering and is the trusted name when it comes to critical safety and survival solutions.

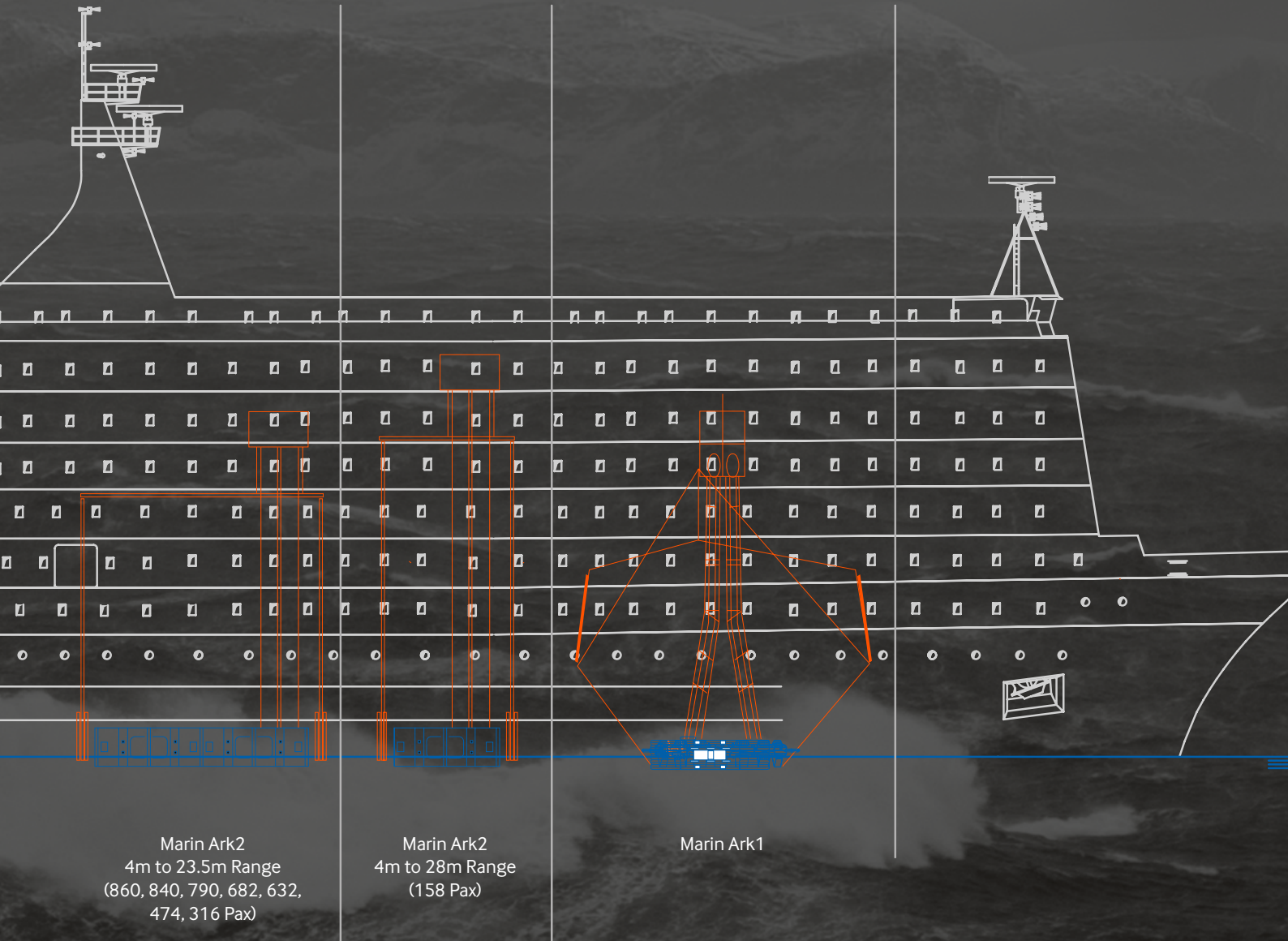


# CHOOSING THE RIGHT MARINE EVACUATION SYSTEM

Each installation of an MES system is custom-made to suit your vessel requirements. Considerations include vessel weight, type, evacuation height and number of passengers. MES options are available to suit your specific requirements across small vessels, ferries, larger passenger and cruise ships.



MES SYSTEM	BEST SUITED FOR	ADVANTAGES	APPROVALS	CUSTOMERS EMPLOYING SYSTEM
Easyscape Slide	Ferries and high speed vessels requiring a relatively lightweight system such as catamarans	Lightest system available and can deploy from freeboard heights up to 3.8 metres	SCG, TC, SOLAS, EC/MED	BC Ferries, BC Department Of Highways, French Navy, Hong Kong Ferries, Newfoundland Ferries, STQ, Venecian Ferries, Washington State Ferries, Norled, IDO, Rodne, Sonner
Superslide	High speed vessels requiring a relatively lightweight system such as fast ferries and catamarans	Lightest system available and can deploy from freeboard heights up to 12.5 metres	USCG, TC, SOLAS, EC/MED	Calmac Ferries, Conseil General de la Gironde, French Navy, Norled, Owen Sound Transportation, Egyptian Navy, Ven Trafikken, Delaware River and Bay Authority, Transport Canada/Bay Ferries
Brude Evacuation System Chute	Ferries, RoPax, Cruise Ships and for Special Purpose Ships (Brude MES Chute SPS)	Most established technology (vertical chute) with many years of success and can deploy from up to 26 metres	USCG, TC, SOLAS, EC/MED	Acciona Trasmediterranea, Balearia Eurolineas Maritimas, Izmir Buyuksehir Belediye, Jadrolinija, Laziomar, National Ferries, Moby Spa , Naviera Armas, Norce Offshore, Petroleum Geoservices (PGS), Polarcus, Saaremaa Shipping, Tallinn Port, Østensjø Rederi, Torghatten Nord, Torghatten Trafikkselskap, FosenNamsos Sjø, Fjord1 ,Norled , Bastø Fosen
Marin Ark	Large vessels with high freeboard decks, ferries, naval vessels and world-leading ships in the cruise industry	High degree of functionality - twin chutes with fewer liferafts, requires minimal crew to activate and can deploy from up to 28 metres	SOLAS, EC/MED, TC	Princess Cruises, Celebrity Cruises, MSC Cruises, RCCL Cruises, NCL, Dream Cruises, P&O Cruises, Stenaline, P&O Ferries, Vikingline, BC Ferries, Balearia Ferries, Brittany Ferries, Bluestar Ferries, UK Navy, US Navy, Royal Australian Navy, Spanish Navy, Turkish Navy, Danish Navy



# SURVITEC

## PIONEERING THE WAY IN MARINE EVACUATION SYSTEMS FOR OVER THREE DECADES

When it comes to safety, Survitec is uncompromising. From the conception of products through to delivery and installation, passenger safety is of paramount importance. This philosophy has ensured that throughout our 160+ years of industry experience, Survitec remains the world's market leading manufacturer of safety and survival products.

The Marine Evacuation range of products epitomises everything that Survitec stands for - quality products, offering unparalleled safety coupled with real value for money. No other evacuation system in the world comes close to the superior design of Survitec's Marine Evacuation Systems (MES) - designed alongside our fully reversible liferafts and fully enclosed evacuation slides and chutes, all stowed in one complete evacuation unit on your vessel.

Our design teams work tirelessly to continuously improve and extend our MES range of products. The result - an enviable MES portfolio to suit any operator requirements, making Survitec the supplier of choice for many operators globally.



# MES SUPPLY PROCESS

Survitec is the primary design authority for MES having continuously evolved this essential Life Saving Appliance over the last 30 years. With over almost 2000 MES units, onboard 750+ vessels worldwide, Survitec continues to demonstrate its market leading position as a supplier of reliable MES solutions.

Our extensive range of services will ensure the customer is fully supported throughout the supply process. Such services include full consultation and technical services, provision of on-board solution, all supporting technical documentation for class & flag approval, and regulatory compliance.

The service we offer will vary from customer to customer to ensure we cater to your bespoke needs however a typical supply would include the following stages as detailed below.

- Following a quotation request, experienced members of our team would gather all the technical information required for the project.
- A structured proposal would then be prepared which would include the following:



Conceptual arrangement drawing of the MES



Scope of supply and price, to include Commercial Conditions



Technical documentation of the supplied equipment

- Upon receipt of the order, the Survitec engineer will prepare and issue an initial general arrangement drawing with full details of the equipment and their proposed position
- The documents will then be sent to the customer for approval before commencement of the equipment production and supply
- Once complete we would then look to move onto the delivery and commissioning phase
- The delivery and commissioning phase will consist of all or some of the following depending on your requirements:



Installing the MES onboard the vessel



Performing a harbour trial deployment



Briefing of the crew members



Re-packing and reinstalling the deployed equipment





## MARIN ARK 2

8 - 23.5  
metres



<860  
persons



### KEY FEATURES

- ✓ Designed with minimum crew actions to reduce the human element and improve reliability. All primary liferafts inflate & both helical slide path launch together in a single action
- ✓ Dual spiral slide path to the Marin Ark 2 allows for safe, rapid and controlled dry-shod descent for all evacuees
- ✓ Unique slide path design allows for crew ascent where necessary
- ✓ Fully reversible 158 person liferaft design with suspended floor ensures maximum thermal protection
- ✓ Revolutionary bowing system and evacuation slide path designed to meet the challenges of modern wide beam vessels
- ✓ Flexible design allows for installation on the widest range of vessel configurations

### RAPID & SAFE EVACUATION OF UP TO 860 PASSENGERS IN LESS THAN 30 MINUTES

The Marin Ark 2 is one of the largest dry-shod MES in the world. The completely unique design offers carriage for 158 passengers and can be scaled up to accommodate up to 860 passengers if required. Features simple crew actions and robust fully reversible liferaft, with multiple buoyancy compartments providing the utmost stability and safety in the toughest sea conditions.

The innovative helical slide path integrates the benefits of a fully enclosed evacuation chute with the natural descent of a spiral slide - crew members can even ascend to assist other passengers if required. One of the most dynamic design features of this system is the integration of a service winch into the stowage unit. This allows the entire unit to be deposited onto a tug or truck during service periods thus in most cases eliminating the requirement for a crane during service.





## MARIN ARK 1

8 - 23.5  
metres



<430  
persons



### ENSURES UTMOST STABILITY IN THE TOUGHEST HEAVY SEA CONDITIONS

Marin Ark 1 is uniquely designed to ensure utmost stability in even the toughest heavy sea conditions. In the case of an emergency, the system is highly efficient and effective. One simple release action activates the deployment of the system, which is fully inflated and operational within 90 seconds of deployment.

The liferafts are fully reversible, ensuring Marin Ark 1 inflates upright each and every time, and evacuation chutes are fully enclosed ensuring no passenger is exposed to the elements at any time during evacuation.



**ONCE DEPLOYED THE SYSTEM IS UNIQUELY DESIGNED TO ENSURE UTMOST STABILITY IN EVEN THE TOUGHEST HEAVY SEA CONDITIONS.**

### KEY FEATURES

- ✓ Compact all-in-one stowage design requiring minimal deck footprint
- ✓ Liferafts are fully reversible, ensuring the system inflates upright each and every time
- ✓ Evacuation chutes are fully enclosed ensuring no passenger is exposed to the elements at any time during evacuation
- ✓ Stowage design allows for easy system 'swap-out' during service, meaning minimal vessel downtime
- ✓ Available in symmetrical and asymmetrical options, enabling maximum design flexibility
- ✓ Tween deck and open deck stowage solutions also available



## MARIN ARK OVER CAPACITY LIFERAFT

50, 109,  
158  
persons



### FLEXIBLE OPTIONS FOR SMALLER OPERATORS

To complement our range of Marin Ark Marine Evacuation Systems, Survitec offers a full range of Over-Capacity liferafts to suit any deck area.

Maintaining the same high standards already set by Marin Ark, Over-Capacity liferafts are fully reversible ensuring they inflate upright each and every time.

Over-Capacity liferafts integrate fully with the Marin Ark MES. The liferafts are deployed and then inflated alongside the primary Marin Ark MES where they are easily and efficiently connected. This ensures passengers benefit from a quick and safe transfer from Marin Ark into the Over-Capacity rafts.

### KEY FEATURES

- ✓ All Over-Capacity liferafts are fully reversible
- ✓ Over-Capacity rafts can be fully integrated with any MES
- ✓ Available in various sizes, 50P, 109P & 158P, dependant upon the MES configuration
- ✓ Over-Capacity liferafts can be positioned on single, double or triple launching racks



**OVER-CAPACITY LIFERAFTS  
OFFER GREAT FLEXIBILITY  
AND CAN BE INTEGRATED  
WITH ANY MES.**



## EASYSCAPE SLIDE

1.5 - 3.8 metres



**Throw-over Liferrafts:**  
50, 100, 150 persons  
**ORILs:**  
50, 100, 151 persons



### KEY FEATURES

- ✓ Specifically designed for high speed craft passenger ships (fast evacuation required)
- ✓ Small, light and easy to use slide submitted to an authorisation of use when a MES may not be required
- ✓ Facilitates the descent of passengers into the canopied or open reversible inflatable liferafts
- ✓ Increased safety for the low freeboard vessels
- ✓ Safer means of evacuation for passenger vessels (when evacuation deck < 3.80 metres)

### IDEAL FOR LOW FREE-BOARD VESSELS

The Easyscape Slide systems which were formally known as the Small Inflatable Slide systems (SIS) are for low freeboard vessels. Easyscape slides and liferafts, or Open Reversible Inflatable Liferrafts (ORILs), stored near to evacuation points. Liferrafts or ORILs are launched remotely, inflated and bowsed into position using either manual or automatic electric winches. An Easyscape slide is then inflated and deployed into the liferaft or ORIL.

Easyscape Slide available 1.5 metres to 3.8 metres in a range of five slides with a maximum freeboard of 3.8 metres.

“  
**THESE LOW FREE-BOARD SYSTEMS ARE IDEAL FOR RAPIDLY EVACUATING VESSELS WITHIN 1.5 TO 3.8 METRES.**



## SUPER SLIDE

3.8 - 12.5 metres



**TOSR liferaft:**  
150  
**ORIL liferaft:**  
302 (2x151)  
**LINK liferafts**  
50, 100, 150 persons



### UNIQUE, LIGHTWEIGHT AND SMALL DECK FOOTPRINT

The Superslide, formally known as the Medium Inflatable Slide (MIS) is for vessels with freeboard heights of between 3.8 metres and 12.5 metres, incorporates a twin-track inflatable slide that deploys at right angles to ships' sides.

This system deploys at right angles to the vessel. The Superslide is packed together with either the 100/150 person Throw Over or Throw Over Self Righting canopied liferaft. When supplied for use with 100 Open Reversible liferafts, a second liferaft can be packed into the container so when inflated and bowsed it is immediately available for boarding. A second liferaft can be available for bowsing outboard of the receiving liferaft. Superslide available 3.8 metres to 12.5 metres in a range of five slides.



**THIS TWIN TRACK INFLATABLE SLIDE SYSTEM IS CURRENTLY AVAILABLE FOR HEIGHTS BETWEEN 3.8 & 12.5 METRES.**

### KEY FEATURES

- ✓ Simple and quick to install and re-install after service
- ✓ Electric remote release system which automatically performs a complete system deployment
- ✓ Float-free system operates before the water reaches the evacuation deck
- ✓ Max pax with ORIL liferaft is 397 persons in 17 minutes 40 sec
- ✓ Max pax with SOLAS canopied rafts is 750 persons in 30 minutes (fully MED approved)
- ✓ Unique, lightweight and small deck footprint
- ✓ Provides an alternative range of retrofit solutions



## BRUDE EVACUATION SYSTEM CHUTE

### KEY FEATURES

- ✓ Available in single- and double-track formats
- ✓ For use at heights of up to 26 metres
- ✓ Zig-zag design offers controlled descent
- ✓ Additional liferafts are connected to system liferafts via an interface
- ✓ Easy to operate
- ✓ Room in the chute for crew-members to descend next to passengers and assist persons that are injured or disabled
- ✓ Service costs for the chute are minimized due to the on-site inspection
- ✓ Freestanding liferafts allows flexible service

### EFFICIENT, FLEXIBLE, COST-EFFECTIVE AND EASY TO USE AT HEIGHTS UP TO 26 METRES

The Brude Evacuation System Chute is efficient, flexible, cost-effective, easy to use at heights up to 26 metres, and available in single and double-track formats for increased capacity.

Liferafts and evacuation station with chute are mounted in separate units, accommodating a flexible layout. During deployment system liferafts are dropped and winched into position from the evacuation station. The chute will then be lowered directly into the raft. For increased capacity, additional rafts can be dropped and connected to the system raft.

4 - 26  
metres



**Max capacity single chute:**  
450pax

**Max capacity double chute:**  
600pax



**Available with:**  
50, 102 and 150 person rafts

# MES CREW TRAINING

**Purchasing your safety equipment is only the start of your relationship with Survitec. Not only will we equip your vessel with the very best marine safety equipment, we will also ensure that should you unexpectedly have to use your safety equipment in an emergency, you and your crew know exactly what to do. In support of this mission we provide customers with 'Crew Training' on our Marine Evacuation Systems (MES) product ranges.**

## Training Regulations

All Survitec Crew Training is conducted as per the SOLAS requirement which is defined as follows:

### SOLAS CH III Regulation 19.3.3.8

*If a ship is fitted with MES, drills shall include exercising of the procedures required for the deployment of such a system up to the point immediately preceding actual deployment of the system. This aspect of drills should be augmented by regular instruction using the onboard training aids required according to 35.4. Additionally, every system party member shall, as far as practicable, be further trained by participation in a full deployment of a similar system into water, either onboard a ship or ashore, at intervals of no longer than two years, but in no case longer than three years. This training can be associated with deployments required by regulation.*



## WHY SURVITEC

- Survitec has been providing MES systems training to passenger crews since 2003
- Survitec is the chosen training provider for the world's largest passenger ferry company
- Our Chief Technical Trainers have worked with over 5,000 crew worldwide and bring with them a wealth of experience
- Our fully equipped training facilities give your crew practical, hands-on experience
- We have a 100% customer satisfaction rate
- Our MES training service is available at multiple locations globally to suit customer demand

## What's Involved

We aim to provide MES Crew Training that is as practical as possible, this helps make sure that should the worst happen you are as familiar with the safety equipment onboard your vessel as you can be. A typical MES Crew Training day would start with a small amount of classroom work followed by a number of practical exercises including:

- MES operating sequence, deployment and evacuation cycle
- Emergency equipment familiarisation
- Pyrotechnics and electronics
- Liferaft familiarisation
- Passenger safety management
- Lifejacket donning
- Participant descent
- Stretcher descent
- Carry techniques
- Crisis control
- System abandonment

We run our training sessions with a maximum of 36 participants per session, a minimum of 20 participants are required to run the training session.

## Certification

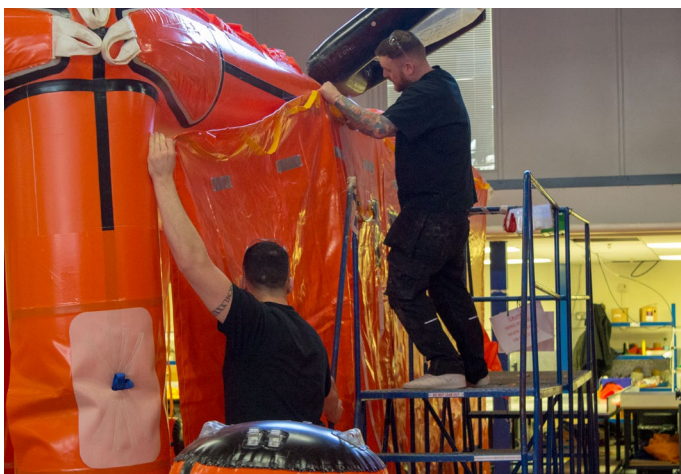
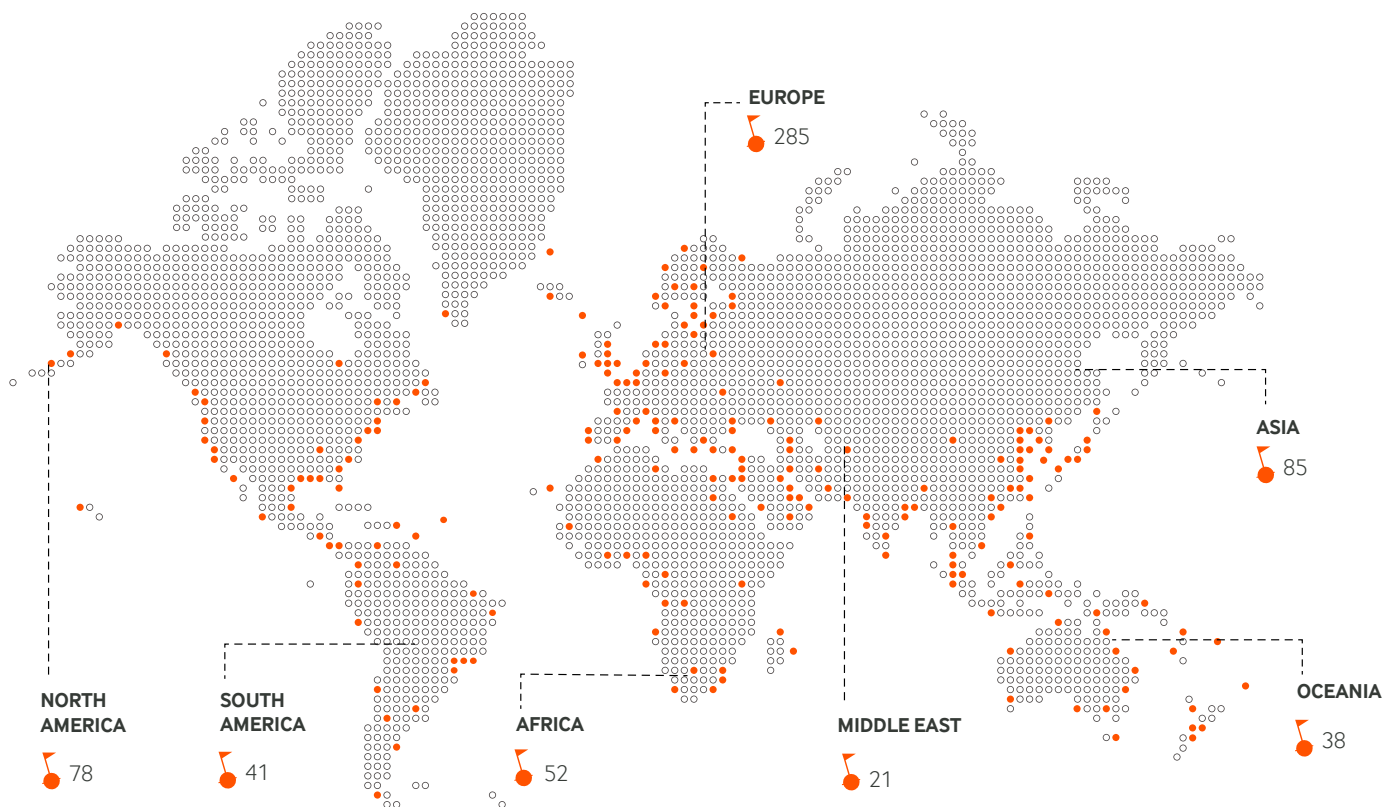
On successful completion of the MES Crew Training course each crew member will be awarded a training certificate to help note and record their successful completion of this training course.



# Over 500 service stations around the world ensure our customers receive a quality service wherever they are.

At Survitec we believe when you purchase your safety equipment it is only the beginning of your relationship with us. Safeguarding lives through high quality safety equipment is at the heart of everything we do. With over 90 years' total experience to our name, we ensure your equipment receives only the very best care and attention throughout its entire lifecycle.

We are the world leader in the supply, inspection, testing and maintenance of safety and survival equipment. Through our network of 500+ service stations, we are able to offer a truly global service covering 2000 locations including most key ports.





## GET IN TOUCH

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