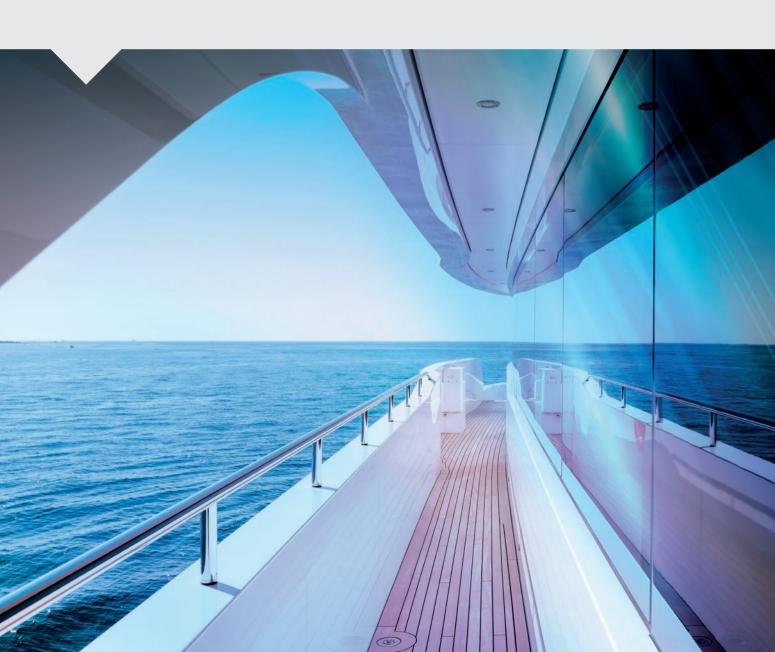


# KLEEMANN MARINE ELEVATORS



# A world of motion where everything is possible

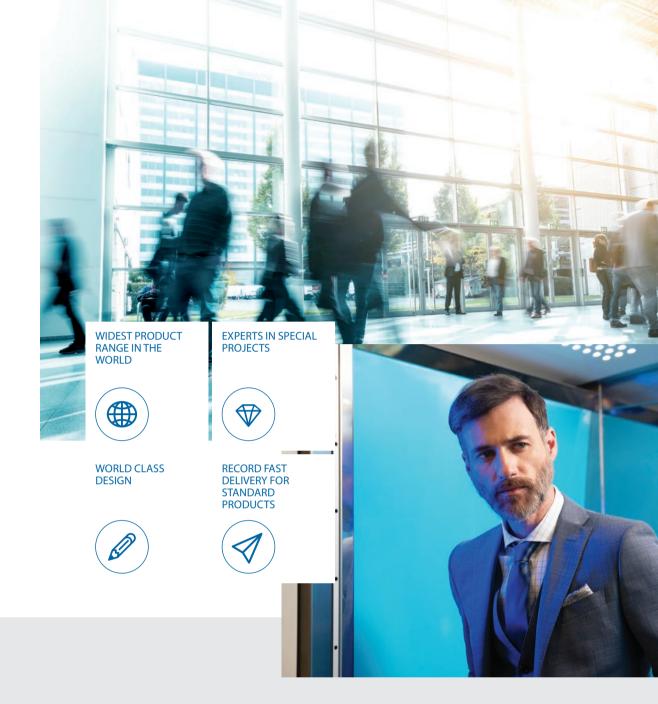
Since day one, back in 1983, our core aim has been clear. To create, together with our partners, a better mobility experience for people, through elevators that excel in safety, technology, innovation, efficiency and aesthetics. Today KLEEMANN is amongst the most important elevators manufacturers in European and global markets, with products and applications that range from residential and commercial elevators systems for persons or freight, to escalators, moving walks, accessibility solutions, marine elevators and elevators components.

# More than just elevators

Think of life as a powerful force for evolution. Elevators not only move people and freight to the next floor. They are actually moving life, taking part in all its social and economic aspects.

Life-space mobility has transformed, and moving with ease and safety has become more important than ever.

KLEEMANN products are the yield of distilled experience and compact knowledge of how people move and interact. Going beyond nuts and bolts and in the era of digital transformation and sustainability, KLEEMANN elevators are spaces that merge the physical aspect of life with the digital factor. Contemporary solutions that serve and facilitate current life and lead it to the future.



# Certified Quality

The high and consistent quality of KLEEMANN production processes, products and services is a non-negotiable commitment. At KLEEMANN, we implement a complete Quality Assurance System that meets all safety and quality standards and exceeds typical requirements. We apply more than 80 internal procedures and comply with:

EN ISO 9001: 2015 Quality Management System

EN 1090-1: 2009 + A1: 2011 Steel and Aluminum Structure (sets)

i1: EN Occ n and

EN ISO 45001: 2018 Occupational Health and Safety Management System

EN ISO 10002: 2014

Quality Management - Customer Satisfaction

EN ISO 14001: 2015 Environmental Management System

EN ISO 14006: 2011 Eco design standard



# Marine Solutions

KLEEMANN offers a range of marine solutions for the vertical transportation of passengers and goods in private and commercial cruise ships, luxury yachts, ferries, cargo ships and offshore rigs.

Whether you require durable and reliable installations for the movement of heavy-duty freight in harsh environments, or you seek the integration of sheer luxury and dependable functionality, KLEEMANN will design and create the ideal means of vertical travel for your marine project.

Choose from passenger and service elevators, freight elevators, escalators, green lifts offering energy savings of 60% or assemblies and components for elevator's modernization, all designed and installed according to your needs.



### International standards

KLEEMANN elevators for passenger and cargo vessels are designed according to international standards and meet the requirements of the high demanding sea environment.

#### **Advantages**

#### **Outstanding ride quality**

**KLEEMANN Products were** designed to deliver premium quality and passenger comfort. Featuring low levels of sound and vibration, they fulfil even the most demanding specifications.

#### **Eco-friendly**

Feel safe and secure with the guarantee of complete passenger safety.

Regeneration systems are available to provide exceptional ride quality whilst reducing energy by up to 60%.

Designed for ease of installation

and use, reliability and spatial

**Ease of installation** 

efficiency.

#### **Fast delivery**

Safety

Place your order and enjoy express delivery.

#### For more information contact marine@kleemannlifts.com

#### How to









### KLEEMANN After Sales Service

To ensure that designing, ordering, receiving and maintaining products is as stress-free and effortless as possible, KLEEMANN provides dedicated service teams that offer additional support and guidance at every stage.

- 24/7 support in 9 languages
- Detailed technical manuals & illustrations
- Lift Tester app to test performance on site
- KLEEMANN Live system
- KLEEMANN E-shop for 24/7 spare parts orders
- Network of local spare parts warehouses on strategic map locations

- Quick & efficient delivery system
- Field visit available upon request
- Service team available to support 1<sup>st</sup> KLEEMANN installation on site
- Troubleshooting webinars

# Creative

power

**KLEEMANN** 

Design

been explored. Since then, the experienced KLEEMANN Design Team has build on these fundamental ideas taking KLEEMANN elevators to the next level.

Industrial designer Andreas Zapatinas joined the creative forces of

KLEEMANN in 2007 and new technical and aesthetic solutions have

Design is for people. Every project KLEEMANN

undertakes, is an opportunity to provide solutions

of aesthetic excellence, covering all engineering

prerequisites, adapting to regulations and taking

the best out of any apparent restriction.

How to

For custom-made solutions contact us at marine@kleemannlifts.com

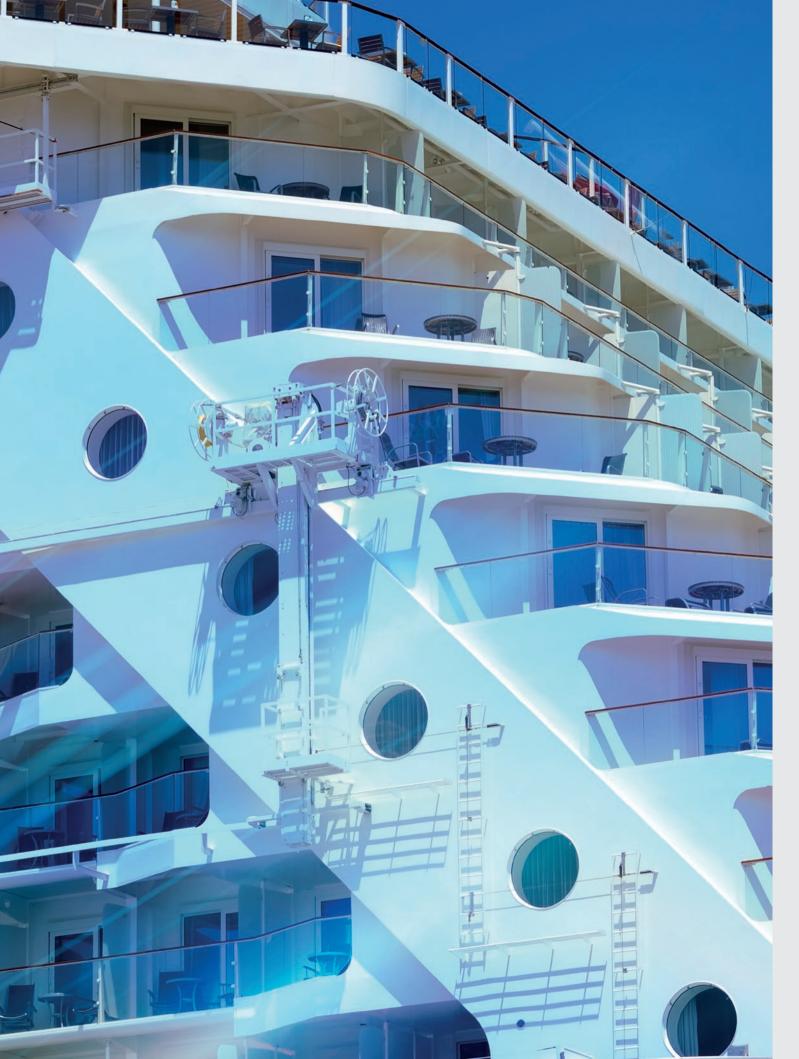
# Global service network KLEEMANN has a global service network and covers technical support to all major ports. China, United Arab Emirates, Netherlands, Germany, Saudi Arabia, United Kingdom, South Africa, Australia are few of the 100 countries where you can find 24/7 service for KLEEMANN products.

#### KLEEMANN Design Services

A special Design Team serves as the creative force behind the development of elevators for any challenging project. Our designers combine solution-oriented design with a service-driven approach, delivering:

- High quality virtual proposals
- Digital animation of your project
- Architectural design assistance directly with you
- Architectural assistance to determine materials
- On site visit / feedback from you







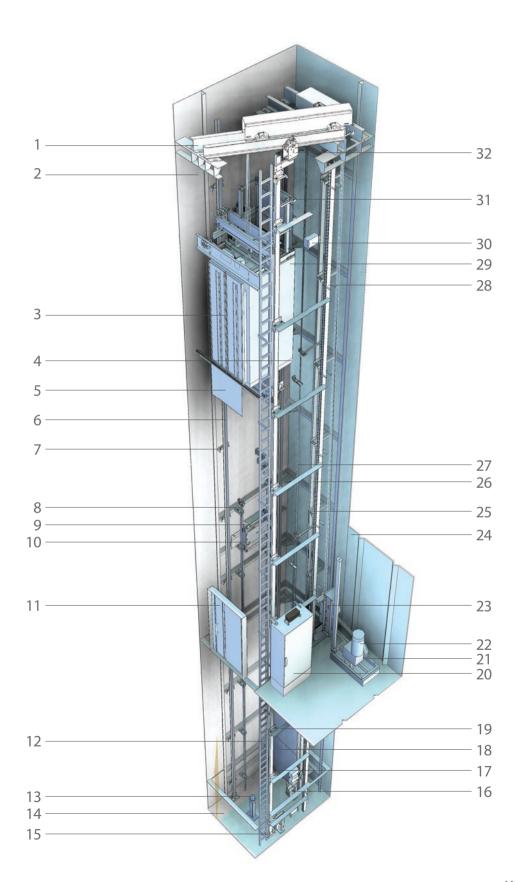
# Marine elevators



# Structure & components

Parts index					
1 Diverting Pulley Space	9 Travelling Cable Trolley	17 Counterweight Buffer	25 Counterweight Guide Rail Bracket		
2 Elevator Trunk	10 Travelling Cable Guide Rail	18 Counterweight Protection	26 Counterweight Guide Rail		
3 Car Doors	11 Landing Door	19 Counterweight	27 Wire Ropes		
4 Car Frame	12 Trunk Ladder	20 Controller Cabinet	28 Metal Cable Trunk		
5 Car Apron	13 Car Buffer	21 Machine Base	29 Cabin		
6 Car Guide rails	14 Pit	22 Traction machine	30 Cable Junction Box		
7 Car Guide Rail Bracket	15 Car Tension Sheave	23 Diverting Pulleys	31 Car Balustrade		
8 Travelling Cable Guide Rail Bracket	16 Counterweight Tension Sheave	24 Machine Room	32 Car Overspeed Governor		





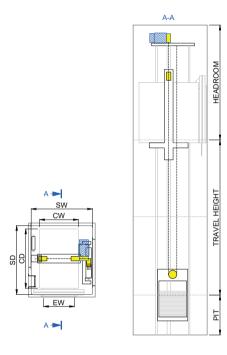
Marine Solutions 13

Marine elevators Technical specifications

Trunk and machine



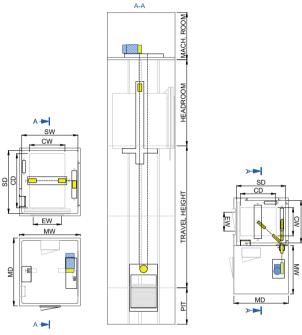
### Machine roomless solution (MRL)

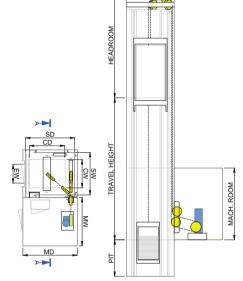


Trunk and machine room plan view

Standard dimensions Passenger elevator (MR/MRL)						
Load Capacity (Persons)	Speed	Entrance Dimensions (mm)	Internal Car Dimensions (mm)	Trunk Dimensions (mm) <sup>1</sup>	Pit Depth	Headroom Height <sup>2</sup>
		EWxEH	CWxCD	SWxSD	_	
630 kg (8 persons)	1m/s	900x2000	1100x1400	1800x2000	950	3900
	1.6m/s				1250	4050
750 kg (10 persons)	1m/s	900x2000	1200x1500	1900x2050	950	3900
	1.6m/s	_			1250	4050
1000 kg (14 persons)	1m/s	900x2000	1100x2100	1800x2500	950	3900
	1.6m/s				1250	4050
1600 kg (22 persons)	1m/s	1200x2000	1500x2300	2400x2700	1200	3900
	1.6m/s	_			1300	4050
2000 kg (27 persons)	1m/s	1200x2000	1600x2500	2500x2900	1200	3900
	1.6m/s				1300	4050
2500 kg (33 persons)	1m/s	1200x2000	1800x2700	2700x3100	1200	3900
	1.6m/s	_			1300	4050

### Machine room solutions





room plan view

Standard dimensions Crew elevator (MR-Machine room beside trunk)						
Load Capacity Speed Entrance Internal Car Trunk Pit Depth Headro (Persons) Dimensions (mm) Dimensions (mm) Dimensions (mm) <sup>1</sup> Height						
		EWxEH	CWxCD	SWxSD		
300 kg (4 persons)	1m/s	800x2000	950x1100	1800x1800	1200	4500
500 kg (6 persons)	1m/s	800x2000	950x1300	1800x1850	1200	4500
750 kg (10 persons)	1m/s	800x2000	1200x1500	1800x2100	1200	4500

- 1. Trunk dimensions do not iclude the deck cutting structure, stiffener, insulation etc (Clear trunk dimensions).
- 2. The Headroom height dimensions apply for Internal Cabin height 2100mm.
- 3. Please contact KLEEMANN for any other specifications

### Marine elevators Upgrades

#### KLEEMANN Live



KLEEMANN Live is an IoT system that collects, transmits, analyzes data and provides insights for elevators in real time. It keeps you linked 24/7 so you can have access to the elevator's status remotely any time, offering peace of mind to customers.

### SAVE TIME & MONEY

CONTROL REMOTELY & LIVE FROM ANY DEVICE ALWAYS ALERT & FORWARD PEACE OF MIND FOR YOUR CUSTOMERS GAIN KNOWLEDGE GROW YOUR BUSINESS









**EFFICIENCY IN** 

**POWER SUPPLY** 

All KLEEMANN

feature VVVF drive,

regulating power

supply for energy

efficient operation

traction lifts

# Hygiene line



Cabin hygiene has always been a key challenge in lift engineering and design. KLEEMANN presents an innovative series of solutions for safer cabin environment and extra protection for passengers at all times.

#### AIR PURIFIER

A solution for pure uncontaminated air in the cabin, clean of bacteria & viruses



#### TOUCHLESS BUTTONS

An 100% antibacterial solution that operates by infrared induction which detects the call's activation



#### ANTI-BACTERIAL BUTTONS

Blue Line KLH-42R buttons with nano-silver coating, that can provide antibacterial and antifungal protection



## Green lifts



KLEEMANN believes in sustainable development and actively safeguards the right of future generations to inherit a safe, healthy and prosperous environment. Leveraging on innovative methods from engineering to production, KLEEMANN provides Green lifts that feature a range of eco-friendly options.

#### REGENERATION OF "CLEAN ENERGY"

Regenerative power through integrated components (Regeneration Drive)



#### REDUCTION OF OPERATING COSTS

Standby Mode function and LED lighting for greater energy saving



#### REDUCTION OF CO<sub>2</sub> EMISSIONS

Contribution to reduction of CO<sub>2</sub> emissions makes the elevator more environment friendly



### Control System

**Destination** 



The Destination Control System increases efficiency in elevator operation and exceedingly reduces waiting times in commercial vessels with high traffic density.

#### **Advantages**

- Passenger comfort
- Energy saving / Cost reduction
- Flexible configuration
- High efficiency and safety

#### How to

Find out everything about DCS at



16 Marine Solutions 17





# Marine elevators Design options



Design options Marine passenger elevators



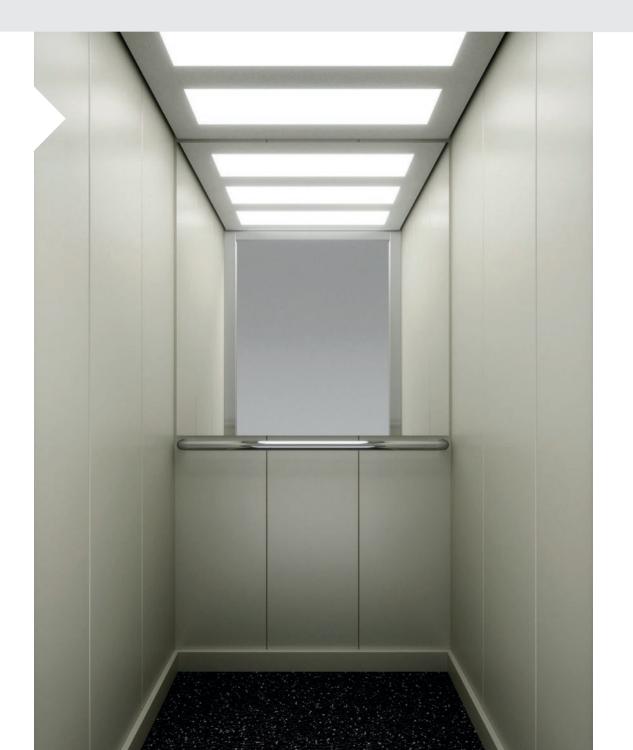
L330

The L330 is a cost-effective solution that offers a wide range of colors to create a passenger experience that complements the aesthetic of any marine elevator.

T120

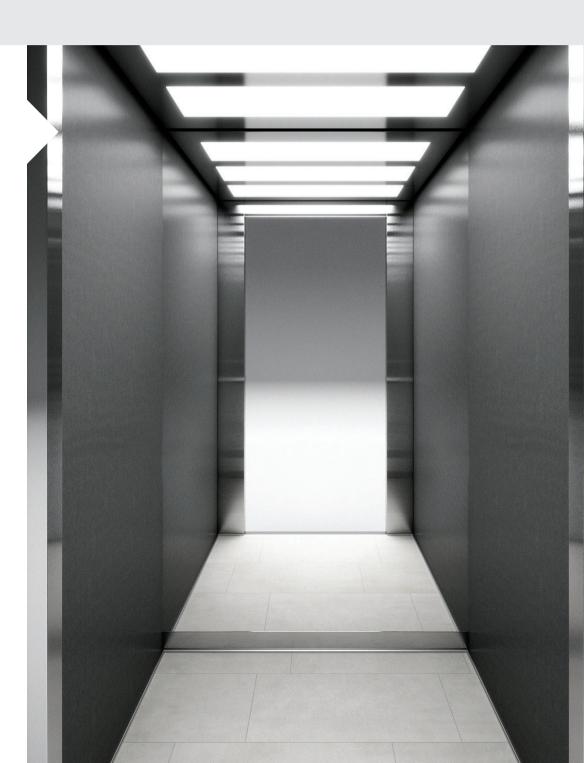
The exclusive design of the T120 cabin offers the passenger comfort and style. The design seamlessly fuses contemporary and futuristic elements to deliver a warm and inviting space, ideal for private or commercial cruise ships and yachts.

Wall Paint Pale Code Floor Rubber 6801 Handrail K3 Ceiling O55



**Wall** Mighty silver **Floor** Vinyl Cement block **Ceiling** 055







Design options
Marine
passenger elevators



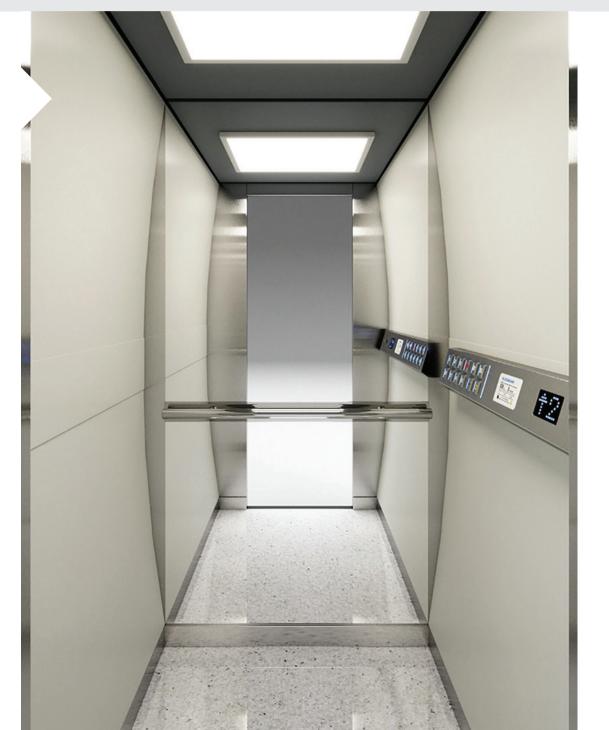
T310

Featuring unique design that creates a feeling of space through inspiring, vivid colours and a curved ceiling and walls, the passenger experiences a sense of freedom during each and every ride, while on board.

T710

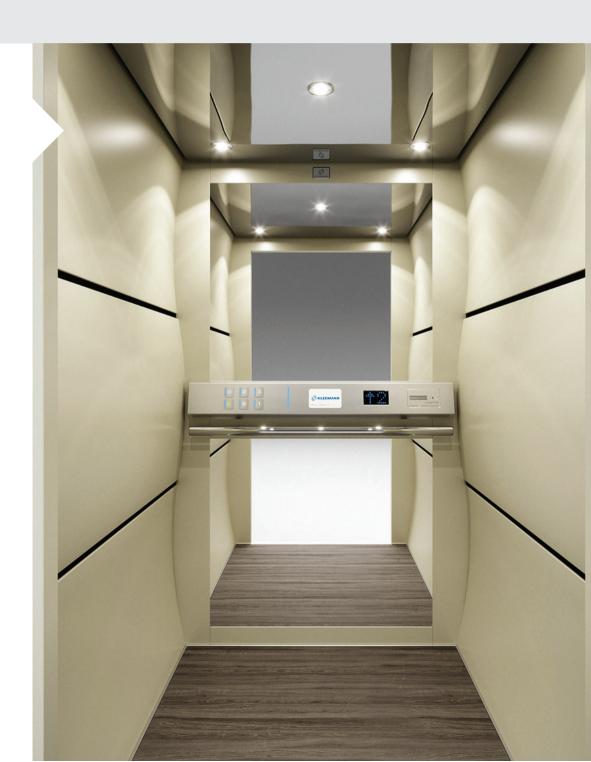
The T710 cabin fuses futuristic design with luxury to offer a truly exceptional passenger experience. The pioneering design, which features smooth lines and a curved ceiling and walls, welcomes the passenger to next-generation lift travel. The stylishly sleek cabin is the ideal choice for private luxury yachts.

Wall Stainless steel Satin Floor Artificial Granite Regal Black Handrail K2 Ceiling 015



Wall Paint Geoform Floor Laminate 8096 Handrail K2 Ceiling 07





Designed by Andreas Zapatinas



Design options Marine passenger elevators



### **Panoramic** cabins

KLEEMANN fully customizable panoramic cabins are the ideal solution for large cruise ships, elevating the style of the interiors and creating a unique atmosphere for passengers on board.

#### Cabin options

- Mushroom Panoramic
- Polygonal Panoramic
- Round Panoramic
- Square Panoramic





Design options
Marine crew & goods
elevators



L310

The L310 cabin combines maximum durability and high operating reliability. Built according to standards for marine crew & goods cabins, it offers strength in simple and powerful lines. It is the ideal choice for all vessels that require an elegant yet built-to-last solution.

Wall Stainless steel Satin Floor Rubber 6768 Handrail K2 Ceiling O55







# **Escalators**



### **Escalators**

Varied solutions with custom-made design that offer exceptional ride quality, safety and energy efficiency on board.



#### **Technical** specifications



Escalator Model	Escalator Model KEC Commercial			
Working hours (per day)	16-20	20-24		
Capacity / hour (Theoretical value according το EN115-1:2017, Annex H)	Up to 6000 passengers	Up to 7300 passengers		
Inclination	30°/35°	30° / 35°		
Step Width (mm)	600 / 800 / 1000	600 / 800 / 1000		
Operating Speed (m/s)	0,5	0,5 or 0,65		
Vertical rise (m)	2-7,5	2-35		
Motor type	AC1 or VVVF	AC1 or VVVF		
Installation	Indoor, outdoor, marine	Indoor, outdoor, marine		

**Product description** & features

KLEEMANN offers unique, tailor-made design services for commercial or heavy-duty escalators with a wide range of options and customized solutions for all marine projects.

Outstanding ride quality

Designed to ensure both high quality construction and exceptional ride comfort. Low noise levels and minimal vibrations provide a smooth and comfortable passenger experience that will meet even the strictest requirements.

**Eco-friendly** 

Regeneration system to provide excellent ride quality while reducing energy usage by up to 60%. Many of the products' parts recyclable (steps, brush profile, glass panel clamps, etc).

Hygiene line

Three sterilizer solutions for the Escalators' handrail, available to provide protection from bacteria and viruses.

- Ultraviolet Lamp
- Sterile Touch
- UV Sterilizer





# Marine project references



# Selected projects

Whatever the project, KLEEMANN's expertise and experience ensures tailored design options and flexible installation solutions will enhance both the operational functions and the unique environment of your specific vessel.

#### CAT D rigs

Oil-rig info

Songa Offshore, Norway

4 goods-passenger elevators,



#### Maran Hermes oil tanker

Ship info	Maran Gas, Greece		
Length	274 mtrs		
Width	48 mtrs		
Speed	7 knots		
KLEEMANN info	1 crew elevators		



#### F/B Elyros

Ship info	ANEK Lines, Greece
Length	192 mtrs
Width	27 mtrs
Speed	24 knots
Passengers	1874
KLEEMANN info	3 passenger elevators



#### Project CZAR

Ship info	Private Cruise
Length	120 mtrs
Width	17 mtrs
Speed	18 knots
Passengers	54
KLEEMANN info	5 passenger elevators



# More references

Vessel name	Segment	Shipyard	Ship owner	Units	Туре
	Semi-submersible		. Cuan amb au Calua a		- Passangay/Comisa Flouritan
Huarui Dragon	salvage vessel	CMHI	Guangzhou Salvage Bureau of the Ministry of Transport	2	Passenger/Service Elevator
Emerald Azzurra	MY	Halong Shipbuilding Emerald Sakara	Emerald Waterways	3	Passenger and Service Elevator
O'PARI	MY	Golden Yacht	Golden Yacht	2	Passenger and Service Elevator
H486	QU PLATFORM	CIMC Raffles	BP Tortue	1	Passenger Elevator
N999	FPSO	Cosco Qidong	BP Tortue	2	Passenger and Goods Elevator
Maran Helios	Oil Tanker	DMHI	Maran Gas	1	Crew Elevator
Heilhorn	Ferry	Sefine Shipyard	Torghatten Trafikkselskap AS	1	Passenger Elevator
Smyrna	Ferry	PPA Shipyard	Levante Ferries	1	Escalator
Golden Express	Ferry	PPA Shipyard	Golden Fast Ferries	1	Passenger Elevator
Greg Mortimer	Expedition Cruiser	СМНІ	Aurora Expeditions	2	Passenger Elevator, Service Elevator
Fior di Levante	Ferry	COSCO	Levante Ferries	3	Passenger Elevator, Escalator

#### www.kleemannlifts.com

KLEEMANN has a worldwide presence in over 100 countries with local presence in key market points. It stands out for its product range, high quality and control standards, world class design and for its expertise in custom made solutions. Constantly monitoring the global market trends, the company continues to innovate, grow, develop, and improve while consistently remaining in tune with its global character.



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While every effort has been made to ensure the accuracy of the information in this brochure, KLEEMANN assumes no responsibility for omissions or typographical errors.