

ENHANCING THE CRUISE EXPERIENCE

# DECK EQUIPMENT AND LIFESAVING APPLIANCES

LIFETIME EXCELLENCE



# PALFINGER'S PORTFOLIO

As a global partner for innovative and reliable deck equipment and lifesaving appliances, PALFINGER MARINE supplies high-quality products to fulfil standardized and customized demands. Supported worldwide by a network of experienced and skilled specialists, we provide flexible and efficient service solutions.

With dedicated products and services to the cruise segment, PALFINGER MARINE delivers safe, reliable and proven solutions to the passenger travel business.

## **INNOVATIVE AND RELIABLE DECK EQUIPMENT**

PALFINGER MARINE offers a wide range of deck equipment including cranes, winches and slipway systems. With sophisticated designs, customized products and specialized services, PALFINGER MARINE is the expert for deck equipment for the cruise industry.

## **SAFE AND POLAR CODE-COMPLIANT LIVESAVING APPLIANCES**

With tender boats, rescue boats, lifeboats and the suitable davits, PALFINGER MARINE covers the complete LSA range for the cruise business. All products fulfil the highest industry standards including the IMO Polar Code.

## **SERVICE SOLUTIONS**

PALFINGER MARINE offers a wide range of specialized LSA service solutions covering Inspections and Maintenance, Painting, Refinishing and Refurbishment, Davit Extractions/Steel Repairs, Technical Oversight, Winch Overhauls and Lifeboat Repowering.

# DESIGNED FOR PASSENGER TRAVEL

## **VESSELS INCLUDED IN THIS SEGMENT:**

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Cruise ships

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Expedition cruise vessels

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Ferries

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Yachts

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# VESSEL TYPES

PALFINGER MARINE offers product and service solutions to the cruise, ferry and yacht market:

CRUISE VESSEL



EXPEDITION CRUISE VESSEL



FERRIES (RORO/ROPAX FERRIES)



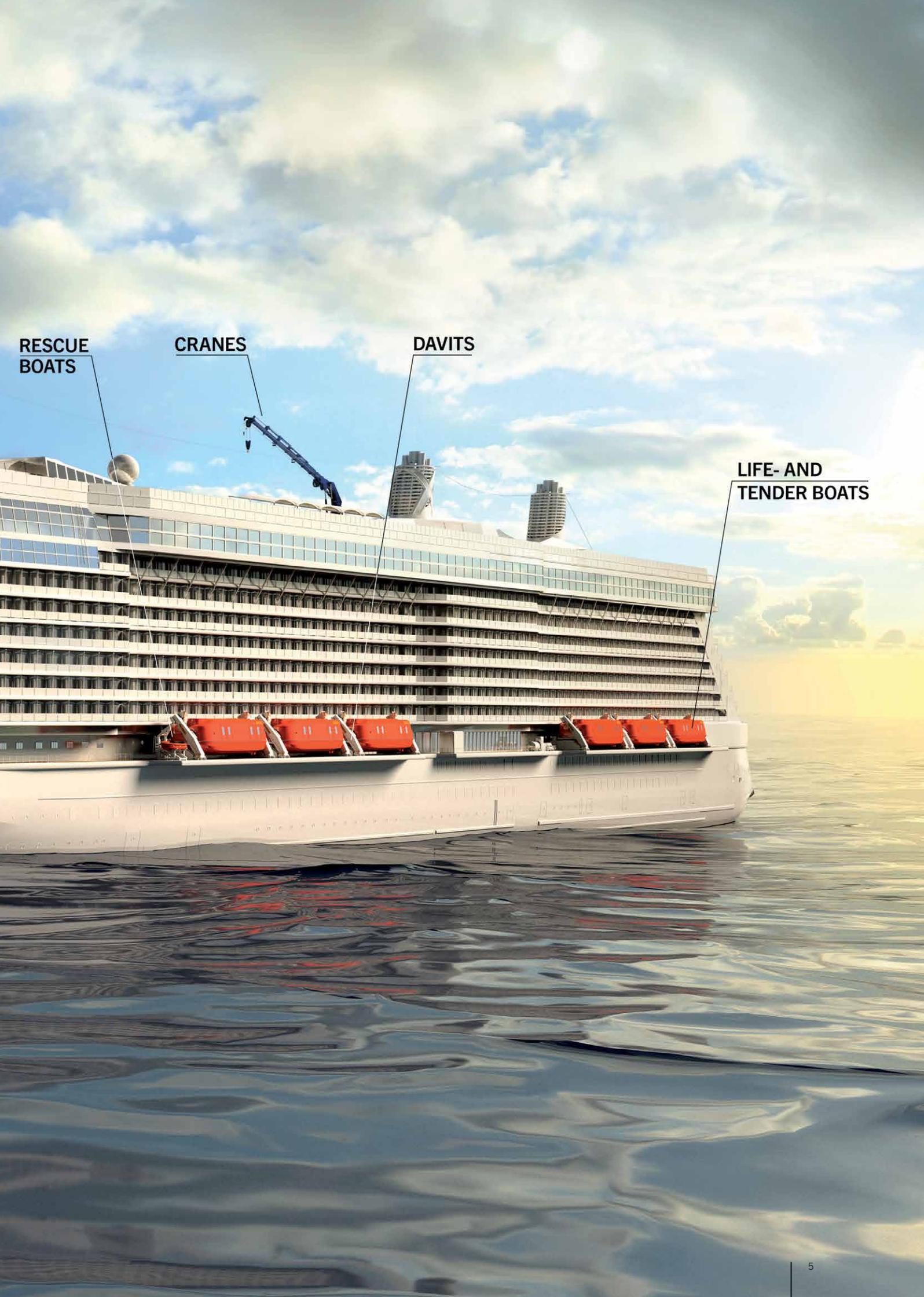
YACHTS



# CRUISE VESSEL EQUIPMENT

ANCHOR AND  
MOORING WINCHES





**RESCUE  
BOATS**

**CRANES**

**DAVITS**

**LIFE- AND  
TENDER BOATS**

# CRANES

## MARINE CRANES



Harmony of the Seas and Symphony of the Seas, equipped with a PK 150002 M

Marine cranes operate as provision and service cranes on deck. For repair work on heavy components and all kinds of provision and cargo handling, the cranes are a versatile and functional lifting tool. On smaller cruise vessels and yachts marine cranes are also reliable for launching operations for boats or jet skis.

### RELIABLE PERFORMANCE WITH QUIET AND CLEAN CRANE TECHNOLOGY

Marine cranes are designed to meet the safety standards and extreme environmental conditions of the maritime industry. Decades of worldwide experience in manufacturing cranes are the basis for the company's technical expertise, innovative strength and high-quality products.

### COMPACT DESIGN AND APPEALING APPEARANCE

The foldable knuckle boom range with PK and PFM crane types combine a compact and light weight design with a slender and attractive design. When not in use, the crane is stored in a compact position to save space on deck.

### ENHANCED MODULARITY WITH SEGMENT-SPECIFIC FEATURES AND OPTIONS

Our modular marine crane range, which is equipped with a number of features, is designed to offer functional lifting solutions. The available options enhance the crane's functionality, increase safe working and ease the crane operation.

## A PERFECT MIXTURE OF FUNCTIONALITY, COMPACT DESIGN AND MODERN APPEARANCE



PSM 400



PK 150002 M



The explorer yacht Ulysses, equipped with two PFM 4500

PK 65002 M

## MARINE CRANE RANGE FOR SEGMENT CRUISE

### FOLDABLE KNUCKLE BOOM PK MODELS FOR CRUISE RANGE FROM PK 4501 M TO PK 150002 M

- Lifting moment range from 4 to 200 mt

### STIFF BOOM PSM MODEL RANGE FROM PSM 200 TO PSM 3000

- Lifting moment range from 20 to 220 mt

### FOLDABLE KNUCKLE BOOM PFM MODELS FOR CRUISE RANGE FROM PFM 2000 TO PFM 4500

- Lifting moment range from 150 to 330 mt

#### FEATURES

- Long-life surface treatment and corrosion protection
- Continuous slewing
- Light weight design
- External and integrated power packs

#### OPTIONS

- Remote control
- Standing platform
- Operator cabin
- Individual hydraulic winches
- Lifting of personnel – manriding
- Low/high temperature operations
- Additional control features and safety systems
- Testing and operating with biodegradable oil



# LIFESAVING APPLIANCES

## FAST RESCUE BOATS



FRSQ 630 Series

### FRSQ 630 SERIES

- Hull and console made out of seawater-resistant aluminum or glass-reinforced plastic (GRP)
- Designed for service in the most demanding environments
- Excellent maneuverability and stability
- Inboard diesel and outboard version available
- Complies with SOLAS regulations



FRSQ 700 Series

### FRSQ 700 SERIES

- Single or twin inboard diesel with waterjet propulsion
- Closed-cell foam fender with a hypalon cover to absorb possible heavy impacts
- Double shock-absorbing seats fitted
- Deep V-bottom construction for high speeds and stability
- Aluminum hull guarantees a long lifetime and low maintenance



FRSQ 850 Series

### FRSQ 850 SERIES

- Single or twin inboard diesel with waterjet propulsion
- Excellent maneuverability and stability
- Aluminum guarantees low maintenance costs and the long lifetime of the hull
- Closed-cell foam fender with a hypalon cover to absorb possible heavy impacts
- Boat can carry up to 21 persons according to SOLAS

Model	Dimensions	Capacity (pers. at 82.5 kg)	Weight (incl. max. pers.)	Propulsion
FRSQ 630	6.63 x 2.24 x 2.61 m	6–15	3060 / 3160 kg	Single water jet in following sizes 144 / 164 / 231 / 258 HP
FRSQ 700**	7.1 x 2.7 x 2.7 m	15	3338 kg	258 hp – single inboard diesel with waterjet
FRSQ 850 A	8.5 x 3.2 x 2.7 m	21	5032 kg	370 hp – single inboard diesel with waterjet (optional 440 hp)
FRSQ 850 G	8.5 x 3.2 x 2.7 m	21	5483 kg	190 hp – twin inboard diesel with waterjets (optional 292 hp)

Smaller boats are available upon request.

\* Single outboard engine and twin outboard engine are also available for this boat.

\*\* Also available with single or twin inboard diesel with waterjets.

A = Aluminum

G = Glass reinforced plastic

## COMBINED LIFE-/RESCUEBOATS



KISS 700



KISS 800

Model	Dimensions	Capacity (pers. at 82.5 kg)	Hook distance	Davit load
KISS 700 C KISS 700 T	6.49 x 2.91 x 2.85 m	50	6.04 m	7352 kg*
KISS 800 C KISS 800 T	8.64 x 2.91 x 2.85 m	70	8.19 m	10 155 kg*

\*tanker version, dry cargo version: same weight.

## FAST RESCUE BOAT DAVITS



### PRHE SERIES

- Hydraulic pivoting and electric hoisting
- Easy to install (plug and play)
- Self-contained stainless steel HPU
- Easy to maintain
- Optional lightweight version
- H Series = Hydraulic hoisting/lowering
- Foldable davit arm for easy transportation

### NPDS SERIES

- Easy to install (plug and play)
- Totally enclosed system
- All components protected from wear and tear
- Innovative design
- Optional Ro-Ro certificate (NPDS 3500H)

### NTDS SERIES

- Roof-mounted telescopic davit
- Space-saving option
- All components protected from wear and tear
- Easy to install
- Totally enclosed system

Type	Safe Working Load (SWL)	Max Boat Weight	Hoisting	Operation
<b>A-FRAME (FAST) RESCUE BOAT DAVITS</b>				
PFHS 15	15 kN	1529 kg	0–18 m/min	Electric
PRHE 25-2	27.5 kN	2549 kg	0–18 m/min	Electric
PRHE 35-2	35.3 kN	3600 kg	0–18 m/min	Electric
PRH 25 H <sup>(1)</sup>	27.5 kN	2804 kg	0–48 m/min	Hydraulic
PRH 30 <sup>(1,2)</sup>	30 kN	3059 kg	0–48 m/min	Hydraulic
<b>SINGLE ARM TOTALLY ENCLOSED DAVIT</b>				
NPDS 3500H / NPDS 3500HFR <sup>(1,2)</sup>	31.4 kN	3200 kg	0–18/48 m/min	Hydraulic
NPDS 4000H / NPDS 4000HFR <sup>(1)</sup>	39.2 kN	4000 kg	0–18/48 m/min	Hydraulic
<b>TELESCOPIC DAVITS</b>				
NTDS 1800 H	17.6 kN	1800 kg	0–18/48 m/min	Hydraulic
NTDS 3500 H	31.4 kN	3500 kg	0–18/48 m/min	Hydraulic

<sup>(1)</sup> High speed, optional constant tensioning plus shock absorber

<sup>(2)</sup> Ro-Ro fast rescue boat davit

## FEATURES AND OPTIONS

### ACCESSORIES (OPTIONS)

Shock absorber

Boat supports

Ex-proof

Heating system

Other options available on request



# LIFESAVING APPLIANCES

## LIFEBOATS AND TENDERS | NEW GENERATION



PALFINGER MARINE offers a full range of partially enclosed lifeboats and combined tender/lifeboat systems for any kind of passenger vessel. All can be delivered with our customised davit systems.

### CTL 38 AND CTL 38 SV

CTL 38 is one of the biggest-selling tender lifeboats in the world, offering a comfortable ride, low running costs and good manoeuvrability. It is offered as a standard version, the CTL 38, and a shortened version, the CTL 38 SV.

### MPC 29 AND MPC 32

The PALFINGER MARINE MPC series consists of two compact 150-people, partially enclosed lifeboats, offering optimal manoeuvrability, spacious interior and user-friendliness.

### THE NEW CTL 49 AND CTL 57

Newly developed tender lifeboats with the latest innovations in design and technology. The largest tender lifeboat in the market with almost countless customization options.

### THE MPC 49

Offering space for up to 450 people, it is one of the largest lifeboats on the market. The unique double-deck design provides safe boarding and comfortable seating. Advanced safety by design.

Type	No. of pers./Lifeboat	No. of pers./Tender	L x W x H	Weight Loaded	Hook Distance
CTL 38	150	120	12 x 4.7 x 3.9 m	23600 kg	11.2 m
CTL 38 SV	150	120	11.2 x 4.7 x 3.9 m	23600 kg	10.5 m
CTL 49	250	200	15 x 5.5 x 4.2 m	39000 kg	14.2 m
CTL 57	270	220	17.5 x 5.7 x 4.2 m	43000 kg	16.7 m
MPC 29	150	n/a	8.8 x 4.5 x 3.4 m	17100 kg	8.5 m
MPC 32	150	n/a	9.6 x 4.5 x 3.4 m	17100 kg	8.5 m
MPC 49	450	n/a	15 x 5.5 x 4.2 m	53000 kg	14.2 m

### OPTIONS AND ACCESSORIES

Extras for low-temp. areas (Polar Code compliance)

Tailored designs according to customer demands or in-house architects

Wood applications on floors, walls or other interiors

Fast ferry comfort seats

Restroom facilities with hot and cold water

Entertainment systems with sound and screens

AC systems and/or heatings

LED mood lights in cabin or outside

USB charging ports at each seat row

Panoramic windows in ceiling

Bar on board

## PASSENGER VESSEL DAVITS



PALFINGER MARINE offers a range of innovative, compact and well-designed davits for the cruise market which maximize the available deck space on board while at the same time offering an extremely efficient installation process and minimal lifetime maintenance.

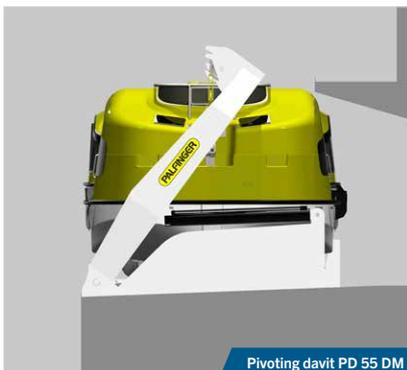
### VIP SERIES

- Gravity-based davits
- Hydraulic brake system
- Low cost of ownership
- Easy to operate

### PD SERIES

- Innovative design
- Semi-gravity-based, hydraulic-assisted
- Easy to install (plug and play)
- A good solution if limited space

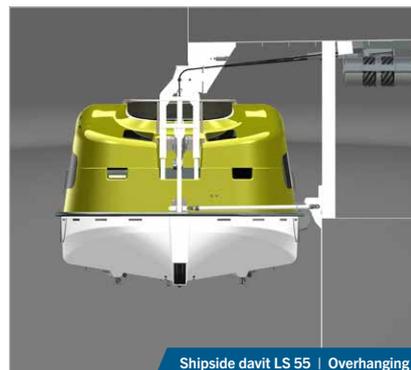
Type	Safe Working Load (SWL)	Max Boat Weight	Hoisting
<b>PASSENGER VESSELS DAVITS</b>			
PD24000	235,4 kN	24000 kg	0–5 m/min
PD24H	235,4 kN	24000 kg	0–5 m/min
PD24DM	235,4 kN	24000 kg	0–11.8 m/min
VIP23FDL	231.4 kN	23600 kg	0–11.8 m/min
VIP23FD	231.4 kN	23600 kg	0–11.8 m/min
VIP24FDES	231.4 kN	24000 kg	0–11.8 m/min
PD36L	353,2 kN	36000 kg	0–5 m/min
PD55DM	539.4 kN	55000 kg	0–5 m/min
PD55L	539.4 kN	55000 kg	0–5 m/min



Pivoting davit PD 55 DM



Pivoting davit 55 L | Free promenade deck



Shipside davit LS 55 | Overhanging



# LIFESAVING APPLIANCES

## POLAR CODE-COMPLIANT LIFESAVING APPLIANCES



**PALFINGER MARINE** delivers Polar Code-compliant lifesaving appliances, fulfilling the toughest regulations for equipment. Our experienced employees help ship owners to choose the right Polar packages. **PALFINGER MARINE** tailors the Polar package, based on capacity, polar service temperature, mean daily low temperature (MDLT) etc.

### WHAT IS POLAR CODE?

The Polar Code is a functional, goal-based standard. It applies to ships differently, depending on how a ship is constructed and how it will be operated in polar waters.

The IMO Polar Code came into effect at the beginning of 2017 and defines mandatory standards for ships operating in Polar environments. The Polar Code covers design and construction, equipment, operational, training and environmental protection issues.

### WHY POLAR CODE?

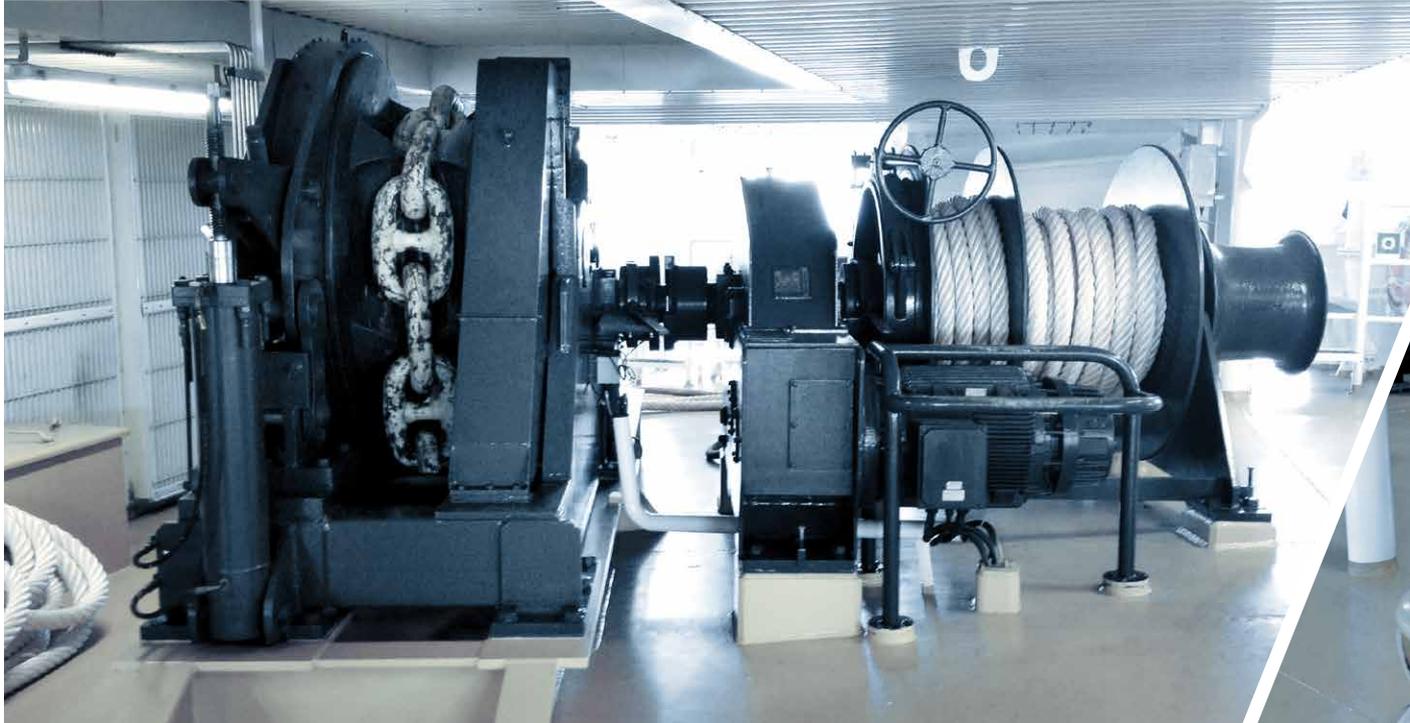
A key objective of the Polar Code is to ensure a ship is fit for its intended operation in polar waters. The Code does not provide a one-size-fits-all solution. The Code's requirements derive from the capabilities a ship will need to have to carry out its intended operations safely and responsibly. This is highly dependent on where, when and how it will operate in the polar regions and what environmental conditions it will likely encounter while there.

The first step in understanding how the Code applies to your ship is to define its polar operating profile. This includes where the ship is intended to operate, what seasons it will operate there and what type of activities the ship will conduct.



# WINCHES AND HANDLING EQUIPMENT

## ANCHOR AND MOORING WINCHES



PALFINGER MARINE supplies a range of anchor and mooring winches for use on board cruise vessels, ferries and yachts. The vessels often have multiple port visits a day, with limited time available for each port call. This requires easy-to-use, reliable and efficient deck machinery aboard the vessels. The winches from PALFINGER MARINE are delivered tailormade according to customer's requirements and in line with all applicable rules and regulations.

### **PALFINGER MARINE'S WIDE RANGE OF WINCHES CAN BE DELIVERED WITH THE FOLLOWING DRIVE SYSTEMS:**

- Hydraulic (high pressure, 210–250 bar)
- Electrical (frequency-controlled)

### **ALL WINCHES CAN BE DELIVERED WITH THE FOLLOWING CONTROL OPTIONS:**

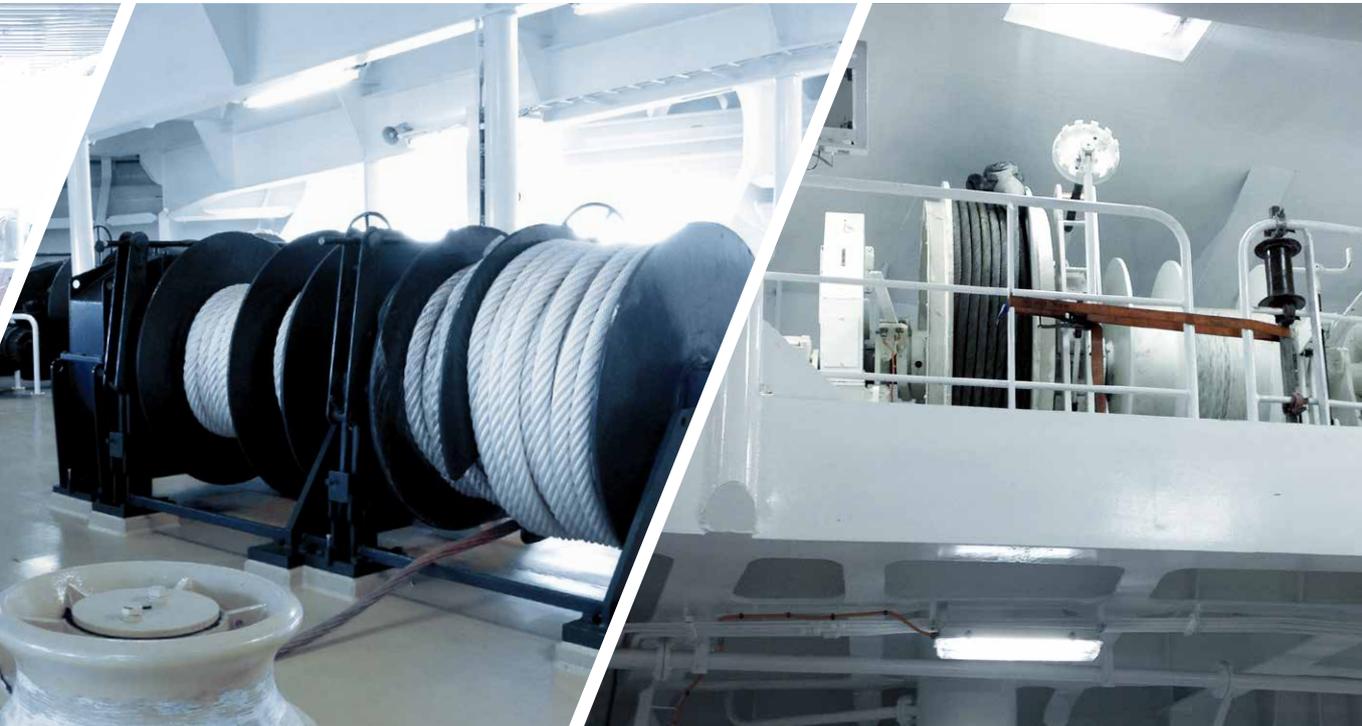
- Local control
- Remote control
- Bridge-operated anchor drop (windlass winches)

#### FEATURES

Electric or hydraulic drive  
Multiple configurations available  
Manually operated clutch  
Manually operated band brake  
Local and/or remote control  
With or without split flanges on drums

#### OPTIONS

Auto tension / tension control  
EX-zone placement of winches  
Bridge-operated anchor drop (windlass)  
Hydraulically operated brake (windlass)  
Chain length and/or speed measurement (windlass)



## CRUISE VESSEL WINCHES

PALFINGER MARINE's anchor and mooring winches for cruise vessels cover all your requirements for all vessel sizes. Windlass winches are delivered for up to 160 mm chain and mooring winches with up to 40 tons pull. The winches are delivered in various configurations with numerous optional features.

### PRODUCT RANGE

- Combined windlass mooring winches
- Chain stoppers
- Single-, double- or triple-drum mooring winches

## FERRY WINCHES

PALFINGER MARINE's anchor and mooring can be supplied to ferries of all sizes. The winches are delivered with compact design in various configurations according to customers requirements.

### PRODUCT RANGE

- Combined windlass mooring winches
- Wire-drum-based windlass winches (with or without spooling device)
- Chain stoppers / guide rollers
- Single-, double- or triple-drum mooring winches
- Capstans
- Combined bollard capstans



# FENDERS

## FENDERS



PALFINGER MARINE focuses on developing the fender business further to fit the demands of tomorrow. Next to high quality, innovation is one of our main objectives.

For the cruise market, we deliver the following products:

### PNEUMATIC FENDERS

PALFINGER MARINE pneumatic fenders are fully ISO17357-1:2014 compliant and of highest quality. The sling type fender can be delivered in many different colours, customized for specific ports, terminals and ships. The most common sizes in standard black are available on stock worldwide.

### FOAM-FILLED FENDERS

Our first-class foam fenders are often the preferred choice when it comes to navy projects and cruise terminals. Unlike rubber, foam will not leave any marks on the ship's hull. Our foam fenders can be supplied in almost any kind of size and be designed to meet your specific performance criteria.

### FIXED FENDERS

PALFINGER MARINE supplies any type of fixed-profile fenders and system fenders for ports and terminals.

## FENDER DAVITS



For pneumatic and foam-filled fenders, PALFINGER MARINE has developed a unique fender davit system. The design makes it a plug-and-play system, which is very easy to install and use. For ship owners and ports, this is the ideal solution for handling large, heavy floating fenders.



MSC FANTASIA

# SERVICE

## WHY CHOOSE PALFINGER?



### GLOBAL PRESENCE

- PALFINGER Group has 5000 sales and service locations worldwide
- 25 own service locations specialized in cruise service
- All major ports covered

### SERVICE ENGINEERS

- Skilled and experience service engineers local to the ship yards
- Constant training on latest rules and regulations
- Flexible and efficient service solutions
- Training School that provides customer training

### SERVICE BASED UPON DRYDOCKING SCHEDULE AND CLIENT NEEDS

- One-stop-shop: offering complete service solutions
- Pre-docking planning meetings with clients to identify and agree work scope
- Prepare spares package and identify items with long lead time
- Service teams local to dry-docks that can provide technical oversight



## SERVICE PORTFOLIO FOR THE CRUISE INDUSTRY



As a full-service provider, PALFINGER MARINE offers solutions that cover every aspect of proactive service and customer support.



### INSPECTION AND MAINTENANCE

- Global coverage
- Multi-brand service
- Yearly and 5-yearly inspections
- Pre-inspection and maintenance
- Load testing
- Supervision



### PAINTING AND REPAIR

- GRP repair and painting
- Spare parts kits
- 20 years spare parts availability
- Hook exchange



### REFURBISHMENT AND UPGRADES

- Modifications and modernisations
- Refurbishment on-site or in the workshop
- GRP repair and re-painting



### DAVIT REPAIRS

- Thickness measurements
- Structure mapping
- NDE Testing
- Preparation of davit repair procedure
- Technical oversight for installation and testing



### LIFEBOAT REPOWERING

- Repower existing lifeboat/rescue boat/tenders with engines that comply with the latest EPA requirements
- Quick turnaround to avoid vessel downtime

## 25+ OWN BRANDS AND MULTI-BRAND SERVICE



Our service specialist for davits and boats also offer multi-brand service.

PALFINGER MARINE service stations offer service to all 25+ own brands. Specially trained engineers and experts with extensive know-how ensure fast on-site support around the globe.

**PALFINGER MARINE also offers service to many other brands for boats and davits.**

### BRANDS PART OF PALFINGER MARINE:

Harding  
Norwegian Deck Machinery (NDM)  
Bergen Group Dreggen  
Ned-Deck Marine  
Fast RSQ  
Watercraft America  
Schat-Harding  
Schat Davits Ltd  
Schat-Davit Company

Schat Watercraft Group  
Bjorke Batbyggeri  
Davit-Company  
Georg Eide Sønner AS  
William Mills Marine  
MASECO  
Mulder & Rijke  
Beiyang Boatbuilding Co.  
Edgewater Machine & Fabricators Inc

Noreq  
NoreqFender  
NoreqActa  
Watercraft  
Viking Marine  
Waterman  
Fiskars  
Acta  
LAR



SERVICE

# SERVICE

## GLOBAL PRESENCE

With 25 service stations worldwide we have direct access to most of the key ports in the world.

### SERVICE HEADQUARTERS

#### EUROPE

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