

# MARIN ARK

MARINE  
EVACUATION  
SYSTEMS

**RFD**

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Part of the SURVITEC group of companies





WHEN  
ONLY  
THE  
BEST  
WILL  
DO

**INTRODUCING  
RFD MARIN ARK  
...THE WORLD'S LARGEST  
MARINE EVACUATION  
SYSTEM  
...WHEN ONLY  
THE BEST WILL DO**

# Introduction

**QUESTION**  
**HOW DO YOU SAFELY AND  
EFFECTIVELY MANAGE THE  
MASS EVACUATION  
OF HUNDREDS OF  
PASSENGERS  
AT SEA?**

**ANSWER**  
**YOU SPECIFY  
RFD MARIN ARK**



When it comes to safety, RFD 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 90 years of industry experience, RFD remains the world's market leading manufacturer of safety and survival products. Simply put, we are the best...

**M**arin Ark epitomises everything that RFD stands for - a premium product, offering unparalleled safety coupled with real value for money.

No other evacuation system in the world comes close to the superior design of RFD Marin Ark Marine Evacuation Systems (MES) - designed with fully reversible liferafts, fully enclosed evacuation slides all stowed in one complete unit on the vessel.

Since its conception in 1996 our Research and Development Team has worked tirelessly to continuously improve and extend the Marin Ark range. The result - an enviable MES portfolio to suit any operator requirements, making RFD Marin Ark the system of choice.

#### **The RFD Marin Ark story**

In 1979, recognising the requirement for fast and efficient evacuation procedures on board large passenger vessels, RFD developed the world's first Marine Evacuation System, taking passenger safety into completely new territory.

This MES consisted of twin track slides evacuating passengers on to a platform, from where they were transported into canopied liferafts. Whilst revolutionary in that era, RFD was convinced there was a better solution - and there was. RFD Marin Ark.

When it was first introduced the world of safety had seen nothing like it. RFD Marin Ark was immediately hailed as the ultimate Marine Evacuation System, and since then no rival has come close to developing anything as safe or effective.

Since then RFD has worked in close partnership with our customers, totally committed to understanding the changes in the marine passenger vessel industry and finding new solutions to confront operator challenges. We are now proud to introduce the latest addition to the Marin Ark portfolio, the new generation Marin Ark 632.

This system is the largest dry shod Marine Evacuation System in the world. Whilst maintaining the same unique characteristics associated with RFD Marin Ark, this state-of-the-art new product is a complete redesign. From the new, even bigger liferafts and the revolutionary helical slide path, to the efficient bowing arrangement and stowage unit, everything in this new system now confirms RFD as the world's leading expert in MES design.

#### **Why is Marin Ark unique?**

No other system in the world can rival the unique design features of RFD Marin Ark.

- Four fully reversible liferafts, ensures the system inflates upright each and every time
- Two fully enclosed evacuation chutes ensures no passenger is exposed to the elements at any time during evacuation
- Compact all-in-one stowage design requiring minimal deck footprint, maximising operator's space for passenger entertainment and comfort onboard
- Single action release for simple crew operation

When lives depends on it, you need to know you chose the best - RFD Marin Ark.

# Marin Ark 632

available in 632, 474 and 316 passenger capacities

Marin Ark 632 opens a brand new era for Marine Evacuation Systems, with the largest, safest and most cost-effective dry-shod MES in the world...

Marin Ark 632 is a completely new design: the liferafts, each with a total capacity of 158 passengers, feature a suspended floor ensuring maximum thermal protection and multiple buoyancy compartments to ensure utmost 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 new system is the integration of a service winch into the stowage unit which allows for 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.

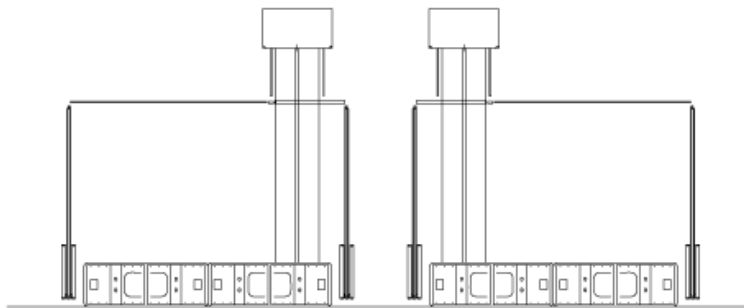
Already accepted by some of the leading names in the industry, this system set a new standard for Marine Evacuation Systems.

## Product features

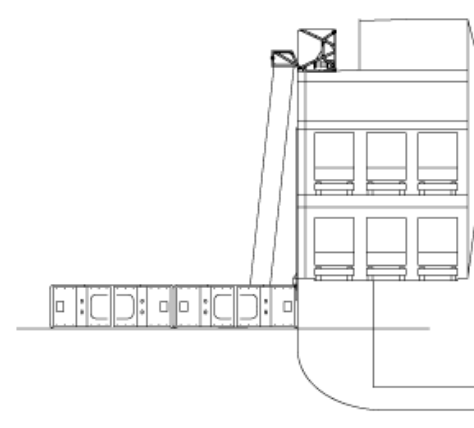
- Unique fully reversible 158 person liferaft design with suspended floor ensures maximum thermal protection for survivors
- Dual spiral slide path allows for safe, rapid and controlled descent
- Unique slide path design allows for crew ascent where necessary
- Integrated service winch eliminates the need for crane hire during MES installation and service removal
- Revolutionary bowing system and evacuation slide path designed to meet the challenges of the latest modern wide beam vessels
- Flexible design allows for installation on the widest range of vessel configurations



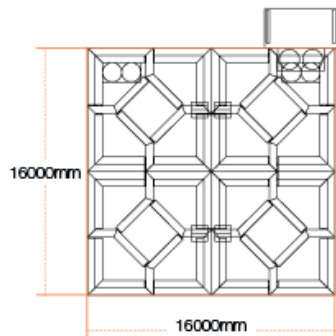
Profile view



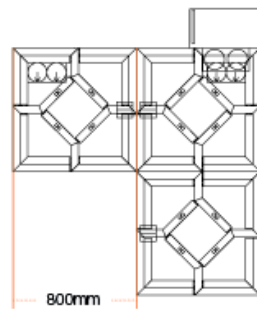
Cross Section view



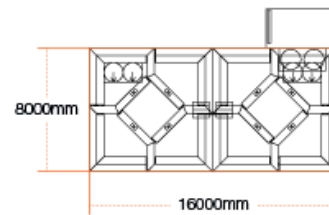
Four Unit Module



Three Unit Module



Two Unit Module



Four Unit Module weights

A Pack: 8700Kg  
B Pack: 8100Kg

Three Unit Module weights

A Pack: 7560Kg  
B Pack: 7100Kg

Two Unit Module weights

A Pack: 6400Kg  
B Pack: 6100Kg

NOTE: Weights differ slightly for Open Deck and Tween Deck variants.

# Marin Ark 430

available in 430, 321 and 212 passenger capacities

RFD has manufactured and installed over 1000 Marin Ark liferafts across the globe. There is no doubt that RFD Marin Ark is now renowned as the system of choice for large passenger vessels...

Marin Ark is the world's safest and fastest method of transferring passengers and crew from the vessel into liferafts. In the case of an emergency, no other system is as efficient or 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 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.

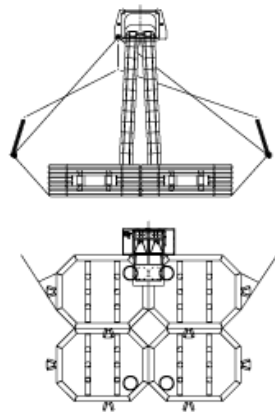
## Product features

- 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
- Compact all-in-one stowage design requiring minimal deck footprint, maximising space for passenger entertainment and comfort onboard
- Stowage design allows for easy system 'swap-out' during service, meaning minimal vessel downtime
- No additional bowsing required during deployment
- Available in symmetrical and asymmetrical options, enabling maximum design flexibility
- Tween deck and open deck stowage solutions also available

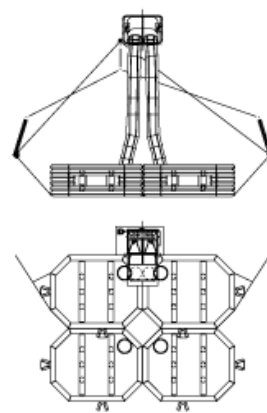




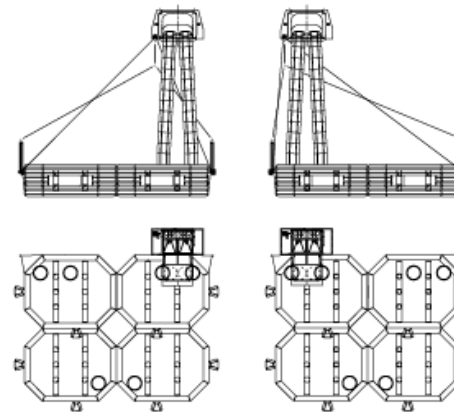
Open Deck - Symmetrical Module



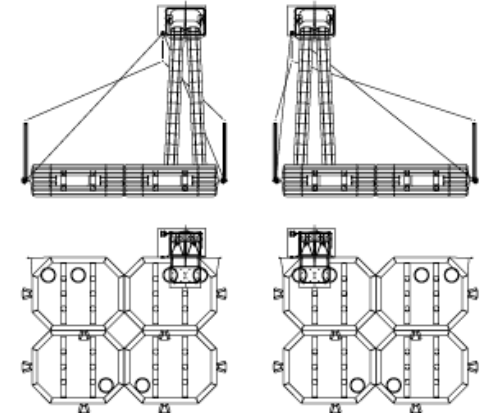
Tween Deck - Symmetrical Module



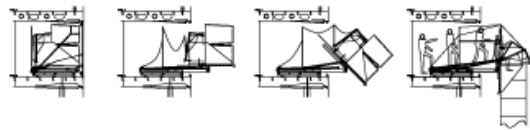
Open Deck - Asymmetrical Module



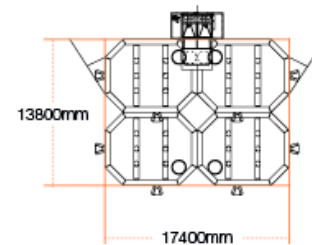
Tween Deck - Asymmetrical Module



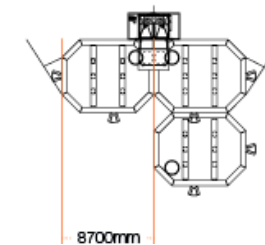
Typical MES Deployment Sequence



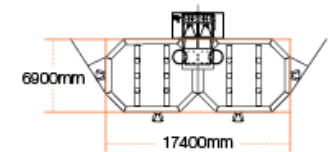
Four Unit Module



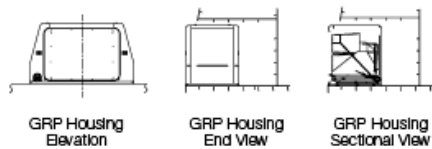
Three Unit Module



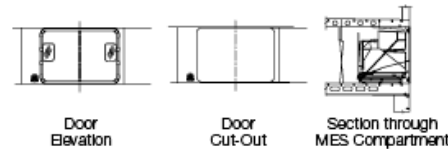
Two Unit Module



Open Deck Module - detail



Tween Deck Module - detail



Four Unit Module weights

A Pack: 6700Kg  
B Pack: 6220Kg

Three Unit Module weights

A Pack: 5700Kg  
B Pack: 5340Kg

Two Unit Module weights

A Pack: 4700Kg  
B Pack: 4460Kg

NOTE: Weights differ slightly for Open Deck and Tween Deck variants.

# Marin Ark 109

109 passenger capacity

Smaller operators want the peace of mind of knowing they too have the safest and most effective evacuation system on board.

Introducing Marin Ark 109 - the logical choice for smaller numbers of passengers at lower freeboards...

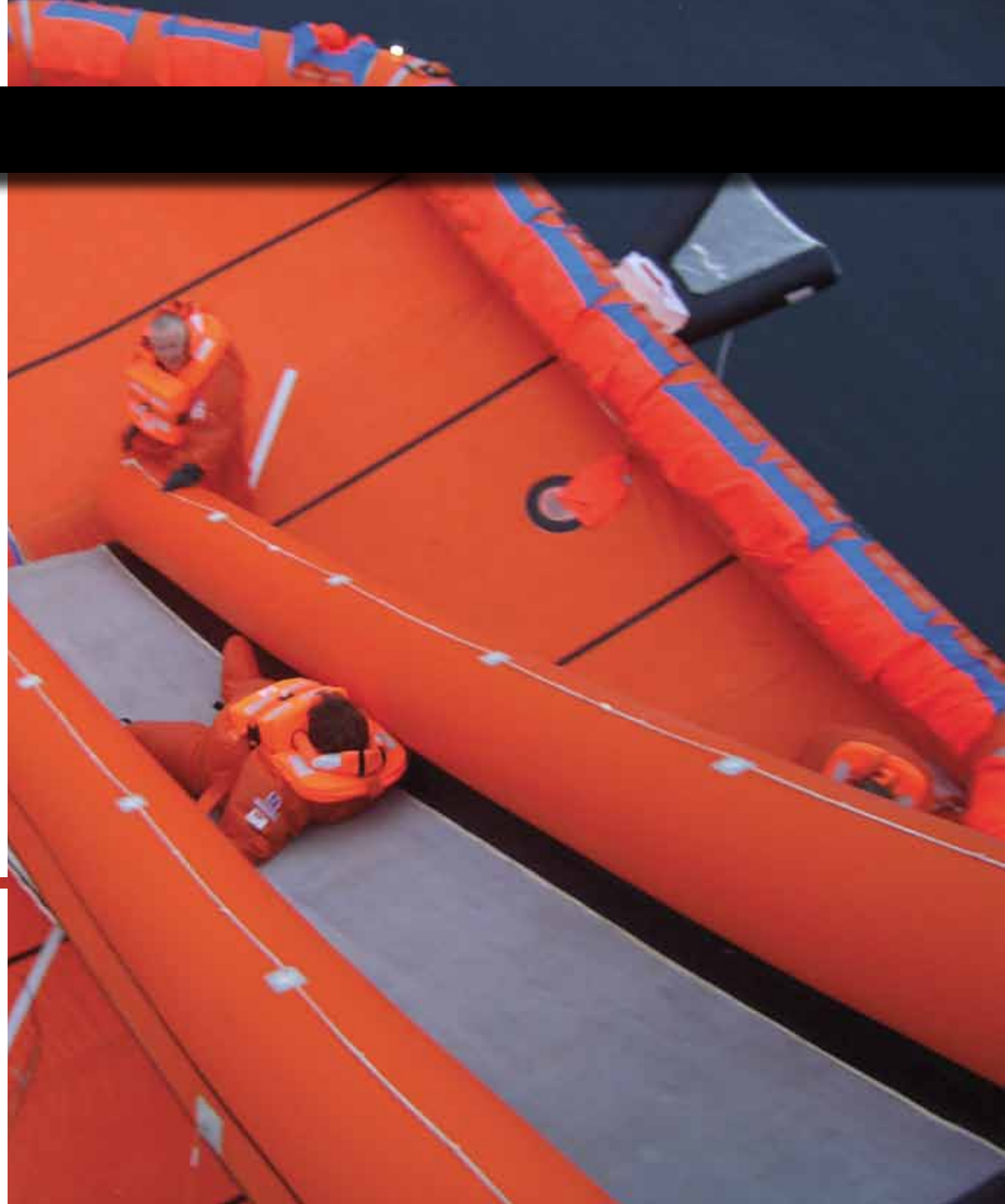
Using one Marin Ark liferaft together with a slide, the RFD Marin Ark 109 MES can be launched, inflated and bowsed in 145 seconds with a capacity to evacuate 109 passengers in 15 minutes.

No compromise has been made to the design already synonymous with Marin Ark - The RFD Marin Ark 109 uses the same fully reversible liferafts as the 430 system, putting it in a class of its own as a safety solution for smaller passenger vessels. The versatility of the liferaft design allows for deployment without a slide for very low embarkation heights, or together with two alternative slide configurations for freeboard heights up to 7m.

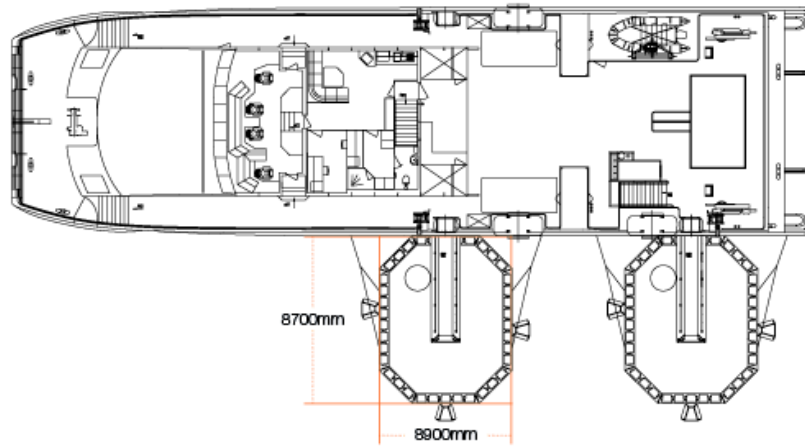
Now smaller operators can benefit from the peace of mind of knowing they have the ultimate evacuation system on board.

## Product features

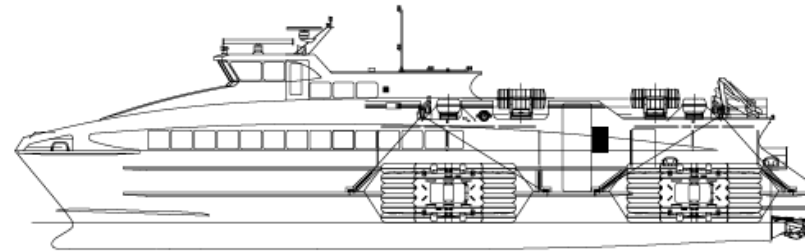
- Liferafts are fully reversible, ensuring the system inflates upright each and every time
- Multiple slide configurations available to suit lower freeboard heights
- Designed for open deck and between deck evacuations
- Suited to vessels with freeboard up to 7m



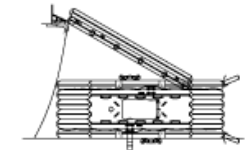
Upper Deck view



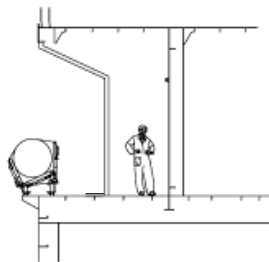
Profile view



Cross Section view



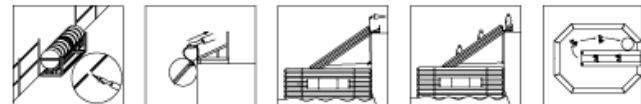
Single Rack Unit



Single Rack Unit dimensions and weights

Length: 1560mm  
 Height: 661mm  
 Width: 995mm  
 Weight: 262Kg \*

Typical MES deployment sequence



# Marin Ark Over-Capacity liferafts available in 50, 109 and 158 passenger capacities

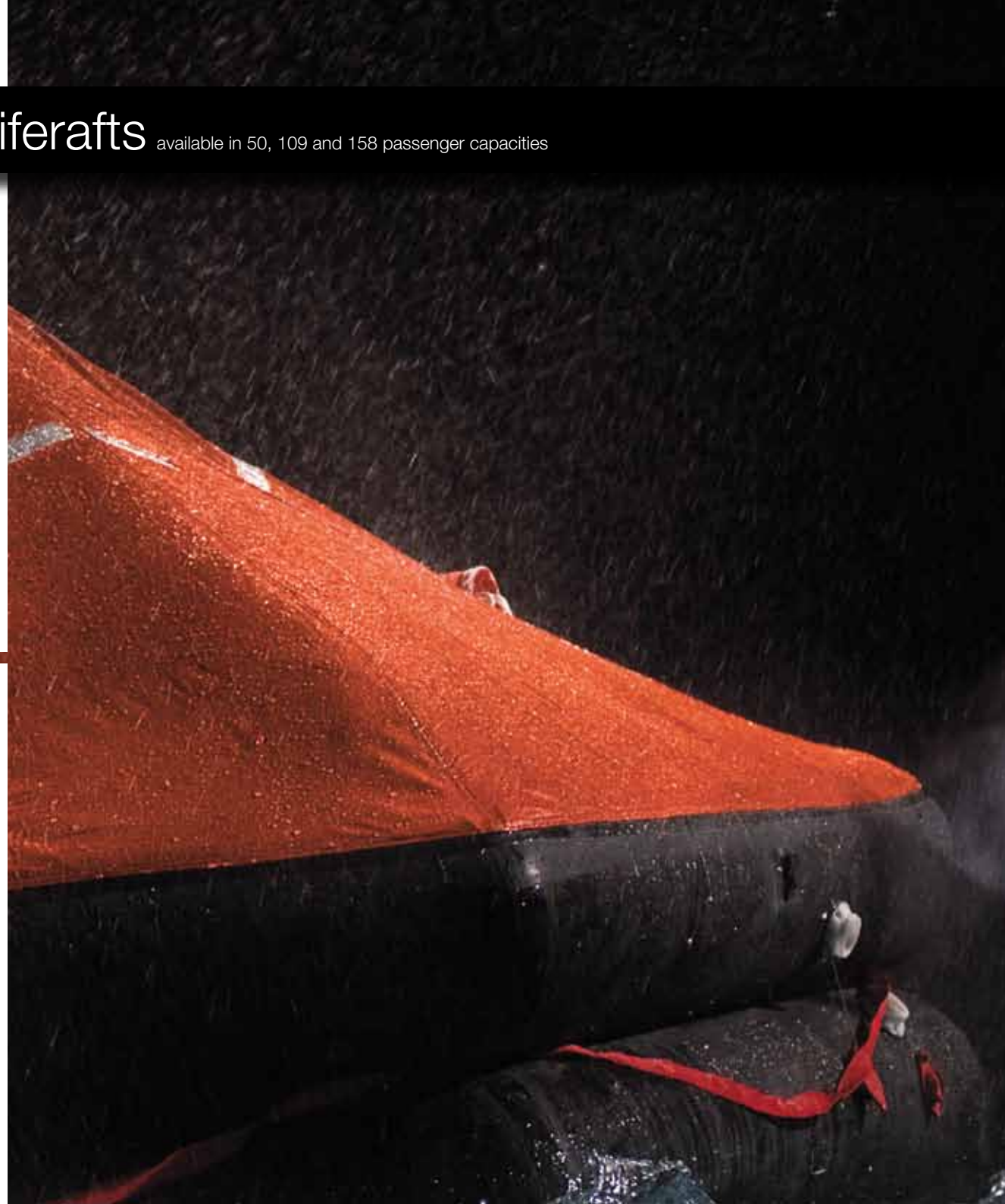
To complement our range of Marin Ark Marine Evacuation Systems, RFD offers a full range of Over-Capacity liferafts to suit any deck area...

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

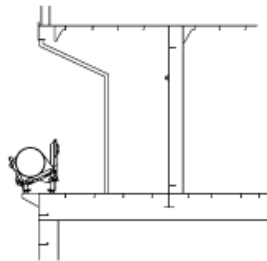
RFD Over-Capacity liferafts integrate fully with the Marin Ark MES. The liferafts are deployed and then inflated alongside the primary Marin Ark MES where they are easily and efficiently connected. This ensures passengers benefit from a quick and safe transfer from Marin Ark into the Over-Capacity rafts.

## Product features

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



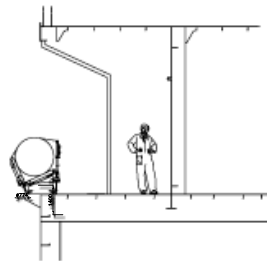
**50 person liferaft**



**50 person liferaft weights**

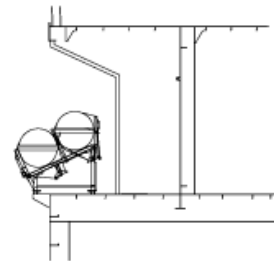
A Pack: 350Kg  
 B Pack: 260Kg  
 Rack: 240Kg

**109 person Over-Capacity liferafts - variants**



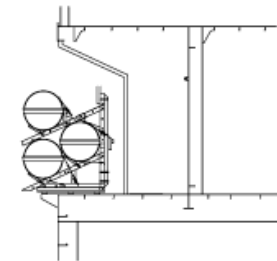
**Single Rack weights**

A Pack: 1025Kg  
 B Pack: 840Kg  
 Rack: 240Kg



**Double Rack weights**

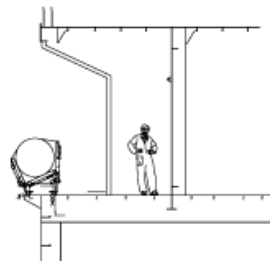
A Pack: 2050Kg  
 B Pack: 1680Kg  
 Rack: 400Kg



**Triple Rack weights**

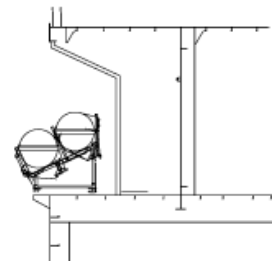
A Pack: 3075Kg  
 B Pack: 5250Kg  
 Rack: 200Kg

**158 person Over-Capacity liferafts - variants**



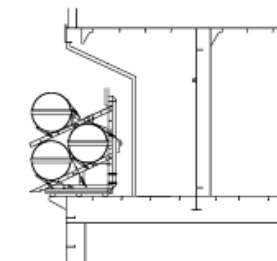
**Single Rack weights**

A Pack: 1200Kg  
 B Pack: 1040Kg  
 Rack: 240Kg



**Double Rack weights**

A Pack: 2400Kg  
 B Pack: 2080Kg  
 Rack: 400Kg



**Triple Rack weights**

A Pack: 3600Kg  
 B Pack: 3120Kg  
 Rack: 200Kg

# Installation and servicing

## Installation and Service

RFD offers the fastest and most cost-effective installation and servicing schedule in the industry. Our extensive, highly skilled team of engineers are available to work 24 hours a day, 365 days a year to meet your requirements. No time or location is a problem.

The sophisticated Marin Ark design uses modular exchange units interchangeable within a fleet to ensure minimal vessel downtime during annual service periods, and our new Marin Ark 632 system has been designed with an integrated service winch which in most cases eliminates the need for cranes during service.

RFD Marin Ark engineers are committed to ensuring the installation and service of your Marin Ark Marine Evacuation System is the most efficient worldwide.


## Training

RFD's commitment to comprehensive Marin Ark crew training is unrivalled. Training services we can provide include:

- Certified RFD crew training
- Classroom training
- Ship based deployment training
- Interactive crew training CD Rom
- Crew instruction manuals
- Learning aids - models
- Optional Training Unit -training on dry land or indoors

## Approvals

RFD Marin Ark complies with the latest International Maritime Organisation (IMO)/SOLAS Chapter III regulations.

 0038/YY EC Marine Equipment Directive certificates with associated wheelmark.

RFD Beaufort has the largest servicing network, with over 300 service stations worldwide:



...when only the best will do **RFD**





HEADQUARTERS

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