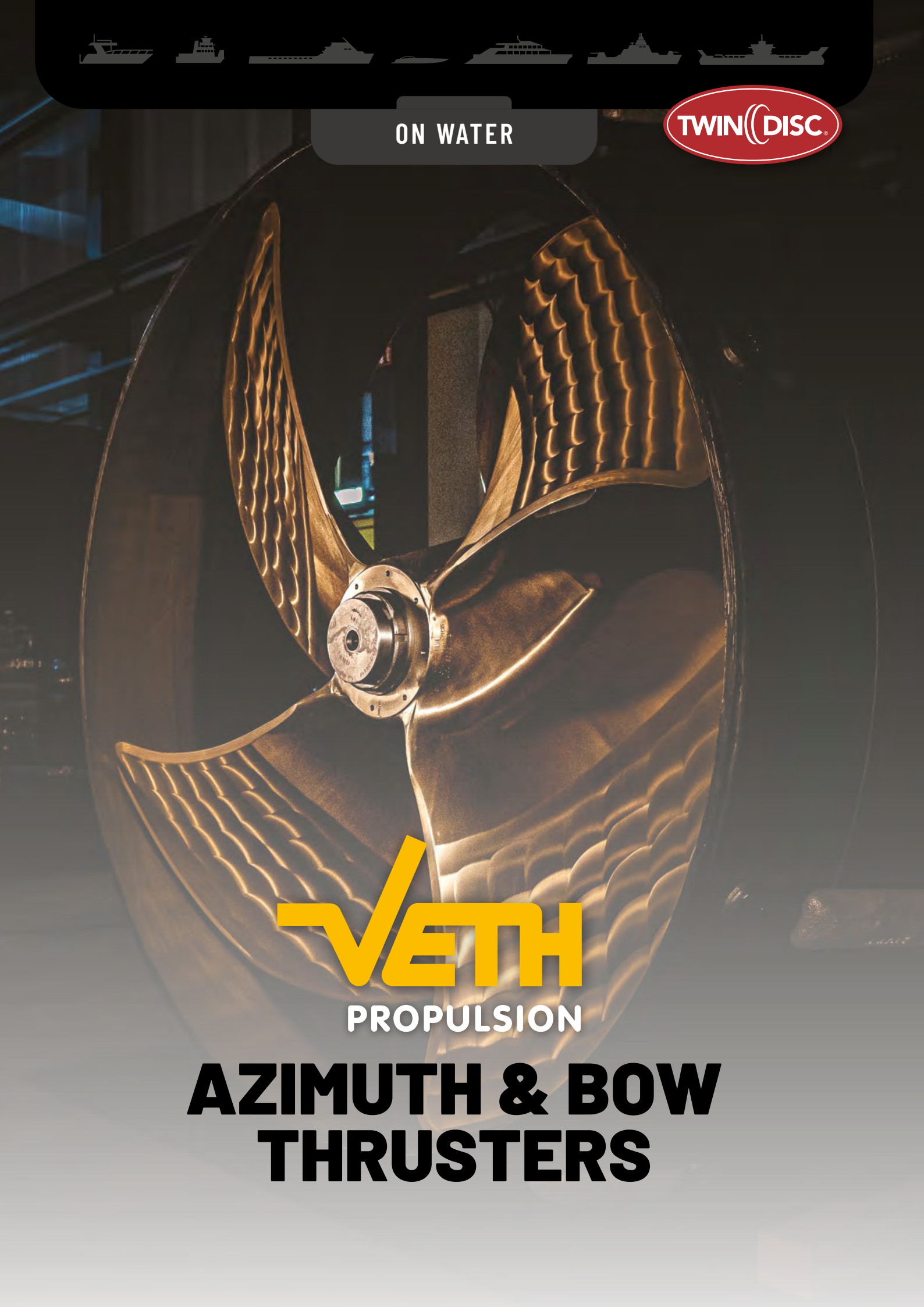
ON WATER

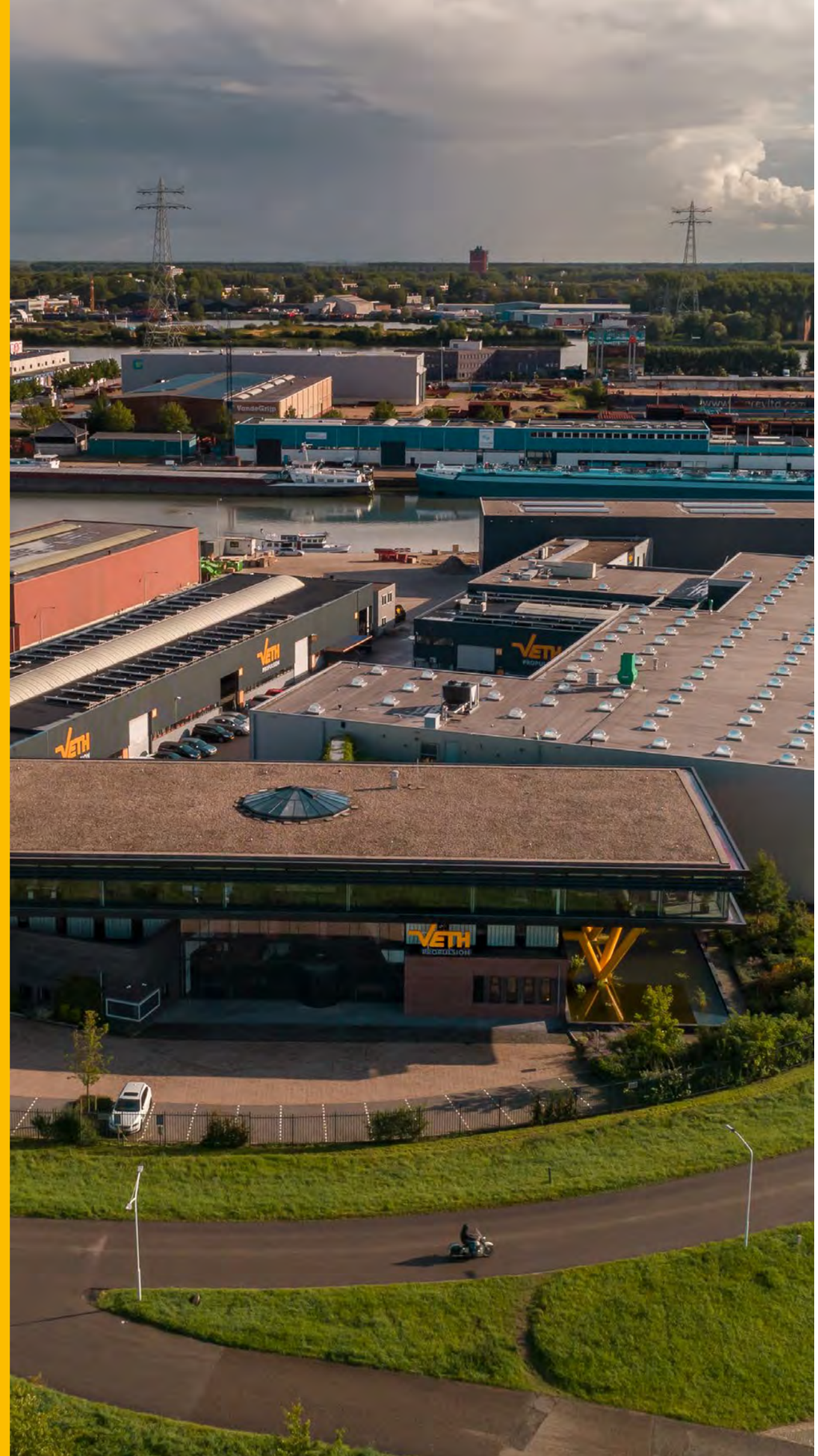
TWIN DISC



VETH

PROPULSION

AZIMUTH & BOW THRUSTERS



ABOUT VETH PROPULSION

Since 1951, Veth Propulsion, by Twin Disc, has been a trusted name in marine propulsion, delivering high-quality, innovative solutions for commercial vessels, offshore applications, dredging, mega yachts and so on. With a customer-first approach, we engineer and manufacture azimuth thrusters, bow thrusters, and control systems.

At Veth Propulsion, we believe in simplicity, durability, and sustainability. Every thruster is designed for easy maintenance, minimizing downtime and ensuring long-lasting performance. Our thrusters feature compact construction, minimal piping, and high-quality materials, making them robust, reliable, and efficient.

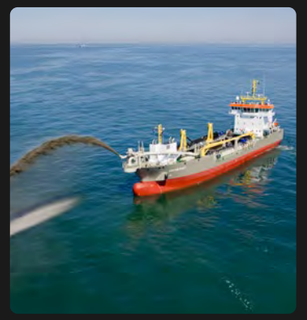
What sets Veth Propulsion thrusters apart is their custom-built nature, tailored to each vessel's hull for seamless installation. With integrated freewheel clutch options, and continuous-rated power capability, our thrusters offer unmatched flexibility and performance.

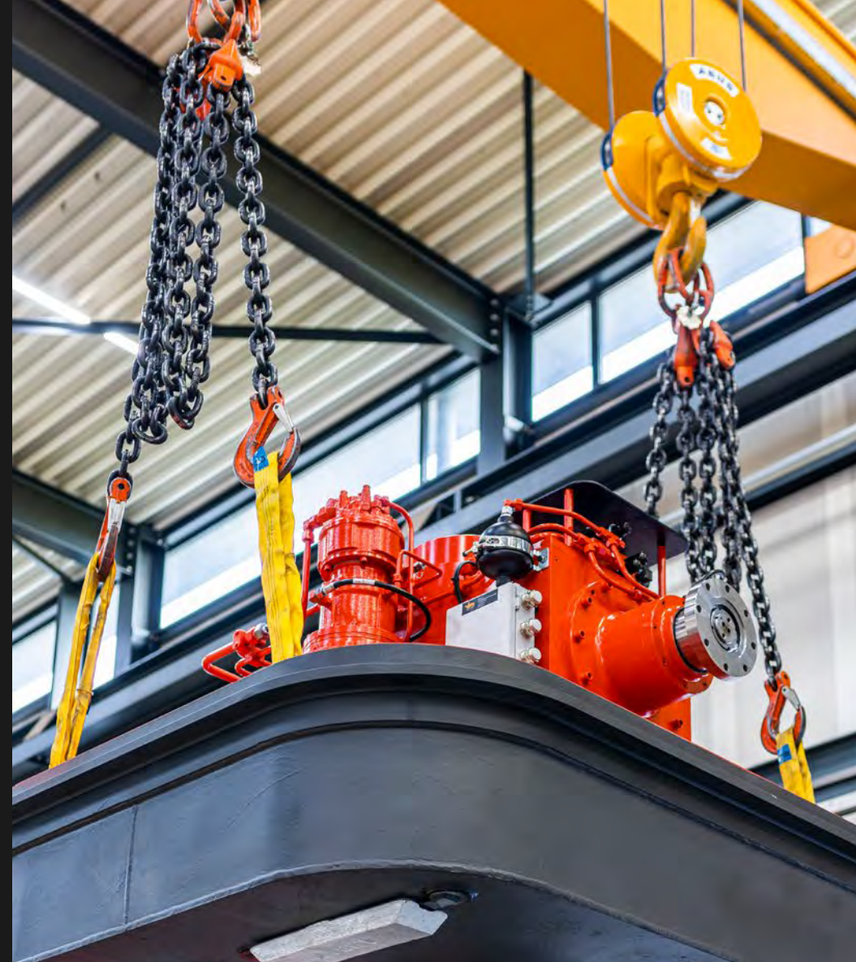
With decades of engineering expertise and a commitment to sustainability and service, Veth Propulsion continues to lead the industry in thruster innovation—ensuring that every product is built not just for power, but for ease of use, serviceability, and long-term efficiency.

About Twin Disc

Twin Disc is a leading company in power transmission products and technologies, founded in 1918. This multinational designs, manufactures, and supplies innovative systems for a wide range of applications in both the maritime and industrial market segments. With a century of experience and the addition of Veth Propulsion to its product portfolio in 2018, Twin Disc offers an extensive range of propulsion systems. A global team of sales and service experts supports each product at every stage, from design to maintenance, ensuring optimal performance and customer satisfaction.

PRODUCTS & SERVICES





AZIMUTH THRUSTERS

Azimuth Thrusters

Veth Azimuth Thrusters provide 360° steerable propulsion, delivering maximum maneuverability and efficiency. Designed for a wide range of vessels, they are available in Z-drive and L-drive configurations, with options for diesel, electric, or hybrid power. With a focus on high performance, reliability, and easy integration, Veth thrusters ensure smooth sailing in any condition. Whether for main propulsion or auxiliary use, our solutions enhance vessel control, reduce fuel consumption, and optimize operational flexibility.

Image: American Cruise Lines

L-DRIVE/ Z-DRIVE

Veth Propulsion's L-Drive/Z-Drive azimuth thrusters are designed for ultimate maneuverability, efficiency, and reliability. The 360-degree rotation around the vertical axis allows full thrust in any direction, making them ideal for various marine applications, from inland vessels to offshore operations, mega yachts and more.

Every Veth thruster is tailored to your vessel, ensuring seamless integration. With flexible mounting configurations, multiple drive options, and compact construction, our thrusters optimize available space while enhancing fuel efficiency.

L-DRIVE VS Z-DRIVE

The Z-Drive upper gearbox has built on hydraulic and lubrication oil pumps. Driven by a pump shaft driven by the diesel motor. This ensures that steering clutch control and lubrication oil filtering is all-in the Veth Propulsion scope and makes installation much easier. In contrast, the L-Drive is equipped with a vertically mounted electric motor, eliminating the need for an upper gearbox. This design enhances overall efficiency and results in significant fuel savings, making it a highly effective solution. All electric driven thrusters are equipped with electric steering as standard.

Advantages

- Full 360-degree thrust for maximum maneuverability
- Higher efficiency
- Compact design
- Propeller replacement possible without (dry)docking
- Flexible suspension reduces noise and vibrations

Drive options

Veth Propulsion offers a variety of power sources for their azimuth thrusters to match your vessel's operational profile:

- Diesel-direct (integrated clutch for easy installation)
- Diesel-electric
- Hybrid combinations for maximum fuel savings
- Fully electric

With over 2,000 azimuth thrusters in operation worldwide, Veth Propulsion continues to lead in quality, service, and innovation, ensuring every solution is built for performance, reliability, and sustainability.

Image: Van Laar Maritime

Veth Hybrid Drive

The Veth Hybrid Drive Thruster is a Z-Drive thruster equipped with two input shafts—one for a diesel engine with a clutch and one for an electric motor. The upper gearbox houses two independent drive motors, allowing flexible operation. Vessels can sail in full-electric mode, diesel mode, or benefit from a boosting or regenerating function.

In diesel mode, the electric motor is driven by the diesel engine, providing additional thrust when needed or regenerating power for onboard systems. In electric mode, the clutch disengages from the diesel engine, allowing the thruster to operate at maximum electric power for silent, emission-free sailing. The hybrid motor can be positioned on one of three sides of the gearbox, and an optional twin gearbox with two compact PM motors can be integrated for even greater efficiency and performance.

Advantages

- Lower fuel consumption across all speed ranges
- Reduced maintenance costs
- Silent sailing with battery-powered operation
- Generator function: electric motor can power onboard systems

Z & L-Drive / Hybrid Drive ratings

TYPE	POWER (KW)	PROPELLER DIAMETER (MM)
VL-50	61	Ø450
VL-90(si)	140	Ø600
VL-160si-CR	166	Ø585 - Ø650
VL-180(si)	201	Ø700
VZ / VL-200(si)	265	Ø900
VZ / VL-250(si)-CR	350	Ø810 - Ø900
VZ / VL-320(si)	370	Ø1050
VZ / VL-400(si)	500	Ø1130
VZ / VL-400A(si)	425	Ø1030
VZ / VL-450(si)-CR	500	Ø1080 - Ø1200
VZ / VL-550(si)	555	Ø1250
VZ / VL-700	760	Ø1400
VZ / VL-700A	650	Ø1400
VZ / VL-700-CR	850	Ø1215 - Ø1350
VZ / VL-900	968	Ø1700
VZ / VL-900A	880	Ø1700
VZ / VL-900-CR	1000	Ø1350 - Ø1500
VZ / VL-1100	1305	Ø1900
VZ / VL-1250	1425	Ø2100
VZ / VL-1250-CR	1425	Ø1530 - Ø1700
VZ / VL-1550	1920	Ø2400
VZ / VL-1550-CR	2000	Ø1800 - Ø2000
VZ / VL-1800	2350 / 2306	Ø2600

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Image: Rijkswaterstaat | Studio Retouched

Veth Integrated L-Drive

The Veth Integrated L-Drive represents a significant innovation in electric propulsion. This system features a compact and highly efficient permanent magnet (PM) motor, replacing the traditionally used asynchronous motors. One of its key advantages lies in its extremely low mounting height, enabling installation below deck level and keeping critical components inside the vessel for improved accessibility and reduced vulnerability. This smart integration results in a thruster that is up to 60% more compact, making it an ideal solution for space-conscious installations across a wide range of marine applications.

With power options ranging from 500 kW to 2,306 kW, the Veth Integrated L-Drive combines space efficiency, quiet operation, and cutting-edge technology. Its water-cooled PM motor, electrical steering, and lack of onboard gear transmission all contribute to significant noise reduction, ideal for vessels requiring minimal acoustic impact. Built using proven Veth mechanical components, the design also includes streamlined fairing plates to minimize resistance and optimize hydrodynamics. Flexible mounting and easy removal further simplify installation and maintenance. The Veth Integrated L-Drive can be equipped with open propellers, nozzles, or contra-rotating propellers, tailored to your specific application.

Advantages

- Compact design; extremely low mounting space requirements
- Higher efficiency
- Minimal noise production
- Easy to install

Image: Damen Shipyards

Integrated L-Drive ratings

TYPE	POWER (KW)	PROPELLER DIAMETER (MM)
VL-450i-CR	500	Ø1080 - Ø1200
VL-550i	533	Ø1250
VL-700i	760	Ø1400
VL-700i-CR	600	Ø1215 - Ø1350
VL-720i-CR	850	Ø1215 - Ø1350
VL-900i	968	Ø1700
VL-900i-CR	900	Ø1350 - Ø1500
VL-1100i	1305	Ø1900
VL-1250i	1425	Ø2100
VL-1250i-CR	1425	Ø1530 - Ø1700
VL-1550i	1920	Ø2400
VL-1550i-CR	2000	Ø1800 - Ø2000
VL-1800i	2306	Ø2600

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SHALLOW DRAFT THRUSTER

Climate change has made water levels in many rivers worldwide more unpredictable than ever before. Meanwhile, transport reliability has become increasingly important. This makes it crucial for ships to operate optimally and efficiently, even in shallow draft waters.

To meet this challenge, Veth Propulsion has further developed advanced propulsion technology, making sailing possible at minimum water drafts. In addition, the technology has been optimized for efficient fuel consumption in loaded conditions.

ADVANTAGES

- Sailing in shallow waters
- Propeller within the baseline
- By closing the gap between the nozzle and hull, the largest possible propeller and nozzle can be fitted
- High efficiency
- Electric, hybrid and diesel drive options

Operation

Veth Propulsion's innovative propulsion system is fully integrated into the stern, offering numerous advantages. This unique design uses special nacelles with covers and thrusters, keeping the propeller size optimal in relation to the installed power. This results in increased propulsion efficiency and reduced energy consumption. In addition, the Shallow Draft design offers several variants and options adapted to different operational needs.

At minimum design draft, the covers prevent air intake in and around the propellers, ensuring constant thrust and reliable performance. This allows the vessel to sail efficiently even at extremely low water levels, with optimal and undisturbed water flow to the propellers.

Unlike standard solutions, Veth Propulsion's Shallow Draft system guarantees full maneuverability. Moreover, it reduces the vessel's stopping distance to less than the vessel length, ensuring safe and reliable performance even under the most challenging marine conditions.

With this advanced system, you are optimally prepared for the future of (semi)autonomous navigation.

Shallow Draft Thruster ratings

TYPE	POWER (KW)	PROPELLER DIAMETER (MM)
VL-50	61	Ø450
VL-90(si)	140	Ø600
VL-160si-CR	166	Ø585 - Ø650
VL-180(si)	201	Ø700
VZ / VL-200(si)	265	Ø900
VZ / VL-250(si)-CR	350	Ø810 - Ø900
VZ / VL-320(si)	370	Ø1050
VZ / VL-400(si)	500	Ø1130
VZ / VL-400A(si)	425	Ø1030
VZ / VL-450(si)-CR	500	Ø1080 - Ø1200
VZ / VL-550(si)	555	Ø1250
VZ / VL-700	760	Ø1400
VZ / VL-700A	650	Ø1400
VZ / VL-700-CR	850	Ø1215 - Ø1350
VZ / VL-900	968	Ø1700
VZ / VL-900A	880	Ø1700
VZ / VL-900-CR	1000	Ø1350 - Ø1500
VZ / VL-1100	1305	Ø1900
VZ / VL-1250	1425	Ø2100
VZ / VL-1250-CR	1425	Ø1530 - Ø1700
VZ / VL-1550	1920	Ø2400
VZ / VL-1550-CR	2000	Ø1800 - Ø2000
VZ / VL-1800	2350 / 2306	Ø2600

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ICE CLASS

The Ice Class 1B thrusters engineered by Veth Propulsion are specially designed for operation in moderate ice conditions. Unlike the deployment of de-rated azimuth thrusters, these dedicated thrusters enhance hydrodynamics, efficiency, and durability. With three configurations available—twin, ducted, and open propeller—each is tailored to specific vessel needs. Featuring a compact gearbox, optimized housing, and electric L-Drive options, these thrusters ensure cost-effective, sustainable, and reliable performance in frozen waters.

ADVANTAGES

- Optimized Design: Compact thruster underwater gearbox improves hydrodynamics and efficiency.
- Versatile Configurations: Twin, ducted, and open propeller options for multiple applications.
- Robust Ice Handling: Blade design and mass disk reduce ice impact and improve durability.
- User-Friendly Maintenance: Accessible components and smart oil pump system for easy servicing.
- Sustainable Performance: Available in electric L-drive models (up to 500kW, 750kW, and 1,000kW) to meet eco-friendly standards.

Operation

The Ice Class 1B thrusters of Veth Propulsion are engineered for reliable navigation through first-year ice up to 60 centimeters thick, with assistance from icebreakers when needed. The thrusters are available in three configurations to suit different vessel types. The twin propeller system, with its low height from tip to flange, is ideal for ferries operating in shallow waters. The ducted version offers increased thrust and is optimized for vessels such as pushers requiring high bollard pull. For operations where ice entrapment is a concern, the open propeller design prevents ice buildup and ensures smooth water displacement.

Durability is key in icy conditions, and Veth has incorporated a propeller design that allows continued service even if a blade is disabled. The mass disk helps to push ice away, minimizing impact. The thruster's housing is designed with care to be robust enough to handle ice loads while maintaining efficiency. Furthermore, a built-in smart oil pump activates only when the oil reaches optimal viscosity, ensuring smooth operation in extreme temperatures.

Veth's dedication to ease of maintenance is evident in the thruster's design, with easily accessible components for quick servicing. Recognizing that ice class conditions can lead to unavoidable damage, the layout ensures that repairs can be conducted efficiently. This commitment to quality and usability has already been recognized in the industry, with orders placed for multiple units, reflecting confidence in the product's capability to excel in ice-class operations.

Ice Class ratings

TYPE	POWER (KW)	PROPELLER DIAMETER (MM)
VL-550ICE	500	1400
VL-700ICE	750	1700
VL-900ICE	1000	1900

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ELITE™ SERIES

Based on years of experience and fine-tuned for optimal performance, ELITE™ is a 360° thruster dedicated to the needs of modern yachting. Combining the best in Rolla "S" Class Propellers and Veth's Contra Rotating technology with the successful Veth Integrated L-Drive thruster, the ELITE™ series offers a wide range of benefits. ELITE™ is a versatile solution adjusted to the specific requirements of the individual yacht. It draws on proven technology to offer innovation that you can count on.

Image: Balk Shipyard

A key advantage of ELITE™ is its compact design, providing more freedom in yacht layout. Designers can optimize onboard space, creating larger beach clubs, additional storage, or expanded luxury areas. Its low-profile build allows for a sleeker stern, bringing passengers closer to the water for an immersive experience.

Equipped with Contra Rotating Propellers, ELITE™ delivers greater thrust, better maneuverability, and improved fuel efficiency. Yachts benefit from reduced fuel consumption, longer cruising ranges, and lower operational costs, all while maintaining top performance. Smooth, quiet operation enhances comfort, setting a new standard in electric yacht propulsion.

ADVANTAGES

- Most compact solution in the market
- Compact build-in height that frees up space and offers flexibility in design.
- Ultra low-noise and lower vibrations level
- Highly efficient maneuverability
- High efficiency

Operation

The ELITE™ thruster is a fully electric propulsion system designed for maximum efficiency and minimal emissions. It integrates innovations from Rolla "S" Class Propellers and Veth's Integrated L-Drive, ensuring low noise and vibration levels. This benefits both the marine environment and the onboard experience, making ELITE™ a future-proof solution for yacht propulsion.

ELITE™ series ratings

TYPE	POWER (KW)	PROPELLER DIAMETER (MM)
VL-450i-CR	500	Ø1080 - Ø1200
VL-700i-CR	600	Ø1215 - Ø1350
VL-720i-CR	850	Ø1215 - Ø1350
VL-900i-CR	900	Ø1350 - Ø1500
VL-1250i-CR	1425	Ø1530 - Ø1700
VL-1550i-CR	2000	Ø1800 - Ø2000
VL-2500i-CR	2800	Ø2250 - Ø2500

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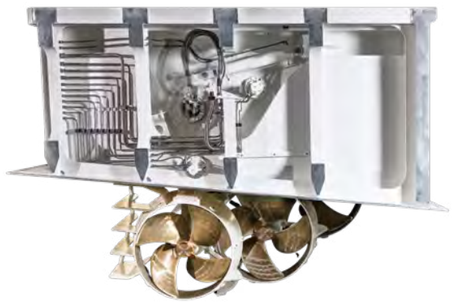
RETRACTABLE & SWING OUT THRUSTER



The Veth Retractable Thruster and Veth Swing Out Thruster are designed to enhance vessel maneuverability while minimizing drag and resistance. Both systems offer 360° steerable auxiliary propulsion, providing exceptional control during docking, station-keeping (DP), and navigating in confined spaces. When not in use, they seamlessly retract into the hull, reducing resistance and optimizing performance for high-speed cruising or open-sea operations.

ADVANTAGES

- Highly efficient maneuvering
- Compact design
- Easy to install (all complex moving parts are installed by Veth Propulsion)
- Fully flat inside the ship
- No added resistance on high speed sailing.

Operation

The Veth Retractable Thruster is retracted by a hydraulically operated system that can be turned off when needed and fully retracted into the hull when not in use. Available in both Z- and L-Drive configurations, it provides full thrust and dynamic positioning (DP) capabilities while optimizing hydrodynamic performance. This makes it an excellent solution for vessels requiring auxiliary propulsion without compromising space or efficiency.

The Veth Swing Out Thruster is specifically designed for high-speed yachts and vessels where height limitations are a concern. When deployed, it enables precise maneuvering in harbors and station-keeping. When not in use, the thruster folds fully flat inside the hull, ensuring zero added resistance at high speeds. Its modular design allows for seamless integration into the vessel's structure, with all complex moving parts installed within a self-contained box construction by Veth Propulsion.

With a commitment to innovation, efficiency, and reliability, Veth Propulsion works closely with shipbuilders to deliver customized solutions tailored to your vessel's needs.

Swing Out Thruster ratings

TYPE	POWER (KW)	PROPELLER DIAMETER (MM)
VZ-180-SW	201	Ø700
VZ-200-SW	265	Ø900
VZ-320-SW	350	Ø1050
VZ-400-SW	470	Ø1130
VZ-400A-SW	425	Ø1030
VZ-550-SW	555	Ø1250

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Retractable Thruster ratings

TYPE	POWER (KW)	PROPELLER DIAMETER (MM)
VL-50-RETR	61	Ø450
VL-90-RETR	140	Ø600
VL-180-RETR	201	Ø700
VL-200-RETR	265	Ø900
VL-400-RETR	500	Ø1130
VL-400A-RETR	425	Ø1100
VL-550-RETR	555	Ø1250
VL-700-RETR	760	Ø1400
VL-700-RETR	650	Ø1400
VL-900-RETR	968	Ø1700
VL-900A-RETR	880	Ø1700
VL-1100-RETR	1305	Ø1900
VL-1250-RETR	1425	Ø2100

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DECK-MOUNTED THRUSTER

If your vessel is not equipped with an engine room, then a Deck-Mounted Thruster may provide an interesting solution. The installation can be driven electrically or by diesel engine.

ADVANTAGES

- Engine Room Not Required
- Versatile Configurations
- Optimized Efficiency
- Easy Maintenance
- Enhanced Flexibility

Operation

The Deck-Mounted Thruster offers five adaptable configurations to meet diverse operational needs: permanent or demountable emplacement, lifting, tilting, or a combination of both.

- Lifting System: For maximum efficiency, the propeller should be positioned below the vessel's baseline. However, in shallow waters, this can be challenging. The lifting system, designed with two sliding rods and hydraulic cylinders, allows vertical adjustment of the thruster, ensuring optimal positioning while maintaining flexibility.
- Hydraulic Tilting System: The ability to tilt the thruster simplifies propeller maintenance and debris removal, eliminating the need for drydocking. Hydraulic cylinders and a reinforced upper gearbox create a smooth and efficient tilting mechanism, making this system especially beneficial in debris-heavy waters.

The combination of lifting and tilting enhances operational flexibility, ensuring easy installation, maintenance, and replacement. The Z-drive Deck-Mounted Thruster provides convenient access, while the lifting system helps adjust propeller depth, reducing the need for ballast in light-loaded conditions.

Deck-Mounted Thruster ratings

TYPE	POWER (KW)	PROPELLER DIAMETER (MM)
VL-50	61	Ø450
VL-90	140	Ø600
VL-180	201	Ø700
VZ / VL-200	265	Ø900
VZ / VL-320	370	Ø1050
VZ / VL-400	500	Ø1130
VZ / VL-400A	425	Ø1030
VZ / VL-550	555	Ø1250
VZ / VL-700	760	Ø1400
VZ / VL-700A	650	Ø1400
VZ / VL-900	968	Ø1700
VZ / VL-900A	880	Ø1700

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BOW THRUSTERS

Bow Thrusters

Veth Bow Thrusters offer exceptional maneuverability, making docking and dynamic positioning effortless. Designed for minimal noise and vibrations, they ensure a smooth and quiet onboard experience. Available in various configurations, they suit different vessel types and operational needs. Built with proven technology and durable components, Veth Bow Thrusters guarantee reliable performance while enhancing efficiency, reducing fuel consumption, and improving overall vessel handling.

Image: Boskalis

VETH JET

Introduced by Veth's founder in 1970, the Veth Jet revolutionized marine propulsion with its 360° thruster for shallow draft. A trusted choice in the maritime industry, it is renowned for its adaptability, durability, and reliability. Designed to withstand heavy-duty use, the Veth Jet excels in the toughest conditions. With over 1,400 units built, it continues to set the standard for efficient and versatile marine propulsion.

ADVANTAGES

- Maximum thrust at minimum draft
- 360 degree steering capability High thrust; up to 11 kg per kW
- Requires minimal maintenance and easy to maintain
- Possibility to change propeller without (dry) docking
- Both mountable via top and bottom
- No protruding parts under the hull surface

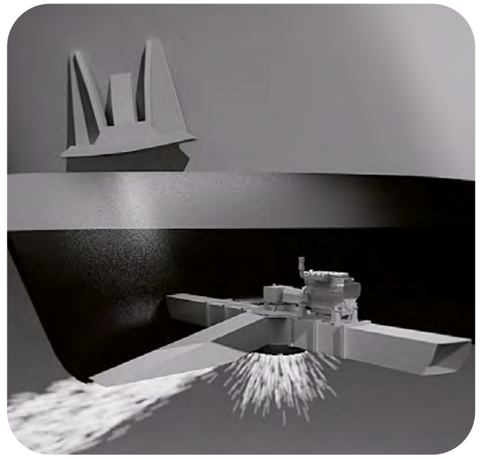
Operations

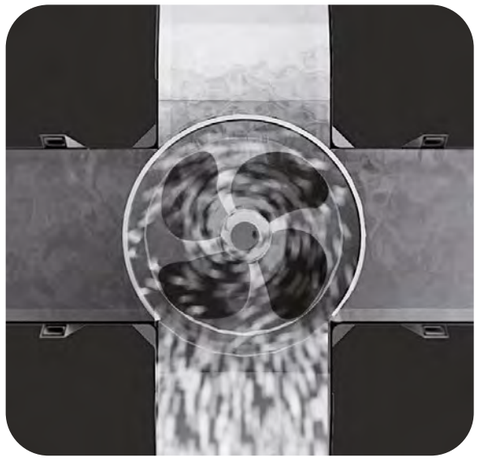
The Veth Jet is designed for simplicity, efficiency, and self-sufficiency, with the entire thruster and gearbox manufactured in-house for consistent quality and reliability. Continuously improved over time, this system guarantees top-tier performance in demanding marine environments.

The Veth Jet features a horizontal impeller that draws water from beneath the vessel, preventing air intake even in shallow waters. The water is then deflected 90° by a rotating deflector screen, directing thrust through lateral channels.

With a 360° rotating deflector screen, the thrust direction changes swiftly, taking only about seven seconds from port to starboard. Available in 2-, 3-, or 4-channel versions, the 3- and 4-channel models can also serve as emergency propulsion or assist in slowing the vessel.

The 2-channel model features a single, infinitely adjustable lever for drum steering and engine speed control. In the 3- and 4-channel versions, rpm adjustment and steering are seamlessly combined into one lever for smooth, highly responsive operation. The Veth Jet is available with diesel or electric drive options, including a vertically mounted electric motor for space-saving installation.





Veth Jet ratings

TYPE	POWER (KW)	PROPELLER DIAMETER (MM)
K-800(v)	191	Ø780
K-1000(v)	283	ø980
K-1000NR	280	ø980
K-1200(v)	404	ø1180
K-1300(v)	478 / 487	ø1280
K-1300A	577	ø1280
K-1400(NR)	618	ø1420
K-1400A	550	ø1420
K-1400B(v)	478	ø1420
K-1650	1062	ø1650
K-1800	1257	ø1800

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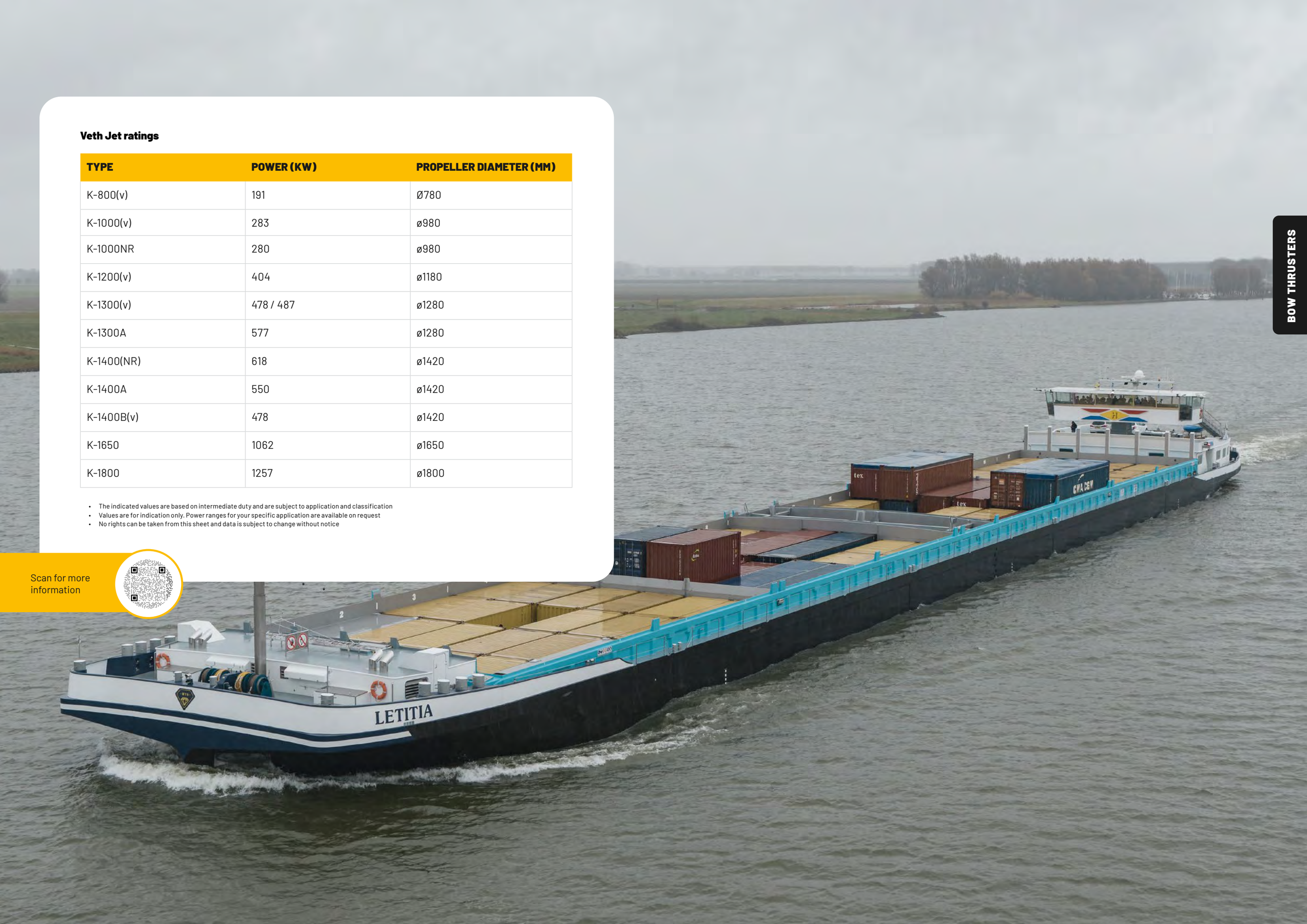

VETH COMPACT JET

Experience top performance with the Veth Compact Jet, a bow thruster designed for maximum thrust, minimal noise, and efficient propulsion. Its unique 17° angled propeller enhances efficiency and increases thrust, making it ideal for shallow draft applications. Unlike conventional thrusters, it directs water through an integrated channel rather than the vessel's structure, ensuring exceptionally quiet operation. With flexible mounting options and the ability to serve as emergency propulsion, the Veth Compact Jet is a versatile and reliable solution.

ADVANTAGES

- Can be used as an emergency propulsion
- Minium noise / vibrations at maximum thrust (flexible suspension)
- Maximum thrust at minimum draft
- Optimum maneuverability maximum thrust through 360 degrees
- Easy to install, no channels required
- Suitable for Dynamic Positioning (DP)

Operations

The Veth Compact Jet offers precise thrust control with its rotating directional housing, ensuring maximum maneuverability. Its durable design features minimal external piping, oil bath, and injection lubrication for long-lasting performance.

Equipped as standard with a 4-blade NiAl bronze propeller, the Compact Jet is also available in different configurations with varying blade numbers. Its efficient design draws water at an angle from beneath the vessel, smoothly guiding it through a hydrodynamic housing for optimal propulsion.

The Compact Jet allows for easy inspections, maintenance, or even propeller replacement—often without the need for dry docking. With minimal hose connections, it can be quickly removed via hoist. Ideal as a bow thruster and emergency propulsion, it is widely used in passenger vessels, self-propelled barges, and other marine applications. The Veth Compact Jet is available with diesel or electric drive options, including a vertically mounted electric motor for space-saving installation.

Veth Compact Jet ratings

TYPE	POWER (KW)	PROPELLER DIAMETER (MM)
CJ-800(v)	225	Ø840
CJ-1000(v)	340	Ø1040
CJ-1200(v)	483	Ø1240
CJ-1400(v)	616	Ø1400

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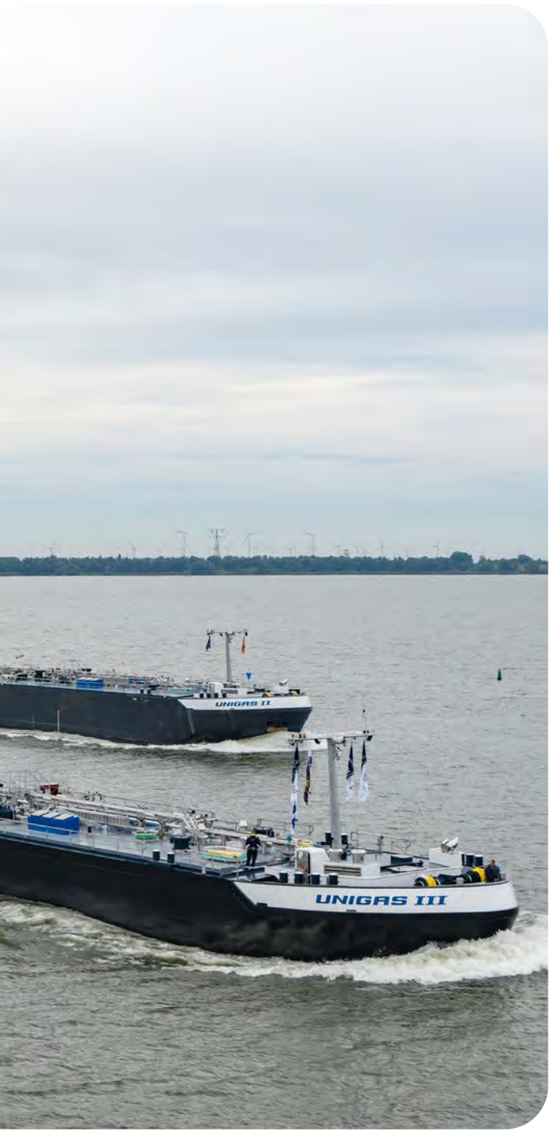
VETH STEERING GRID



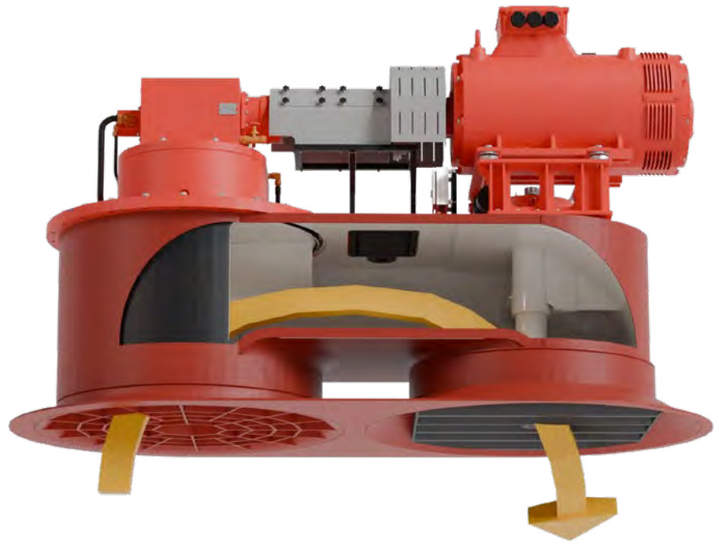
Looking for a 360° steerable bow thruster that maximizes efficiency while saving space? The Veth Steering Grid offers the solution. With a horizontally mounted propeller, it delivers optimal thrust with minimal draft and no protrusions. Based on the proven Veth Jet technology, it guarantees reliability and smooth operation.

ADVANTAGES

- Easy to install, no channels required
- Maximum thrust at minimum draft
- 360 degrees steering
- Compact and easy to install
- Low maintenance due to robust construction

Operation

Installing the Steering Grid is a breeze, offering effortless setup while ensuring maximum thrust with minimal draft. Beyond its primary function, it serves as a reliable emergency propulsion system. Powering the propeller is either a diesel engine or an electric motor connected through a reduction gearbox, guaranteeing versatile performance. The Steering Grid is also available in a version where the electric motor is mounted vertically. This means even less space is needed to install the Steering Grid.



Water intake occurs through the propeller opening beneath the vessel, guided outward through a hydrodynamically streamlined housing. This grid, directly controllable across 360 degrees, enhances maneuverability and control. Compact in design, the gearbox minimizes exterior pipework, while critical components such as the transmission and drive shaft bearings benefit from oil-bath lubrication. Standard-equipped with a 4-blade NiAl bronze propeller, the Steering Grid promises both efficiency and durability in marine propulsion.

Steering Grid ratings

TYPE	POWER (KW)	PROPELLER DIAMETER (MM)
VSG-800	191	Ø780
VSG-1000(v)	283	Ø980
VSG-1200(v)	404	Ø1180
VSG-1300(v)	478	Ø1280
VSG-1300A	577	Ø1280
VSG-1400B	478	Ø1420

- The indicated values are based on intermediate duty and are subject to application and classification
- Values are for indication only. Power ranges for your specific application are available on request
- No rights can be taken from this sheet and data is subject to change without notice

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VIVA ENJOY

VETH COMPACT GRID

The Veth Compact Grid—a compact thruster designed for easy installation, delivers maximum thrust at minimum draft. Combining the Veth Steering Grid's simplicity with the Veth Compact Jet's angled propeller, it delivers unmatched performance in a space-saving design. Ideal for shallow draft, it ensures smooth operation and maneuverability. Discover efficiency and versatility with the Veth Compact Grid.

ADVANTAGES

- Very simple concept
- Higher efficiency
- Maximum thrust at minimum draft
- 360 degrees steering
- Compact and easy to install
- Minimal moving parts

Operation

The Veth Compact Grid delivers unmatched thrust with minimal draft, designed for top performance and reliability. Its innovative design prioritizes simplicity, eliminating the gearbox for lower maintenance and cost-effective operation.

Powered by a hydraulic or electric motor mounted directly on the propeller shaft, the Compact Grid ensures efficient propulsion. Water intake flows through an angled propeller, then is guided out via a hydrodynamic housing and 360° steerable grate for optimal maneuverability.

Steering is fully electric, making it an efficient solution for bow thruster applications. In comparison, the Veth Steering Grid uses hydraulic steering as a standard where the Veth Compact Grid uses electric steering as a standard.

Equipped with a 4-blade NiAl bronze propeller, the Compact Grid guarantees durability and efficiency on every voyage, offering a reliable and streamlined propulsion system for various marine applications.

Compact Grid ratings

TYPE	POWER (KW)	PROPELLER DIAMETER (MM)
VCG-400	50	Ø400
VCG-600	99	Ø580
VCG-750	177	Ø750

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VETH TUNNEL THRUSTER

The Veth Tunnel Thruster delivers powerful, reliable thrust to both port and starboard, ensuring exceptional maneuverability. Designed for maximum performance, it offers various configurations to suit diverse marine needs. Combining innovation with proven technology, this thruster enhances control in any situation. Experience the perfect balance of tradition and efficiency with the Veth Tunnel Thruster.

Image: Amels 60 Damen Yachting

To further enhance onboard comfort, our Active Noise Suppression system injects compressed air ahead of the propeller's flow, minimizing cavitation and reducing noise levels by up to 10 dB. Beyond noise reduction, Active Noise Suppression also mitigates cavitation damage, extending the thruster's lifespan while improving the experience for crew and passengers. Available for both new installations and retrofits, this cost-effective solution is compatible with nearly all Veth tunnel thruster sizes. In addition, extra quiet propeller designs provide further optimization.

Image: American Cruise Lines

ADVANTAGES

- Most efficient bow thruster in terms of side thrust
- Versatile and suitable for a wide range of vessels
- Suitable for Dynamic Positioning (DP)
- Customizable options
- Reduced vibration and noise options

Operation

Enhance performance and reduce noise with the Veth Tunnel Thruster, featuring a streamlined gearbox and a propeller within the tunnel. Powered by a vertically mounted electric or hydraulic motor, it delivers dual-directional drive for seamless maneuvering port and starboard.

Trusted by marine operators worldwide, Veth Tunnel Thrusters excel in diverse applications, from commercial vessels to offshore operations.

Veth Tunnel Thruster ratings

TYPE	POWER (KW)	PROPELLER DIAMETER (MM)
VT-50	64	Ø450
VT-90	113 / 133	Ø600 / Ø650
VT-180	168 / 202	Ø850 / Ø800
VT-240	267	Ø980
VT-320	350	Ø1050
VT-400	510	Ø1200
VT-550A	545	Ø1350
VT-700(A)	775	Ø1500
VT-900(A)	966 / 1000	Ø1800 / Ø1700 / Ø1600
VT-1250	1385	Ø2100

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CONTROL SYSTEMS

Control Systems

Veth Control Systems are designed for seamless integration and precision handling of propulsion systems. With user-friendly interfaces and advanced control features, they provide captains with intuitive operation and real-time responsiveness. Whether managing azimuth thrusters or bow thrusters, Veth's solutions ensure smooth, accurate, and reliable vessel control. Our customizable control systems enhance safety, efficiency, and overall vessel performance, supporting a wide range of marine applications worldwide.

Image: Balk Shipyard

CONTROL SYSTEMS

At Veth Propulsion, we believe that control systems should be as intuitive and reliable as the propulsion or bow thruster systems they operate. That's why we develop and produce all control systems entirely in-house, ensuring seamless integration, maximum efficiency, and the highest levels of serviceability. The Veth Control System (VCS) offers real-time monitoring, data logging, and alarm diagnostics, providing operators with complete oversight and control over their vessel's propulsion. By keeping all hardware and software development under one roof, we ensure fast service, consistent quality, and a tailored approach to each customer's unique requirements.

Veth's dedicated R&D department for electronics is continuously innovating and refining the systems, ensuring they remain at the forefront of marine technology. This in-house expertise allows us to deliver custom-built solutions without relying on third-party manufacturers, guaranteeing rapid response times, full control over updates and modifications, and a long-term commitment to supporting every system we install. A stock of essential parts is also maintained, ensuring quick service and minimizing vessel downtime.

Seamless Integration and Customization
One of the standout features of Veth Control Systems is their adaptability. Unlike off-the-shelf solutions, the systems are highly configurable to fit the operational needs of each vessel. Customers have complete flexibility when it comes to system setup—whether it's modifying lever configurations, integrating third-party Dynamic Positioning (DP) or Voyage Data Recorder (VDR) interfaces, or tailoring control responses to match the operator's preferences. For instance, if you prefer a non-standard lever orientation, we can customize it to match their specific handling style, ensuring intuitive operation without compromising efficiency.

With the VCS 5.2 version, every custom modification is immediately stored as a standard software option, making it easier for future customers to adopt similar setups and simplifying service operations. This evolution makes the system more configurable, serviceable, and adaptable than ever before. The new design also features more compact, aesthetically refined control panels, ideal for high-end applications such as luxury yachts where space and visual appeal are crucial.

Cutting-Edge Features and Unmatched Safety
Veth Control Systems are built not just to meet but to exceed industry safety standards. The latest VCS 5.2 includes redundancy measures that ensure continued operation even in the event of a major failure. If the primary control system encounters an issue, the emergency system automatically engages, allowing the vessel to maintain maneuverability and propulsion until it reaches safety.

For the Z-Drive thrusters, we now offer advanced travel levers with built-in acquisition systems. These provide real-time feedback on steering angle limitations, power reduction advisories, and throttle control, helping operators avoid pushing the system beyond its optimal limits. If too much throttle is applied, the lever retracts and provides a tactile warning, preventing unnecessary strain on the propulsion system. This level of feedback enhances the communication between the system and the captain, resulting in smoother, safer, and more efficient vessel operation.

A Commitment to Long-Term Service and Support
Veth Propulsion provides a full-service package—from initial system design to long-term maintenance. The dedicated control system service department ensures that any issues are diagnosed and resolved quickly, minimizing vessel downtime. Because we manage all development and historical data in-house, we can provide support for control systems decades after their installation. Even for systems that are 30 to 40 years old, we have the necessary parts and knowledge to service and maintain them, eliminating the need for costly system overhauls. Additionally, the Type Approvals ensure full traceability of materials and configurations used in past installations. This allows us to efficiently support and upgrade older systems, extending their operational lifespan and reinforcing our commitment to long-term reliability.

Designed for the Future of Marine Propulsion
At Veth Propulsion, we don't just build control systems—we build long-term solutions. Whether for commercial vessels, yachts, or specialized marine applications, VCS offers an intuitive, reliable, and fully customizable experience. With a focus on safety, efficiency, and customer-driven innovation, Veth Control Systems ensure that every vessel operates at its highest potential, now and in the future.

Image: Balk Shipyard

READ ABOUT
DEALERSHIPS

WORLDWIDE SALES & SERVICE NETWORK

We're proud to collaborate with a network of official Veth Propulsion representatives across the globe. Our trusted sales and service partners ensure that customers receive expert guidance, technical support, and reliable solutions for their propulsion needs—no matter where they are in the world. From newbuild consultations to urgent repairs, our team is always close by and ready to assist.

Thanks to strategically located service centers and a strong international presence, we guarantee swift response times and professional assistance, keeping vessels operating efficiently and minimizing downtime. Whether it's a harbor on the other side of the world or a shipyard around the corner, there's always a Veth specialist ready to help.

Image: Amadeus Nova

READ ABOUT
GO ELECTRIC

POWERING THE FUTURE

Your electrification journey starts with us. The future of marine propulsion is electric. We are at the forefront of developing innovative hybrid and electric systems that provide cleaner, quieter and more efficient power transmission, all without compromising the reliability you depend on. We understand that transitioning electric systems may seem daunting. Still, along with our solutions, we have extensive industry knowledge and can help you with any questions about making your vessel electric. As industries shift toward sustainability, electrification offers several significant advantages, including reduced emissions, lower fuel costs, minimal maintenance and enhanced vessel performance.

With extensive expertise in power transmission, we understand your unique challenges and offer customized solutions designed to optimize efficiency, improve maneuverability and ensure compliance with evolving regulations. Whether you require hybrid propulsion or a fully electric drivetrain, our advanced technologies and expert engineering guarantee seamless integration and maximized uptime, all while minimizing environmental impact.

TRANSFORMING LUXURY ON WATER

Amadeus Nova's Leap into Diesel-Electric Propulsion. How do you elevate a luxurious passenger vessel to be more efficient, sustainable, and future-ready? This was the challenge we embraced with the Amadeus Nova. The mission? Transitioning from traditional diesel direct-driven thrusters to advanced diesel-electric propulsion.

This transformation wasn't just about meeting regulatory standards but optimizing efficiency, minimizing emissions, and enhancing maneuverability. Our solution: a state-of-the-art propulsion system powered by Veth L-Drive thrusters with permanent magnet motors, ensuring unparalleled power, precision and sustainability.

Now is the perfect time to future-proof your fleet. our experts to discover the endless possibilities for optimizing your vessel.

Scan the QR code to read the entire case study and see how we're shaping the future of marine propulsion.

READ ABOUT **NAUTICAL TRAINING**

Veth Propulsion's Nautical Training program offers a hands-on experience designed to enhance your understanding and skills in maneuvering with azimuth thrusters. Over the course of at least two days, participants gain both theoretical knowledge and practical experience, allowing them to fully grasp the advantages of azimuth propulsion compared to conventional systems.

The training begins with an introduction to the fundamentals of thruster operation, including maneuvering techniques, emergency procedures and the benefits of azimuth thrusters over traditional propulsion. In addition, participants learn about the technical aspects of azimuth thrusters, their electrical control systems, and essential maintenance practices to ensure optimal performance and longevity.

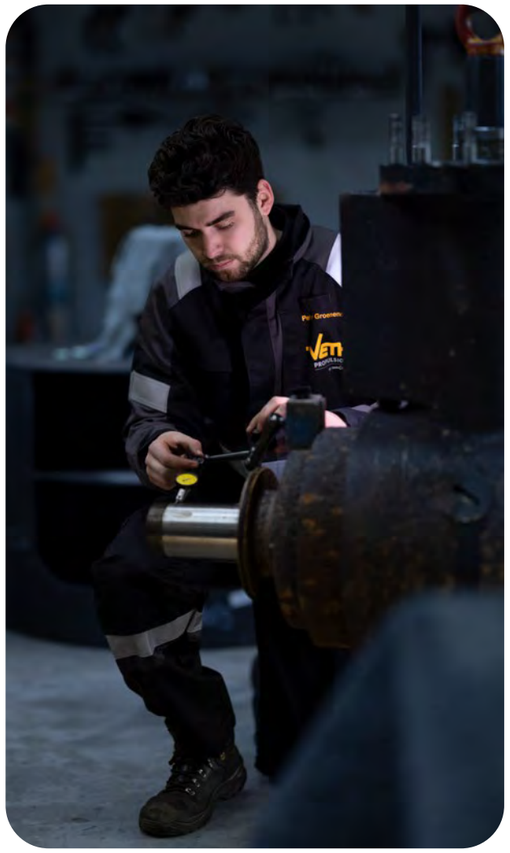
The practical component of the program provides an immersive training environment where participants put their newly acquired knowledge into action. They practice key maneuvers such as leaving and approaching the berth, mooring alongside, and performing precise movements in confined spaces. Special attention is given to emergency situations, including crash stop maneuvers and operating with a single thruster. This hands-on approach ensures that trainees develop the confidence and expertise needed to handle real-world maritime challenges effectively.

Upon completion of the course, participants receive a Certificate of Achievement, recognizing their proficiency in azimuth thruster operation and control.

Please note: This specialized training is available exclusively in combination with a project and is not offered as a standalone course. The training is not included in the project price by default but can be provided upon request.

READ ABOUT **SERVICE**

At Veth Propulsion, our service organization is built on three core disciplines: Control Systems, Diesel, and Thrusters. These fields work seamlessly together, allowing us to provide comprehensive and efficient support for any propulsion-related challenge. Our team's extensive hands-on experience ensures a high standard of service, with fast and effective solutions to keep vessels in operation. We don't just offer support in the Netherlands—our international partnerships expand our service network worldwide, enabling us to provide rapid, high-quality assistance wherever it's needed.



A COMMITMENT TO EXCELLENCE AND CUSTOMER FOCUS

Our service philosophy is simple: keep our customers sailing, no matter what. We guarantee fast delivery from stock, even for the oldest and most unique systems. We take full ownership of our products throughout their entire lifespan, ensuring they remain reliable and operational. Our 24/7 availability and proactive approach ensures that customers never have to worry—we take care of everything. Professionalism is at the core of everything we do, from our well-prepared mechanics and company vehicles to our one-time fix approach, ensuring every job is completed right the first time. Veth is an approachable and accessible organization, where customers are always recognized and valued. Whether servicing our own systems or supporting third-party products, our goal remains the same: to unburden our clients and guarantee uninterrupted operations.

VETH PROPULSION SALES & SERVICE LOCATIONS

Wherever you sail, Veth Propulsion is never far away. Our extensive network of sales and service locations around the world ensures that you always have access to expert support, reliable parts, and professional assistance right when and where you need it.

From quick service calls to full system installations, our global partners are fully equipped and trained to uphold the quality and reliability Veth Propulsion is known for. With a shared commitment to customer care, we keep your vessel moving anytime, anywhere.

Twin Disc worldwide coverage
As part of Twin Disc, we offer global coverage. Twin Disc has **250 sales and service points in 83 countries**, ensuring that trained specialists and original parts are always within reach.

Scan for more information

YOU CAN'T BEAT

THE SYSTEM

Twin Disc's extensive array of boat management equipment allows you to tailor your propulsion system to provide the ultimate performance, control and reliability. All Twin Disc marine products have been engineered and manufactured to work seamlessly together to provide unparalleled operating synergy.

You'll experience remarkably ***smooth shifts, impressive speed and amazing slow—speed control and maneuvering*** all steeped in almost a century of rugged dependability in the most rigorous operating conditions.

Whatever her hull, whatever her mission, your vessel will perform better and more reliably with Twin Disc above and below the waterline. Should any Twin Disc component need repair or replacement, our global sales and service network stands ready to support you wherever in the world your boat operates.

MARINE TRANSMISSIONS

Twin Disc engineers more than 100 marine transmission models, from 35 to more than 4000 horsepower.

MARINE CONTROL DRIVES

Twin Disc MCDs deliver two-in-one operation, performing as a fixed ratio drive when underway and as a variable ratio drive when a power divider is required.

HYDRAULIC AND REAR ENGINE POWER TAKE-OFFS

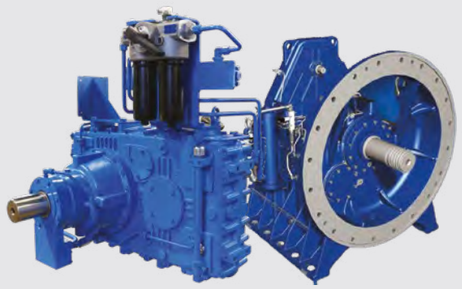
As the brand leader in both wet and dry clutch technology, we offer you unmatched expertise in transmitting power to machinery.

ARNESON® SURFACE DRIVES

Renowned as the most reliable and proven surface-piercing propulsion system with decades of successful applications in pleasure, commercial and military vessels.

PROPULSION CONTROL SYSTEMS

The EC600PC, Express Joystick System and dynamic positioning deliver rugged reliability and capabilities to meet strict commercial and pleasure craft demands.



KATSA MARINE GEARBOXES

Katsa's marine product portfolio features a range of high-performance gearbox solutions, delivering power up to 1300 kW and dynamic torque up to 16,000 Nm.

ROLLA™ PROPELLERS

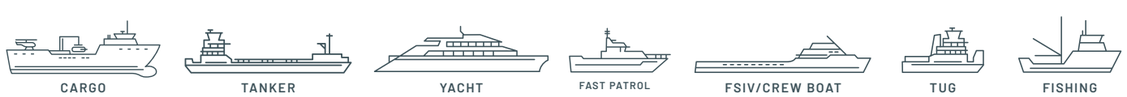
A dedicated pattern for each application assures reliability, performance and longevity.

PUMP DRIVES

Meet hydraulic system needs with industrial pump drives in a wide variety of gear ratios, including speed-increasing and speed-reducing configurations.

VETH PROPULSION

Veth Propulsion designs and manufactures a wide range of propulsion solutions, including azimuth thrusters, bow thrusters and control systems.



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