RIM DRIVE TECHNOLOGY

2025

Reference Portfolio

Electric propulsion systems for leisure, commercial and subsea applications.

Version 1.3
23-10-2025

Projects

Rim Drive Propulsion

In this document, we’re excited to share a collection of boats and projects where our electric rim drive motors have been installed. From sleek day cruisers to smart working vessels, these references show what our motors are all about: silent performance, high efficiency, and zero emissions. Whether it’s for fun, function, or innovation, we’re proud to power these boats and be part of a growing shift toward cleaner, smarter solutions on the water.

Hop on board and take a look at what we've been working on!


LEISURE

Sloop A-610

A typical Dutch sloop used by smaller groups. It's lightweight and quiet which makes it perfect for sailing in shallow waters.

Motor	POD 5.0
Type	Sloop A-610
Length	6 meters
Weight	940kg
Battery capacity	20 kWh
Runtime	8 hours
Top speed	5.94 kts - 11 km/h
Cruise speed	3.24 kts - 6km/h
Power at cruise	2kW

POD 5.0

Sloop A-780

This sloop is eight meters long which is perfect for larger groups. It's ideally used in the inland waterways of The Netherlands.

Motor	POD 11.0
Type	Sloop A-780
Length	7.8 meters
Weight	1230kg
Battery capacity	20 kWh
Runtime	10 hours
Top speed	7.56 kts - 14km/h
Cruise speed	3.24 kts - 6km/h
Power at cruise	2.5kW

POD 11.0

Santos

Santos has developed a sustainable e-tender sloop for individuals and companies that value appearance, build quality, and performance as much as sustainability.

Motor	POD 5.0
Type	Sloop
Length	5.5 meters
Weight	540 kg
Battery capacity	10 kWh
Run time	8 hours

Discover more details on page 47.

POD 5.0

Antaris 570

Our Dutch partner Vaartstroom transformed this classic into a modern electric boat powered by Rim Drive Technology. With a 11kW motor, it reaches the ideal balance between speed and efficiency for its size, offering smooth, quiet, and emission-free cruising.

Motor	POD 11.0
Type	Sloop
Length	5.7m
Width	2.3m
Weight	1100kg

POD 11.0

Pinasse boat

This 14-meter Pinasse is a large-sized boat designed for longer distance trips. Powered by two 15kW motors, it delivers smooth performance and reliable operation, ideal for group transport or sightseeing.

Motor	POD 15.0
Type	Pinasse boat
Length	14 meters
Weight	7500 kg
Runtime	5 hours
Cruise speed	5.94 kts - 11km/h

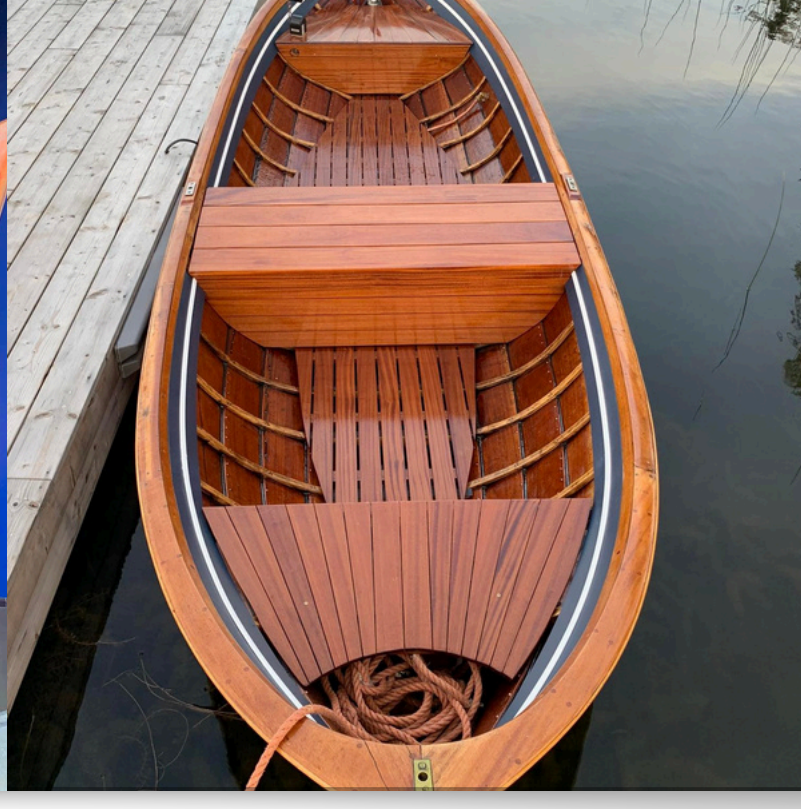
(2X) POD 15.0

Hybrid solution

The POD engines are installed for cross maneuvering and for cruising at low speeds when the main engine is not needed.

Motor	POD 3.0
Type	Sloop
Length	6.5 meters
Aim	Cross maneuvering
Battery	2x 48V 60Ah
Run time	8 hours

(2x) POD 3.0



Wooden boat

Beautiful classic wooden boat in Estonia. This boat is refitted with an electric rim drive motor.

Motor	POD 3.0
Type	Sloop
Length	5 meters
Weight	600 kg
Run time	5 hours

POD 3.0

Speed boat

Comfort and luxury combined, with ultimate maneuverability through a steerable pod. Ideal for medium speed applications.

Motor	Steerable POD 11.0
Type	Speed boat
Length	7 meters
Weight	960 kg
Battery capacity	28 kWh
Run time	4 hours
Top speed	15 kts - 8km/h
Cruise speed	5 kts - 9km/h
Power at cruise	7.5kW

Steerable POD 11.0

Freepower

The electric boat Freepower gets its energy from the sun and charges itself by just being outdoor! The autonomous electrical system takes care of the charging on its own.

Motor	Steerable POD 11.0
Length	7.1 meters
Weight	1100 kg
Battery capacity	18 kWh
Top speed	7 kts - 13km/h
Cruise speed	4 kts - 7.5km/h

Steerable POD 11.0

Yacht

An 15kW twin installation for heavy boats. This motor always ensures enough power.

Motor	EL Outboard 15.0
Type	Yacht
Length	12 meters
Weight	7000 kg
Battery capacity	60kWh
Runtime	7 hours
Top speed	5.4 kts - 10km/h
Cruise speed	4.32 kts - 8km/h
Power at cruise	2x 3,7 kW

(2x) EL Outboard 15.0

AM Cat

A 6m-long monolithic catamaran for open waters was 3D-printed using robotic additive manufacturing in a recent engineering collaboration.

Motor	Steerable POD 11.0
Type	Catamaran
Length	6 meters
Battery capacity	40kWh.
Top speed	6.3 kts - 11.6km/h*
Power input	10.3kW

*Based on 10kWh and 3 people on board

Steerable POD 11.0


FERRIES
hyke

Electric ferry

All electric ferry for 12 pax, 5x3m and powered by Rim Drive Technology 11kW drive and 10kWh batteries. This is the most sustainable and safe way to ferry across.

Motor	Outboard 11.0
Type	Ferry
Length	5 meters
Weight	1200 kg
Battery capacity	20kWh
Runtime	8 hours
PAX	12 pers.
Cruise speed	4.32 kts - 8km/h

*Limitited to 1kW output

Outboard 11.0
POD 3.0*

Autonomous ferry

This company aims to help cities solve pollution and congestion problems by deploying networks of zero emission electric, autonomous ferries for mobility and last-mile logistics.

Motor	Steerable 50
Length	Approx. 15 meters
Weight	13.000 kg
Battery capacity	285kWh
Runtime	15 hours
Top speed	9 kts - 17km/h (2x36kW)
Cruise speed	6 kts - 11km/h
Power at cruise	15kW

(2x) Steerable 50.0

Discover more details on page 49.

Tour boat

A 32 pax vessel for shallow waters powered by two 11kW Entry Level outboard engines. A great twin install project!

Motor	EL Outboard 11.0
Type	Tour boat
Length	11 meters
Weight	3500 kg
Battery capacity	40kWh
Runtime	5 hours
PAX	32 pers.
Top speed	6.48 kts - 12km/h
Power at cruise	2.6kW

(2x) EL - Outboard 11.0

Discover more details on page 51.

Whisper boat

These environmentally friendly whisper boats are easy to steer and maneuver. This also makes them the ideal means of transport for the sometimes narrow canals of Giethoorn.

Motor	El Outboard 11.0
Type	Whisper boat
Length	11 meters
Cruise speed	7.5 kts - 13.89km/h
Power at cruise	8kW

EL Outboard 11.0

Ferry

To transport people from location A to B. Equipped with 24V bow and stern thrusters for ultimate maneuverability.

Motor	Standard thruster 3.0
Type	Ferry
Length	10.5 meters
Bow thruster	(1x) Bow thruster 3.0
Stern thruster	(2x) Thruster 3.0
Weight	7700kg
Main engine	Diesel

(3X) Thruster 3.0

SAILBOATS

Toucan-Class sailboat

This sailboat is made with mahogany wood and in combination with the rim drive motors this means smooth sailing. When driving slowly, the thrust is very easy to control precisely.

Motor	POD 5.0
Type	Sailboat
Length	10.6 meters
Weight	2000 kg
Battery	48V 60Ah
Cruise speed	3.5 kts - 6.5km/h
Power at cruise	1.5kW

POD 5.0

30er Schärenkreuzer

The 30er Schärenkreuzer is a typer of sailing boat with a sail area typical for its class. It is equipped with an 8.0kW POD motor for maneauvering in and out the harbor.

Motor	POD 8.0
Type	Sailing boat
Length	11.8 meters
Width	2 meters
Depth	1.4 meters
Weight	≈3600kg

POD 8.0

45er Nationale Kreuzer

The 45 National Cruiser is a type of sailing boat with a sail area of 45 m². The 5kW POD is used for sailing in and out of the harbor.

Motor	POD 5.0
Type	Sailing boat
Length	10 meters
Width	2.2 meters
Weight	3000kg
Battery capacity	5 kWh
Top speed	5.4 kts - 10km/h
Cruise speed	4.5 kts - 8.3km/h
Power at cruise	2.5kW

POD 5.0

USV / ASV

Berlin

This project uses Berlin's unused waterways for transport and waste collection with small, partly autonomous boats. It can operate unmanned or with crew on board.

Motor	POD 5 & POD 25.0
Type	Autonomous ship
Length	14 meters
Width	6.06 meters
Weight	12.000 kg
Motor	2x POD 25.0 96V 2x POD 5.0 48V
Battery capacity	40kWh at 48V 320kWh at 96V
Speed	12 km/h at a power output of 1x 25kW

2x POD 25.0
2x POD 5.0

Discover more details on page 50.

USV

The aim of this USV was to develop a transport and are powered by electric propulsion with zero local emissions.

Motor	POD 5.0
Type	USV
Length	6 meters
Weight	1500 kg
Automatic tracking	Lateral direction
Cruise speed	Medium speed

(2x) POD 5.0

MegaShark

The MegaShark is a USV designed for targeted waste removal in tight or hard-to-reach areas. It can operate autonomously or with a person on board, ensuring flexibility and precise cleanup.

Motor	POD 5
Type	ASV
Top speed	7.5 kts - 14 km/h
Max. operating time	8hrs
Material hull	Aluminum
Hull type	Catamaran
Length hull	4.25m
Width hull	2.25m

2x POD 5.0

Discover more details on page 46.

Trator Do Mar

The Portuguese Navy has unveiled a new unmanned surface vehicle (USV) dubbed Trator Do Mar, at NATO's Exercise 'REPMUS 24'.

Motor	POD 11.0
Type	USV
Data collector	Subterranean
Cruise speed	Medium speed

(2x) POD 11.0

USV

The Exail drix O-16 USV is used for full ocean depth scientific and hydrographic surveys, geophysical and UXO surveys, and subsea infrastructure inspections.

Motor	Standard thruster 11.0
Type	USV
Length	15.75 meters
Weight	10.000 kg
Main engine	Diesel
Data collector	Subterranean

(1x) Thruster 11.0

USV

This USV is specialised in advanced autonomous technologies and solutions for various maritime applications.

Motor	POD 5.0
Type	USV
Data collector	Subterranean

POD 5.0

USV

USV for survey and environmental monitoring that are zero-emission and non-invasive.

Motor	El Outboard 5.0
Type	USV
Length	4.7m

Discover more details on page 48.

(2x) EL - Outboard 5.0

USV

This USV can be used to support dredging operations, offshore wind farm installation and marine infrastructure construction.

Motor	POD 15.0
Type	USV
Length	7 meters
Range	1200nm
Support	Offshore

(2x) POD 15.0

USV

This unmanned surface vessel can be remotely operated from the mainland with ease. Designed for efficient and flexible deployment it offers precise control and reliable performance in various water conditions.

Motor	POD 11.0 & Standard Thruster 5.0
Type	USV
Length	3 meters
Weight	350 kg
Bow thruster	Bow thruster 5.0
Runtime	15 hours
Top speed	8.0 kts - 15km/h
Cruise speed	2.7 kts - 5km/h
Payload	170kg

(2x) POD 11.0
Thruster 5.0

USV

This versatile USV is designed for offshore and coastel operations. Its rugged, self-righting hull and dual 5kW thrusters ensure reliable and precise performance even in challenging conditions.

Motor	Standard thruster 5.0
Type	USV
Length	4.8 meters
Width	1.8 meters
Top speed	5.4 kts - 10 km/h

(2x) Thruster 5.0

USV

This USV is built for autonomous waste collection at sea and along the coast. It gathers debris, transfers it to a storage bay on board, and returns to shore to unload - ensuring clean and efficient marine operations.

Motor	Steerable POD 3.0
Type	USV
Length	5 meters
Research	Subterranean

(2x) Steerable POD 3.0

USV

Students from the University School of Design and Engineering of Barcelona have successfully prototyped a USV boat. This prototype provided good stability and floatation data.

Motor	Outboard 5.0
Type	USV
Length	2.6 meters
Weight	180 kg
Battery capacity	48V 60Ah
Runtime	8 hours
Top speed*	30 kts - 55km/h
Cruise speed	13 kts - 25km/h

Outboard 5.0

*Top speed is based on the calculations of the students

USV

USV for subterranean soil research.

Motor	Steerable POD 11.0
Type	USV
Length	3 meters
Weight	1000 kg
Data collector	Subterranean
Cruise speed	4.0 kts - 7.4km/h

(2x) Steerable POD 11.0


SPECIAL

Seaplane

An electric motor supplied for an aircraft, capable of carrying passengers over both water and through the air.

Motor	POD 3.0
Type	Seaplane
Application	Thruster for maneuvering

POD 3.0

Submersible

We've installed dual 11.0kW POD electric motors in a submarine, advancing our eco-friendly commitment for cleaner, quieter marine transportation.

Motor	POD 11.0-S
Type	Submersible
Length	8 meters

(2x) POD-S 11.0

Aluminium Catamaran

Private home project.

Motor	POD 15.0 & Standard thruster 5.0
Type	Katamara
Length	9.5 meters
Weight	5000 kg
Cruise speed	7.2 kts - 13km/h

(2x) POD 15.0
(1x) Thruster 5.0

Hydrogen

For the Monaco Energy Boat challenge participation.

Motor	Outboard 5.0
Type	Hydrogen race boat
Goal	Monaco Energy Boat Challenge
Length	5 meters
Weight	225 kg
Battery capacity	10 kWh

Outboard 5.0


CASE STUDIES

MegaShark a mid-sized vessel designed to tackle waterway waste.

Type of application

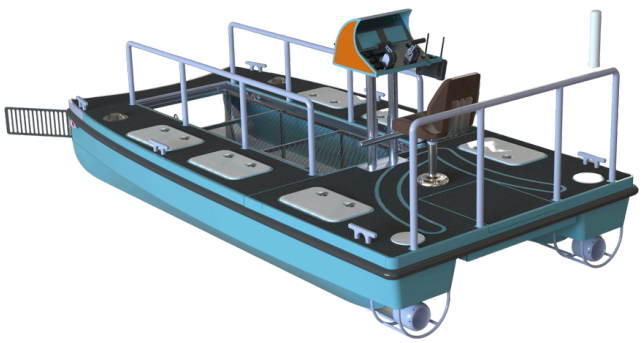
The MegaShark is engineered for targeted waste removal in challenging environments and boasts a remarkable ability to navigate confined areas where debris tends to accumulate.

Key requirements

When this client was selecting an enhanced propulsion system for their autonomous surface vessels (ASVs), they sought a partner who could deliver reliability, power, and the capability to handle challenging environments.

One of the key requirements for this project was a propulsion system capable of operating in shallow waters and navigating debris fields and biomass without jamming. The innovative Rim Drive design met this challenge with remarkable effectiveness.

In addition, Rim Drive Technology provides access to CAN communication and documentation, which is an important consideration for ASV builders.



Specifications

Motor	2x POD 5.0 48V
Weight	650kg
Top speed	7.5kts - 14km/h
Runtime	8hrs

Review - RanMarine

Rim Drive Technology's proven thrusters have surpassed our expectations on all fronts.

Their team showed exceptional commitment during development, working closely with us to overcome calibration and controller challenges. They have consistently provided swift, knowledgeable assistance, solidifying their role as a reliable partner.

We are thrilled that Rim Drive thrusters will soon be integrated across our entire product line, enabling our ASVs to benefit from exceptional manoeuvrability.

Santos a sustainable e-tender sloop

Type of application

Santos has developed a sustainable e-tender sloop for individuals and companies that value appearance, build quality, and performance as much as sustainability.

Santos boats are used for the professional rental market, holiday parks and recreation companies.

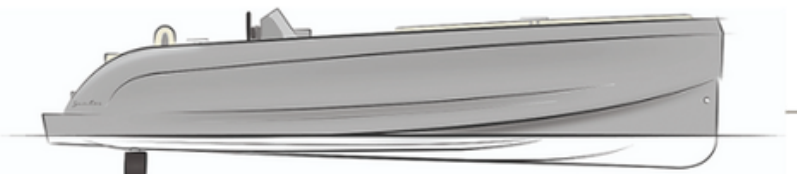
Specifications

Top speed	10 km/h
Cruise speed	6 km/h
Power at cruise	1kW
Runtime	8hrs
Material hull	Durable, corrosion-resistant HDPE
Hull type	Monohull
Length	5.5m
Net weight	540kg
Motor	1x POD 5kW (optional 8kW)
Battery	10 kWh LiFePO4

Key requirements

Santos choose Rim Drive technology for its electric vessels due to its combination of efficiency, reliability, vandal-proof system, and low maintenance. Key requirements for their boats include silent, emission-free operation, robust performance under diverse conditions, durability, and minimal maintenance.

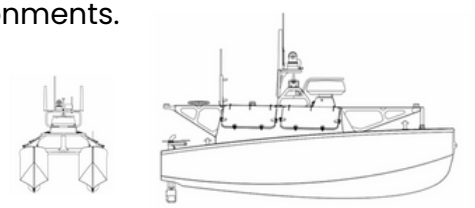
Rim Drive motors meet these needs through a design without a central shaft, reducing the risk of entanglement with ropes or nets and featuring only a single moving part, which lowers maintenance requirements. Additionally, the system is robust and tamper-resistant, designed for optimal performance in demanding sectors such as holiday parks and rental boats.



USV - REAV 47

Type of application

The REAV-47 is purpose-built for low-emission hydrographic, geophysical, and oceanographic survey tasks, particularly in complex or remote nearshore environments.



Key requirements

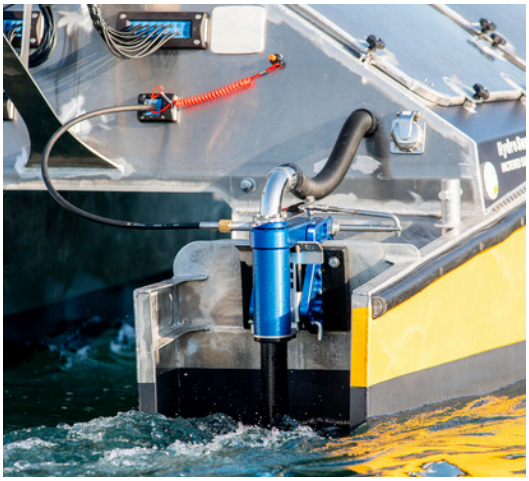
The vessel needed to operate continuously and reliably during multi-day deployments, often in harsh conditions and in waters where debris or marine growth can pose risks. Key requirements therefore included a durable and emission-free propulsion system, extended endurance, high efficiency, low maintenance, and precise maneuverability.

To meet these demands, HydroSurv selected Rim Drive Technology's electric pod motors. The fully waterproof, shaftless rim drive systems reduce drag, require minimal maintenance, and provide real-time access to motor and battery data - essential for continuous operation during remote nearshore surveys. In combination with Rim Drive Technology's global service partner network, it ensures that HydroSurv can support its worldwide USV customers efficiently and reliably.

HydroSurv is extending the benefits of the Rim Drive propulsion system into its upcoming REAV-25.

Specifications

Top speed	6.5kts - 12km/h (consuming power: 10kW)
Cruise speed	4.1kts - 7.6km/h
Material hull	Aluminum
Hull type	Symetrically-hulled catamaran
Length	4.7m
Displacement weight	1010 kg
Motor	2x Entry Level Outboard 5.0 (10kW)



Autonomous ferry - Norway

Type of application

This company aims to help cities solve pollution and congestion problems by deploying networks of zero emission electric, autonomous ferries for mobility and last-mile logistics.

Key requirements

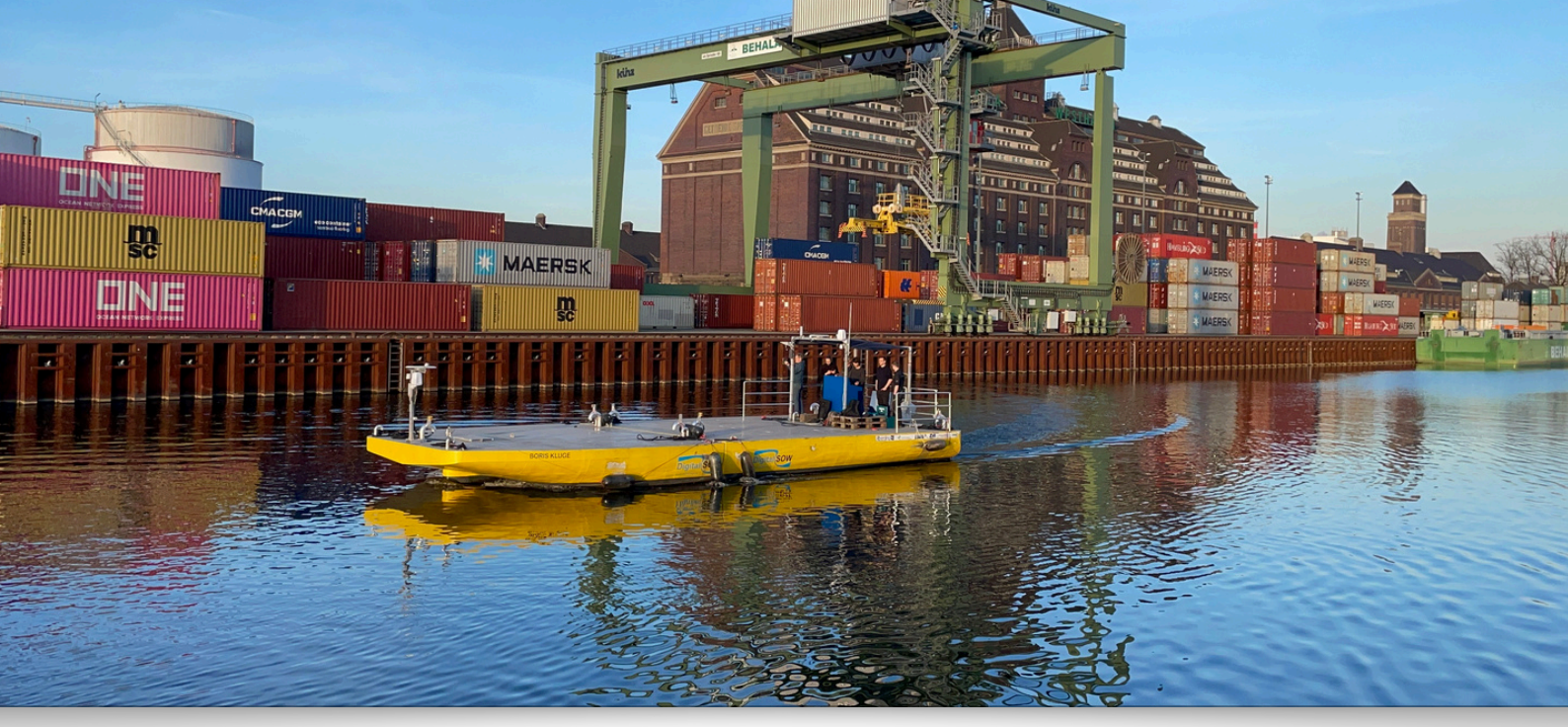
The vessel was designed to meet several primary requirements, including zero-emission operation to support environmental and urban sustainability goals, seamless integration with existing infrastructures, and readiness for autonomous navigation.

This company selected the Rim Drive solution for several key reasons: supply of higher voltage motors (800 V), DNV-certified products, reliable service support, and a simple, user-friendly and easy-to-integrate system.

Moreover, the Rim Drive motors' compatibility with autonomous control systems enables the company to integrate advanced navigation technologies into their vessels, supporting both current operation and future autonomous capabilities.

Specifications

Top speed	9kts - 17km/h (2 x 36kW)
Cruise speed	6kts - 11km/h
Power at cruise	15kW
Runtime	15hrs
Material hull	Durable, corrosion-resistant HDPE
Hull type	Monohull
Length	Approx. 15m
Weight	13.000kg
Motor	2x Steerable POD 50kW
Battery	285 kWh



Berlin project an autonomous ship for transport purposes

Type of application

This project utilizes unused waterways in Berlin for transport and waste disposal with small, (future) autonomous ships.

Key requirements

The propulsion system for this project had to meet several demanding requirements. It needed to operate with zero emissions, provide precise maneuverability for automated navigation, and ensure seamless integration with CAN control and positioning systems. Reliability was a critical factor, because the vessel operates with separate bow and stern modules that can function individually or in combination.

Specifications

Length	14m
Width	6.06m
Side height	1.2m
Net weight	12.000kg
Stern module motors	2x Steerable PODs 25kW
Bow module motors	2x PODs 5kW (developed their own retractable system)
Battery	40kWh at 48V (bow motors) 320kWh at 96V (stern motors)

For these reasons, the project team selected Rim Drive Technology motors. The shaftless and simple design, fully sealed construction minimizes mechanical complexity, and reduces maintenance needs, eliminates many failure points associated with conventional drives. Equally important, Rim Drive motors deliver consistent performance, and Rim Drive technology offers full access to CAN communication and supporting documentation.

Tour boat a twin installation outboard project

Type of application

This vessel, designed to accommodate 32 passengers, was developed to enhance the area's accessibility for nature tours and educational programs.

Key requirements

Important requirements for this tour boat included the ability to sail long distances quietly every day and to guarantee a high level of reliability.

The selection of Rim Drive Technology's electric pod motors was driven by their proven reliability and efficiency. The shaftless design reduces maintenance needs and the risk of entanglement, while the robust construction ensures durability over extended operating hours. This combination aligns with the project's objectives of sustainability and operational efficiency.

Specifications

Top speed	6.48kts - 12 km/h
Hull type	Monohull
Runtime	5hrs
Length	11m
Weight	3.500kg
Motor	2 x Entry Level Outboard 11.0
Battery	40 kWh

RIM DRIVE TECHNOLOGY

Uncompromised
Electric Motors

www.rimdrivetechnology.nl
+31 (0) 85 482 48 55
Sales@rimdrivetechnology.nl