



**SLEIPNER**<sup>®</sup>

*Ocean born. Tech bred.*

THRUSTERS | STABILIZERS | STEERING | WINDLASSES

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**SLEIPNER**<sup>®</sup>

**OCEAN BORN. TECH BRED.**

#### Quality legacy

We've lived and worked with the unruly sea for a hundred years. That's why we develop important features within a boat that empower you when you're out on the water, allowing you to enjoy the sea even more. That's why you wanted a boat, right?

#### Beautiful engineering

Our technology is world-class. We know because we develop, utilize, manufacture, and follow our solutions until it's fixed into a hull, ourselves. This meticulous attention to detail is why your time on the water will always be better with a Sleipner onboard.

#### Worldwide service

We care. Our global network is there for you to ensure continuous optimal function on your Sleipner solution, even when it has left for distant shores. You can rely on your Sleipner solution, year after year.

# Our story

We are a Norwegian technology driven company, focused on creating world leading products and solutions of uncompromised quality to improve safety and comfort at sea. As boaters we know what safety at sea *means*.

So, we don't let our solutions slip out of sight for a second; We manufacture them ourselves, using technologies we have developed ourselves – and we work in close partnership with boat builders and our global service network to ensure optimal function throughout their lifetime.

You know what you get when you install a Sleipner. Our dedication to boating and innovation ensures that our solutions are the benchmark for the industry, today and tomorrow.



Trustworthy • Knowledgeable • Future ready

## — This is Sleipner —

Established in Norway in **1908** with more than **115 years of experience**. Sleipner has 200+ employees, including **29 engineers** with more than **260 years combined experience** in the marine industry.

**45**

Third party sales and service organizations in **45 countries**.

**18**

**18 CNC operators** with more than **230 years** combined marine experience.

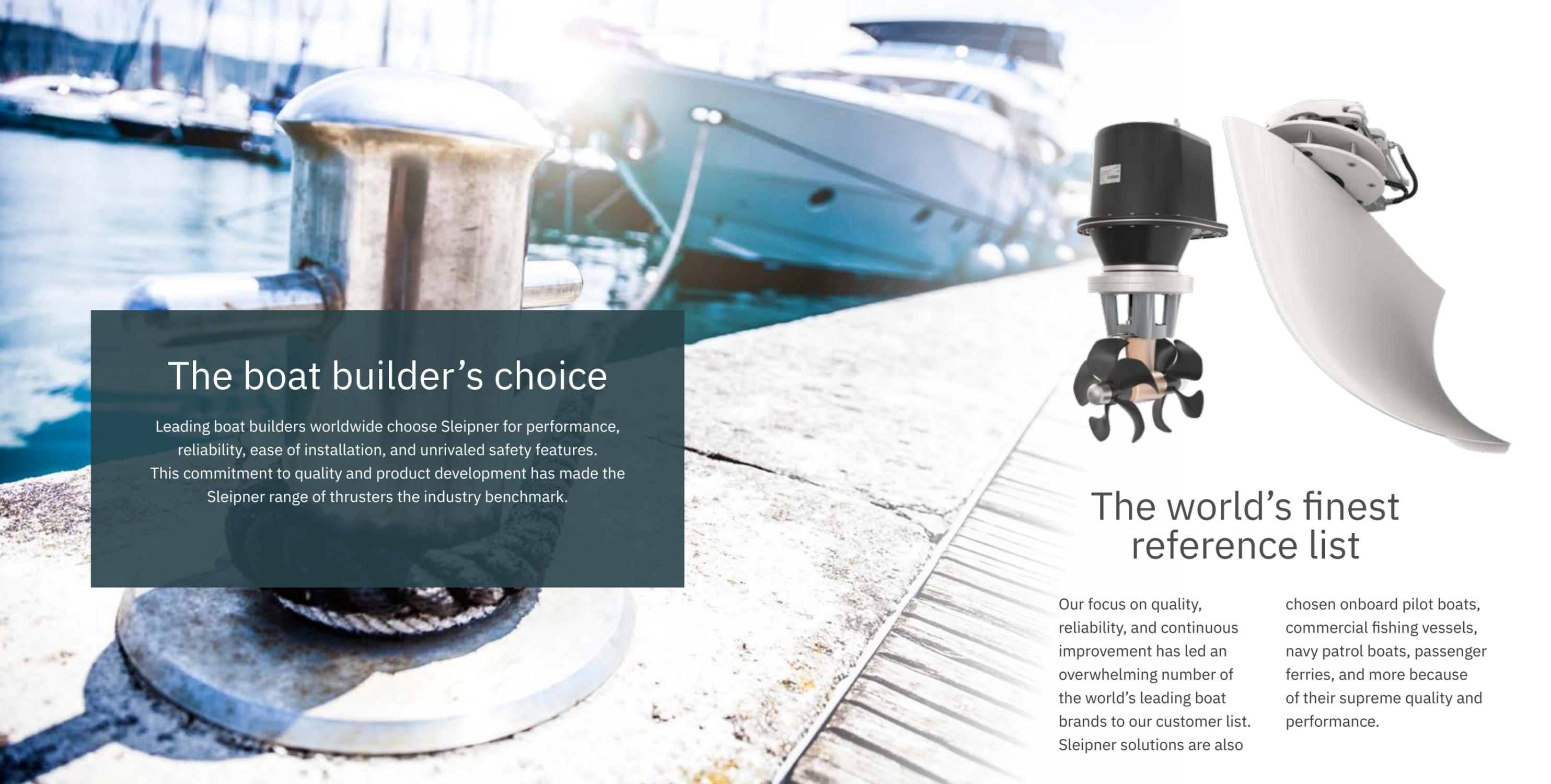
**7**

**7 subsidiaries** providing sales, support and after sales services.

**5**

Strategic technology partnership with **5 external specialists**.





## The boat builder's choice

Leading boat builders worldwide choose Sleipner for performance, reliability, ease of installation, and unrivaled safety features. This commitment to quality and product development has made the Sleipner range of thrusters the industry benchmark.



## The world's finest reference list

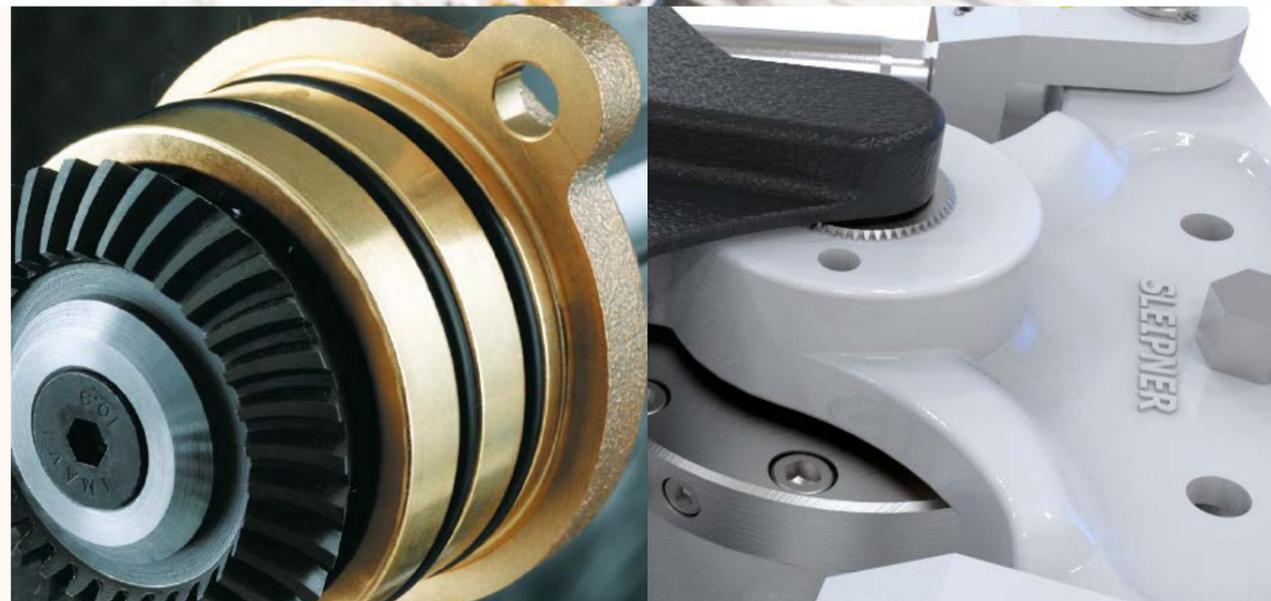
Our focus on quality, reliability, and continuous improvement has led an overwhelming number of the world's leading boat brands to our customer list. Sleipner solutions are also

chosen onboard pilot boats, commercial fishing vessels, navy patrol boats, passenger ferries, and more because of their supreme quality and performance.

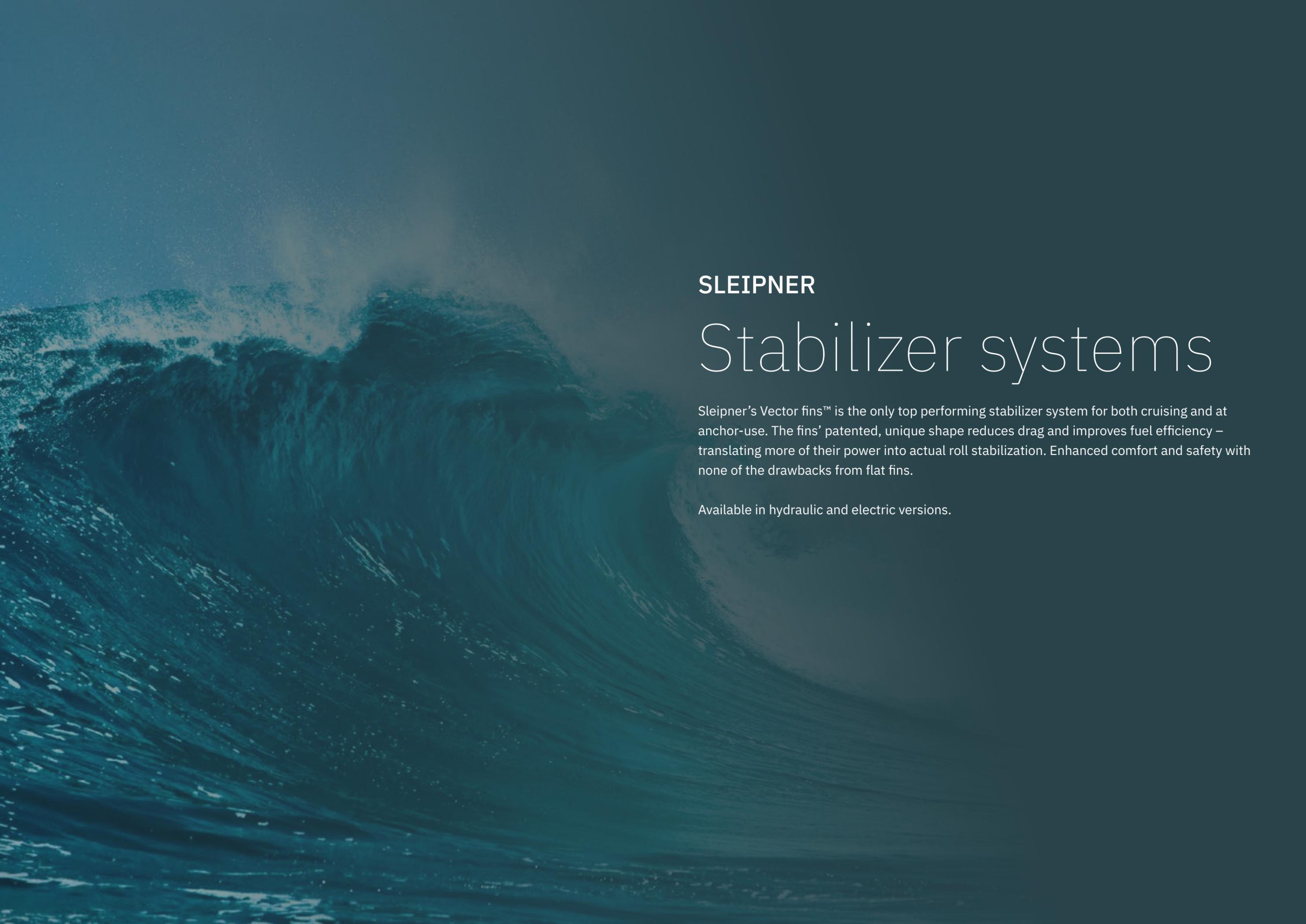
”

When choosing a Sleipner product, you choose a product invented, engineered, and manufactured for boaters - by boaters.

CEO Ronny Skauen



The result of over **115 years of experience.**  
Made in Norway.



**SLEIPNER**

# Stabilizer systems

Sleipner's Vector fins™ is the only top performing stabilizer system for both cruising and at anchor-use. The fins' patented, unique shape reduces drag and improves fuel efficiency – translating more of their power into actual roll stabilization. Enhanced comfort and safety with none of the drawbacks from flat fins.

Available in hydraulic and electric versions.



## Vector Fins™ systems

# Superior stabilization in every situation

Stabilizer systems have been used on larger passenger ships and superyachts for a long time. With ever more compact and efficient systems, boat owners can now enjoy the better usability and comfort on leisure vessels of all sizes.

### What can stabilizers do for you?

Stabilizers reduce the roll movement of a vessel, which is in most situations by far the most dominant and most uncomfortable motion. So reducing roll by a good percentage will make a substantial difference in comfort and safety on board.

However, it is not always so clear what type of stabilization system to choose because the two leading technologies (fins and gyros) have significant functional differences, meaning that no one type suits all boats or all owners' cruising priorities.

### Key things to consider

- Choose the right stabilization technology to match the type of boating you do.
- Check the practical limitations of your boat – not all systems will fit all boats, mainly due to space limitations.
- Consider what is best suited to your boat and what is likely to retain the most value when the time comes to sell – some sizes and style of boat lean more towards one technology than another.

### Understanding the basics

The roll forces depend not just on the wave height but also on the time during which it affects the boat (wavelength). Another big factor is the speed of the boat:  $\text{force} = \text{speed}^2$ . Gyro-type stabilizers are installed inside the boat and get their total roll reduction force from the precession motion that they generate to resist the roll of a boat. They have the same total force regardless of wave period and boat speed with limited force.

Fin stabilizers on the other hand act in the water and have two ways of creating roll reduction force, depending on the boat's speed. At zero speed or 'at anchor' mode, the fins rotate rapidly (flap) to generate force and like the gyro, have a definite limit. However, when the boat is moving forward, fins also generate roll reduction forces by the angle at which they pass through the water, like adjustable airplane wings or underwater foils. This force increases by speed squared, so the faster the boat moves, the more force they generate.

### Vector Fins™ stabilizers

- Unlike Gyros, efficiency increases with speed
- Minimal to no increase in fuel consumption
- Minimal to no loss of speed
- Silent all night operation
- Minimal internal space requirement
- Also suitable for retrofit

### Which system is right for you?

If your only priority is having stabilization at zero speed, with these size choices, the gyro will eliminate more roll than the fins when anchored. However, if you also use your boat on longer cruises and want to have excellent stabilization when cruising in the open sea between sheltered anchorages, fins have a colossal force benefit. They can reduce or eliminate many times the wave height and length of a gyro of this size.

Typically  
**55%**  
less side effects

Typically  
**50%**  
more efficient



*Boat owner John Maxey on his experience with Sleipner Stabilizers.*

”  
It is like riding on a Magic Carpet



### Performance of different stabilizer technologies

A stabilizer system with Vector Fins is the only system that effectively handles both cruising and at anchor situations.

Due to their design, gyro stabilizers provide a constant force to stabilize a yacht, while fin stabilizers increase the forces by the square of the speed which makes a big difference.

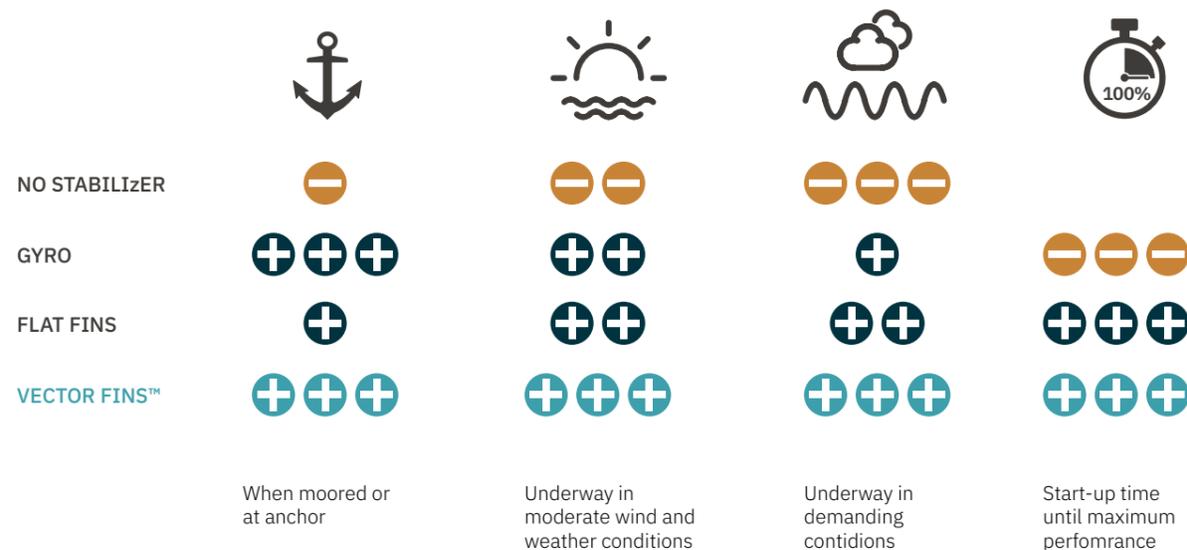
Vector Fins are up to 30% more efficient when cruising and up to 50% more efficient when anchoring. Unwanted additional effects in terms of yaw and swaying can be reduced by up to 55% compared to flat fins.

Gyro stabilizers require a start-up time of 30-45 minutes until they function optimally and are more suited for anchoring due to their construction.

## How to choose the right stabilizer for your boat

Over the last few years, roll stabilization has become a must-have for boat owners due to the impressive increase in comfort it delivers. The dramatic roll reduction modern systems provide also increases safety onboard and as a result, allows many families to get more use out of their boats.

If your only priority is having stabilization at zero speed, with these size choices, the gyro will eliminate more roll than the fins when anchored. However, if you also use your boat on longer cruises and want to have excellent stabilization when cruising in the open sea between sheltered anchorages, fins have a colossal force benefit. They can reduce or eliminate many times the wave height and length of a gyro of this size.



A stabilizer system with Vector Fins™ is the only system that effectively handles both cruising and at anchor situations.

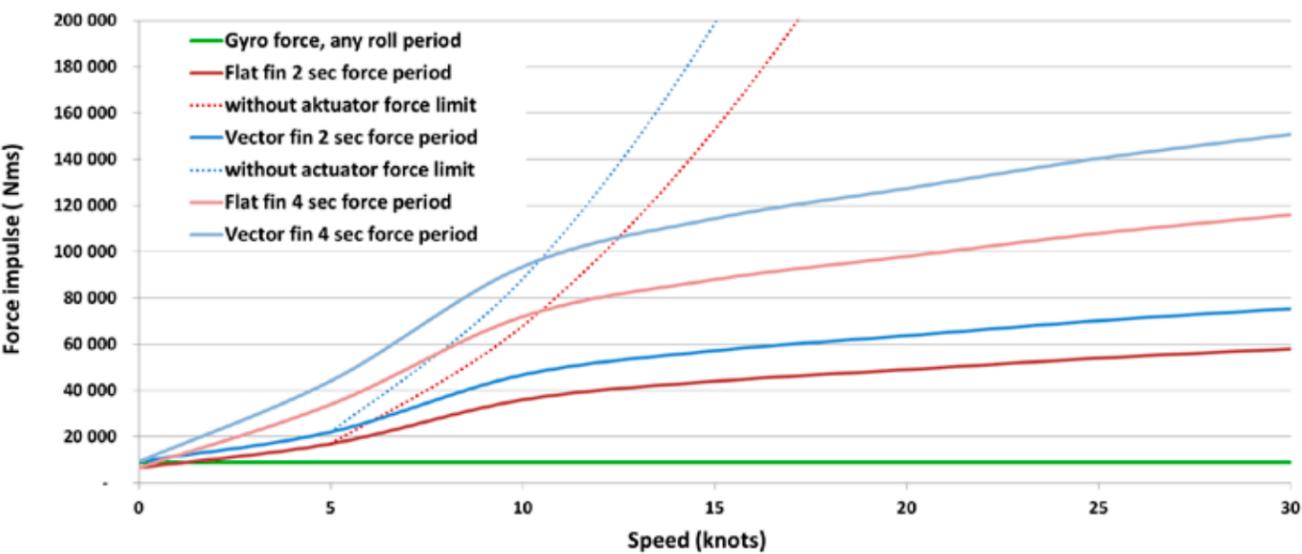
# Vector Fins™

- it's all about the physics

Most boaters who have ever had a stabilised boat would never buy another boat without. Most stabilizer systems on the market today will make a huge impact on onboard comfort, safety and second hand boat value.

However, there are important technological and efficiency differences that must be considered to choose the optimal system for a given boat.

The two most common roll reducing systems on the market today are gyro and fins. It is well established that fins are better for those who want effective stabilization both at anchor and underway, while gyro is good choice for boaters who are primarily focused on at anchor stabilization. The reason is that gyro stabilizers has a maximum stabilization force while fins will increase their stabilising efficiency with speed by a factor of 2.



The sleek and curved fins have minimal direct drag and winglets to avoid wingtip vortex creation.

Curved Vector fins also generate lift at speed, helping to offset drag.

## Verified stabilization test results Princess 56 with VF600 0,6m<sup>2</sup> Vector Fins™



|                             | No stabilizer | Vector Fins™ | Reduction of roll | Reduction of seasickness |
|-----------------------------|---------------|--------------|-------------------|--------------------------|
| <b>Cruising at 11 knots</b> |               |              |                   |                          |
| Maximum roll movement       | 10.4°         | 0.3°         | 97%               | 99.8%                    |
| Average roll movement       | 5.7°          | 0.15°        | 97%               | 99.9%                    |
| <b>At Anchor</b>            |               |              |                   |                          |
| Maximum roll angle          | 9.4°          | 2.6°         | 72%               | 92%                      |
| Average roll angle          | 4.1°          | 1.4°         | 66%               | 88%                      |

# Vector Fins™

## The most efficient stabilizer system on the market

Rolling around at sea is something most people will prefer to avoid if they can. With the modern stabilizing systems available on the market today, they do reduce the risk of becoming seasick by 80-90 percent.

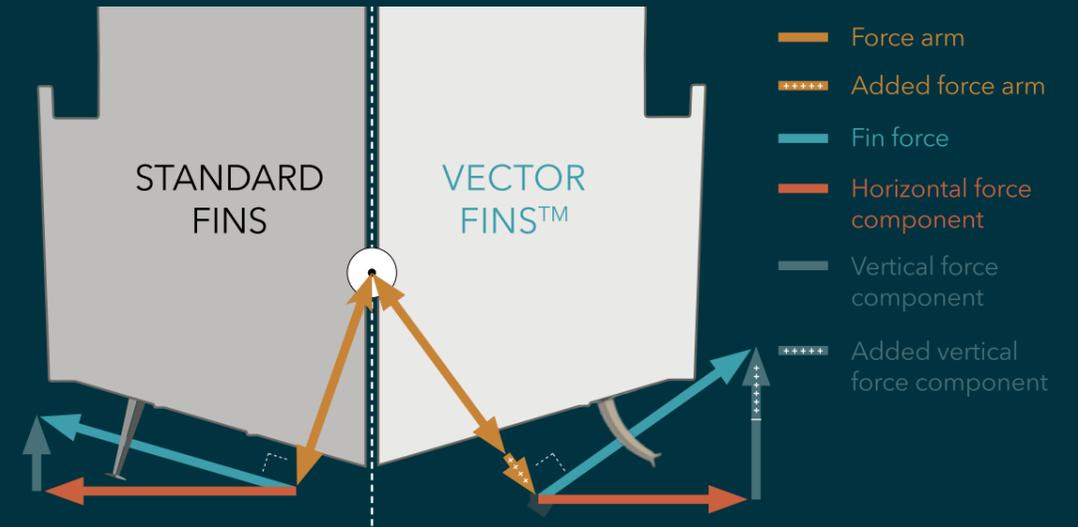
Another aspect worth considering is plain and simple onboard safety.

Let's forget about seasickness and general onboard comfort for a while. A roll of just a few degrees impacts your footing onboard. Unexpected swells catch you off guard and send objects flying around. We've all been there. A stabilized boat is a very different base in terms of both perceived and actual safety.

Over the last few years, roll stabilization has become a must-have for boat owners due to the impressive increase in comfort it delivers. The dramatic roll reduction modern systems provide also increases safety on board and as a result, allows many families to get more use out of their boats.



Up to  
**97%**  
roll  
reduction



This simplified illustration shows how the Vector Fins™ better directs the fin forces toward the desired vertical direction, minimizing the energy waste of too many forces being used in the horizontal plane, which can cause unwanted side effects such as yaw and sway.

# Vector Fins™ – a revolutionary generation of fin stabilizers

Fin stabilizers is the only system that handle well both cruising and “at anchor” use, with the “at anchor” stabilization force deciding the size of the fins.

### Vector Fins™ – a simple solution to a complex problem!

The Vector Fins™ stabilizers dramatically improve the roll reduction efficiency while at the same time reducing undesired yaw and sway motions caused by active fins.

The fins are made as a “one shot” vacuum injected vinylester process over pre-shaped core material in a closed mold method.

Designed with rowing and mat layers to ensure maximum strength and minimum weight. Can even withstand minor damages without totally disintegrating afterwards, unlike traditional production methods often allows.

### Underway

Unlike Gyro stabilizers that always have

the same maximum total force they can apply to reduce roll, independant of boat speed or roll periods, fin stabilizers increase their stabilization force by both speed and roll period when “cruising”.

### At Anchor

As most boat owners spend more time at anchor than underway, it is critical that the stabilization system performs well at any speed, including no speed.

A stabilized boat offers a significant increase in onboard well-being. Moving around, getting the tender out, serving dinner or just getting in and out of the water for swimming becomes a lot easier and safer from a stabilized boat.

Spend those amazing nights at anchor under the stars in a bay - instead of a busy harbour!

### Vector Fins™ benefits

- Up to 50% more efficient than flat fins
- Up to 55% less side effects than flat fins
- Advanced hydrodynamic fin design
- 20% – 50% less resistance than other fins, results in > virtually no loss of speed and thereby no added fuel consumption
- All fins are prepared for high efficiency in “Any Speed” – 2:1 size ratio, also “At Anchor”
- “one-shot” vacuum injected vinylester process
- rowing and math layers to ensure maximum strength

Typically  
**55%**  
less side effects

Typically  
**50%**  
more efficient

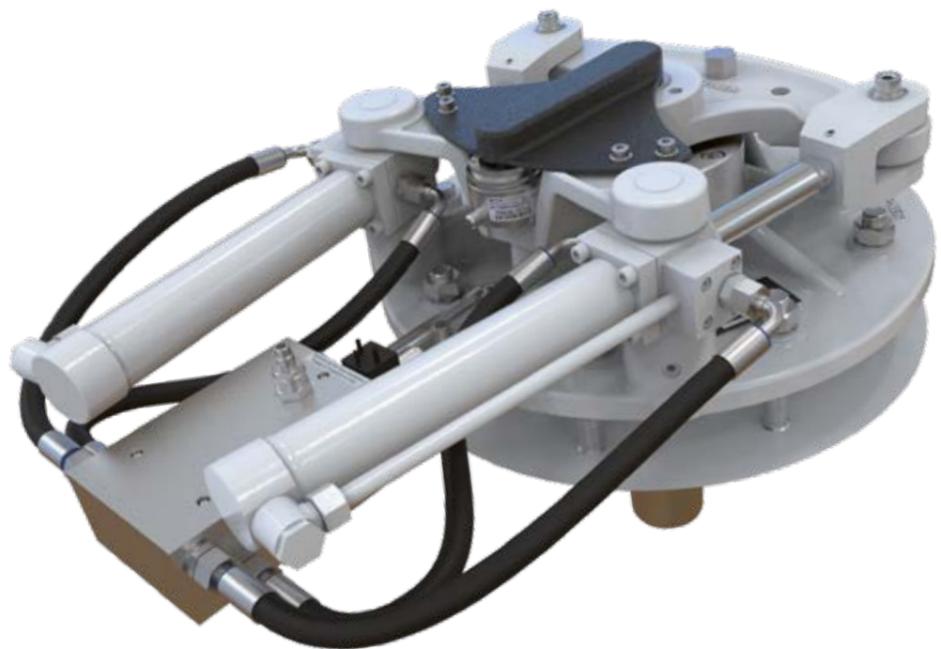


### Product features

- S-Link™
- ANYSPEED
- HYDRODYNAMICAL SHAPE
- INSTANT-ON (MAX POWER AT START-UP)
- POWER SAVE MODE (AC POWER REDUCTION AT ANCHOR)

### Technical details

|                    |                                 |
|--------------------|---------------------------------|
| Ideal Vessel Class | Yacht , Superyacht, Motor Boat  |
|                    | Commercial vessel               |
| Ideal Vessel Size  | 9–55m / 50–140ft                |
| Power              | Electrohydraulic System         |
| Rated Power        | 3,5–15 kW                       |
| Actuator Position  | 360°                            |
| Shaft Positions    | At anchor / Balanced / Underway |



**Advantages of a centralized hydraulic power system**

- High efficiency for moving and holding high loads
- Proven and reliable technology
- Most used power system on boats from 60-70 feet and larger
- Can power many applications from one central hub
- Low maintenance
- Silent operation

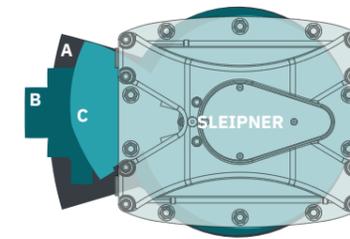
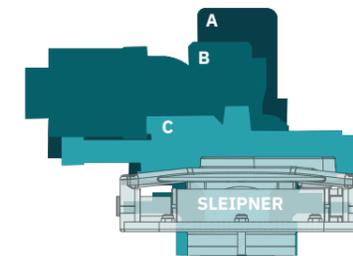
**Hydraulic actuators**

The height inside the boat is often the key measurement to allow for installation in modern boats. The Sleipner actuators are typically 25% to 75% lower than others. They are constructed for easy installation and minimal noise reproduction.

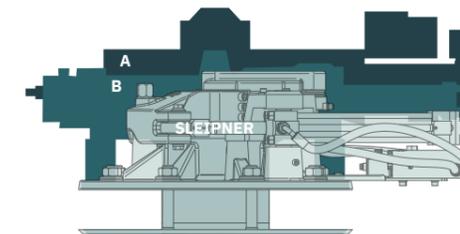
**Technical design benefits**

- Precision machining and assembly ensures a long lifetime and durability.
- No additional center lock, this is automatic in the standard hydraulic system – very safe due to the hydraulics having extreme safety limits.
- Dual cylinders provide
  - balanced load unlike single cylinder solutions.
  - less bearing load, thereby allowing for a more compact shaft bearing assembly.
- Purpose-designed dual shaft sealing - superior to standard Simmer Ring lip seals.
- Internal hydraulic connections on actuators are pre-fitted from factory, the installer only connects non-moving hoses/ pipes - Easier and safer.
- No complex adjustments required to set up controller with lots of factors, these are set automatically on first seatrial of the boat.
- Most stabilizer systems require you to periodically service

- their bearings, meaning either a part change, lubrication and/or mechanical adjustments. Sleipner's latest generation of bearings do not need any of that, saving time and money for the owner with lifetime lubricated high-end bearings as standard, meaning one less service point on your vessel.
- Fins are installed and removed very easily and quickly from the outside for best convenience in transport or other haul-out situations where this might be needed.
- Defined shaft-shear point in case of the fins accidentally hitting something.
- All exterior parts are in stainless steel.



Size of Sleipner actuators compared to other brand actuators for similar fin sizes



Sleipner actuators

The most compact actuator



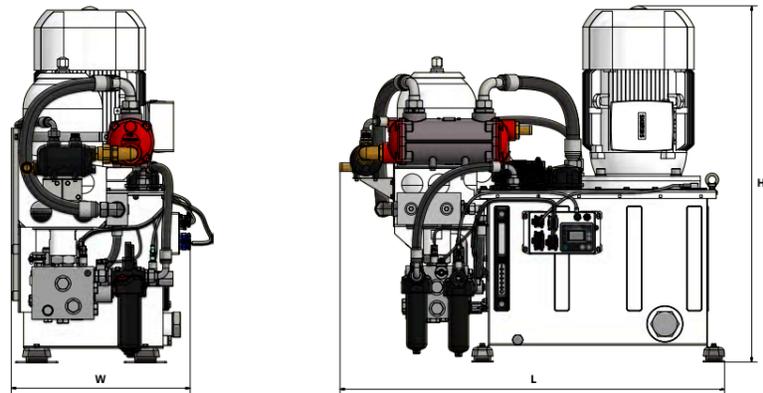
Compact, quiet and easy to install



**Hydraulic Power pack for standalone installations**

This a complete hydraulic power unit (HPU) for installations where the vessel does not have a hydraulic thruster system. All of the hose and wire connections are pre-installed, allowing for faster system install and startup in the field. All connections are focused on two sides of the tank, allowing installation in confined spaces.

We also offer pre-connected and easy to install central hydraulic systems with S-Link™ CAN bus system.



|                             |               |                 |                 |                   |                   |
|-----------------------------|---------------|-----------------|-----------------|-------------------|-------------------|
| Power pack                  | 10 4435C-W-01 | 10 4450C-W-01   | 10 4455C-W-01   | 10 44110C-W-xx-xx | 10 44150C-W-xx-xx |
| Rated power (kw)            | 3.5           | 4.6             | 5.5             | 11                | 15                |
| Weight (kg • lbs)           | 111 • 245     | 116 • 256       | 135 • 298       | 300 • 661         | 312 • 687         |
| L (mm • in)                 | 726 • 28.6    | 726 • 28.6      | 780 • 30.7      | 1087 • 42.8       | 1087 • 42.8       |
| W (mm • in)                 | 432 • 17      | 432 • 17        | 465 • 18.3      | 506 • 19.9        | 506 • 19.9        |
| H (mm • in)                 | 762 • 30      | 756 • 29.8      | 790 • 31.1      | 1006 • 39.6       | 1006 • 39.6       |
| Generator load (kVA)*       | 4.6           | 6               | 7               | 13                | 18                |
| For fin size (short r. p.)* | VF650 (SPS55) | VFS800 (SPS55B) | -               | VFS1450 (SPS93B)  | VFS1650 (SPS93B)  |
| For fin size (long r. p.)*  | VF650 (SPS55) | VFS800 (SPS55B) | VF1050 (SPS66B) | VFS1450 (SPS93B)  | VFS1650 (SPS93B)  |

\* Single phase supply will increase current with factor 1.73 and will require more margins on generator capacity.  
 \* ECO mode available in new 2018 control system for reduced generator load.  
 xx-xx - available in 230V 1-phase, 230V 3-phase and 400V configuration.

\* Short r. p. = Short roll period  
 \* Long r. p. = Long roll period  
 Roll period is the time between two waves



Courtesy of Ferretti Group



**DMC-SCU Dynamic Motion Controller TP-43**

4,3" Sunlight color touch panel for ease of use and control. Multiple Control panels can be installed in one system.

**Built in Wi-Fi module:**

- Enables for software upgrades for the S-Link™ system without additional compute tools or service technicians
- Allows for faster support as service technicians can remotely access the control system upon request

**Features**

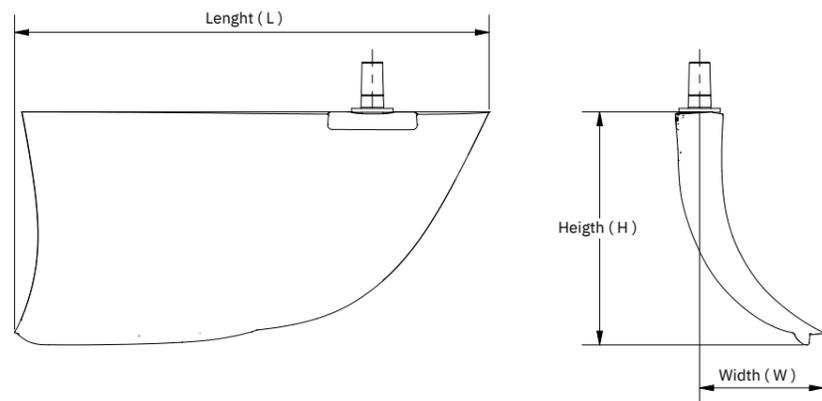
- Continuous development of the best control software possible, cooperating with leading companies in control technologies.
- Self adjusting – advanced algorithms – also “Any/No Speed” functions for stabilization at anchor.
- Easy upgrade of software ensures future compatibility and improvements.
- Reverse gear position input, but also other sensors to safeguard that fins are centered and locked immediately if the boat is starting to move backwards.
- GPS speed input (no shaft sensor) helps control algorithms do the best possible job.
- S-Link™ integrates common intelligence with thruster systems and main hydraulics.
- Can be flushed mounted.

# Hydraulic Vector Fins™

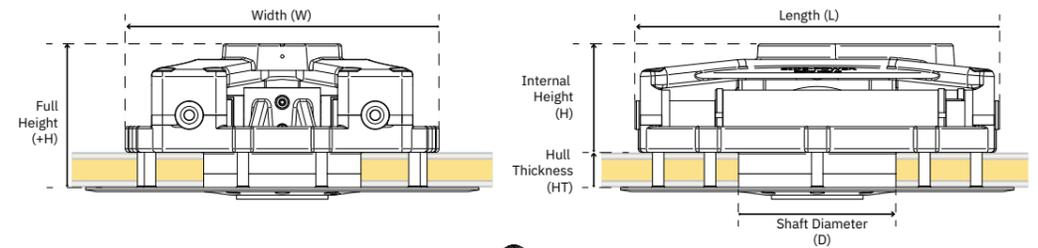


| Vector Fins™                | VF650  | VFS800 | VF1050       | VFS1450 | VFS1650      | VFS1950      |
|-----------------------------|--------|--------|--------------|---------|--------------|--------------|
| Any speed stabilizing       | Yes    | Yes    | Yes          | Yes     | Yes          | Yes          |
| Instant on                  | Yes    | Yes    | Yes          | Yes     | Yes          | Yes          |
| 4-fin configuration         | Yes    | Yes    | Yes          | Yes     | Yes          | Yes          |
| Industry leading efficiency | Yes    | Yes    | Yes          | Yes     | Yes          | Yes          |
| Coordinated turn control    | Yes    | Yes    | Yes          | Yes     | Yes          | Yes          |
| Performance priority*       | -      | -      | -            | -       | Yes          | Yes          |
| AC Power Save Mode          | Yes    | Yes    | Yes          | Yes     | Yes          | Yes          |
| Compatible actuator         | SPS55B | SPS55B | SPS66B / 67B | SPS92B  | SPS93B / 94B | SPS96B / 97B |

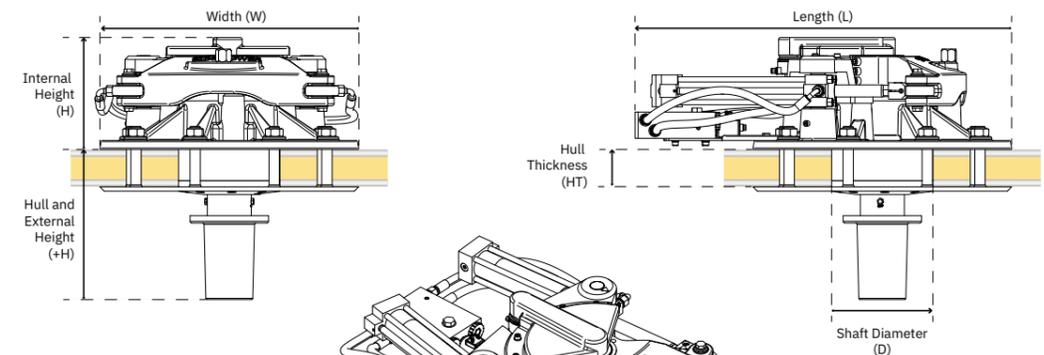
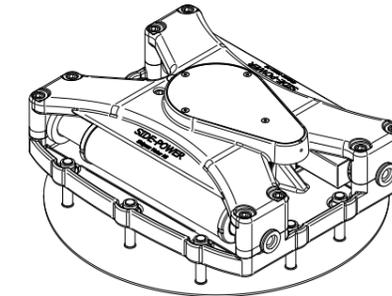
\* Fins with the performance priority feature allows for at anchor stabilization, balanced or high-speed performance optimisation.



| Vector Fins™ (mm)      | VF650             | VFS800            | VF1050            | VFS1450           | VFS1650           | VFS1950           |
|------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| (H) Height             | 667               | 718               | 847               | 947               | 1010              | 1098              |
| (L) Length             | 1270              | 1463              | 1618              | 1925              | 2056              | 2235              |
| (W) Width              | 337               | 381               | 427               | 502               | 537               | 583               |
| Size (m <sup>2</sup> ) | 0,65              | 0,80              | 1,05              | 1,45              | 1,65              | 1,95              |
| Weight                 | 0 weight in water |

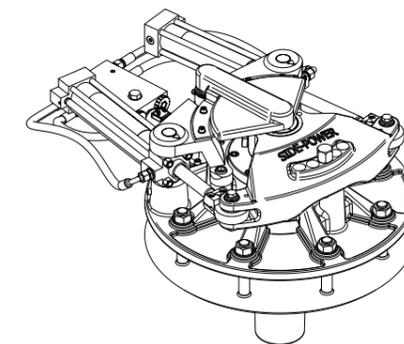


**Measurements SPS55B**



**Measurements SPS66B / 67B / 92B / 93B / 94B / 96B / 97B**

For metal framed boats extra actuator available



| Actuator (mm)          | SPS55B | SPS66B | SPS67B-167 | SPS67B-208 | SPS92B | SPS93B | SPS94B | SPS96B | SPS97B |
|------------------------|--------|--------|------------|------------|--------|--------|--------|--------|--------|
| (H) Height             | 152    | 192    | 191        | 191        | 265    | 265    | 260    | 260    | 260    |
| (+H) Additional Height | -      | 319    | 408        | 450        | 347    | 346    | 496    | 346    | 496    |
| (L) Length             | 510    | 773    | 773        | 770        | 871    | 871    | 871    | 873    | 874    |
| (W) Width              | 440    | 550    | 550        | 550        | 700    | 700    | 700    | 700    | 700    |
| (D) Diameter           | 220    | 175    | 175        | 175        | 235    | 235    | 235    | 235    | 235    |
| (HT) Hull Thickness    | 49     | 72     | 160        | 202        | 87     | 87     | 239    | 87     | 239    |
| Weight                 | 100    | 105    | 114        | 114        | 185    | 185    | 190    | 185    | 190    |

## Electric Vector Fins™ stabilizer system

**NEW**

### A more sustainable choice

Vector Fins™, with their unique and patented design, direct their forces in a much more efficient direction than flat fins for roll stabilization. This benefits stabilization in anchoring and cruising situations. The fins also create lift while cruising, reducing the drag of the boat's hull.

Practically speaking this means that:

- The top speed of the boat will be higher than with flat fin stabilizers
- You will use less fuel than with flat fin stabilizers
- You will consume much less energy from your generator or batteries to achieve the same stabilizing forces at anchor

### Quiet operation

The new Sleipner electric actuator solves the challenge of structural born noise from electric or electro-mechanic actuators. The patented solution isolates the moving, mechanical high-torque gears and motor from the boat reducing about 92% of structural born noise.

Sleep on it!

”

The third generation Vector Fins™ typically doubles the stabilizing force per kW input compared to flat fins at anchor.

CEO and Head of R&D  
Ronny Skauen



The result of over  
**1600 installations and 14 years of research.**  
Made in Norway.

## Significantly more effective

No one can tackle the climate challenges alone, but we can all contribute. The 3rd generation Vector Fins™ are more efficient underway and at anchor. For faster boats the lift from the fins results in improved fuel efficiency compared to flat fins. The fins consume extensively less energy at anchor to achieve the same stabilization level as flat fins. By using the same energy, they stabilize more.

## Better for you, better for the environment

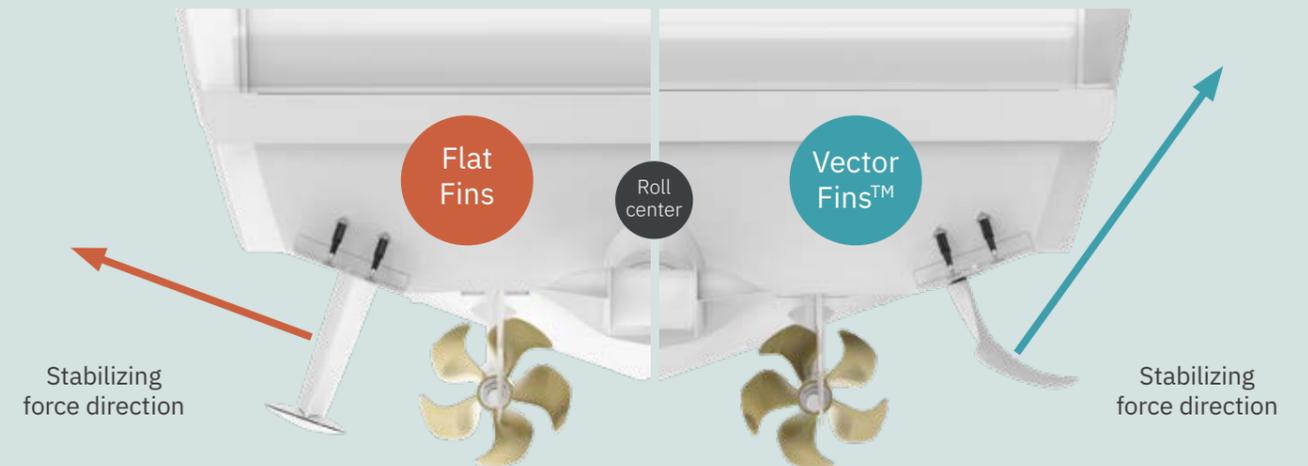
- Significantly more stabilizing forces and comfort at anchor
- Effective stabilization from 0 to 40 knots
- Improved speed and fuel efficiency
- Dramatic reduction in known negative side effects with flat fins
- Patented noise cancellation, eliminating up to 92% of structural born noise

## It's all about physics

In 2013 Sleipner won the most prestigious award in the marine industry for the invention of the Vector Fins™ stabilizers. The patented, curved shape fins improve every aspect of stabilization compared to flat fins.

Where flat fin stabilization systems waste energy creating unpleasant sideways movements of the boat, Vector Fins™ generates much more vertical forces, which in the end, is what works to stabilize the boat the most effectively.

The same size Vector Fins™ will have the ability to stabilize the yacht in larger waves, or it will stabilize better in similar waves. At anchor, it will feel more comfortable, which is what stabilization is all about, as the boat has less yaw and sway.



This simplified illustration shows how the Vector Fins™ better directs the fin forces toward the desired vertical direction, minimizing the energy waste of too many forces being used in the horizontal plane, which can cause unwanted side effects such as yaw and sway.



## Sleipner electric actuators

The compact design of the actuator is cleverly engineered around a frameless torque motor and a Harmonic Drive strain wave gear. A combination of aluminum, composite, and stainless-steel materials for minimal weight and maximum life expectancy. The gear type is chosen considering the sometimes-extreme loads' fins get in heavy seas and have safety factors and features way above the gear types typically used in electric actuators.

### Patented solution for noise cancellation

Another focus has been on noise reduction through its development, resulting in a patented solution reducing 92% of the structural born noise from the actuator.

Another benefit is that it reduces peak stress loads on both the gears and the hull.

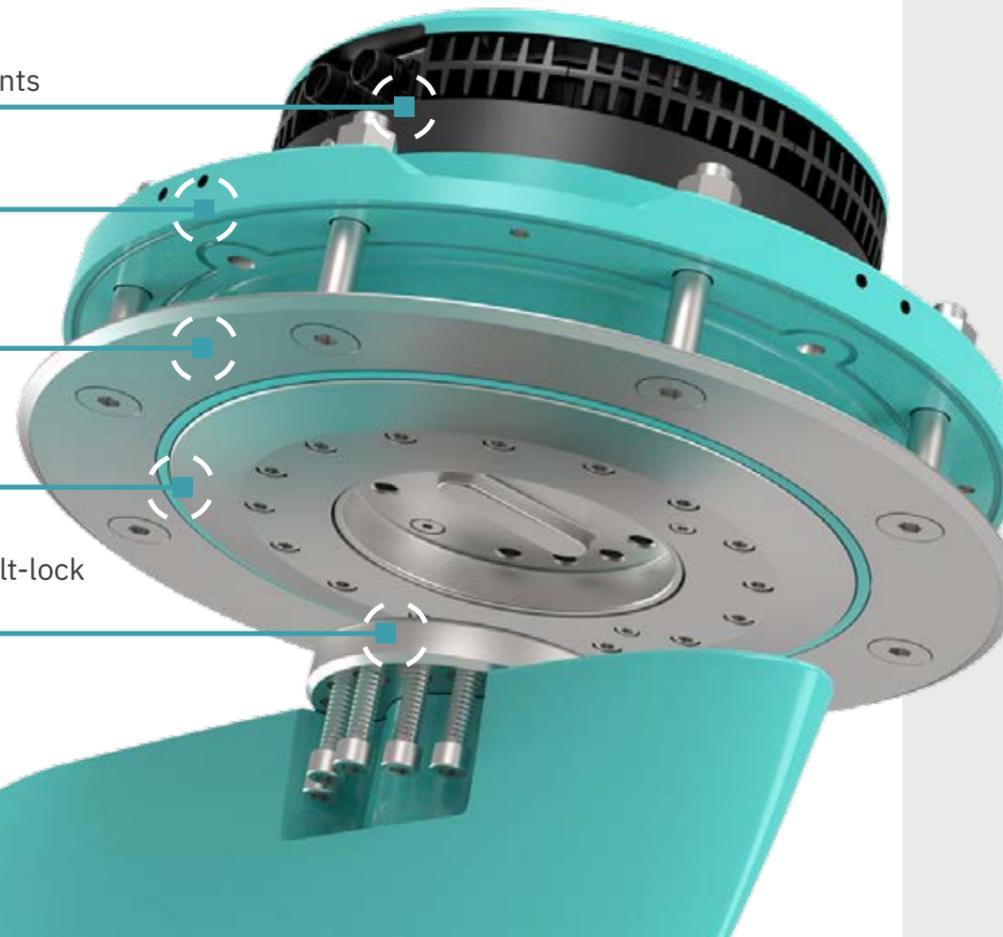
Only premium brand name components

Integrated lifting points

The complete motor unit can easily be separated from the flange

Patented noise reduction

Easier installation with flange and bolt-lock ensuring a 100% connection



### Key features actuator

- Instant on by the press of a button - no start-up period
- Light weight and compact construction
- Ultra responsive and energy efficient brush less motor
- Galvanically isolated design for easy installation in metal hulls
- 24/48V
- 230/400Volt – 1 and 3 phase

### Serviceability

- Most parts can be changed on the water
- Motor unit can be removed from base flange in about an hours work
- Integrated lifting points
- Light weight aluminium construction

### Stabilization panel and software

- Modern touch screen display prepared for flush installation
- Possibility for remote diagnostics and service through onboard Wi-Fi
- Rudder, gearbox and GPS input for more responsive stabilization
- Controls up to four fins for larger yachts
- Optional integration with MFD's (accessory)



### Features

- Dock mode: turn the fin stroke angle more towards the keel when docking longside
- Eco mode: limit power consumption to extend operation time from the battery bank
- DP mode: Analyses gearbox, GPS, and compass heading when operating in Dynamic Position mode to avoid fin lock while reversing in low speed

# Electric Vector Fins™



## Technical data

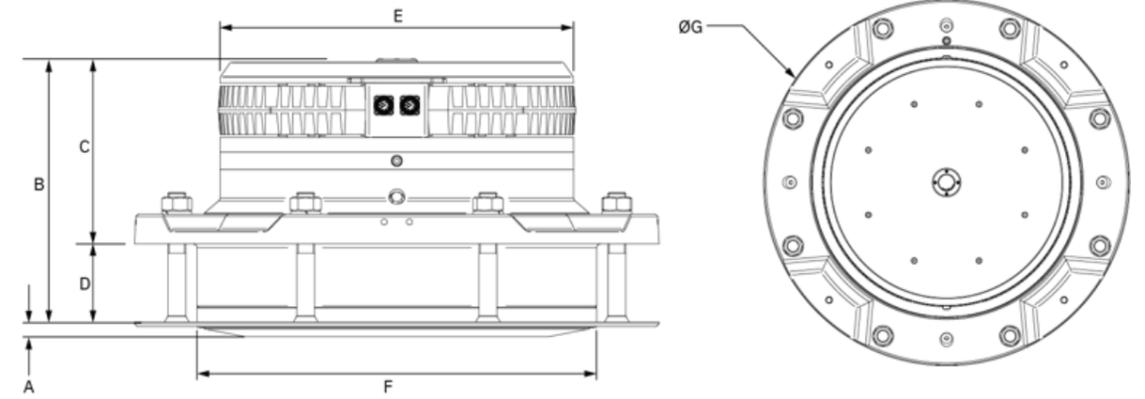
| Actuator type                   | SPS40E                        | SPS50E* | SPS60E          | SPS70E*         | SPS80E  | SPS100E* |
|---------------------------------|-------------------------------|---------|-----------------|-----------------|---------|----------|
| Power supply (VDC)              | 24/48                         | 24/48   | 48              | -               | -       | -        |
| Power supply (VAC)              | -                             | -       | 230(1Φ)/400(3Φ) | 230(1Φ)/400(3Φ) | 400(3Φ) | 400(3Φ)  |
| Typical boat size (ft)          | 45-60                         | 55-70   | 65-80           | 75-100          | 95-125  | 120-150  |
| Fin model up to 25 knots        | V³700                         | V³900   | V³1100          | V³1400          | V³1700  | V³2200   |
| Fin model 25+ knots             | V³550                         | V³700   | V³900           | V³1100          | V³1400  | V³1700   |
| Inside hull materials actuator  | Aluminium housing             |         |                 |                 |         |          |
| Outside hull materials actuator | Composite and stainless steel |         |                 |                 |         |          |
| Actuator weight (kg)            | 65                            | 75      | 118             | TBA*            | 296     | TBA*     |

\* Estimated launch in 2024 - please visit [www.sleipnergroup.com](http://www.sleipnergroup.com) or contact us for updated information



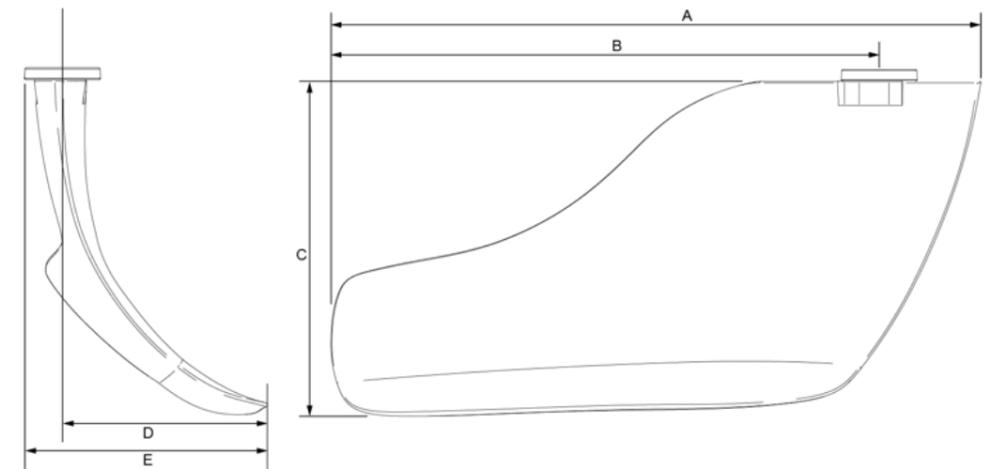
## Main features

|                                    |               |
|------------------------------------|---------------|
| Any speed stabilizing              | Yes           |
| Dock mode                          | Yes           |
| Eco mode                           | Yes           |
| Dynamic Position mode              | Yes           |
| Patented noise reduction           | Yes           |
| Plug and play communication        | Yes - S-link™ |
| Thruster communication integration | Yes - S-link™ |
| Galvanic isolated                  | Yes           |
| 4 fin configuration available      | Yes           |
| On water service                   | Yes           |
| Industry leading efficiency        | Yes           |



## Measurements electric actuators

| Code    | Description                               | SPS40E | SPS50E* | SPS60E | SPS70E* | SPS80E | SPS100E* |
|---------|---|--------|---------|--------|---------|--------|----------|
| A (mm)  | Actuator height outside the hull          | 15.8   | TBA*    | 16.8   | TBA*    | 20     | TBA*     |
| B (mm)  | Total actuator height                     | 223    | TBA*    | 236    | TBA*    | 349    | TBA*     |
| C (mm)  | Actuator height inside the hull           | 173    | TBA*    | 172    | TBA*    | 249    | TBA*     |
| D (mm)  | Hull thickness (sealant included)         | 50     | TBA*    | 60     | TBA*    | 105    | TBA*     |
| ØE (mm) | Diameter of the actuator motor            | 290    | 310     | 350    | TBA*    | 475    | TBA*     |
| ØF (mm) | Diameter of the actuator through the hull | 340    | 360     | 408    | TBA*    | 537    | TBA*     |
| ØG (mm) | Diameter of the actuator base             | 450    | TBA*    | 540    | TBA*    | 705    | TBA*     |



## Measurements Vector Fins™

| Code   | Description                     | V³550* | V³700 | V³900* | V³1100 | V³1400* | V³1700 | V³2200* |
|--------|---------------------------------|--------|-------|--------|--------|---------|--------|---------|
| A (mm) | Total fin length                | TBA*   | 1440  | TBA*   | 1750   | TBA*    | 2260   | TBA*    |
| B (mm) | Fin length to centre connection | TBA*   | 1220  | TBA*   | 1490   | TBA*    | 1920   | TBA*    |
| C (mm) | Total fin height                | TBA*   | 690   | TBA*   | 850    | TBA*    | 1090   | TBA*    |
| D (mm) | Fin with from centre connection | TBA*   | 430   | TBA*   | 520    | TBA*    | 670    | TBA*    |
| E (mm) | Total fin width                 | TBA*   | 490   | TBA*   | 600    | TBA*    | 770    | TBA*    |

\* Estimated launch in 2024 - please visit [www.sleipnergroup.com](http://www.sleipnergroup.com) or contact us for updated information

**SLEIPNER**

# World leading thruster systems

Built for outstanding performance, your time on the water will always be better with a Sleipner thruster onboard. With the world's most extensive thruster range, we can assure you will find the right fit for your boat.

# Thruster finder Our models at a glance

## How to choose the right thruster system

### 1. Thruster power

Whether you have decided to buy a bow or stern thruster, or planning to upgrade an existing installation, you will need to determine the amount of thrust output required to suit your specific need.

By definition, any thruster will, to some extent, get the job done. The key is to ensure that your chosen thruster will perform as expected in your boat specifically.

To choose the optimal solution for your boat, these are the main parameters you need to evaluate:

- Sufficient thrust to cover your intended use of the boat with a good safety margin
- Thruster placement on the boat
- Adequate and sustained energy supply

### 2. Available space for installation

Depending on the thruster size you need to achieve the required performance, the next step is to find the right thruster type based upon available space for installation.

In general, there are three thruster options based on their installation principle:

- Tunnel thrusters
- Retractable thrusters
- External thrusters

Tunnel thrusters are the standard fit for most boats. However, a retractable or external thruster are both great alternatives for vessels with insufficient internal space to fit the tunnel in the desired position.

### 3. Features

There are also optional features to consider. Perhaps the most important decision is whether you want a standard on/off-system or a PRO™ system with variable speed control, also often referred to as a proportional.

Main benefits of PRO™

- Unique hold-function enabling you to set and leave the level of thrust
- Single-handed docking
- Extended run time
- Less noise
- Joystick integration

Most Sleipner thruster models are available as PRO™ with variable speed control.

Other optional features to consider

- Ignition protection
- Cowls for stern thrusters to direct water flow
- Additional control panels for multiple control stations
- Remote controls
- Automatic main switch

### 4. Planning your system

When you have an idea about thruster size, type, and additional features of your choice, we recommend contacting a local Sleipner dealer. A professional installer will ensure an optimal and safe installation in your boat as well as guide you through a complete system setup of:

- Control panel(s)
- Remote control(s)
- Electrical installation and power optimization
- Tunnel and/or stern thruster choices
- Installation materials

Please visit [sleipnergroupp.com](https://sleipnergroupp.com) to get in contact with your closest dealer.

## Visit our website for in-depth information

Blog



How much thruster power do I need?

<https://www.sleipnergroupp.com/knowledge-hub/thrusters/how-much-power-do-i-need-from-a-boat-thruster>

Blog



How to choose the right thruster for your boat

<https://www.sleipnergroupp.com/knowledge-hub/thrusters/how-to-choose-the-right-thruster-for-your-boat>

Blog



Five benefits with variable speed control

<https://www.sleipnergroupp.com/knowledge-hub/thrusters/five-benefits-with-variable-speed-control>

Dealer



Find your closest dealer

<https://sleipnergroupp.com/support/map>

Blog



Do I need a bow thruster on a small boat?

<https://www.sleipnergroupp.com/knowledge-hub/thrusters/do-i-need-a-bow-thruster-on-a-small-boat>

Blog



Pros and cons of different thruster solutions

<https://www.sleipnergroupp.com/knowledge-hub/thrusters/pros-and-cons-of-different-thruster-solutions>

Watch



Magnus Rassy elaborates on PRO™ thrusters onboard a Hallberg Rassy 412

<https://www.youtube.com/watch?v=69GpzXrdpmw>

Blog



Breaking the stereotype: Boat thrusters aren't just for beginners!

<https://www.sleipnergroupp.com/knowledge-hub/thrusters/breaking-the-stereotype-boat-thrusters-aren-t-just-for-beginners>

Products



Explore bow and stern thrusters

[https://sleipnergroupp.com/thruster-systems?IS\\_LEISURE=1/](https://sleipnergroupp.com/thruster-systems?IS_LEISURE=1/)

CAD files



Thruster 3D files for professionals

Watch



User experience: PRO™ thrusters onboard a Bavaria Virtess 42 Fly

<https://www.youtube.com/watch?v=THtrKPa8ATI>

# Thruster finder **Our models at a glance**

## TUNNEL THRUSTERS

Sleipner's tunnel thrusters are the world's top-selling thrusters resulting from over 35 years of development. Over the years, our tunnel thrusters have been installed in more than 300,000 boats worldwide and are the preferred choice by most leading boat builders. With the world's largest selection of tunnel thrusters, there should be no compromise finding a good fit for your vessel.



**DC electric**



**AC electric**



**Hydraulic**

|                                    | DC electric           | AC electric           | Hydraulic             |
|------------------------------------|-----------------------|-----------------------|-----------------------|
| Ideal Vessel Class                 | Motor boat, Sail boat | Yacht, Commercial     | Yacht, Commercial     |
| Ideal Vessel Size                  | 6–30 m / 20–100 ft    | 13–55 m / 42–175 ft   | 9–55 m / 30–175 ft    |
| Power                              | DC 12/24/48V          | AC                    | HYD                   |
| Thrust                             | 20–340 kg             | 320–1400 kg           | 80–1400 kg            |
| Tunnel diameter                    | 110–300 mm            | 250–610 mm            | 185–610 mm            |
| Placement                          | Bow / Stern           | Bow / Stern           | Bow / Stern           |
| PRO™                               | Available             | Yes                   | Available             |
| Ignition Protection                | Available             | Yes                   | Yes                   |
| <a href="#">Learn more on page</a> | <a href="#">40–47</a> | <a href="#">48–51</a> | <a href="#">52–57</a> |

## EXTERNAL THRUSTERS

Sleipner's DC external thrusters are the most compact on the market, making it the perfect choice if you have a boat where the inside configuration does not fit a standard thruster installation. Its versatile design and compact size allow for installation on boats of any hull shape.



**DC electric**



**DC electric**



**DC electric**

|                                    | DC electric           | DC electric        | DC electric           |
|------------------------------------|-----------------------|--------------------|-----------------------|
| Ideal Vessel Class                 | Motor boat, Sail boat | Motor boat         | Motor boat, Sail boat |
| Ideal Vessel Size                  | 6–11 m / 20–37 ft     | 10–17 m / 35–55 ft | 6–18 m / 20–59 ft     |
| Power source                       | DC 12V                | DC 12 / 24V        | DC 12/24V             |
| Thrust                             | 42–62 kg              | 96–116 kg          | 42–116 kg             |
| Tunnel diameter                    | 140 mm                | 185 mm             | 150 mm                |
| Placement                          | Bow / Stern           | Stern              | Bow / Stern           |
| PRO™                               | Available             | Yes                | No                    |
| Ignition Protection                | Yes                   | Yes                | Yes                   |
| <a href="#">Learn more on page</a> | <a href="#">64–66</a> | <a href="#">67</a> | <a href="#">68–69</a> |

## RETRACTABLE THRUSTERS

For cruisers or flat-bottomed boats. Our retractable thrusters are designed with a focus on practical sturdiness, uncompromised safety, and quick deployment. Also suitable as stern thrusters on motorboats that cannot fit a tunnel or external stern thruster on the transom.



**DC electric**



**AC electric**



**Hydraulic**

|                                    | DC electric           | AC electric           | Hydraulic             |
|------------------------------------|-----------------------|-----------------------|-----------------------|
| Ideal Vessel Class                 | Motor boat, Sail boat | Motor boat, Sail boat | Motor boat, Sail boat |
| Ideal Vessel Size                  | 10–30m / 35–98ft      | 22–34m / 72–110ft     | 13–34m / 42–110ft     |
| Power                              | DC 12/24/48V          | AC                    | HYD                   |
| Thrust                             | 80–340kg              | 320kg                 | 240–320kg             |
| Tunnel diameter                    | 185–300 mm            | 300 mm                | 250–300 mm            |
| Placement                          | Bow / Stern           | Bow / Stern           | Bow / Stern           |
| PRO™                               | Available             | Available             | Available             |
| Ignition Protection                | Available             | Yes                   | Yes                   |
| <a href="#">Learn more on page</a> | <a href="#">58–62</a> | <a href="#">58–62</a> | <a href="#">58–62</a> |

### Blog



Pros and cons of different thruster solutions

<https://www.sleipnergrou.com/knowledge-hub/thrusters/pros-and-cons-of-different-thruster-solutions>

# Main thruster features



## **GALVANIC** SEPARATION

Immersed parts exposed to seawater are galvanic isolated from the onboard electrical system, eliminating stray currents.



## **OVERHEAT** PROTECTION

Automatic detection of overheating of internal components. When an unsafe temperature is detected, the unit is automatically shut off to prevent overheating.



## **SAFE STARTUP**

Sleipner control panels use dual 'ON' buttons to engage the product to start to prevent accidental activation for a child-safe environment.



## **GRAVITY FEED** LUBRICATION

The thruster gearleg is supplied with oil from a separate reservoir above the waterline. This generates overpressure, making an effective seal against water intrusion while allowing easy access for oil change.



## **PRO™** VARIABLE SPEED CONTROL

A PRO™ thruster system enables you to apply only the necessary power to complete your maneuver. The variable speed control eliminates the noise associated with standard on/off thrusters.

The system also includes a practical hold-function. In a dual system (bow and stern) a single press of a button will keep you alongside the docks - making docking truly a one-person job.

Speed controlled thrusters are the best choice for joystick interaction.



## **SEALED DRIVE** LUBRICATION

The thruster gearleg is pre-filled for lifetime lubrication and sealed using a long-time mechanical seal with ceramic and carbon surfaces for ultimate security against water intrusion.



## **IGNITION** PROTECTION

Our ignition-protected products are compliant with ISO 8846 and ensure gasoline or other flammable fumes cannot enter or be ignited.



## **Q-PROP**

The Q-PROP™ has measured noise reductions of up to 75% in controlled environments. The five-bladed skew propeller reduces noise levels while maintaining exceptional efficiency. Some thruster models even see an increase in thrust power.

The expected noise reduction in average installations: 20-40%.

Upgrade kits are available for most Sleipner thruster models with special adaptors.



## **S-LINK™**

S-Link™ is a CAN-based control system used for communication between Sleipner products installed on a vessel.

- Compact and waterproof plugs
- Keyed and color-coded connectors to ensure correct and easy installation
- Different cable lengths, extenders and T-connectors makes the system scalable and flexible to install.



## **INTELLIGENT** POWER CONTROL

Sleipner's patented intelligent power control provides a minimal delay between drive directions to reduce wear of the mechanical parts while monitoring solenoid functions. In the case of a solenoid lock-in, the thruster will automatically stop without extra user action or controlling the main switch.



## **SMART** SHUT-OFF

Sleipner control panels are programmed to shut down automatically after approximately 6 minutes without use to avoid accidental activation.

Please visit [sleipnergroupp.com](http://sleipnergroupp.com) for complete technical information and an overview of features per product.

Standard on-off versus variable speed control

# Dock smooth and quietly with speed controlled thrusters

Put a throttle in your thruster!

Get the luxury of silently adjusting how much thrust to use when maneuvering your boat into our out of a tight spot using variable speed control. Combining known performance and reliability with total control of thruster power provides an ease to beginners as well as seasoned boaters, while eliminating much of the noise associated with on-off thrusters.

Increasing boat sizes and the number of boats have outrun the harbor space for many years around the globe, making docking more challenging than ever. Easy maneuvering has become more critical, making thrusters a standard fit in most boats, as they undeniably offer great help while docking in challenging locations or adverse weather conditions.

With many boat owners having had boats with under-powered thrusters, they now would like to have enough power in their thrusters to make sure they perform well and do their job in the worst conditions. To install a thruster system rated for the worst conditions is advisable, as it is in these situations you need a thruster system the most.

However, while docking in calm weather conditions, many boat owners find that using 100% of the thruster effect is unnecessary and creates unwanted noise in an otherwise quiet harbor.

Sleipner PRO (proportional) thrusters will be a different experience and provide a no-compromise solution with fully speed-controlled thrusters. Unlike on-off thruster systems, where you will get a 100% thrust at once, a proportionally controlled system starts at a lower RPM as you throttle on. This makes a massive difference as the softer acceleration

creates a lot less cavitation in the tunnel, which reduces noise in a thruster.

As you can now choose the right thrust for any docking situation, docking in a quiet harbor does not need a lot of power, and you will find that you can slip the boat into your dock almost without making a sound.

When running the thruster at reduced power, the heat development in a DC electric motor is much lower. In most cases, at 50% power or less, you can expect close to continuous run time, only limited by your available power supply.

The first part of docking is maneuvering alongside the pier safe and smoothly. The second part is staying there until you are tied off. With a twin system with variable speed control (bow and stern thruster), you also get a practical hold-function, enabling you to set and leave the level of thrust. It's a feature that short-handed skippers often rely on to pin their boats against the dock while they step off to secure the lines. You can easily adjust the amount of thrust applied depending on the docking conditions.

Visit [www.sleipnergroup.com](http://www.sleipnergroup.com) to learn more.

## Main features:

- Full proportional speed control
- Unique hold-function
- Single-handed docking
- Best choice for joystick interaction
- Wide range of PRO thrusters
- Extended runtime
- Less noise



PRO  
PROPORTIONAL



HOLD  
THRUST



Most thruster systems can be upgraded with several practical benefits.

Available thruster upgrades

# Improve the performance of your existing thruster system

The fact that Sleipner delivers spare parts such as zinc anodes and shear pins to 30-year-old thrusters is a statement of our commitment to our products' quality and longevity, past and present. There are several upgrades to consider to an existing thruster system adding practical value for years to come.

### Upgrade to PRO variable speed control

Most Sleipner (Side-Power) DC 12 and 24V models from 1999/2000 and later can be updated to PRO with variable speed control.

Scan the QR code to see products and videos about upgrading.



### Add a stern thruster

The selection of stern thrusters has increased significantly, allowing space-saving solutions for additional vessel types.

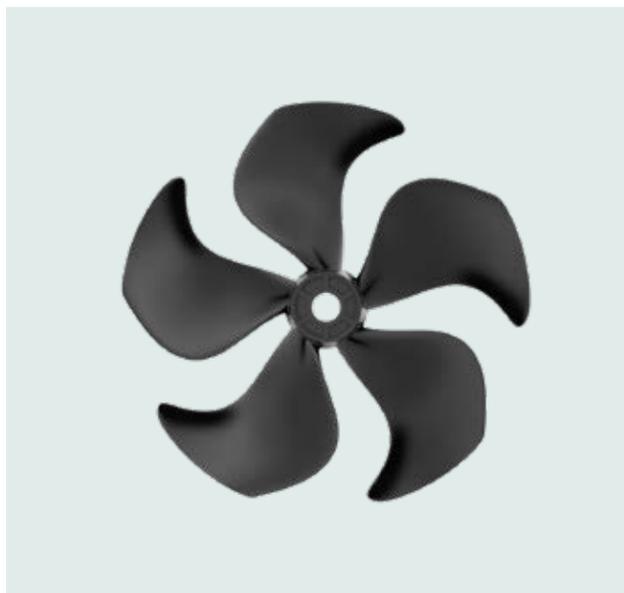
Scan the QR code to see our complete stern thruster program.



### Add a remote control

Free yourself from the dashboard. You can operate the system remotely for easy short-handed docking by adding a remote control.

Scan the QR code to go directly to products.



### Upgrade your propeller

The Sleipner Q-propeller typically reduces noise between 20-40% in average installations, while maintaining or slightly increasing thrust output.

Scan the QR code to check if your thruster can be upgraded.



### Motor upgrade to E-series

Previous Sleipner thruster models can be upgraded with E-series motors if needed. Some models will fit directly on to the old motor brackets and some models will need an adapter plate and/or an upgraded flexible coupling. Contact your local dealer for more information.



# E-series electric tunnel thrusters

Our new top of the line thruster series incorporates a highly efficient, compact, and lightweight electric motor made explicitly for marine thruster use.

When combining our new, state-of-the-art electric motor with the proven Sleipner gearleg design and Q-Prop™ skew propeller, you get a thruster that delivers performance and runtime never seen before in a DC thruster. The result is the new E-series of thrusters.

The E-series comes with the proven quality and performance of Sleipner's gearleg and propeller design. Sleipner has optimized their design through more than 300.000 thrusters delivered over the last 40 years.

Previous Sleipner thruster models can be upgraded with the new E-series electric motor either directly or by utilizing an adapter plate between the bracket and motor.

### Benefits

- Up to 50 percent lighter and smaller motor
- Ignition protected
- Integrated inverter for variable speed control
- Industry-leading runtimes
- Less noise
- More compact
- Splashproof
- Retrofit options
- Made in Norway



With stern thruster kit

### Product features

- ✕ IGNITION PROTECTION
- Ⓢ S-LINK™
- ⊕ SEALED DRIVE LUBRICATION
- ⚙️ Q-PROP™
- ⚡ GALVANIC SEPARATION
- 🔊 PRO™

### Technical details

|                    |                        |
|--------------------|------------------------|
| Ideal Vessel Class | Motor boat, Sail boat  |
| Ideal Vessel Size  | 10–30 m / 35–100 ft    |
| Power              | DC 24/48V              |
| Thrust             | 25–340 kg / 55–749 lbs |
| Tunnel diameter    | 110–300 mm             |
| Placement          | Bow / Stern            |

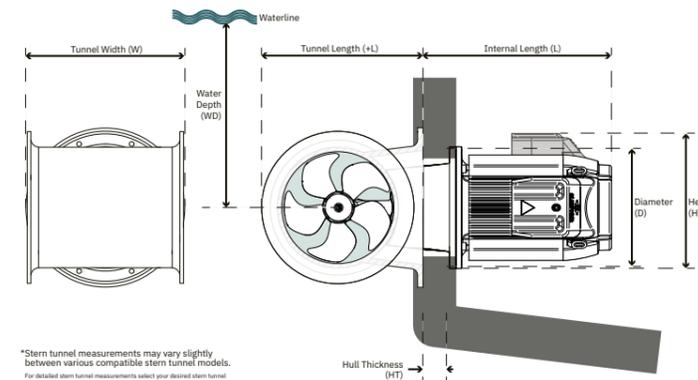
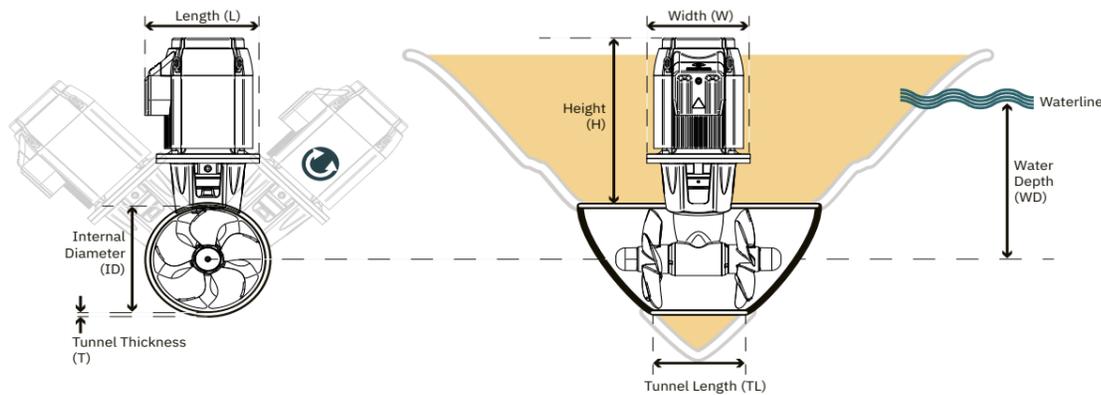


| E-series tunnel thrusters | E100/185T     | E120/215T     | E130/250T     | E150/215T     | E170/250TC     | E210/250TC     |
|---------------------------|---------------|---------------|---------------|---------------|----------------|----------------|
|                           | 24V/48V       | 24V/48V       | 24V/48V       | 24V/48V       | 24V/48V        | 24V/48V        |
| Thrust at 24/48V (kg) *   | 100           | 120           | 130           | 150           | 170            | 210            |
| Thrust at 21/42V (kg) *   | 100           | 120           | 130           | 150           | 170            | 210            |
| Ideal Vessel Size (m/ft)  | 12-17/35-55   | 14-20/44-64   | 13-19/42-63   | 14-20/44-64   | 15-22/50-70    | 17-24/55-78    |
| Internal Diameter (mm)    | 185           | 215           | 250           | 215           | 250            | 250            |
| Propulsion System         | Twin          | Twin          | Twin          | Twin          | Twin Counter   | Twin Counter   |
| Power Output (kW • Hp)    | 5.6 • 7.6     | 6.0 • 8.0     | 5.1 • 6.8     | 8.1 • 10.9    | 7.3 • 9.9      | 10.4 • 14.0    |
| Power requirement (V)     | 24/48         | 24/48         | 24/48         | 24/48         | 24/48          | 24/48          |
| Weight (kg)               | 25            | 27            | 29            | 27            | 30             | 37             |
| Min. Battery CCA** (DIN)  | 290/130       | 330/170       | 270/160       | 430/210       | 395/200        | 580/290        |
| Item Code 24V             | E100/185T-24V | E120/215T-24V | E130/250T-24V | E150/215T-24V | E170/250TC-24V | E210/250TC-24V |
| Item Code 48V             | E100/185T-48V | E120/215T-48V | E130/250T-48V | E150/215T-48V | E170/250TC-48V | E210/250TC-48V |

| E240/250TC     | E250/300TC     | E300/300TC     |
|----------------|----------------|----------------|
| 48V            | 24V/48V        | 48V            |
| 240            | 250            | 300            |
| 240            | 250            | 300            |
| 17-24/55-78    | 22-30/72-100   | 22-30/72-100   |
| 250            | 300            | 300            |
| Twin Counter   | Twin Counter   | Twin Counter   |
| 12.7 • 17.0    | 11.1 • 14.9    | 15 • 20        |
| 48             | 24/48          | 48             |
| 37             | 43             | 43             |
| 330            | 585/295        | 360            |
|                | E250/300TC-24V |                |
| E240/250TC-48V | E250/300TC-48V | E300/300TC-48V |

|                     |        |        |        |        |        |        |
|---------------------|--------|--------|--------|--------|--------|--------|
| Stern tunnel kit    | 90086i | 90135i | 90150i | 90135i | 90150i | 90150i |
| Cowls - short model | 90075  | —      | —      | —      | —      | —      |
| Cowls - long model  | 90077  | 90136  | 90130  | 90136  | 90130  | 90130  |

|        |        |        |
|--------|--------|--------|
| 90150i | 90200i | 90200i |
| 90130  | 90220  | 90220  |



\*Stern tunnel measurements may vary slightly between various compatible stern tunnel models. For detailed stern tunnel measurements select your desired stern tunnel model from the compatible products tab.

| Bow          | Description                   |
|--------------|-------------------------------|
| (H)          | Height                        |
| (L)          | Length                        |
| (W)          | Width                         |
| (ID)         | Internal Diameter             |
| (WD)         | Water Depth                   |
| (TL)         | Recommended Tunnel Length     |
| (TL min.)    | Minimum Tunnel Length         |
| (T min.)     | Minimum Tunnel Wall Thickness |
| (T max.)     | Maximum Tunnel Wall Thickness |
| <b>Stern</b> |                               |
| (L)          | Internal Length               |
| (+L)         | Tunnel Length                 |
| (WD)         | Stern Water Depth             |
| (HT)         | Maximum Hull Thickness        |

Sleipner thrusters can be installed at an angle off the vertical centre. Tailored to fit any space available in your vessel.

| BOW          | E100/185T | E120/215T | E130/250T | E150/215T | E170/250TC | E210/250TC | E240/250TC | E250/300TC | E300/300TC |
|--------------|-----------|-----------|-----------|-----------|------------|------------|------------|------------|------------|
|              | 24/48V    | 24/48V    | 24/48V    | 24/48V    | 24/48V     | 24/48V     | 48V        | 24/48V     | 48V        |
| H (mm)       | 401       | 387       | 387       | 387       | 387        | 427        | 427        | 437        | 437        |
| L (mm)       | 285       | 285       | 285       | 285       | 285        | 285        | 285        | 285        | 285        |
| W (mm)       | 258       | 258       | 258       | 258       | 258        | 258        | 258        | 258        | 258        |
| ID (mm)      | 185       | 215       | 250       | 215       | 250        | 250        | 250        | 300        | 300        |
| WD (mm)      | 185       | 215       | 250       | 215       | 250        | 250        | 250        | 300        | 300        |
| TL (mm)      | 216       | 280       | 323       | 280       | 322        | 323        | 323        | 340        | 340        |
| TL min. (mm) | 179       | 235       | 273       | 235       | 272        | 273        | 273        | 280        | 280        |
| T min. (mm)  | 6         | 6         | 7         | 6         | 7          | 7          | 7          | 10         | 10         |
| T max. (mm)  | 8         | 8         | 9         | 8         | 9          | 9          | 9          | 12         | 12         |

| STERN   | E100/185T | E120/215T | E130/250T | E150/215T | E170/250TC | E210/250TC | E240/250TC | E250/300TC | E300/300TC |
|---------|-----------|-----------|-----------|-----------|------------|------------|------------|------------|------------|
|         | 24/48V    | 24/48V    | 24/48V    | 24/48V    | 24/48V     | 24/48V     | 48V        | 24/48V     | 48V        |
| L (mm)  | 359       | 354,5     | 339       | 354,5     | 339        | 370        | 370        | 387        | 387        |
| +L (mm) | 265       | 300       | 345       | 300       | 344,5      | 353        | 353        | 419        | 419        |
| WD (mm) | 185       | 215       | 250       | 215       | 250        | 250        | 250        | 300        | 300        |
| HT (mm) | 42        | 57        | 42        | 57        | 42         | 33         | 33         | 50         | 50         |

# DC electric tunnel thrusters

Sleipner's tunnel thrusters are the world's top-selling bow and stern thrusters for recreational boats. Over the years, our tunnel thrusters have been installed in more than 300,000 boats worldwide.

The bow and stern thrusters are fitted either in a tunnel through the boat's bow or into a stern tunnel at the boat's stern.

The electric motors, solenoid, patented IPC control system, and mechanical parts of the propulsion system are all custom designed and built - utilizing the extensive experience gained through years of leadership in the global thruster market.

Sleipner's stern tunnels are designed with solid and durable fiberglass to enhance the thruster's performance and are mounted effortlessly in the boat's transom.

### Benefits

- Proven performance
- Low noise
- Flexible installation/mounting
- High-quality components
- Overheat protection
- Low maintenance
- Intelligent Power Control



Also available in PRO versions with variable speed control



With stern thruster kit

### Product features

- INTELLIGENT POWER CONTROL
- SEALED DRIVE LUBRICATION
- GALVANIC SEPARATION
- Q-PROP™

### Technical details

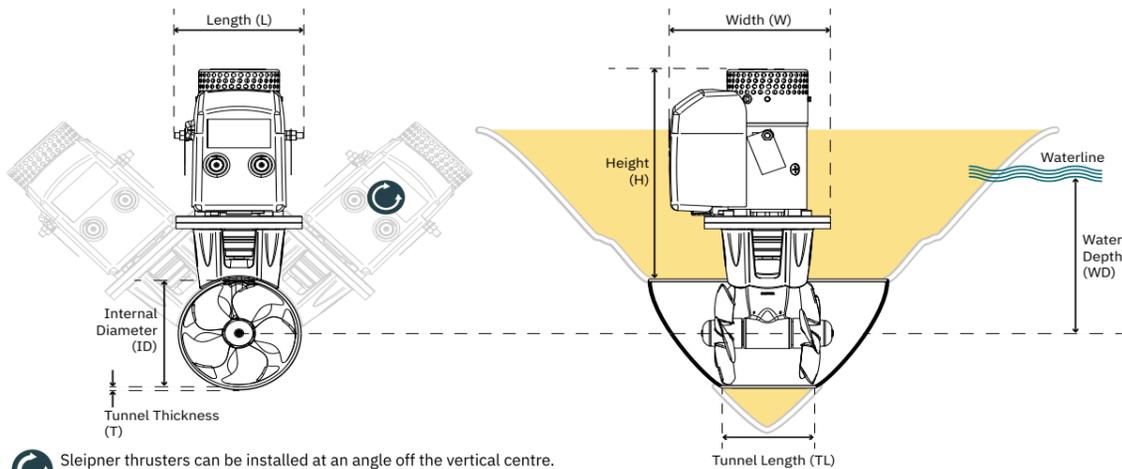
|                    |                        |
|--------------------|------------------------|
| Ideal Vessel Class | Motor boat, Sail boat  |
| Ideal Vessel Size  | 6–30 m / 20–100 ft     |
| Power              | DC 12/24/48V           |
| Thrust             | 25–340 kg / 55–749 lbs |
| Tunnel diameter    | 110–300 mm             |
| Placement          | Bow / Stern            |



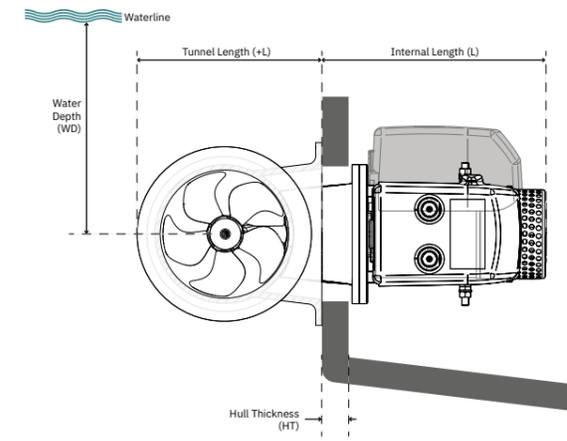
|                          | SE20       | SE25       | SE30 <sup>1</sup> | SE40 <sup>1</sup> | SE50                | SE60                | SE80            | SE100               |
|--------------------------|------------|------------|-------------------|-------------------|---------------------|---------------------|-----------------|---------------------|
|                          | 12V        | 12V        | 12V               | 12V               | 12V 24V             | 12V 24V             | 12V 24V         | 12V 24V             |
| Thrust at 12/24V (kg)    | 25         | 30         | 40                | 48                | 62 62               | 73                  | 96 96           | 116 116             |
| Thrust at 10.5/21V (kg)  | 20         | 25         | 30                | 40                | 50 50               | 60                  | 80 80           | 100 100             |
| Ideal Vessel Size (m/ft) | >7/23      | >7/24      | 6-8/20-28         | 8-10.5/26-34      | 8-11/27-37          | 8-11/27-37          | 10-15/35-48     | 12-17/35-55         |
| Internal Diameter (mm)   | 110        | 110        | 125               | 125               | 140 140             | 185 185             | 185 185         | 185 185             |
| Propulsion System        | Single     | Single     | Single            | Single            | Single Single       | Single Single       | Twin Twin       | Twin Twin           |
| Power Output (kW • Hp)   | 1.5 • 2    | 1.5 • 2    | 1.5 • 2           | 2.2 • 3           | 2.4 • 3.2 2.4 • 3.2 | 3.1 • 4.0 2.4 • 3.2 | 4.4 • 6 4.4 • 6 | 6.3 • 8.4 6.3 • 8.4 |
| Power requirement (V)    | 12         | 12         | 12                | 12                | 12 24               | 12 24               | 12 24           | 12 24               |
| Weight (kg)              | 9.5        | 9.5        | 9.5               | 10                | 15 15               | 15 15               | 20 20           | 31 31               |
| Min. Battery CCA (DIN)   | 200        | 200        | 200               | 300               | 350 175             | 350 175             | 550 300         | 750 400             |
| Item Code 12V            | SE20/110S  | SE25/110S  | SE30/125S2        | SE40/125S2        | SE50/140S-12V       | SE60/185S2-12V      | SE80/185T-12V   | SE100/185T-12V      |
| Item Code 24V            |            |            |                   |                   | SE50/140S-24V       | SE60/185S2-24V      | SE80/185T-24V   | SE100/185T-24V      |
| Item Code 12V PRO        | SEP20/110S | SEP25/110S | SEP30/125S2       | SEP40/125S2       | SEP50/140S-12V      | SEP60/185S2-12V     | SEP80/185T-12V  | SEP100/185T-12V     |
| Item Code 24V PRO        |            |            |                   |                   | SEP50/140S-24V      | SEP60/185S2-24V     | SEP80/185T-24V  | SEP100/185T-24V     |
| Stern tunnel kit         | —          | —          | 90124i            | 90124i            | —                   | 90052i              | 90086i          | 90086i              |
| Cowls - short model      | —          | —          | —                 | —                 | —                   | 90075               | 90075           | 90075               |
| Cowls - long model       | —          | —          | 90126             | 90126             | —                   | 90077               | 90077           | 90077               |



| SE120/215T  | SE130/250T          | SE150/215T  | SE170/250TC | SE210/250TC  | SE250/300TC  | SE300/300TC  |
|-------------|---------------------|-------------|-------------|--------------|--------------|--------------|
| 24V         | 12V 24V             | 24V         | 24V         | 24V          | 24V          | 48V          |
| 139         | 160 160             | 182         | 210         | 250          | 300          | 340          |
| 120         | 130 130             | 150         | 170         | 210          | 250          | 300          |
| 13-18/42-60 | 13-19/42-62         | 14-20/44-64 | 15-22/50-70 | 17-24/55-78  | 18-25/60-84  | 22-30/72-100 |
| 215         | 250 250             | 215         | 250         | 250          | 300          | 300          |
| Twin        | Twin Twin           | Twin        | Twin        | Twin Counter | Twin Counter | Twin Counter |
| 6.4 • 8.55  | 6.5 • 8.7 6.5 • 8.7 | 8.8 • 11.8  | 8.8 • 11.8  | 10 • 13.15   | 11.4 • 15.5  | 15 • 20      |
| 24          | 12 24               | 24          | 24          | 24           | 24           | 48           |
| 34          | 37 37               | 38          | 44          | 68           | 70           | 73           |
| 450         | 750 400             | 560         | 560         | 560          | 700          | 400          |
| SE120/215T  | SE130/250T-12V      |             |             |              |              |              |
| SE120/215T  | SEP130/250T-12V     |             |             |              |              |              |
| SEP120/215T |                     |             |             |              |              |              |
| 90135i      | 90150i              | 90135i      | 90150i      | 90150i       | 90200i       | 90200i       |
| —           | —                   | —           | —           | —            | —            | —            |
| 90136       | 90130               | 90136       | 90130       | 90130        | 90220        | 90220        |



Sleipner thrusters can be installed at an angle off the vertical centre. Tailored to fit any space available in your vessel.



| Bow       | Description                   |
|-----------|-------------------------------|
| (H)       | Height                        |
| (L)       | Length                        |
| (W)       | Width                         |
| (ID)      | Internal Diameter             |
| (WD)      | Water Depth                   |
| (TL)      | Recommended Tunnel Length     |
| (TL min.) | Minimum Tunnel Length         |
| (T min.)  | Minimum Tunnel Wall Thickness |
| (T max.)  | Maximum Tunnel Wall Thickness |
| Stern     | Description                   |
| (L)       | Internal Length               |
| (+L)      | Tunnel Length                 |
| (WD)      | Stern Water Depth             |
| (HT)      | Maximum Hull Thickness        |

| BOW          | SE20 | SE25 | SE30 <sup>1</sup> | SE30 <sup>1</sup> | SE40 <sup>1</sup> | SE40 <sup>1</sup> | SE50   | SE60    | SE80    | SE100   | SE120 | SE130   | SE150 | SE170 | SE210 | SE250 | SE300 |     |
|--------------|------|------|-------------------|-------------------|-------------------|-------------------|--------|---------|---------|---------|-------|---------|-------|-------|-------|-------|-------|-----|
|              | 12V  | 12V  | 12V               | 12V               | 12V               | 12/24V            | 12/24V | 12/24V  | 12/24V  | 12/24V  | 24V   | 12V 24V | 24V   | 24V   | 24V   | 24V   | 24V   |     |
| H (mm)       | 209  | 252  | 263               | 242               | 263               | 242               | 264    | 272/264 | 352/344 | 393     | 394   | 398     | 398   | 412   | 412   | 480   | 490   | 457 |
| L (mm)       | 183  | 183  | 183               | 186               | 183               | 183               | 208    | 208     | 206     | 240     | 243   | 250     | 250   | 245   | 247   | 274   | 274   | 274 |
| W (mm)       | 200  | 198  | 199               | 198               | 206               | 205               | 200    | 200     | 252/261 | 292/272 | 266   | 296     | 277   | 292   | 292   | 337   | 337   | 350 |
| ID (mm)      | 110  | 110  | 125               | 140               | 125               | 140               | 140    | 140     | 185     | 185     | 215   | 250     | 250   | 215   | 250   | 250   | 300   | 300 |
| WD (mm)      | 110  | 110  | 125               | 140               | 125               | 140               | 140    | 185     | 185     | 185     | 215   | 250     | 250   | 215   | 250   | 250   | 300   | 300 |
| TL (mm)      | 133  | 133  | 136               | 168               | 136               | 168               | 152    | 152     | 216     | 216     | 276   | 303     | 303   | 276   | 322   | 323   | 333   | 333 |
| TL min. (mm) | 111  | 111  | 111               | 140               | 111               | 140               | 124    | 124     | 179     | 179     | 233   | 253     | 253   | 233   | 272   | 273   | 273   | 273 |
| T min. (mm)  | 4    | 4    | 4                 | 5.2               | 4                 | 5.2               | 5      | 5       | 6       | 6       | 7     | 7       | 7     | 7     | 7     | 10    | 10    | 10  |
| T max. (mm)  | 6    | 6    | 6                 | 7                 | 6                 | 7                 | 7      | 7       | 8       | 8       | 9     | 9       | 9     | 9     | 9     | 12    | 12    | 12  |

| STERN   | SE20 <sup>3</sup> | SE25 <sup>3</sup> | SE30 <sup>2</sup> | SE30 <sup>2</sup> | SE40 <sup>2</sup> | SE40 <sup>2</sup> | SE50 <sup>3</sup> | SE60     | SE80    | SE100  | SE120 | SE130    | SE150 | SE170 | SE210 | SE250 | SE300 |
|---------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|----------|---------|--------|-------|----------|-------|-------|-------|-------|-------|
|         | 12V               | 12V               | 12V               | 12V               | 12V               | 12V               | 12/24V            | 12/24V   | 12/24V  | 12/24V | 24V   | 12/24V   | 24V   | 24V   | 24V   | 24V   | 24V   |
| L (mm)  | -                 | -                 | 218               | -                 | 228               | -                 | -                 | 231/ 214 | 294/303 | 351    | 361   | 352/ 348 | 380   | 362   | 422   | 440   | 407.2 |
| +L (mm) | -                 | -                 | 188               | -                 | 188               | -                 | -                 | 265      | 265     | 265    | 300   | 345      | 300   | 345   | 360   | 417   | 422   |
| WD (mm) | -                 | -                 | 125               | -                 | 125               | -                 | -                 | 185      | 185     | 185    | 215   | 250      | 215   | 250   | 250   | 300   | 300   |
| HT (mm) | -                 | -                 | 19                | -                 | 17                | -                 | -                 | 43       | 56      | 60/64  | 61    | 56/55    | 73    | 56    | 50    | 68    | 67    |

Please see note regarding thruster power and battery rating on page 114.  
<sup>1</sup> SE30 and SE40 bow thruster are available in both 125 mm and 140 mm tunnel / 125S2 = 125 mm tunnel / 140S = 140 mm tunnel.  
<sup>2</sup> SE30 and SE40 stern thruster are available in 125 mm tunnel only  
<sup>3</sup> SE20, SE25 and SE50 are not available as stern thruster

Also available in PRO versions with variable speed control

# Ignition Protected DC electric tunnel thrusters

## Benefits

- Tested according to ISO 8846 Ignition Protected standards
- Splash proof housing
- Tinned plated brass terminals
- Manufactured, tested and delivered as a ready sealed unit, ensuring that the installer does not have to fit any other parts that can jeopardize the hermetical seal
- Plug & Play control cables
- Accessible components and easy maintenance
- Flexible installation/mounting

Sleipner offers modified versions of our DC electric thrusters to provide reliable and safe thruster installations. The IP version (ignition protected) have a hermetically sealed composite housing around all electric parts. The IP versions are for use in stern and other locations that may get wet or be exposed to gasoline fumes.

An additional advantage is that electric parts that could obtain water damage are also covered and protected, making these thrusters the ideal choice for stern thruster installations where ensuring that the thruster will always remain dry is difficult.

The IP versions have all the benefits and proven reliability of our standard DC electric tunnel thrusters.

### Product features

- IGNITION PROTECTION
- INTELLIGENT POWER CONTROL
- SEALED DRIVE LUBRICATION
- GALVANIC SEPARATION
- Q-PROP™

### Technical details

|                    |                       |
|--------------------|-----------------------|
| Ideal Vessel Class | Motor boat, Sail boat |
| Ideal Vessel Size  | 6–17m / 20–55ft       |
| Power              | DC 12/24V             |
| Thrust             | 40–100kg / 88–220lbs  |
| Tunnel diameter    | 125–185 mm            |
| Placement          | Bow / Stern           |



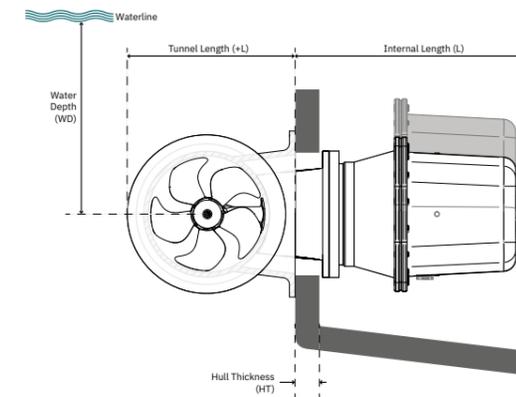
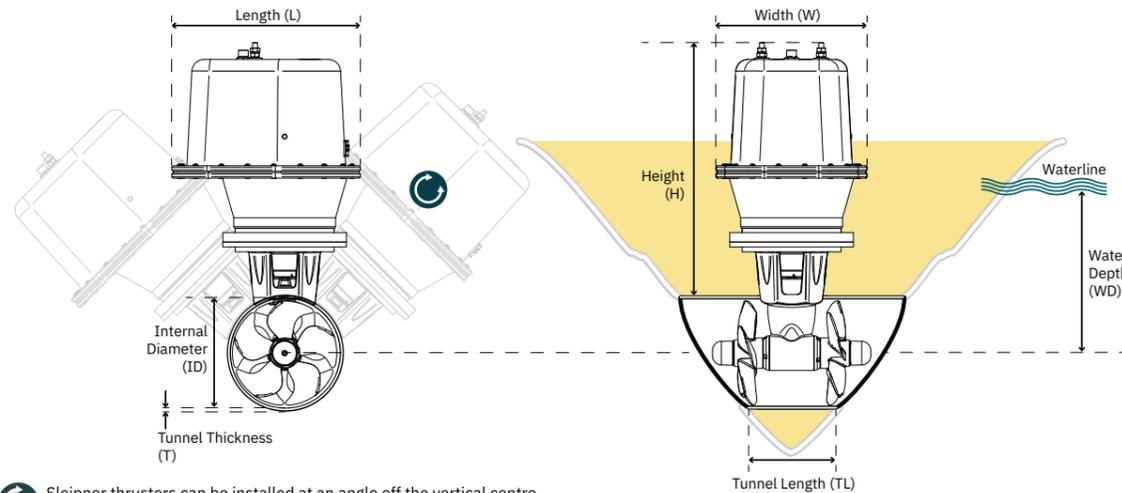
|                          | SE30 IP    | SE40 IP       | SE50 IP     | SE60 IP     |
|--------------------------|------------|---------------|-------------|-------------|
| Thrust at 12/24V (kg)    | 40         | 48            | 62          | 73          |
| Thrust at 10.5/21V (kg)  | 30         | 40            | 50          | 60          |
| Ideal Vessel Size (m/ft) | 6-8/20-28' | 8-10.5/26-34' | 8-11/27-37' | 9-12/29-38' |
| Internal Diameter (mm)   | 125        | 125           | 140         | 185         |
| Propulsion System        | Single     | Single        | Single      | Single      |
| Power Output (kW • Hp)   | 1.5 • 2    | 2.2 • 3       | 2.4 • 3.2   | 2.4 • 3.2   |
| Power requirement (V)    | 12         | 12            | 12/ 24      | 12/ 24      |
| Weight (kg)              | 9.5        | 10            | 15          | 16          |
| Min. Battery CCA* (DIN)  | 200        | 300           | 350         | 350         |

|                     |                  |                  |                 |                  |
|---------------------|------------------|------------------|-----------------|------------------|
| Item Code 12V       | SE30/125S2-12IP  | SE40/125S2-12IP  | SE50/140S-12IP  | SE60/185S2-12IP  |
| Item Code 24V       |                  |                  | SE50/140S-24IP  | SE60/185S2-24IP  |
| Item Code 12V PRO   | SEP30/125S2-12IP | SEP40/125S2-12IP | SEP50/140S-12IP | SEP60/185S2-12IP |
| Item Code 24V PRO   |                  |                  | SEP50/140S-24IP |                  |
| Stern tunnel kit    | 90124i           | 90124i           | —               | 90052i           |
| Cowls - short model | —                | —                | —               | 90075            |
| Cowls - long model  | 90126            | 90126            | —               | 90077            |



| SE80 IP      | SE100 IP     |
|--------------|--------------|
| 96           | 116          |
| 80           | 100          |
| 10-15/35-48' | 12-17/35-55' |
| 185          | 185          |
| Twin         | Twin         |
| 4.4 • 6      | 6.3 • 8.4    |
| 12/ 24       | 12/ 24       |
| 20           | 31           |
| 550          | 750          |

|                 |                  |
|-----------------|------------------|
| SE80/185T-12IP  | SE100/185T-12IP  |
| SE80/185T-24IP  | SE100/185T-24IP  |
| SEP80/185T-12IP | SEP100/185T-12IP |
| SEP80/185T-24IP | SEP100/185T-24IP |
| 90086i          | 90086i           |
| 90075           | 90075            |
| 90077           | 90077            |



Sleipner thrusters can be installed at an angle off the vertical centre. Tailored to fit any space available in your vessel.

| BOW                                      | SE30 IP | SE40 IP | SE50 IP | SE60 IP | SE80 IP | SE100 IP |
|--|---------|---------|---------|---------|---------|----------|
|  | 12V     | 12V     | 12V/24V | 12/24V  | 12/24V  | 12/24V   |
| (H) Height (mm)                          | 291     | 288     | 323     | 321     | 406     | 499/ 510 |
| (L) Length (mm)                          | 238     | 238     | 272     | 272     | 327     | 381      |
| (W) Width (mm)                           | 234     | 234     | 232     | 232     | 262     | 306      |
| (ID) Internal Diameter (mm)              | 125     | 125     | 140     | 185     | 185     | 185      |
| (WD) Water Depth (mm)                    | 125     | 125     | 140     | 185     | 185     | 185      |
| (TL) Recommended Tunnel Length (mm)      | 136     | 136     | 152     | 165     | 216     | 195/ 216 |
| (TL min.) Minimum Tunnel Length (mm)     | 111     | 111     | 124     | 128     | 179     | 158      |
| (T min.) Min. Tunnel Wall Thickness (mm) | 4       | 4       | 5       | 4       | 6       | 6        |
| (T max.) Max. Tunnel Wall Thickness (mm) | 6       | 6       | 7       | 6       | 8       | 8        |

| STERN                       | SE30 IP | SE40 IP | SE50 IP | SE60 IP | SE80 IP | SE100 IP |
|-----------------------------|---------|---------|---------|---------|---------|----------|
|                             | 12V     | 12V     | 12V     | 24V     | 12/24V  | 12/24V   |
| (L) Internal Length         | 256     | 268     | -       | -       | 278     | 364      |
| (+L) Tunnel Length          | 188     | 188     | -       | -       | 265     | 265      |
| (WD) Stern Water Depth      | 125     | 125     | -       | -       | 185     | 185      |
| (HT) Maximum Hull Thickness | 70      | 65      | -       | -       | 88      | 64       |

Please see note regarding thruster power and battery rating on page 114.

# AC electric tunnel thrusters

Sleipner's AC thrusters offer the benefit of unlimited run time, enabling heavier duty usage. Each system is custom-built according to your boat's specifications and working conditions. AC thrusters are also perfect for hybrid or fully electric vessels.

Sleipner's AC thruster systems are precisely matched to the generator capacity to maximize the amount of thrust you get from the system.

Each AC motor is controlled via a Variable Frequency Drive (VFD) to minimize startup loads on the power system and allow for precise control of the thruster with variable speed control. No further setup of the VFD is required. The PDC-301 drive controller is configured from the control panel.

In addition to the standard VFD's, we can deliver low harmonic VFD's for installations with specific THD requirements.

An Electromagnetic Compatibility (EMC) is also included to reduce feedback noise on the vessel's power system.

The innovative S-Link™ control system ensures fast and trouble-free installation, and gives you the unique option to combine hydraulic and AC thrusters in a single control environment.

All of Sleipner's AC systems can be mixed and matched with hydraulic and DC Electric PRO systems with seamless integration.

All AC components are selected from top brand manufacturers ensuring the best quality and worldwide support. Standard range is designed for 230V / 400V. Setup for alternative power supply specifications can be delivered on request.

### Benefits

- Continuous use
- Controlled power
- Reliability
- S-Link™ operating system
- Custom-made, ready to install with Plug & Play wiring
- The choice of leading boatbuilders
- DNV type approval for specific models
- Cost efficient, high quality components
- Suitable for joystick and DP integration



Specific models



- Complete AC thruster kit including
- PDC 301 drive controller
  - Variable Frequency Drive (VFD)
  - Gearleg with propellers and bracket
  - Flexible coupling
  - AC motor
  - EMC filter

### Product features

- S-LINK™
- SEALED DRIVE LUBRICATION
- GRAVITY FEED
- Q-PROP™
- GALVANIC SEPARATION (OPTIONAL)
- PRO™

### Technical details

|                    |                            |
|--------------------|----------------------------|
| Ideal Vessel Class | Motor boat, Sail boat      |
| Ideal Vessel Size  | 13–55 m / 42–175 ft        |
| Power              | AC 230/400V                |
| Thrust cont.       | 240–1200 kg / 529–2646 lbs |
| Thrust max.        | 240–1400 kg / 529–3086 lbs |
| Tunnel diameter    | 250–610 mm                 |
| Placement          | Bow / Stern                |

Image courtesy of Sunseeker Inc.



For leisure usage

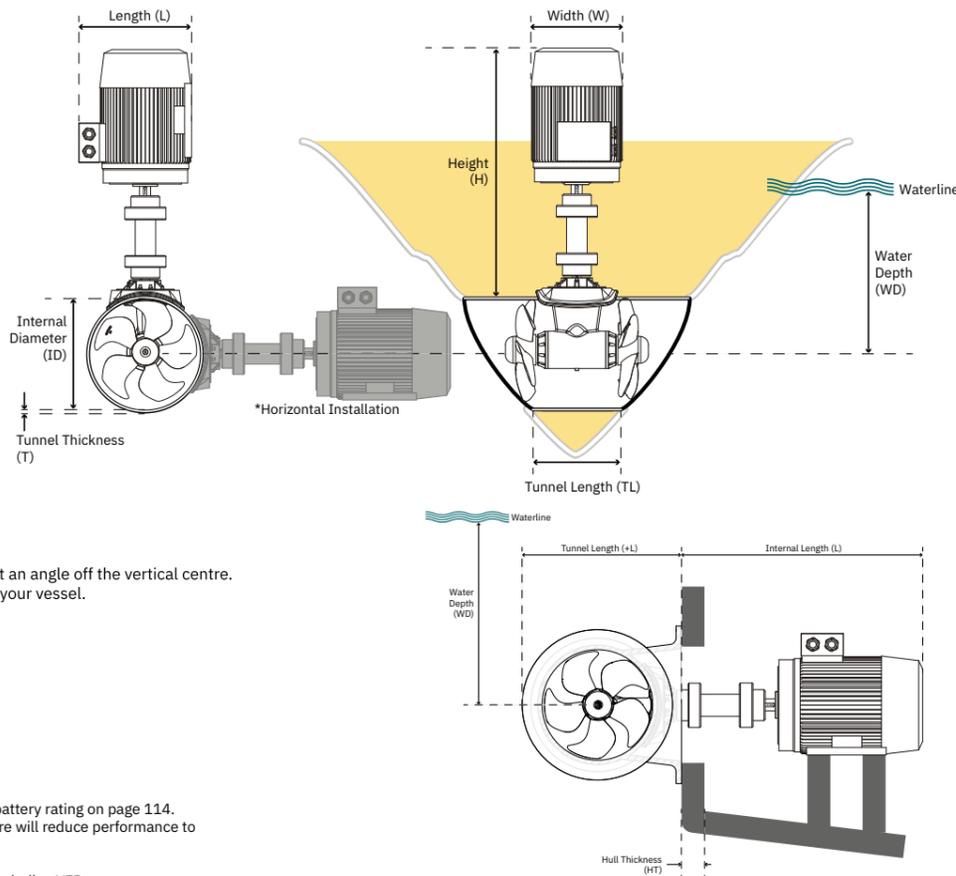
|                                  | SAC240/250TC | SAC320/300TC | SAC360/300TC | SAC450/386TC | SAC520/386TC | SAC520/386TC |
|----------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Continuous Thrust (kg)           | 240          | 280          | 360          | 450          | 450          | 520          |
| Thrust, max. (kg) <sup>1</sup>   | -            | 320          | -            | -            | 520          | -            |
| Power Output (kW • Hp)           | 14 • 19      | 21 • 27      | 27 • 37      | 28 • 38      | 35 • 48      | 35 • 48      |
| Ideal Vessel Size (m/ft)         | 13-23/42-75  | 17-31/55-100 | 18-33/59-108 | 22-35/75-110 | 25-40/85-140 | 25-40/85-140 |
| Internal Diameter (mm)           | 250          | 300          | 300          | 386          | 386          | 386          |
| CE approved                      | Yes          | Yes          | Yes          | Yes          | Yes          | Yes          |
| PRO™                             | Yes          | Yes          | Yes          | Yes          | Yes          | Yes          |
| Control system                   | S-Link™      | S-Link™      | S-Link™      | S-Link™      | S-Link™      | S-Link™      |
| Q-PROP™                          | Yes          | Yes          | Yes          | Yes          | Yes          | Yes          |
| Propulsion system                | Twin Counter |
| Lubrication                      | Sealed       | Sealed       | Gravity feed | Gravity feed | Gravity feed | Gravity feed |
| Galvanic separation <sup>2</sup> | No           | No           | No           | No           | No           | No           |



For heavy duty usage

| SAC400/300TC | SAC700/412TC | SAC750/513TC                     | SAC900/513TC                     | SAC1100/513TC                    | SAC1100/513TC                    | SAC1300/610TC                    | SAC1400/610TC                    |
|--------------|--------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| 400          | 700          | 600                              | 750                              | 900                              | 1100                             | 1100                             | 1200                             |
| -            | -            | 750                              | 900                              | 1100                             | -                                | 1300                             | 1400                             |
| 30 • 41      | 42 • 57      | 41 • 56                          | 53 • 72                          | 70 • 95                          | 70 • 95                          | 74 • 101                         | 83 • 113                         |
| 18-33/59-108 | 29-44/95-145 | 29-44/95-145                     | 30-45/100-150                    | 32-49/105-160                    | 32-49/105-160                    | 40-52/130-170                    | 40-55/130-175                    |
| 300          | 412          | 513                              | 513                              | 513                              | 513                              | 610                              | 610                              |
| Yes          | Yes          | Yes                              | Yes                              | Yes                              | Yes                              | Yes                              | Yes                              |
| Yes          | Yes          | Yes                              | Yes                              | Yes                              | Yes                              | Yes                              | Yes                              |
| S-Link™      | S-Link™      | S-Link™                          | S-Link™                          | S-Link™                          | S-Link™                          | S-Link™                          | S-Link™                          |
| Yes          | Yes          | Yes                              | Yes                              | Yes                              | Yes                              | Yes                              | Yes                              |
| Twin Counter | Twin Counter | Twin Counter                     | Twin Counter                     | Twin Counter                     | Twin Counter                     | Twin Counter                     | Twin Counter                     |
| Gravity feed | Gravity feed | Gravity feed/<br>On water change |
| No           | No           | No                               | No                               | No                               | No                               | No                               | No                               |

| Bow       | Description (mm)              |
|-----------|-------------------------------|
| (H)       | Height                        |
| (L)       | Length                        |
| (W)       | Width                         |
| (ID)      | Internal Diameter             |
| (WD)      | Water Depth                   |
| (TL)      | Recommended Tunnel Length     |
| (TL min.) | Minimum Tunnel Length         |
| (T min.)  | Minimum Tunnel Wall Thickness |
| (T max.)  | Maximum Tunnel Wall Thickness |
| Stern     |                               |
| (L)       | Internal Length               |
| (+L)      | Tunnel Length                 |
| (WD)      | Stern Water Depth             |
| (HT)      | Maximum Hull Thickness        |



Sleipner thrusters can be installed at an angle off the vertical centre. Tailored to fit any space available in your vessel.

Please see note regarding thruster power and battery rating on page 114.  
<sup>1</sup> Max thrust is available until motor temperature will reduce performance to continuous thrust rating  
<sup>2</sup> Isolation kit for galvanic separation available  
<sup>3</sup> Weight stated is for complete thruster unit, excluding VFD

| Measurements (mm)                  | H      | L   | W   | ID  | WD  | TL   | TL min. | T min. | T max. | Weight <sup>3</sup> kg |
|------------------------------------|--------|-----|-----|-----|-----|------|---------|--------|--------|------------------------|
| SAC240/250 (horizontal version)    | 688    | 347 | 262 | 250 | 380 | 550  | 300     | 7      | 10     | 68                     |
| SAC240/250 (vertical version)      | 688    | 347 | 262 | 250 | 380 | 550  | 300     | 7      | 10     | 68                     |
| SAC320/300 (horizontal version)    | 703    | 347 | 262 | 300 | 450 | 550  | 300     | 10     | 10     | 71                     |
| SAC320/300 (vertical version)      | 703    | 347 | 262 | 300 | 450 | 550  | 300     | 10     | 10     | 71                     |
| SAC360/300 (horizontal version)    | 774    | 397 | 313 | 300 | 450 | 550  | 370     | 10     | 10     | 105                    |
| SAC360/300 (vertical version)      | 774    | 397 | 313 | 300 | 450 | 550  | 370     | 10     | 10     | 105                    |
| SAC400/300 (horizontal version)    | 774    | 397 | 313 | 300 | 450 | 550  | 370     | 10     | 10     | 111                    |
| SAC400/300 (vertical version)      | 774    | 397 | 313 | 300 | 450 | 550  | 370     | 10     | 10     | 111                    |
| SAC450/386 (horizontal version)    | 999    | 439 | 356 | 386 | 580 | 750  | 500     | 10     | 15     | 189                    |
| SAC450/386 (vertical version)      | 999    | 439 | 356 | 386 | 580 | 750  | 500     | 10     | 15     | 189                    |
| SAC520/386 (horizontal version)    | 999    | 439 | 356 | 386 | 580 | 750  | 500     | 10     | 15     | 189                    |
| SAC520/386 (vertical version)      | 999    | 439 | 356 | 386 | 580 | 750  | 500     | 10     | 15     | 189                    |
| SAC700/412 (horizontal version)    | 964    | 439 | 356 | 412 | 620 | 800  | 550     | 12     | 16     | 205                    |
| SAC700/412 (vertical version)      | 964    | 439 | 356 | 412 | 620 | 800  | 550     | 12     | 16     | 205                    |
| SAC750/513 (horizontal version)    | 1079.5 | 496 | 396 | 513 | 700 | 1000 | 750     | 12     | 22     | 330                    |
| SAC750/513 (vertical version)      | 1079.5 | 496 | 396 | 513 | 700 | 1000 | 750     | 12     | 22     | 330                    |
| SAC900/513 (horizontal version)    | 1193.5 | 563 | 449 | 513 | 700 | 1000 | 750     | 12     | 22     | 450                    |
| SAC900/513 (vertical version)      | 1193.5 | 563 | 449 | 513 | 700 | 1000 | 750     | 12     | 22     | 450                    |
| SAC1100/513-C (horizontal version) | 1303.5 | 642 | 495 | 513 | 770 | 1000 | 750     | 12     | 22     | 450                    |
| SAC1100/513-C (vertical version)   | 1303.5 | 642 | 495 | 513 | 770 | 1000 | 750     | 12     | 22     | 450                    |
| SAC1100/513-I (horizontal version) | 1193.5 | 563 | 449 | 513 | 770 | 1000 | 750     | 12     | 22     | 575                    |
| SAC1100/513-I (vertical version)   | 1193.5 | 563 | 449 | 513 | 770 | 1000 | 750     | 12     | 22     | 575                    |
| SAC1300/610 (horizontal version)   | 1305   | 712 | 555 | 610 | 900 | 1000 | 750     | 14     | 24     | 680                    |
| SAC1300/610 (vertical version)     | 1305   | 712 | 555 | 610 | 900 | 1000 | 750     | 14     | 24     | 680                    |
| SAC1400/610 (horizontal version)   | 1305   | 712 | 555 | 610 | 900 | 1000 | 750     | 14     | 24     | 740                    |
| SAC1400/610 (vertical version)     | 1305   | 712 | 555 | 610 | 900 | 1000 | 750     | 14     | 24     | 740                    |

# Hydraulic tunnel thrusters

Power from 100 kg to 1400 kg and continuous operation make a hydraulic thruster system ideal for yachts, super yachts and professional vessels. It is the natural choice when extensive thruster usage or long run cycles are required.

For all the hydraulic components to be compatible and maintain the same high quality, Sleipner offers complete hydraulic systems with guaranteed performance. Sleipner hydraulic systems use only brand-name hydraulic components, ensuring reliability and easy worldwide access to spare parts and service.

The innovative S-Link™ control system ensures fast and trouble-free installation, and gives you the unique option to combine hydraulic and AC thrusters in a single control environment.

All hydraulic systems are delivered ready-to-use to provide a straightforward installation and the highest degree of quality assurance.



We offer complete hydraulic systems. Scan QR code to learn more

### Benefits

- Continuous use
- Controlled power
- Reliability
- S-Link™ operating system
- Custom-made, ready to install with Plug & Play wiring
- The choice of leading boatbuilders
- Full documentation
- DNV type approval for specific models
- Suitable for joystick and DP integration



### Specific models



### Product features

- S-LINK™
- SEALED DRIVE LUBRICATION
- GRAVITY FEED LUBRICATION
- Q-PROP™
- PRO™

### Technical details

|                    |                           |
|--------------------|---------------------------|
| Ideal Vessel Class | Motor boat, Sail boat     |
| Ideal Vessel Size  | 9–55 m / 30–175 ft        |
| Power              | HYD                       |
| Thrust light duty  | 100–1100kg / 220–2425 lbs |
| Thrust heavy duty  | 80–1400 kg / 176–3085 lbs |
| Tunnel diameter    | 185–610 mm                |
| Placement          | Bow / Stern               |



For leisure usage

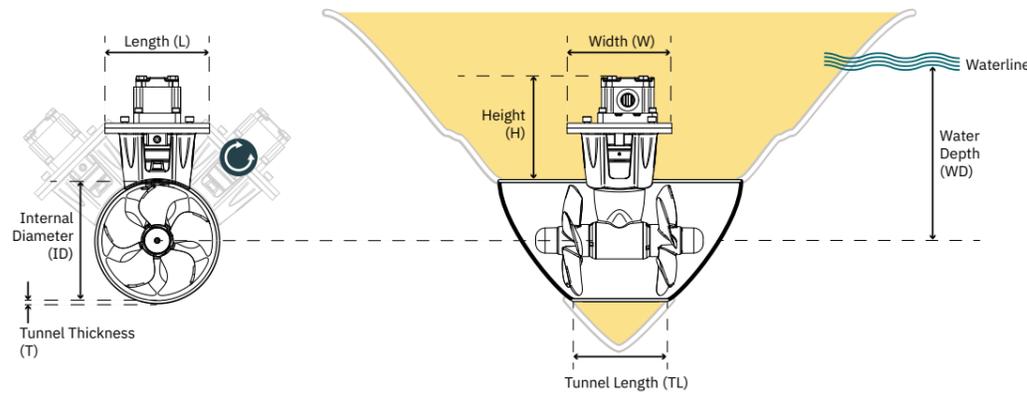
|                             | SH100/185T | SH160/215T  | SH240/250TC  | SH320/300TC  | SH360/300TC  |
|-----------------------------|------------|-------------|--------------|--------------|--------------|
| Light duty thrust (kg)      | 100        | 160         | 240          | 320          | -            |
| Heavy duty thrust (kg)      | 80         | 140         | 220          | 270          | 360          |
| Ideal Vessel Size (m/ft)    | 9-16/30-34 | 11-19/35-62 | 13-23/42-75  | 13-23/42-75  | 18-33/59-108 |
| (ID) Internal Diameter (mm) | 185        | 215         | 250          | 300          | 300          |
| Power Output (kW • Hp)      | 6.9 • 9.3  | 10.0 • 13.4 | 14.9 • 20    | 17.4 • 23.3  | 27 • 37      |
| Q-PROP™                     | Yes        | Yes         | Yes          | Yes          | Yes          |
| Propulsion system           | Twin       | Twin        | Twin Counter | Twin Counter | Twin Counter |
| Lubrication                 | Sealed     | Sealed      | Sealed       | Sealed       | Gravity feed |



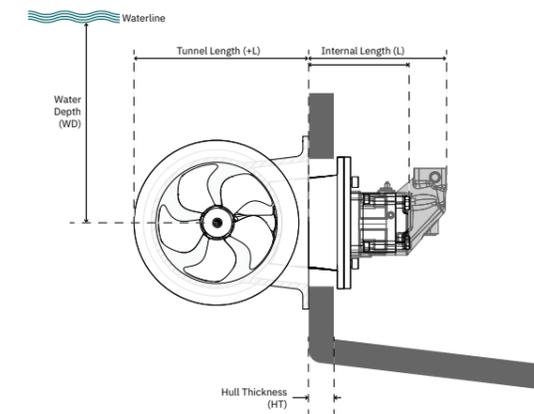
For leisure usage

For heavy duty usage

| SH420/386TC  | SH 550/386TC | SH400/386TC  | SH 700/412TC | SH 1000/513TC                | SH 1400/610TC                |
|--------------|--------------|--------------|--------------|------------------------------|------------------------------|
| -            | 550          | -            | -            | 1100                         | -                            |
| 420          | 500          | 400          | 700          | 1000                         | 1400                         |
| 22-35/75-110 | 25-40/85-140 | 18-33/59-108 | 29-44/95-145 | 30-45/100-150                | 40-55/130-175                |
| 386          | 386          | 300          | 412          | 513                          | 610                          |
| 31.8 • 42.6  | 39.9 • 53.5  | 30 • 41      | 43.4 • 58.2  | 59.8 • 80.2                  | 80.1 • 107.4                 |
| Yes          | Yes          | Yes          | Yes          | Yes                          | Yes                          |
| Twin Counter                 | Twin Counter                 |
| Gravity feed | Gravity feed | Gravity feed | Gravity feed | Gravity feed/On water change | Gravity feed/On water change |



Sleipner thrusters can be installed at an angle off the vertical centre. Tailored to fit any space available in your vessel.



| Bow                                  | SH100/185T | SH160/215T | SH240/250TC | SH320/300TC | SH360/300TC |
|--------------------------------------|------------|------------|-------------|-------------|-------------|
| (ID) Internal Diameter (mm)          | 185        | 215        | 250         | 300         | 300         |
| Weight <sup>1</sup> (kg)             | 7.8        | 11.4       | 13.5        | 17.16       | 26          |
| (H) Height (mm)                      | 215        | 195        | 235         | 245         | 356         |
| (L) Length (mm)                      | 203        | 203        | 203         | 258         | 258         |
| (W) Width (mm)                       | 203        | 203        | 203         | 258         | 258         |
| (ID) Internal Diameter (mm)          | 185        | 215        | 250         | 300         | 300         |
| (WD) Water Depth (mm)                | 200        | 215        | 250         | 300         | 450         |
| (TL) Rec. Tunnel Length (mm)         | 340        | 560        | 600         | 550         | 550         |
| (TL min.) Minimum Tunnel Length (mm) | 170        | 280        | 300         | 370         | 370         |
| (T min.) Min. Tunnel Wall Thickness  | 4          | 6          | 7           | 10          | 10          |

| Stern                       | SH100/185T | SH 160/215 T | SH 240/250 TC | SH 320/300TC | SH 360/300 TC |
|-----------------------------|------------|--------------|---------------|--------------|---------------|
| (L) Internal Length (mm)    | 405        | 172          | 912           | 195          | 310           |
| (+L) Tunnel Length (mm)     | 705        | 300          | 340           | 420          | 420           |
| (WD) Stern Water Depth (mm) | 770        | 215          | 250           | 300          | 300           |
| (HT) Maximum Hull Thickness | 120        | 54           | 60            | 60           | 60            |
| Stern thruster kit          | 90086i     | 90135i       | 90140i        | 90200i       | 90350         |
| Cowls - short model         | 90075      | -            | -             | -            | -             |
| Cowls - long model          | 90077      | 90136        | 90132         | 90220        | -             |

Please see note regarding thruster power and battery rating on page 114.

<sup>1</sup> Weight of hydraulic motor comes in addition

| SH420/386TC | SH 550/386TC | SH400/386TC | SH 700/412TC | SH 1000/513TC | SH 1400/610TC |
|-------------|--------------|-------------|--------------|---------------|---------------|
| 386         | 386          | 300         | 412          | 513           | 610           |
| 46          | 56           | 31          | 72-76        | 168-182       | 211           |
| 369         | 369          | 356         | 450          | 486           | 500           |
| 268         | 268          | 258         | 268          | 398           | 398           |
| 268         | 268          | 258         | 268          | 398           | 398           |
| 386         | 386          | 300         | 412          | 513           | 610           |
| 580         | 580          | 450         | 620          | 750           | 900           |
| 750         | 750          | 550         | 800          | 1000          | 1000          |
| 500         | 500          | 370         | 550          | 750           | 750           |
| 10          | 10           | 10          | 16           | 16            | 18            |

| SH 420/386 T | SH 550/386 T | SH 400/300 | SH 700/412 | SH 1000/513 | SH 1400/610 |
|--------------|--------------|------------|------------|-------------|-------------|
| 257          | 257          | 305        | n. a.      | 405         | 470         |
| 540          | 540          | 422        | n. a.      | 705         | 820         |
| 380          | 380          | 300        | n. a.      | 770         | 915         |
| 54           | 54           | 60         | n. a.      | 120         | 145         |
| 90550        | 90550        | 90350      | 90700      | 91000       | 91400       |
| -            | -            | N/A        | N/A        | N/A         | N/A         |
| 90560        | 90560        | N/A        | N/A        | N/A         | N/A         |



# Hydraulic power systems

Sleipner's hydraulic power systems are designed for ultimate flexibility to support all hydraulic components onboard, including thrusters and stabilizers. A hydraulic system offers immense savings on space and labor cost, considering that essentially all necessary parts are pre-installed, wired, and adjusted.

A hydraulic system makes sound economic sense for many vessels as several functions can run off one central hydraulic source. Once the primary system is in place, including the pump, reservoir, and cooler, adding a function is simply a matter of adding a relatively inexpensive hydraulic valve. This approach is more efficient and cost-effective than running each part with its own electric motor, solenoid, fuse, and battery switch, especially with larger equipment.

Hydraulic valves and motors are better choices in harsh environments such as the forepeak, bilge, and transom areas and areas requiring ignition protection. Typical hydraulic applications are thrusters, stabilizers, winches, capstans, cranes, and so on.

For all the hydraulic components to be compatible and maintain the same high quality, Sleipner offers complete

hydraulic systems with guaranteed performance. Sleipner hydraulic systems use only brand-name hydraulic components, ensuring reliability and easy worldwide access to spare parts and service.

The hydraulic pumps are based on the well-proven and reliable load sense principle, ensuring high efficiency, low noise, and low heat generation.

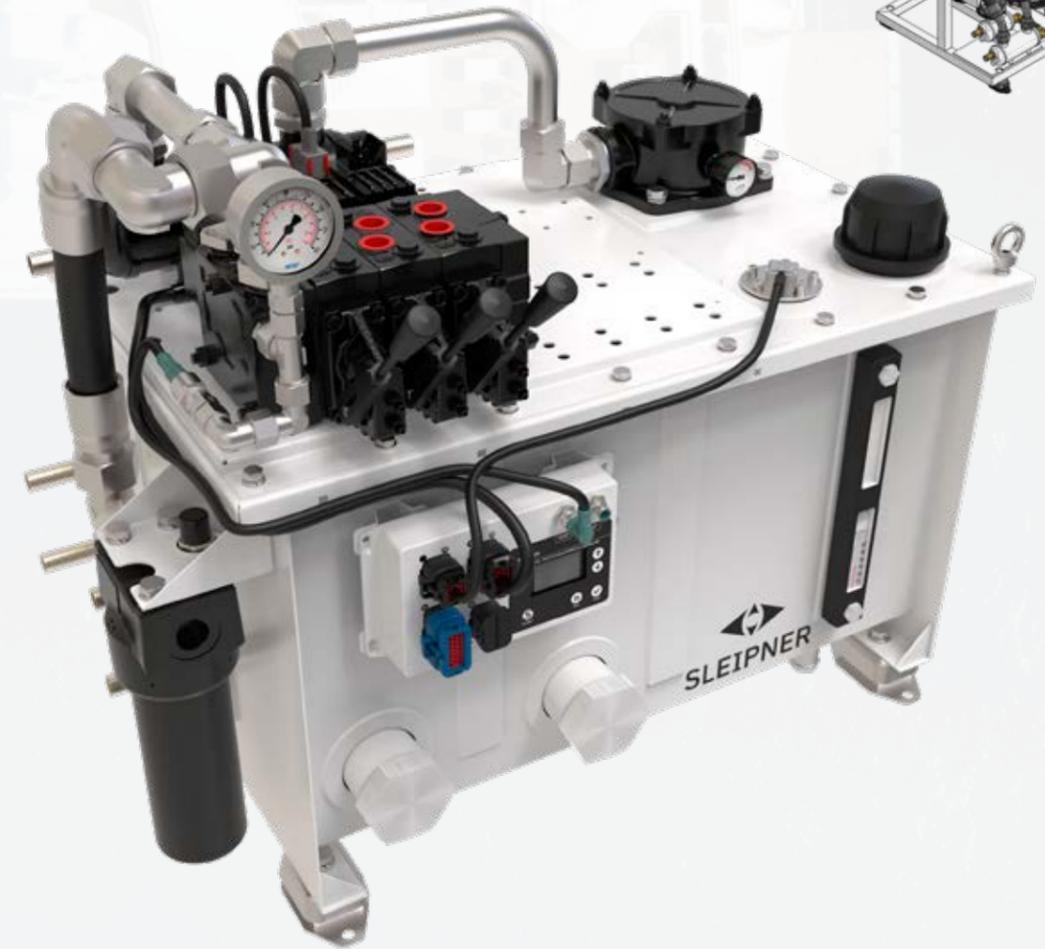
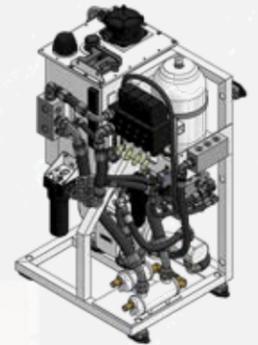
The system's brain is the PHC-3 with real-time component diagnostics on both the integrated LCD panel and at the helm. Installed directly on the tank, it provides below deck access to diagnostics and local configuration of parameters.

All hydraulic systems are delivered ready-to-use to provide a straightforward installation and the highest degree of quality assurance.

### Benefits

- Compact-sized units and easy maintenance
- Delivered pre-fitted with all components adjusted
- Advanced real-time diagnostics
- S-Link™ operating system
- Plug & Play wiring
- Available as standard or customized by our hydraulic expert engineers
- Bulkhead and floor installation options
- Delivered with complete system-specific documentation
- Load sensing hydraulic pumps for optimal efficiency
- Easy firmware update through S-Link™

Illustration of rack assembly version for stabilizers and hydraulic thrusters



### Product features

-  HYDRAULIC
-  S-LINK™
-  DIAGNOSTIC MONITORING

### Technical details

|                    |                                |
|--------------------|--------------------------------|
| Ideal Vessel Class | Yacht, Super Yacht, Commercial |
| Ideal Vessel Size  | 9–55 m / 30–175 ft             |
| Power Source       | Main engine / Generator        |
| Reservoir          | Powder coated stainless steel  |
| Placement          | Bulkhead / Floor               |
| Control System     | S-Link™                        |



Also available in PRO versions with variable speed control

# Retractable thrusters

The obvious solution for cruiser-racers and flat-bottomed boats. Sleipner's retractable thrusters are designed with a focus on practical sturdiness, uncompromised safety and quick deployment.

If you have a performance boat, sail, or power, and you're worried about the smallest amounts of drag, a retractable thruster is the perfect solution for you.

The retracting thrusters are generally built with the same high safety standards as all Sleipner products. Our focus on safety is a totally integral part of the product design so that everything from build quality to ease of installation is thought of to ensure long term reliability.

There are three versions of the retractable thrusters, one model design for direct mold-in, and two designed to be mounted on a flange. The flange can be a mold-in base from Sleipner, or the boat builders can manufacture their own base in materials suited for their hulls or as part of their basic hull design.

The flange mounted models have a thruster unit in a casing that will be bolted to a base. This allows for easier installation in hulls made from different materials, as well as in series production where you do not need to mix laminating and engineering type jobs.

The underwater mechanism's unique design has only a few but very sturdy parts contributing to the moving assembly's stability. The unit's design makes the thruster as compact as possible while enabling the safe use of heavier motors on the more powerful units. The motors' vertical installation (SRV) reduces the impact forces on the assembly in extreme waves compared to motors fitted at an angle.

If height limitation is an issue on your vessel, the SRL has the market's most compact build concerning height.

### Benefits

- Fitted as bow and/or stern thruster
- Quiet operation
- Plug and play S-Link™ two way communication control cable wiring
- Easy to use control panel with status feedback from thruster
- Motor assembly rigid mounted on retracting casing - no moving parts during retracting operation
- Reliable retracting mechanism, avoids sticking
- Fast deployment time
- Compact size



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### Product features

- INTELLIGENT POWER CONTROL
- SEALED DRIVE LUBRICATION
- GALVANIC SEPARATION
- Q-PROP™
- S-Link™
- GRAVITY FEED LUBRICATION (Ø300 MM TUNNELS)

### Technical details

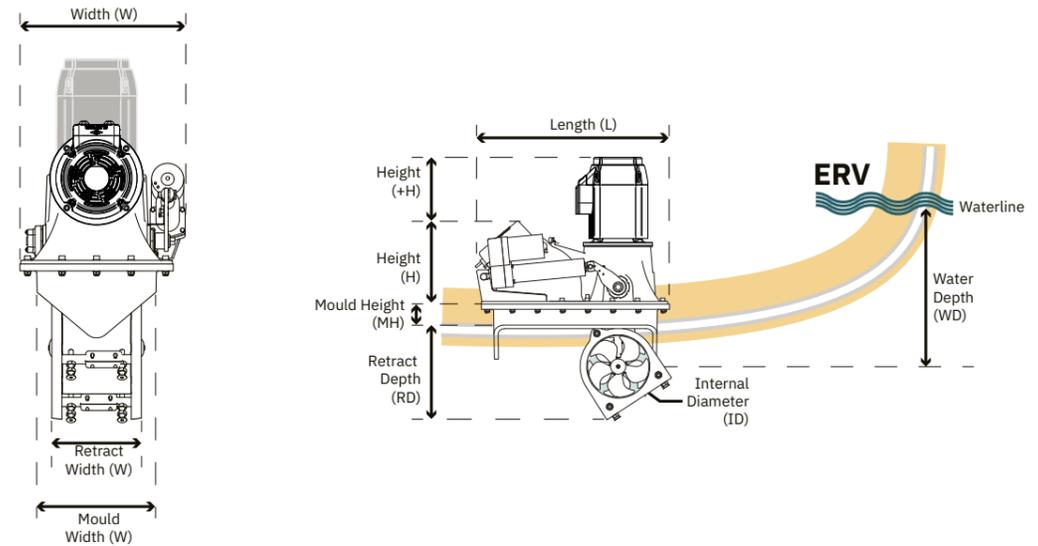
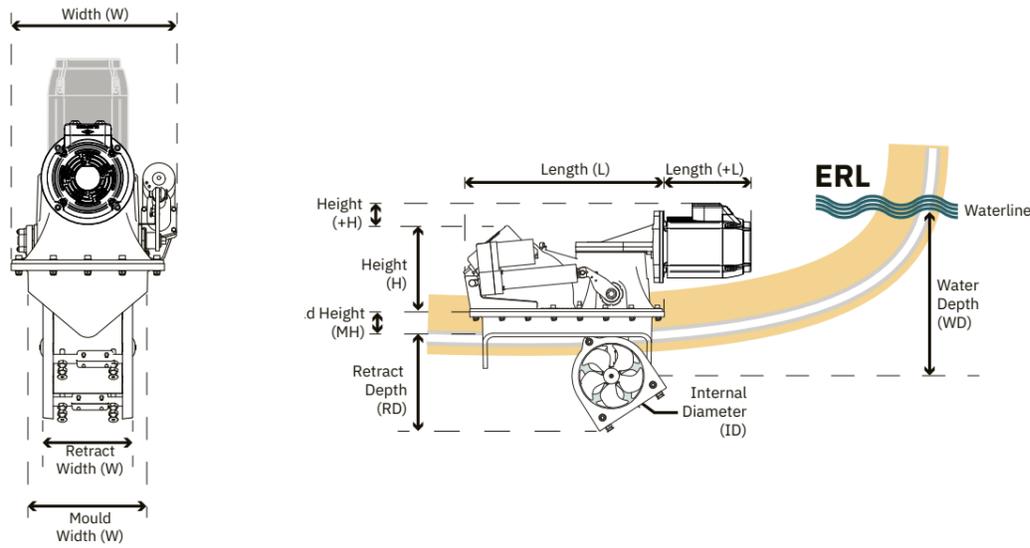
|                    |                       |
|--------------------|-----------------------|
| Ideal Vessel Class | Motor boat, Sail boat |
| Ideal Vessel Size  | 10–34m / 35–110ft     |
| Power              | DC 12/24/48V          |
| Thrust             | 80–340kg / 212–749lbs |
| Tunneldiameter     | 185–300 mm            |
| Placement          | Bow / Stern           |



| ER Thruster*                | ERL100/185T                    | ERL130/250T     | ERL170/250TC     | ERV100/185T     | ERV130/250TC     |
|-----------------------------|--------------------------------|-----------------|------------------|-----------------|------------------|
|                             | 24/48V                         | 24/48V          | 24/48V           | 24/48V          | 24/48V           |
| Thrust at 24V/48 (kg)       | 100                            | 130             | 170              | 100             | 130              |
| Thrust at 10.5/21V (kg)     | 100                            | 130             | 170              | 100             | 130              |
| Ideal Vessel Size (m/ft)    | 12-17/35-55                    | 13-19/42-62     | 15-22/50-70      | 12-17/35-55     | 13-19/42-62      |
| (ID) Internal Diameter (mm) | 185                            | 250             | 250              | 185             | 250              |
| Propulsion System           | Twin                           | Twin            | Twin             | Twin            | Twin             |
| Power Output (kW • Hp)      | 5.6 • 7.6                      | 5.1 • 6.8       | 7.3 • 9.9        | 6.3 • 8.4       | 5.1 • 6.8        |
| Power requirement (V)       | 12/24V                         | 12/24V          | 12/24V           | 12/24V          | 12/24V           |
| Weight (kg)                 | TBA – please check our website |                 |                  |                 |                  |
| Min. Battery CCA** (DIN)    | 300/150                        | 300/180         | 420/255          | 300/150         | 300/180          |
| Item Code 24V               | ERL100/185T-24V                | ERL130/250T-24V | ERL170/250TC-24V | ERV100/185T-24V | ERV130/250TC-24V |
| Item Code 48V               | ERL100/185T-48V                | ERL130/250T-48V | ERL170/250TC-48V | ERV100/185T-48V | ERV130/250TC-48V |



| ERV170/250TC     | ERV210/250TC     | ERV250/300TC     | ERV300/300TC     |
|------------------|------------------|------------------|------------------|
| 24/48V           | 24/48V           | 48V              | 48V              |
| 170              | 210              | 250              | 300              |
| 170              | 210              | 250              | 300              |
| 15-22/50-70      | 17-24/55-78      | 22-30/72-100     | 22-30/72-100     |
| 250              | 250              | 300              | 300              |
| Twin             | Twin Counter     | Twin             | Twin             |
| 7.3 • 9.9        | 10.4 • 14.0      | 15 • 20          | 15 • 20          |
| 12/24V           | 24V              | 48V              | 48V              |
| 420/220          | 600/320          | 350              | 395              |
| ERV170/250TC-24V | ERV210/250TC-24V | ERV250/300TC-24V |                  |
| ERV170/250TC-48V | ERV210/250TC-48V | ERV250/300TC-48V | ERV300/300TC-48V |



| ER DC                    | ERL100/185T | ERL130/250T | ERL170/250TC | ERV100/185T | ERV130/250TC | ERV170/250TC | ERV210/250TC |
|--------------------------|-------------|-------------|--------------|-------------|--------------|--------------|--------------|
|                          | 24/48V      | 24/48V      | 24/48V       | 24/48V      | 24/48V       | 24/48V       | 24/48V       |
| (H) Height (mm)          | 245         | 389         | 389          | 245         | 389          | 389          | 389          |
| (+H) Add. Height (mm)    | 94          | 9           | 9            | 232         | 120          | 120          | 159          |
| (L) Length (mm)          | 563         | 687         | 687          | 563         | 687          | 687          | 687          |
| (+L) Add. Length (mm)    | 293         | 281         | 281          | -           | -            | -            | -            |
| (W) Width (mm)           | 359         | 480         | 481          | 356/359     | 481          | 481          | 481          |
| (ID) Internal Diam. (mm) | 185         | 250         | 250          | 185         | 250          | 250          | 250          |
| (WD) Water Depth (mm)    | 185         | 250         | 250          | 185         | 250          | 250          | 250          |
| (RD) Retract Depth (mm)  | 275         | 378         | 378          | 271         | 378          | 378          | 378          |
| (RW) Retract Width (mm)  | 195         | 349         | 349          | 195         | 349          | 349          | 349          |
| (MW) Mould Width (mm)    | 265         | 417         | 417          | 265         | 417          | 417          | 417          |
| (MH) Mould Height (mm)   | 62          | 91          | 91           | 62          | 91/98        | 98           | 98           |

| ERV250/300TC | ERV300/300TC |
|--------------|--------------|
| 48V          | 48V          |
| 453          | 453          |
| 117          | 117          |
| 843          | 843          |
| -            | -            |
| 580          | 580          |
| 300          | 300          |
| 300          | 300          |
| 454          | 454          |
| 415          | 415          |
| 486          | 486          |
| 106          | 106          |

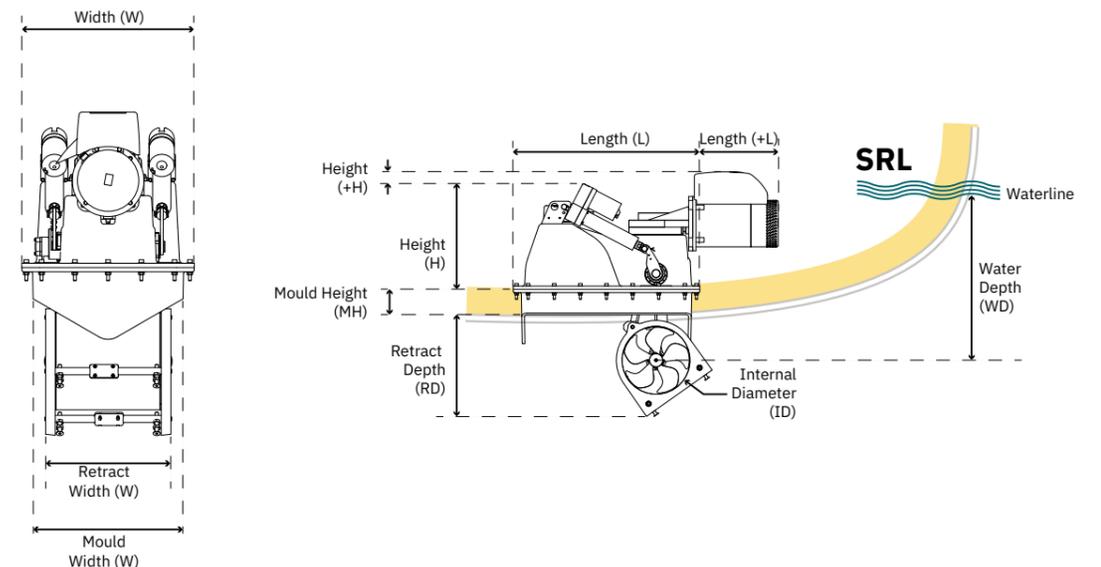
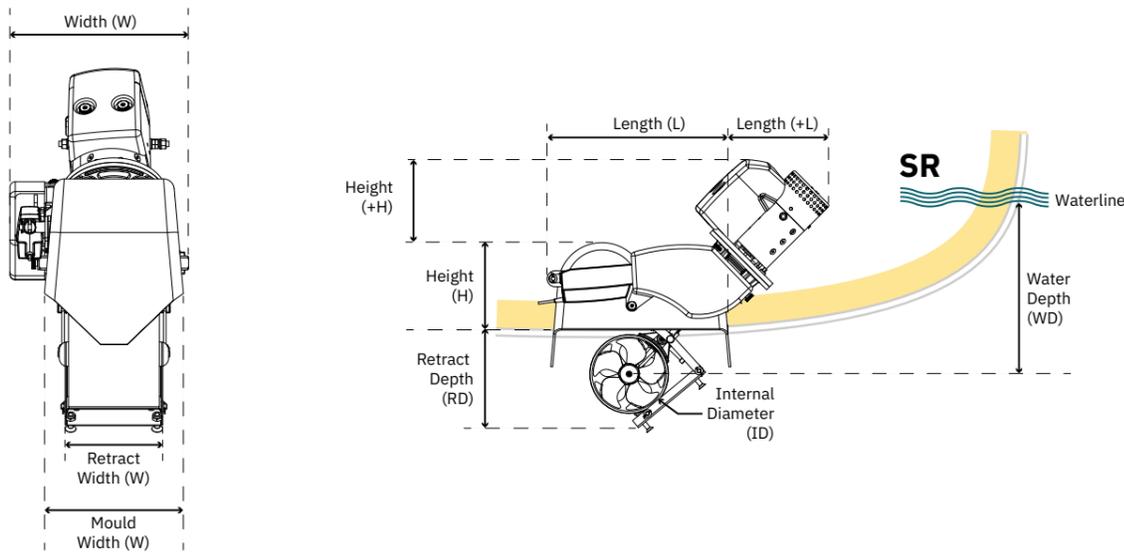
Please see note regarding thruster power and battery rating on page 119.



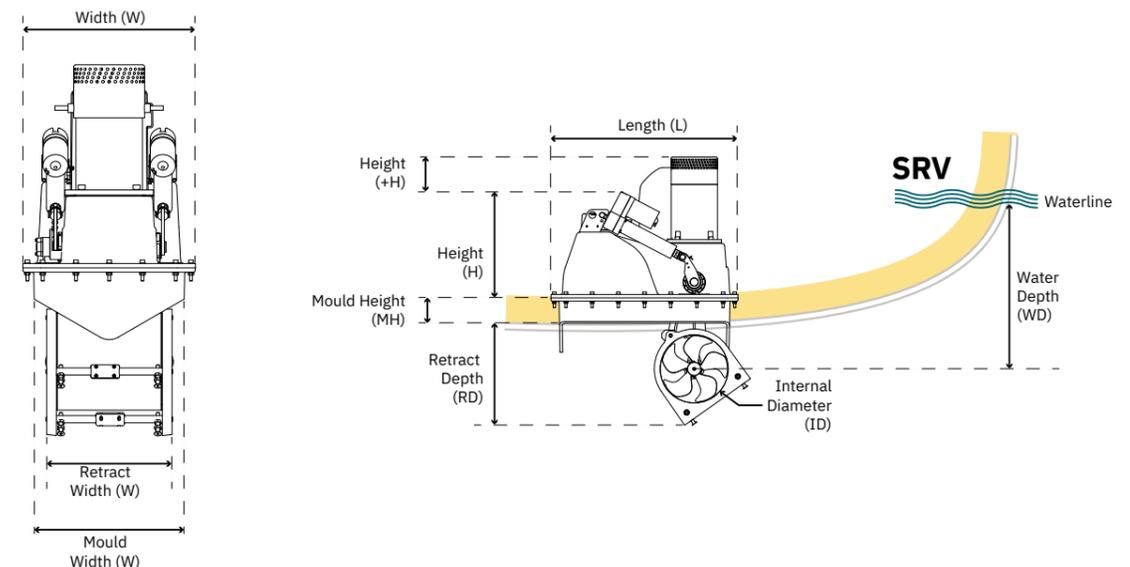
| SR SERIES DC             | SR80        | SR100       | SRL80       | SRL100      | SRL130      | SRL170       |
|--------------------------|-------------|-------------|-------------|-------------|-------------|--------------|
| Thrust at 12/24V (kg)    | 96          | 116         | 96          | 116         | 160         | 210          |
| Thrust at 10.5/21V (kg)  | 80          | 100         | 80          | 100         | 130         | 170          |
| Ideal Vessel Size (m/ft) | 10-15/35-48 | 12-17/35-55 | 10-15/35-48 | 12-17/35-55 | 13-19/42-62 | 15-22/50-70  |
| Internal Diameter (mm)   | 185         | 185         | 185         | 185         | 250         | 250          |
| Propulsion System        | Twin        | Twin        | Twin        | Twin        | Twin        | Twin Counter |
| Power Output (kW • Hp)   | 4.4 • 6     | 6.3 • 8.4   | 4.4 • 6     | 6.3 • 8.4   | 6.5 • 8.7   | 8 • 11.8     |
| Power requirement (V)    | 12/24V      | 12/24V      | 12/24V      | 12/24V      | 12/24V      | 24V          |
| Weight (kg)              | 31          | 44          | 31          | 44          | 82          | 88           |
| Min. Battery CCA* (DIN)  | 550/300     | 750/400     | 550/300     | 750/400     | 750/400     | 560          |



| SRV80       | SRV100      | SRV130      | SRV170       | SRV210       | SRV300       |
|-------------|-------------|-------------|--------------|--------------|--------------|
| 12/24V      | 12/24V      | 12/24V      | 24V          | 24V          | 48V          |
| 96          | 116         | 160         | 210          | 250          | 340          |
| 80          | 100         | 130         | 170          | 210          | 300          |
| 10-15/35-48 | 12-17/35-55 | 13-19/42-62 | 15-22/50-70  | 17-24/55-78  | 22-30/72-98  |
| 185         | 185         | 250         | 250          | 250          | 300          |
| Twin        | Twin        | Twin        | Twin Counter | Twin Counter | Twin Counter |
| 4.4 • 6     | 6.3 • 8.4   | 6.5 • 8.7   | 8 • 11.8     | 10 • 13.5    | 15 • 20      |
| 12/24V      | 12/24V      | 12/24V      | 24V          | 24V          | 48V          |
| 31          | 44          | 82          | 88           | 112          | 120          |
| 550/300     | 750/400     | 750/400     | 560          | 560          | 400          |



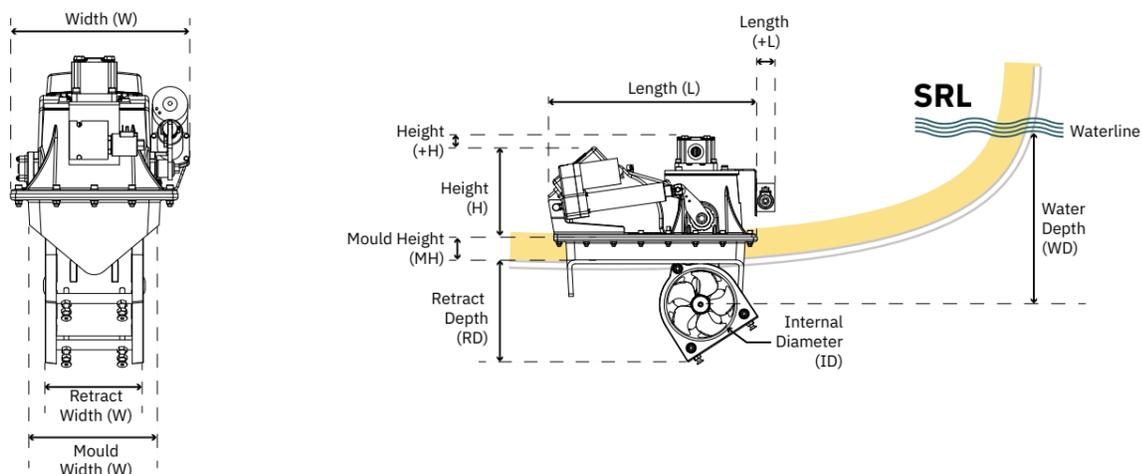
| SR DC                    | SR80    | SR100   | SRL80   | SRL100  | SRL130  | SRL170 | SRV80   | SRV100  | SRV130  | SRV170 | SRV210 | SRV300 |
|--------------------------|---------|---------|---------|---------|---------|--------|---------|---------|---------|--------|--------|--------|
|                          | 12/24V  | 12/24V  | 12/24V  | 12/24V  | 12/24V  | 24V    | 12/24V  | 12/24V  | 12/24V  | 24V    | 24V    | 48V    |
| (H) Height (mm)          | 245     | 245     | 243     | 243     | 391/390 | 389    | 243     | 243     | 390     | 390    | 389    | 452    |
| (+H) Add.Height (mm)     | 167/170 | 212/205 | 93/96   | 129/128 | 23      | 44     | 169/184 | 226/221 | 104/110 | 128    | 211    | 172    |
| (L) Length (mm)          | 459     | 459     | 561     | 561     | 688     | 688    | 561     | 561     | 688     | 688    | 688    | 843    |
| (+L) Add. Length (mm)    | 260/244 | 258/288 | 230/245 | 287/281 | 264/269 | 289    | -       | -       | -       | -      | -      | -      |
| (W) Width (mm)           | 335     | 335     | 359     | 359     | 480     | 480    | 359     | 359     | 480     | 480    | 480    | 580    |
| (ID) Internal Diam. (mm) | 185     | 185     | 185     | 185     | 250     | 250    | 185     | 185     | 250     | 250    | 250    | 300    |
| (WD) Water Depth (mm)    | 185     | 185     | 185     | 185     | 250     | 250    | 185     | 185     | 250     | 250    | 250    | 300    |
| (RD) Retract Depth (mm)  | 278     | 278     | 276     | 276     | 374     | 374    | 276     | 276     | 374     | 374    | 374    | 445    |
| (RW) Retract Width (mm)  | 183     | 183     | 195     | 195     | 348     | 348    | 195     | 195     | 348     | 348    | 348    | 415    |
| (MW) Mould Width (mm)    | 260     | 260     | 257     | 257     | 420     | 420    | 257     | 257     | 420     | 420    | 420    | 480    |
| (MH) Mould Height (mm)   | -       | -       | 62      | 62      | 93      | 93     | 62      | 62      | 93      | 93     | 93     | 115    |



Please see note regarding thruster power and battery rating on page 114.



|                          | SRAC320               | SRHP240               | SRHP320               |
|--------------------------|-----------------------|-----------------------|-----------------------|
| Light Duty Thrust (kg)   | 320                   | 240                   | 320                   |
| Ideal Vessel Size (m/ft) | 22-34/72-110          | 13-23/42-75           | 22-34/72-110          |
| Internal Diameter (mm)   | 300                   | 250                   | 300                   |
| Power Output (kW• Hp)    | 21 • 27               | 14 • 19               | 21 • 27               |
| Motor (Product power)    | AC                    | HYD                   | HYD                   |
| Weight (kg)              | 140                   | 82                    | 88                    |
| Installation             | Flange                | Flange                | Flange                |
| CE approved              | Yes                   | Yes                   | Yes                   |
| PRO™                     | Yes                   | Yes                   | Yes                   |
| Control System           | S-Link™               | S-Link™               | S-Link™               |
| Q-PROP™                  | Yes                   | Yes                   | Yes                   |
| Propulsion System        | Twin Counter Rotating | Twin Counter Rotating | Twin Counter Rotating |
| Sealed Drive Lubrication | Yes                   | Yes                   | Yes                   |
| Galvanic Separation      | No                    | No                    | No                    |
| Mould-in frame           | TBA*                  | TBA*                  | TBA*                  |



|                             | SRAC320     | SRHP240   | SRHP320/300TC |
|-----------------------------|-------------|-----------|---------------|
|                             | AC electric | Hydraulic | Hydraulic     |
| (H) Height (mm)             | 455         | 390       | 455           |
| (+H) Additional Height (mm) | TBA*        | TBA*      | TBA*          |
| (L) Length (mm)             | 843         | 688       | 843           |
| (+L) Additional Length (mm) | -           | 42        | -             |
| (W) Width (mm)              | 580         | 481       | 580           |
| (ID) Internal Diameter (mm) | 300         | 250       | 300           |
| (WD) Water Depth (mm)       | 300         | 250       | 300           |
| (RD) Retract Depth (mm)     | 445         | 361       | 445           |
| (RW) Retract Width (mm)     | 415         | 347       | 415           |
| (MW) Mould Width (mm)       | 480         | 414       | 480           |
| (ML) Mould Length (mm)      | *           | *         | *             |
| (MH) Mould Height (mm)      | 115         | 98        | 115           |

\*Contact Sleipner for more information



# Dear Ocean.

Thank you for all the knowledge, richness, and enjoyment you have given us. Thank you for putting us to the test every day. Thank you for what we have learned through the years to be able to master you.





Also available in PRO versions with variable speed control



## External thrusters

Sleipner's external thrusters are as compact as it gets and offer many attractive benefits for boat builders as well as retrofit installations. The versatile installation and compact size make them the perfect choice for vessels where the inside configuration does not allow for a standard thruster installation.

DC electric external thrusters are typically mounted underneath the hull in a streamlined hydrodynamic pod as a bow and stern thruster and are best suited on displacement or semi-planning hulls. The optimal design adds minimal drag and will, in most installations, not be noticeable.

Due to their positioning at the outermost extremities of a hull, exterior-mounted thrusters benefit significantly from an increased leverage arm in relation to the pivot point on a boat's hull. Their greater efficiency means they can move larger size boats by requiring nominally less power than conventional thrusters.

The dedicated stern thruster models save internal space, install quickly, and can be fitted with cowls if necessary to direct water flow away from any

obstacles on the stern. With the latest addition of the SX35 and SX50 to Sleipner's external thruster program, even more, boats can find space for a stern thruster as these units are the world's most compact external thrusters.

Shared benefits for external thrusters are longer run times, as the surrounding water naturally cools the units. They offer quick and easy installation without the need for fiberglass work.

Another benefit is that these thrusters operate remarkably quiet with their short, optimal tunnel design and submerged placement.

If you previously could not fit a thruster, these models might offer you the perfect solution you have been missing.

### Benefits

- Fits where other thrusters won't
- Easy installation that fits many hull shapes and materials. No fiberglass works necessary
- Patented Intelligent Power Control (IPC) protection
- Ultra compact
- Minimal noise emission
- Ignition protected
- Long run times
- Optimal efficiency
- Minimal drag
- Fitted as bow and/or stern thruster



SX35/50



SX80/100



EX SINGLE/COMPACT/DUAL

### Product features

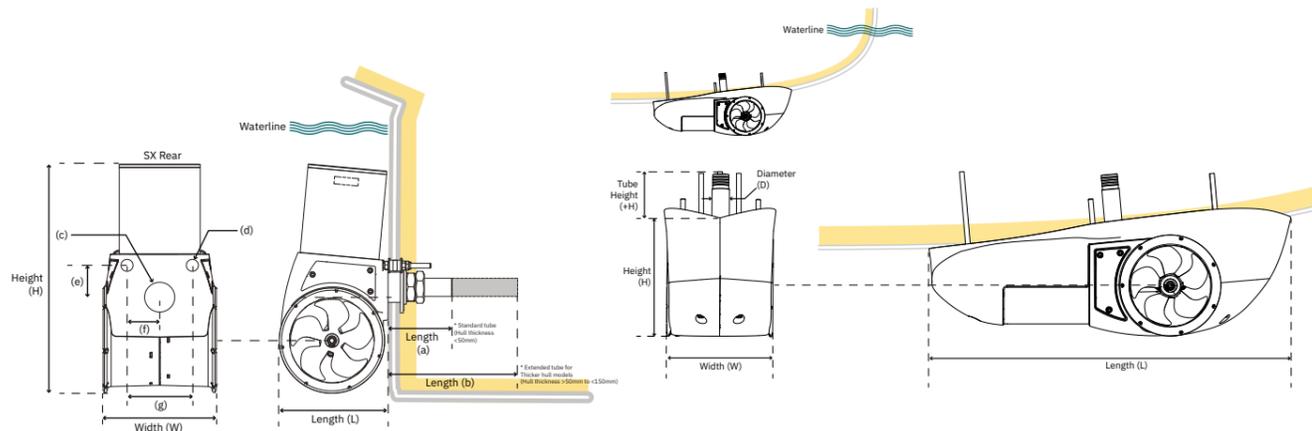
- IGNITION PROTECTION
- INTELLIGENT POWER CONTROL
- SEALED DRIVE LUBRICATION
- GALVANIC SEPARATION
- Q-PROP™

### Technical details

|                    |                        |
|--------------------|------------------------|
| Ideal Vessel Class | Motor boat, Sail boat  |
| Ideal Vessel Size  | 6–18 m / 20–59 ft      |
| Power              | DC 12/24V              |
| Thrust             | 42–116 kg / 93–256 lbs |
| Tunnel diameter    | 140–185 mm             |
| Placement          | Bow / Stern            |

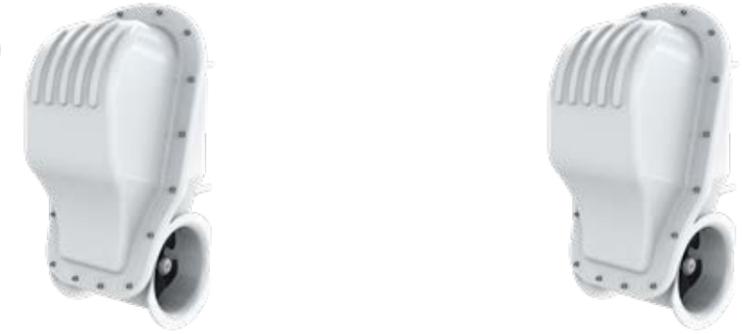


|                          | SX35/140 50MM      | SX35/140 150MM      | SX50/140 50MM      | SX50/140 150MM      | SX35/140 50POD     | SX50/140 50POD     |
|--------------------------|--------------------|---------------------|--------------------|---------------------|--------------------|--------------------|
| Thrust at 12/24V (kg)    | 42                 | 42                  | 62                 | 62                  | 42                 | 62                 |
| Thrust at 10.5/21V (kg)  | 35                 | 35                  | 50                 | 50                  | 35                 | 50                 |
| Ideal Vessel Size (m/ft) | 6-10/19-32         | 6-10/19-32          | 8-11/27-37         | 8-11/27-37          | 6-10/19-32         | 8-11/27-37         |
| Internal diameter (mm)   | 140                | 140                 | 140                | 140                 | 140                | 140                |
| Propulsion System        | Single             | Single              | Single             | Single              | Single             | Single             |
| Power Output (kW • Hp)   | 1.8 • 2            | 1.8 • 2             | 2.8 • 3.75         | 2.8 • 3.75          | 1.8 • 2            | 2.8 • 3.75         |
| Power requirement (V)    | 12V                | 12V                 | 12V                | 12V                 | 12V                | 12V                |
| Weight (kg)              | 15.3               | 15.3                | 15.3               | 15.3                | 15.3               | 15.3               |
| Min. Battery CCA (DIN)   | 200                | 200                 | 350                | 350                 | 200                | 350                |
| Item Code 12V            | SX35/140-12V-50MM  | SX35/140-12V-150MM  | SX50/140-12V-50MM  | SX50/140-12V-150MM  | SX35/140-12V-50POD | SX50/140-12V-50POD |
| Item Code 24V            | -                  | -                   | -                  | -                   | -                  | -                  |
| Item Code 12V PRO        | SXP35/140-12V-50MM | SXP35/140-12V-150MM | SXP50/140-12V-50MM | SXP50/140-12V-150MM | SXP35/140          | SXP50/140          |
| Item Code 24V PRO        | -                  | -                   | -                  | -                   | -                  | -                  |
| Cowls                    | COWL-SX35/50       | COWL-SX35/50        | COWL-SX35/50       | COWL-SX35/50        | COWL-SX35/50       | COWL-SX35/50       |

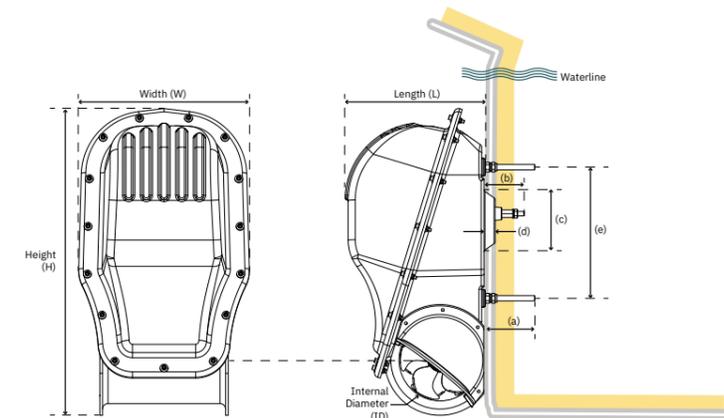


|                             | SX35/140 -12V-50MM | SX35/140 -12V-150MM | SX50/140 -12V-50MM | SX50/140 -12V-150MM | SX35/140 -12V-50POD | SX50/140 -12V-50POD |
|-----------------------------|--------------------|---------------------|--------------------|---------------------|---------------------|---------------------|
|                             | 12V                | 12V                 | 12V                | 12V                 | 12V                 | 12V                 |
| (H) Height (mm)             | 374                | 374                 | 374                | 374                 | 180                 | 180                 |
| (+H) Additional Height (mm) | -                  | -                   | -                  | -                   | 183                 | 183                 |
| (L) Length (mm)             | 171                | 171                 | 171                | 171                 | 630                 | 630                 |
| (+L) Additional Length (mm) | 171                | 276                 | 171                | 276                 | -                   | -                   |
| (W) Width (mm)              | 183                | 183                 | 183                | 183                 | 183                 | 183                 |
| (a)                         | 108                | 108                 | 108                | 108                 | -                   | -                   |
| (b)                         | 276                | 276                 | 276                | 276                 | -                   | -                   |
| (c)                         | 50                 | 50                  | 50                 | 50                  | -                   | -                   |
| (d)                         | 18                 | 18                  | 18                 | 18                  | -                   | -                   |
| (e)                         | 35.8               | 35.8                | 35.8               | 35.8                | -                   | -                   |
| (f)                         | 65                 | 65                  | 65                 | 65                  | -                   | -                   |
| (g)                         | 130                | 130                 | 130                | 130                 | -                   | -                   |

Please see note regarding thruster power and battery rating on page 116.



|                             | SX 80/185 T    | SX 100/185 T    |
|-----------------------------|----------------|-----------------|
| Thrust at 12/24V (kg)       | 96             | 116             |
| Thrust at 10.5/21V (kg)     | 80             | 100             |
| Ideal Vessel Size (m/ft)    | 10-15/35-48    | 12-17/35-55     |
| (ID) Internal Diameter (mm) | 185            | 185             |
| Propulsion System           | Twin           | Twin            |
| Power Output (kW • Hp)      | 4.4 • 5.9      | 6 • 8.05        |
| Power requirement (V)       | 12/24          | 12/24           |
| Weight (kg)                 | 52             | 57              |
| Min. Battery CCA (DIN)      | 550            | 750             |
| Item Code 12V               | SX80/185T-12V  | SX100/185T-12V  |
| Item Code 24V               | SX80/185T-24V  | SX100/185T-24V  |
| Item Code 12V PRO           | SXP80/185T-12V | SXP100/185T-12V |
| Item Code 24V PRO           | SXP80/185T-24V | SXP100/185T-24V |
| Cowls                       | 90080          | 90080           |

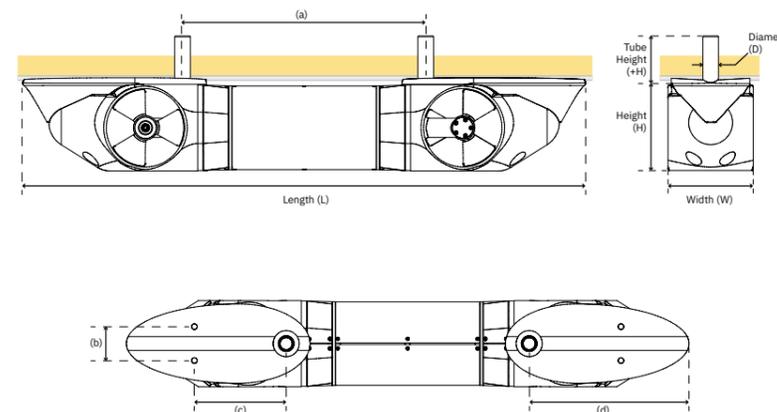
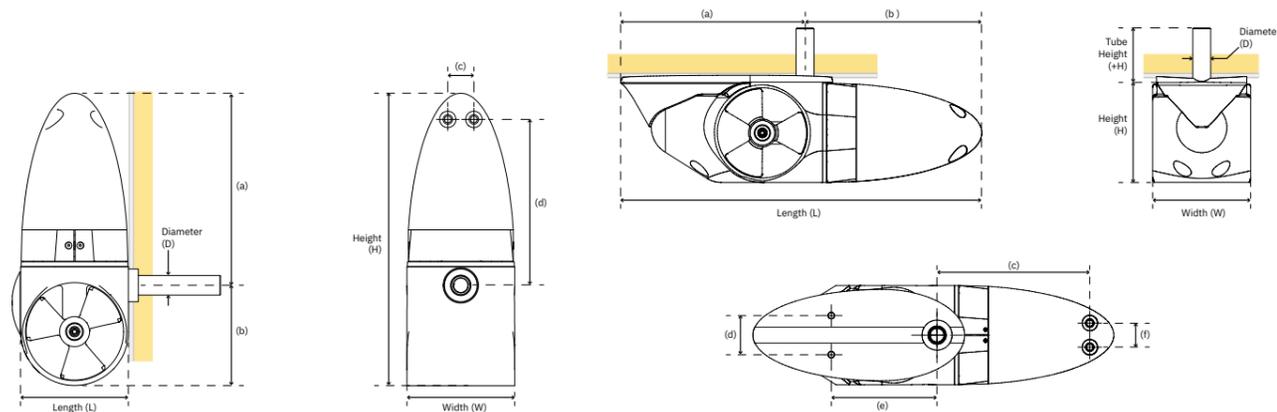


|                             | SX80   | SX100  |
|-----------------------------|--------|--------|
|                             | 12/24V | 12/24V |
| (H) Height (mm)             | 692    | 692    |
| (+H) Additional Height (mm) | -      | -      |
| (L) Length (mm)             | 314    | 314    |
| (+L) Additional Length (mm) | -      | -      |
| (W) Width (mm)              | 361    | 361    |
| (ID) Internal diameter (mm) | 185    | 185    |
| (a)                         | 115    | 115    |
| (b)                         | 91     | 91     |
| (c)                         | 140    | 140    |
| (d)                         | 25     | 25     |
| (e)                         | 296    | 296    |



|                          | EX70C       | EX95S       |
|--------------------------|-------------|-------------|
| Thrust at 12/24V (kg)    | 67          | 67          |
| Thrust at 10.5/21V (kg)  | -           | -           |
| Ideal Vessel Size (m/ft) | 10-15/35-48 | 10-15/35-48 |
| Internal Diameter (mm)   | 150         | 150         |
| Propulsion system        | Single      | Single      |
| Power Output (kW • Hp)   | 3.0 • 4.0   | 3.0 • 4.0   |
| Power requirement (V)    | 24          | 24          |
| Weight (kg)              | 19.5        | 19.5        |
| Min. Batt. Cap CCA (DIN) | 190         | 190         |
| Item Code 12V            | -           | -           |
| Item Code 24V            | EX70C       | EX95S       |

|                          | EX180D      |
|--------------------------|-------------|
| Thrust at 12/24V (kg)    | 180         |
| Thrust at 10.5/21V (kg)  | 130         |
| Ideal Vessel Size (m/ft) | 14-18/44-59 |
| Internal Diameter (mm)   | 150         |
| Propulsion System        | Dual        |
| Power Output (kW • Hp)   | 6.0 • 8.0   |
| Power requirement (V)    | 24          |
| Weight (kg)              | 35          |
| Min. Batt. Cap CCA DIN   | 375         |
| Item Code 12V            | -           |
| Item Code 24V            | EX180D      |



| Measurements           | EX70C | EX95S |
|------------------------|-------|-------|
| mm                     | 24V   | 24V   |
| (H) Height             | 447   | 165   |
| (+H) Additional Height | -     | 137.5 |
| (L) Length             | 165   | 600   |
| (+L) Additional Length | -     | -     |
| (W) Width              | 165   | 165   |
| (a)                    | 294   | 306   |
| (b)                    | 153.5 | 294   |
| (c)                    | 40    | 137.5 |
| (d)                    | 254   | 65    |
| (e)                    | -     | 176   |
| (f)                    | -     | 254   |
| (g)                    | -     | 40    |

| Measurements           | EX180D |
|------------------------|--------|
| mm                     | 24V    |
| (H) Height             | 165    |
| (+H) Additional Height | 152    |
| (L) Length             | 1079   |
| (+L) Additional Length | -      |
| (W) Width              | 165    |
| (a)                    | 466    |
| (b)                    | 152    |
| (c)                    | 65     |
| (d)                    | 176    |
| (e)                    | 466    |
| (f)                    | 306    |
| (g)                    | -      |

Please see note regarding thruster power and battery rating on page 116.

<sup>1</sup> Performance thrust (kgf x 1.4) equivalent due to increased leverage arm, depth of installation, and short transverse tunnel. Depending on placement and hull shape considerations. Sleipner recommends installing a tunnel thruster instead of the EX-series on planing hulls, as the EX external unit may cause unwanted spray.

# Control panels and remote controls

Sleipner offers a unique series of intelligent control panels, an essential part of the thruster system. Choose between our compact touch panel, popular joystick control, intuitive docking control, or the exclusive round control panel.

Why not add a remote control for full mobility onboard? Mix or match. The choice is yours!

### Easy installation

- Round cut-out hole (standard size)
- Installs from front
- Pre-fitted O-ring seal
- Multi-voltage 12V/24V

### Safety

- Child-safe on/off system
- Power/control light
- Automatic deactivation
- Easy operation

### Quality

- Waterproof IP65
- UV safe
- CE approved

### Design

- Compact size
- Modern look
- No visible bolts
- Selected models available in black

### ON/OFF



| Control Panels           | 8950       | 8955             | 8960           | 8965              | 8940                | 8909          | 8700                | PJC211              | PJC212            | RCS-20 <sup>1)</sup> | RC-20 <sup>1)</sup> | RC-21 <sup>1)</sup> | RC-22 <sup>1)</sup> | RC-23 <sup>1)</sup>    |
|--------------------------|------------|------------------|----------------|-------------------|---------------------|---------------|---------------------|---------------------|-------------------|----------------------|---------------------|---------------------|---------------------|------------------------|
| Description              | Touchpanel | Round touchpanel | Joystick panel | Boat switch panel | Dual joystick panel | Docking panel | Touch panel retract | Single joystick PRO | Dual joystick PRO | Remote bow/stern     | Remote bow/stern    | Remote bow/windl.   | Remote windl. x2    | Remote bow x2/windl.x2 |
| Height (mm)              | 70         | Ø86.5            | 70             | Ø86.5             | 120                 | 120           | 70                  | 141                 | 141               | 95                   | 95                  | 95                  | 95                  | 95                     |
| Width (mm)               | 70         |                  | 70             |                   | 70                  | 70            | 70                  | 83                  | 83                | 48                   | 48                  | 48                  | 48                  | 48                     |
| Thruster signal          | On/Off     | On/Off           | On/Off         | On/Off            | On/Off              | On/Off        | S-Link™ CAN-bus     | S-Link™ CAN-bus     | S-Link™ CAN-bus   | S-Link™ CAN-bus      | On/Off              | On/Off              | On/Off              | On/Off                 |
| Multi-voltage            | Yes        | Yes              | Yes            | Yes               | Yes                 | Yes           | Yes                 | Yes                 | Yes               | Yes                  | Yes                 | Yes                 | Yes                 | Yes                    |
| Child safety             | Yes        | Yes              | Yes            | Yes               | Yes                 | Yes           | Yes                 | Yes                 | Yes               | Yes                  | Yes                 | Yes                 | Yes                 | Yes                    |
| For PRO DC Speed Control | -          | -                | -              | -                 | -                   | -             | -                   | Yes                 | Yes               | Yes (On/Off only)    | -                   | -                   | -                   | -                      |
| Item Code Grey           | 8950 G     | 8955 G           | 8960 G         | 8965              | 8940 G              | 8909 C        | 8700                |                     |                   |                      |                     |                     |                     |                        |
| Item Code Black          |            |                  | 8960 S         |                   | 8940 S              |               |                     | PJC211              | PJC212            | RCS-20E/RCS-20U      | RC-20E/RC-20U       | RC-21E/RC-21U       | RC-22E/RC-22U       | RC-23E/RC-23U          |

### S-LINK™



The remote receiver accepts up to four independent transmitters.

### PJC211 single and PJC212 dual joystick for PRO™ variable speed control

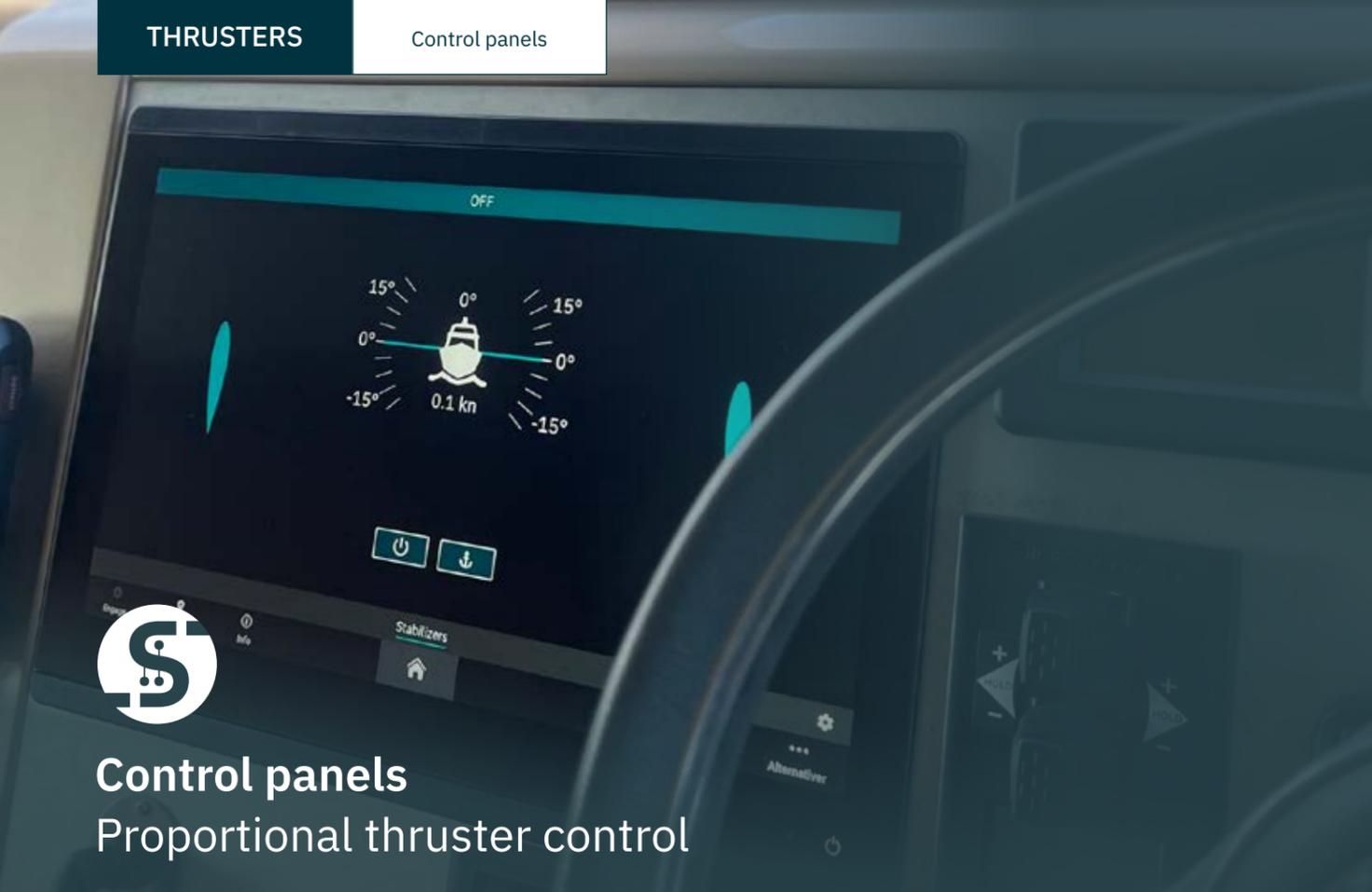
- For PRO™ thruster control with S-Link™
- Fingertip control with purpose-designed joysticks
- Hold function enables to set and leave the level of thrust
- System setup via wizard
- Diagnostics via panel/computer interface
- Built-in alarm buzzer
- Connector for external alarm buzzer
- Backlit LCD with instant feedback:
  - System status and diagnostics
  - Indication of power and direction of thrust
  - Interactive multi-language menus

### RC-2 remote controls

All models operate in the 868Mhz band with a new communication protocol to withstand external interference better. The RCR-2E receiver is compatible with four- and five-lead wire cabling for Sleipner thruster and windlass models. The 8-channel remote RCT-23E operates a dual thruster and a dual windlass configuration. Kits come ready paired from the factory. Extra transmitters are available.

- Two-way communication – audiovisual warning for communication error and low thruster voltage
- External antenna solution for better reception and easier remote placement of the antenna (extension cable available)
- Energy-efficient transmitter, only one battery needed
- Dedicated version for thrusters using S-Link™. 8730 interface is not required

1) Please use E type remotes for EU and U type remotes for North America.



## Control panels

### Proportional thruster control

#### PJC2 series

##### Single or dual joystick with integrated LCD display

- Fingertip control with purpose-designed joysticks
- Hold function enables to set and leave the level of thrust
- Compact design
- Backlit LCD with instant feedback:
  - System status and diagnostics
  - Indication of power and direction of thrust
  - Interactive multi-language menus
- S-Link™ CAN-bus communication
- Built-in alarm buzzer
- Connector for external alarm buzzer
- Plug & Play cables, waterproof and compact connectors
- Supports all Sleipner retractable thrusters
- Supports Vector Fins™ on/off control



| Control panel                      | PJC211              | PJC212              | PJC221              | PJC222              |
|------------------------------------|---------------------|---------------------|---------------------|---------------------|
| Control panel DNV Design Approved* | N/A                 | N/A                 | N/A                 | N/A                 |
| For thruster type                  | DC/AC               | DC/AC               | DC/AC/HYD           | DC/AC/HYD           |
| Display                            | Integrated          | Integrated          | Integrated          | Integrated          |
| Height (mm)                        | 141                 | 141                 | 141                 | 141                 |
| Width (mm)                         | 83                  | 83                  | 83                  | 83                  |
| S-Link™ CAN-Bus                    | Yes                 | Yes                 | Yes                 | Yes                 |
| Multi-voltage                      | Yes                 | Yes                 | Yes                 | Yes                 |
| Child safety                       | Yes                 | Yes                 | No                  | No                  |
| Stop function                      | No                  | No                  | Yes                 | Yes                 |
| Thruster operation                 | Single              | Dual                | Single              | Dual                |
| Joystick type                      | Spring, hold-button | Spring, hold-button | Spring, hold-button | Spring, hold-button |

\*Only available for thruster models with DNV approved gear house

#### S-Link Display Interface

The S-Link™ Display Interface (SDI-1) activates a Sleipner app on Multi-Functional Displays (MFD). The app enables monitoring and configuration of thruster and stabilizer systems:



- Activate stabilizers and adjust gain
- Monitor thruster operation and status
- Observe and clear active alarms

Works with compatible MFDs from Raymarine, Garmin, Simrad, B&G, and Lowrance. Please consult MFD manufacturers for information on compatible models before purchase.

SDI-1 connects easily to the S-Link™ bus with an S-Link™ spur cable and has a standard RJ45 Ethernet port for connection to MFDs. Some MFDs require a special Ethernet adapter cable. One SDI-1 can interface with multiple MFDs on the same network.



The supplied power cable must power SDI-1. At least one Sleipner control panel must be installed to configure thruster and stabilizer systems.

#### PJC4 series

Single or dual joystick with stand-alone color LCD display. The bright 3,5" daylight touch screen with an intuitive interface offers an easy day-to-day operation.

- Back-lit touch color LCD with instant feedback:
  - System status and diagnostics
  - Indication of power and direction of thrust
  - Interactive multi-language menus
- IPX7 water ingress rated control panel
- Flush or top mount control panel (HxW: 149x112mm)
- Built-in Wi-Fi module
- S-Link™ CAN-bus communication
- Built-in alarm buzzer
- Plug & Play cables, waterproof and compact connectors
- Dedicated connector for IO signals
- Supports various joystick designs

#### DNV design approved product variant for all available joystick types

- Power supply fault monitoring
- Display of propeller RPM
- Gearleg low oil level monitoring
- Select station, command transfer between multiple operator stations



TP-35



The PJC4 package consists of joystick of choice and TP-35 control panel.

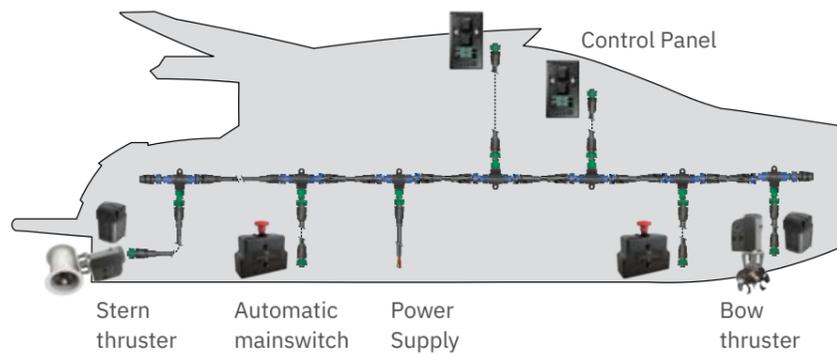


| PJC421-PVREL         | PJC422-PVREL         | PJC421-LE90     | PJC422-LE90     | PJC421-LF90X     | PJC422-LF90X     | PJC421-LF90     | PJC422-LF90     |
|----------------------|----------------------|-----------------|-----------------|------------------|------------------|-----------------|-----------------|
| PJC421-PVREL-DNV     | PJC422-PVREL-DNV     | PJC421-LE90-DNV | PJC422-LE90-DNV | PJC421-LF90X-DNV | PJC422-LF90X-DNV | PJC421-LF90-DNV | PJC422-LF90-DNV |
| DC/AC/HYD            | DC/AC/HYD            | DC/AC/HYD       | DC/AC/HYD       | DC/AC/HYD        | DC/AC/HYD        | DC/AC/HYD       | DC/AC/HYD       |
| Stand-alone          | Stand-alone          | Stand-alone     | Stand-alone     | Stand-alone      | Stand-alone      | Stand-alone     | Stand-alone     |
| 123,4                | 206,0                | 96,0            | 96,0            | 96,0             | 96,0             | 96,0            | 96,0            |
| 105,5                | 106,0                | 96,0            | 96,0            | 96,0             | 96,0             | 96,0            | 96,0            |
| Yes                  | Yes                  | Yes             | Yes             | Yes              | Yes              | Yes             | Yes             |
| Yes                  | Yes                  | Yes             | Yes             | Yes              | Yes              | Yes             | Yes             |
| No                   | No                   | No              | No              | No               | No               | No              | No              |
| Yes                  | Yes                  | Yes             | Yes             | Yes              | Yes              | Yes             | Yes             |
| Single               | Dual                 | Single          | Dual            | Single           | Dual             | Single          | Dual            |
| Spring, twist detent | Spring, twist detent | Detent          | Detent          | Detent           | Detent           | Detent          | Detent          |

# The S-Link™ system

S-Link™ is a CAN-bus based control system with full intelligent communication between all units in the system, much like a computer network. It is used for all retract thrusters and all PRO™ version thrusters with the DC speed control system.

S-Link™ system example:



### Advantages

- Round, compact and waterproof plugs with unique keying and color coding to avoid faulty hookup
- Unlimited number of commands or information transfer on a single cable
- User feedback to panel
- Intelligent troubleshooting

### S-Link™ system for boats with two control positions and two DC proportional thrusters.

Depending on the boat's construction, there might be several different ways to route the S-Link™ backbone. Find the most practical way to implement the backbone and remember that the S-Link™ equipment does not need to be connected in a specific order.

| Item code | Description    | Parts |
|-----------|----------------|-------|
| 6 1320-xx | Backbone cable | 6 pcs |
| 6 1321-xx | Spur cable     | 6 pcs |
| 6 1326    | T connector    | 7 pcs |
| 6 1328    | Power cable    | 1 pc  |
| 6 1327    | End terminator | 2 pcs |

### S-Link™ cable components



#### Backbone cables

Forms the main "loop" around the boat.

- Item code:
- 6 1320-xxM (xx=length)
  - 6 1320-0.2M (0.2m)
  - 6 1320-2M (2.0m)
  - 6 1320-4M (4.0m)
  - 6 1320-7M (7.0m)
  - 6 1320-10M (10.0m)
  - 6 1320-15M (15.0m)
  - 6 1320-20M (20.0m)



#### Spur cables

Must be used to connect all parts to the backbone cable (one for each component, no exceptions), recommended to be as short as practically possible.

- Item code:
- 6 1321-xxM (xx=length)
  - 6 1321-0.4M (0.4m)
  - 6 1321-1M (1.0m)
  - 6 1321-3M (3.0m)
  - 6 1321-5M (5.0m)



#### Power cable

Must be one in each system, length 2.5m

Item code: 6 1328



#### End terminator

Must be one in each end of the backbone "loop".

Item code: 6 1327



#### Backbone extender

Connects two backbone cables to extend length.

Item code: 6 1322



#### T connector

Must be one for each spur, including power cable.

Item code: 6 1326



#### S-Link™ 4-Port T-connector

Allows four spur cable connections in the same device for a more tidy installation with fewer parts. Two sealing caps included for protection.

Item code: 6 1403

# Accessories S-Link™ system



### PRO™ upgrade kit

To upgrade a standard on/off thruster to a PRO™ with variable speed control, you need a PPC Power Control Unit and an upgrade kit for the internal wiring loom. Note that sealed units such as IP and SX thrusters must be upgraded by an authorized Sleipner dealer.



### Automatic main switch for S-Link™

The most user-friendly and safe installation is provided with an automatic main switch/fuse. The main power to the thruster is conveniently controlled by the Sleipner control panel. Added safety is provided by the panel's auto-off and the thruster's overheat sensor, also controlling the main switch. Compact design with flexible mounting options on wall or bulkhead, plug-and-go wiring, heavy terminals allowing double cables.



### S-Link™ Interface

S-Link™ interface to connect footswitch, control panel and radio remote to the S-Link™ system (foot switch, panel and remote not included). Multivoltage 12/24V.



### Gateway

The GW-1 gateway is used to interface NMEA2000 devices and Sleipner's S-Link™ system. The gateway can also be used to interface NMEA 0183 compliant GPS products, enabling S-Link™ products to receive GPS time and position data. Manufacturer can apply for access to parts of Sleipner's S-Link™ protocol, allowing 3rd party products to monitor and control Sleipner's S-Link™ thrusters and stabilizer systems.



### S-Link Display Interface

The S-Link™ Display Interface (SDI-1) activates a Sleipner app on Multi-Functional Displays (MFD). The app enables monitoring and configuration of thruster and stabilizer systems.



### External Signal Interface

The ESI-1 External Signal Interface is used to interface digital IO signals and Sleipner's S-Link™ system. Two analog 4-20mA inputs offer proportional control of S-Link™ compliant bow and stern thrusters. Digital IOs are available for control and feedback signals.



### Foot switch

Foot switch kit suitable for 8730 S-Link™ interface. Kit contains 2 switches with covers to protect from unwanted operation. (Cables from switches to 8730 S-Link™ interface not included)

| PPC Unit | Compatible with                      |
|----------|--------------------------------------|
| PPC520   | SE25/30/40/50/60 12V<br>SE30-130 24V |
| PPC820   | all models except 48V                |
| PPC840   | 48V models                           |

| Wiring | Compatible with                      |
|--------|--------------------------------------|
| 8 1997 | SR80/100                             |
| 8 1998 | SE50/100/120/210/240/250/<br>285/300 |
| 8 1999 | SE25/30/40/60/80/130/150/170         |

| Main Switch | 12V         | 24V    |
|-------------|-------------|--------|
| HxWxD (mm)  | 175x205x140 |        |
| Item code   | 897712      | 897724 |

| S-Link™ Interface        |        |
|--------------------------|--------|
| H (mm)                   | 45     |
| W (mm)                   | 80     |
| D (mm)                   | 145    |
| Item code bow thruster   | 8730 B |
| Item code stern thruster | 8730 S |

| GW-1   |     |
|--------|-----|
| H (mm) | 26  |
| W (mm) | 50  |
| D (mm) | 127 |

| SDI-1  |     |
|--------|-----|
| H (mm) | 84  |
| W (mm) | 118 |
| D (mm) | 54  |

| ESI-1  |     |
|--------|-----|
| H (mm) | 156 |
| W (mm) | 212 |
| D (mm) | 62  |

| Foot Switch              |      |
|--------------------------|------|
| Diameter (mm)            | 105  |
| Item code (kit w/ 2 pcs) | 8751 |

## SX35/50 series accessories



### SX extension Block

For stern mount, available in 10 mm and 50 mm.

- Polyurethan spacer allows for easier installation in proximity to stepped and concave surfaces on the transom
- Spacer functions as galvanic isolation for metal hulls

Item code  
EXT-SX35/50-10MM  
EXT-SX35/50-50MM



### Cowls

- Made of reinforced UV resistant composite material
- Easy installation and retrofit
- Remove cavitation on shallow installations (more thrust, less noise)
- Guide thrust away from flaps or stern drive
- Either preassembled from factory or as retrofit kit.

Item code COWL-SX35/50



### Grid safety kit

- Hydrodynamic shape to reduce resistance
- Removable for cleaning and propeller service
- Either preassembled from factory or as retrofit kit
- Made of reinforced UV-resistant composite material

Item code GRID-SX35/50

## EX series accessories



### Basic installation kit

With two mounting bolts, complete with sealing kit (for EX compact)

Item code 50151



### Installation kit

With streamline rubber adapter, complete with sealing kit (not for EX compact).

Item code 50152



### GRP Adapter

For bow installation on V-shaped hulls.

Item code 50155



### Mooring protector

Made of stainless steel for EX-series motor housing, including fixing kit.

Item code 50154

## AC components

AC Thrusters are delivered as a complete ready to install kit.

- PDC301 drive controller
- Variable Frequency Drive (VFD)
- Gearleg with propellers and bracket
- Flexible coupling
- AC motor
- EMC Filter

Each AC thruster system is configured according to the specific working conditions and specifications. No further setup of the VFD is required. The PDC301 is configured from the PJC control panel.

The S-Link™ control system ensures fast and trouble-free installation, and gives you the unique option to combine hydraulic and AC thrusters in a single control environment.

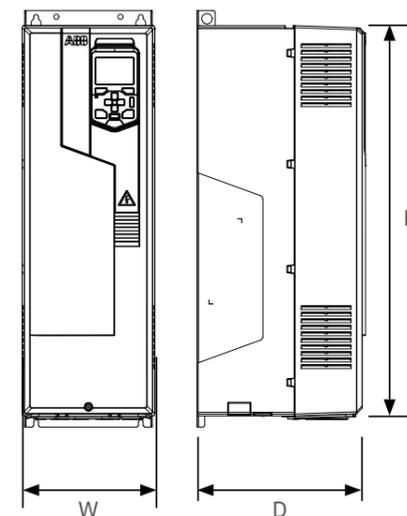
All with variable speed control.



### PDC 301 drive controller

- Communication with VFD by Modbus connection
- Included 3-wire cable for connection to VFD Modbus terminals
- Monitoring and diagnostics
- Firmware upgrade through S-Link™ programmer

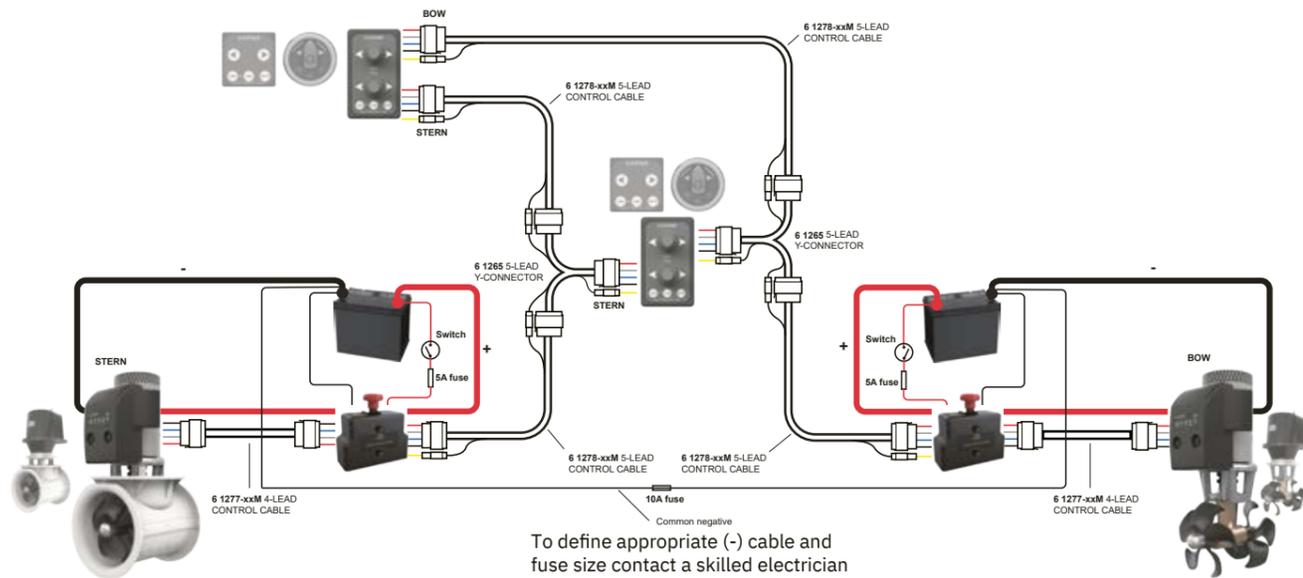
### Variable frequency drive (VFD)



VFD protection: IP21  
IP55 on request

| VFD     | Thruster model                 | VFD model        | Weight kg | D mm | W mm | H mm |
|---------|--------------------------------|------------------|-----------|------|------|------|
| SAC240  | SAC240/250-C-2-x <sup>2</sup>  | ACS580-01-047A-2 | 11,8      | 228  | 203  | 454  |
|         | SAC240/250-C-4-x <sup>2</sup>  | ACS580-01-033A-4 | 11,8      | 228  | 203  | 454  |
| SAC320  | SAC320/300-C-2-x <sup>2</sup>  | ACS580-01-076A-2 | 19        | 258  | 203  | 600  |
|         | SAC320/300-C-4-x <sup>2</sup>  | ACS580-01-046A-4 | 11,8      | 228  | 203  | 454  |
| SAC360  | SAC360/300-C-2-x <sup>2</sup>  | ACS580-01-115A-2 | 28,3      | 295  | 203  | 732  |
|         | SAC360/300-C-4-x <sup>2</sup>  | ACS580-01-073A-4 | 19        | 258  | 203  | 636  |
| SAC400  | SAC400/300-C-2-x <sup>2</sup>  | ACS580-01-115A-2 | 28,3      | 295  | 203  | 732  |
|         | SAC400/300-C-4-x <sup>2</sup>  | ACS580-01-073A-4 | 19        | 258  | 203  | 636  |
| SAC450  | SAC450/386-C-2-x <sup>2</sup>  | ACS580-01-115A-2 | 28,3      | 295  | 203  | 732  |
|         | SAC450/386-C-4-x <sup>2</sup>  | ACS580-01-062A-4 | 19        | 258  | 203  | 600  |
| SAC520  | SAC520/386-I-2-x <sup>2</sup>  | ACS580-01-144A-2 | 42,4      | 369  | 252  | 727  |
|         | SAC520/386-I-4-x <sup>2</sup>  | ACS580-01-089A-4 | 28,3      | 295  | 203  | 732  |
|         | SAC520/386-C-2-x <sup>2</sup>  | ACS580-01-144A-2 | 42,4      | 369  | 252  | 727  |
|         | SAC520/386-C-4-x <sup>2</sup>  | ACS580-01-089A-4 | 28,3      | 295  | 203  | 732  |
| SAC700  | SAC700/412-C-2-x <sup>2</sup>  | ACS580-01-171A-2 | 54        | 370  | 284  | 880  |
|         | SAC700/412-C-4-x <sup>2</sup>  | ACS580-01-106A-4 | 28,3      | 295  | 203  | 732  |
| SAC750  | SAC750/513-I-4-x <sup>2</sup>  | ACS580-01-089A-4 | 28,3      | 295  | 203  | 732  |
| SAC900  | SAC900/513-I-4-x <sup>2</sup>  | ACS580-01-106A-4 | 28,3      | 295  | 203  | 732  |
| SAC1100 | SAC1100/513-I-4-x <sup>2</sup> | ACS580-01-145A-4 | 42,4      | 369  | 252  | 727  |
|         | SAC1100/513-C-4-x <sup>2</sup> | ACS580-01-145A-4 | 54        | 370  | 284  | 880  |
| SAC1300 | SAC1300/610-I-4-x <sup>2</sup> | ACS580-01-169A-4 | 54        | 370  | 284  | 880  |
| SAC1400 | SAC1400/610-I-4-x <sup>2</sup> | ACS580-01-169A-4 | 54        | 370  | 284  | 880  |

# Accessories DC thrusters



### A complete thruster system

A complete system consists of several parts. Besides the thruster unit(s) and tunnel(s) - bow, stern, or both, you will need control cables, main switches (automatic or manual), fuse and fuse holder, control panel(s), and main power cables. Even a radio remote is a normal part of a thruster system today.



### Serial-parallel switch box

Automatic switch box enabling installation of 24V thrusters in boats with a 12V system. With an additional 12V battery (not included), you supply 24V for the thruster's operation, while all batteries are charged by your regular 12V system when the thruster is not running.

|                   |                    |
|-------------------|--------------------|
| <b>Switch box</b> | SE 120/130/150/170 |
| HxWxD (mm)        | 285 x 265 x 110    |
| Item code         | 10112A             |
| <b>Switch box</b> | SE200/250          |
| HxWxD (mm)        | 285 x 265 x 110    |
| Item code         | 15112A             |



### Automatic Main Switch

The most user-friendly and safe installation is provided with an automatic main switch. The main power to the thruster is conveniently controlled by the Sleipner control panel. Added safety is provided by the panel's auto-off and the thruster's overheat sensor, also controlling the main switch. Compact design with flexible mounting options on wall or bulkhead, Plug & Play wiring, heavy terminals allowing double cables. Fuse not included.

|                    |             |            |
|--------------------|-------------|------------|
| <b>Main Switch</b> | <b>12V</b>  | <b>24V</b> |
| HxWxD (mm)         | 175x205x140 |            |
| Item code          | 897612      | 897624     |

The electric motors used on the thrusters require a good electric power supply to operate and achieve the desired power safely. Both the main power cable sizes and the available battery capacity are essential.



### Fuse holder / Fuses

Sleipner manufactures fuse holders engineered to minimize voltage drop and heating while saving space. Made for ANL type fuses in high current applications, they accept double cables with heavy terminals. The fuse holder is also available with a protective cover. We supply ANL fuses in different sizes to match all of our thrusters.

| Item code | Fuse | For thruster 12V                    | For thruster 24V  |
|-----------|------|-------------------------------------|---|
| ANL80     | 80A  |                                     | EX75S · EX55C   |
| ANL100    | 100A | EX35S · EX25C                       | EX95S · EX70C   |
| ANL125    | 150A | EX55S · EX110D                      | EX40C · EX180D  |
| ANL150    | 150A | SE20 · SE25 · SE30 · SX35           | SE/SX50 · SE60  |
| ANL250    | 250A | SE40                                | SE/SR/SRL/SRV/SX80                                      |
| ANL325    | 325A | SE/SX50 · SE60                      | SE/SR/SRL/SRV/SX100 · SE120 · SE/SRL/SRV130 · SE/SRV300 |
| ANL400    | 400A | SE/SR/SRL/SRV/SX80                  | SE/SRL/SRV170   |
| ANL500    | 500A | SE/SR/SRL/SRV/SX100 · SE/SRL/SRV130 | SE150 · SE/SRV210 · SE/SRV250                           |
| ANLHOLD   |      | Fuseholder for all ANL type fuses   |   |
| ANLHOLD-C |      | Fuseholder including clear cover    |   |



### Plug & Play control cables

Ensure that the complete installation meets the Sleipner quality standard and utilize our Plug & Play wiring system using original control looms. They are available in many lengths, and Y-connectors tie multiple control positions together. Color-coded to match the wiring diagrams with high-quality connectors to ensure correct installation. This cable is for all thruster models besides the PRO™ series and retractable thrusters.

When using the automatic main switch in your thruster system, you need the 5-lead cable between the control panel and auto-switch. The extra lead will actively control the switch and thereby the main power to the thruster, adding further safety. Please see schematics on top left page.

| Description                             | Item code 4-lead | For thruster 12V |
|---|------------------|------------------|
| Control cable 4 meter                   | 6 1277-04M       | 6 1278-04M       |
| Control cable 7 meter                   | 6 1277-07M       | 6 1278-07M       |
| Control cable 9 meter                   | 6 1277-09M       | 6 1278-09M       |
| Control cable 12 meter                  | 6 1277-12M       | 6 1278-12M       |
| Control cable 15 meter                  | 6 1277-15M       | 6 1278-15M       |
| Control cable 18 meter                  | 6 1277-18M       | 6 1278-18M       |
| Control cable 22 meter                  | 6 1277-22M       | 6 1278-22M       |
| Y-connector for multiple control panels | 6 1274           |                  |

### Components of a complete thruster system

- Thruster(s) – bow thruster, stern thruster or both
- Tunnel(s) – for bow, stern or both
- Control cables
- Main switch (automatic or manual)
- Fuse and fuse holder
- Control panel(s)
- Main power cables
- Radio remote

**SLEIPNER**

# Windlasses

An anchor windlass makes boating easier. With the controlled free-fall system, all you have to do is let the anchor go and focus on taking the boat smoothly to the shore.

# Anchor with ease

Anchoring in unknown waters or in-between other boats can be a boater's worst fear. With a windlass installed, you can lower your shoulders and take your time when anchoring and docking your boat.

## Automatic free fall

Sleipner windlass systems allow for the fastest way to anchor your boat with an integrated free-fall release system. Anchoring your vessel fast allows for precise anchoring positioning, opposing powering down where your boat will drift while waiting to secure the lines.

## Parking-mode

Sleipner windlass systems allow you to set retract resting points to ease in securing your anchor during a wind-up operation. This can leave the anchor to be set just below the waterline to clean the anchor to the vessel before lifting to its final resting position.

## Built on the legacy of Scandinavian boating

Sleipner's windlasses are intended for mounting on the boat's stern, which is unique for Scandinavian boating. We often moor with the bow facing the shore as our coastlines contain countless scattered islands.



Internal mounting  
Leaded line



External mounting  
Leaded line



Side mounting  
Leaded line



Mounted on deck  
Leaded line/chain

MAXI

### Product features for lead line

-  AUTOMATIC FREE FALL CONTROL
-  PARKING-MODE
-  PWM CONTROL
-  REMOTE CONTROL (OPTIONAL)

### Technical details

|                    |                                     |
|--------------------|-------------------------------------|
| Ideal vessel class | Motor boat, Sail boat               |
| Ideal vessel size  | <7m / <25ft Midi. <21m / <70ft Maxi |
| Power              | 12/24V                              |
| Motor output       | 600/1000/1500 Watt                  |
| Placement          | Internal/external/deck/side         |
| Rec. anchor weight | 7,5–30 kg                           |
| For                | line/chain                          |

# Choosing the right anchor windlass for your boat

When choosing an anchor windlass, you must consider your boat's size and design, mounting and placement of the windlass, and anticipated anchoring conditions, including pulling power and type of ground tackle.

## Windlass sizing

Which windlass size you should go for is mainly determined by your boat's size and weight. Additionally, the windlass's placement and mounting will give you reliable insight into which model to select.

When driving a car in first gear, it is easy to get up to speed quickly. This also applies to your anchoring equipment. At higher speeds, it requires more power from the windlass's gear housing and gipsy.

- For 12-volt vessels up to 3 tons, you need an electric motor of around 600 watts.
- For boats over 3 tons, you need an electric motor of about 1000 watts.
- Larger 24-volt vessels usually end up with an electric motor of around 1500 watts.

## Placement and Mounting

Sleipner windlasses are constructed for mounting on the boat's stern.

| Internal | External | On Deck  | Side-Mounting |
|----------|----------|----------|---------------|
| Midi 203 | Maxi 31  | Maxi 32  | Maxi 34G      |
| Maxi 40  | Maxi 32  | Maxi 32C |               |
| Maxi 43  | Maxi 32C | Maxi 34D |               |
| Maxi 44  |          |          |               |

## Power Supply

When the windlass is mounted on the stern, the boat's main battery is usually not far away. If you make sure that the engine is always running when you are using the windlass (except for minor adjustments), this won't pose a problem for the battery's starting capacity.

Still, we advise connecting the windlass to your secondary battery or thruster battery, if applicable.

## Windlass pulling power

A windlass's maximum load capacity should be four times its usual working load, meaning the anchor's combined weight, rode, and hardware.

## Lead line or chain?

The weight of the lead line or chain is essential as it helps you achieve softer anchoring. With a correct weighted line or chain, it takes longer to stretch when the boat moves, and you avoid strong jerks.

## Windlass with lead line

In Scandinavia, most people choose lead lines as they predominantly anchor at the stern. A lead line is lighter than a chain but still has a high dead weight and good durability. All Sleipner windlasses with lead line come with automatic free fall and are equipped with a parking function, including soft start and double auto-stop function.

## Windlass with chain

A chain is by far the most common worldwide. A chain has high durability and weighs a lot, which is an advantage on bigger boats, but a disadvantage on smaller boats due to the increased weight concentration at the boat's back. Chains are extended to the desired length without features such as automatic free fall. This is because the chain's weight would drag the entire length of the chain to the bottom. In practice, this means that it takes longer to prepare anchoring with a chain than with a lead line.

# A complete windlass system

Sleipner windlass systems are customized to boat type, design and your needs as a boat owner. You can learn more about the different components in a complete windlass system below.

## Windlass

Midi 203 is suitable for boats up to 25 feet and the Maxi-series is suitable for boats up to 70 feet.

## Anchor

|                     |               |
|---------------------|---------------|
| Boats up to 2 tons  | 5 kg anchor   |
| Boats up to 3 tons  | 7,5 kg anchor |
| Boats up to 4 tons  | 10 kg anchor  |
| Boats up to 8 tons  | 15 kg anchor  |
| Boats up to 15 tons | 20 kg anchor  |
| Boats up to 20 tons | 30 kg anchor  |

## Anchor Rode

With the help of our large selection of anchor rodes and hull penetrations, Sleipner windlasses are easily adaptable to most boats.

## Control Box

The windlass controller monitors the operating time and power consumption of the anchor windlass while protecting the electric motor.

## Control Panel

Waterproof control panel with child lock makes anchoring safe and easy.

## Remote Control (Optional)

You can operate the windlass from anywhere in the boat and even a remote location with a remote controller.

When the boat is anchored up at the stern with the bow facing shore, you can pull the boat out from land remotely, reducing the risk of waves from passing boats causing your boat's bow to pound against shore.

## Fuse

150A for Midi windlasses and 200A for Maxi windlasses.

## Electrical Cables

- 4-lead cables.
- Battery cable kit.

## Anchor Swivel (Recommended)

A swivel is a rotating shackle between the line and the anchor, which prevents the anchor from spinning and twisting the line/chain and at the same time holds the anchor in place in the anchor roll. Recommended for all installations.

## Anchor Safety Chain (Recommended)

The anchor must always be fastened with a safety chain to secure the anchor to the boat while driving. The safety chain is attached to the boat or anchor roll and usually has a shackle that makes it easy to connect the anchor when parked in the anchor roll. Recommended in all installations.



# Technical Details

### Midi anchor windlasses

The MIDI is a compact free-fall anchor windlass suitable for boats up to 3 tons. Only available with lead rope.

### Maxi anchor windlasses

MAXI is a series of anchor windlasses in various sizes with free-fall, suitable for boats over 3 tons. Some models are available with chain.

### Product features

#### Automatic free-fall function

The automatic free-fall function allows the release of the windlass anchor line in a controlled manner, maintaining a slight resistance ensuring the line doesn't rush to the bottom. Therefore, it releases as much line as required for the water depth and length for the mooring.

#### Parking mode

Parking mode provides another user-friendly feature. With an end-stop sensor and brass wire ring in the line, the anchor automatically stops at the water line or 'rinsing position'. This allows the anchor to clean away any mud, seagrass or other sea bed materials before carefully settling the anchor in its final secure position.

### Accessories

Accessories are available in several variants to enable tailored solutions for various boat types. The anchor windlass requires an MCU control box, circuit breaker, and control panel and other accessories such as hull penetration, anchor line, and anchor rode.

| Internal | External | On Deck  | Side-Mounting |
|----------|----------|----------|---------------|
| Midi 203 | Maxi 31  | Maxi 32  | Maxi 34G      |
| Maxi 40  | Maxi 32  | Maxi 32C |               |
| Maxi 43  | Maxi 32C | Maxi 34D |               |
| Maxi 44  |          |          |               |



**Maxi 43 and Maxi 44**  
Anchor windlass for internal mounting, suitable for boats up to 70 feet. Maxi 43 is a powerful windlass with features such as automatic free fall and parking mode.

The mounting bracket can rotate 360 degrees, which means that you have numerous mounting options: against the transom, front bulkhead or hanging horizontally below deck. The electric motor and rope guide is also rotatable, simplifying the installation considerably by enabling mounting on surfaces with a different angle in relation to the transom. **Deciding to mount on the starboard or port side** could depend on space.

Maxi 44



With the Maxi 43 and 44, you can decide which side you want to install the line wheel. We recommend having the line wheel facing towards the middle of your vessel instead of out towards the hull. This will allow easier access for service and maintenance. However, this depends on your boat's construction and your preferences.

- The Maxi 43 has the line wheel fitted starboard, ideal for mounting on the port side.
- The Maxi 44 has the line wheel fitted port ideal for mounting on the starboard side.



Maxi 43



**Midi 203**  
Anchor windlass for internal mounting, suitable for boats up to 25 feet/3 tons. Midi 203 is a compact and flexible windlass with features such as automatic free fall and parking mode.

The mounting bracket can rotate 360 degrees, which means that you have numerous mounting options: against the transom, front bulkhead or hanging horizontally below deck. The electric motor and rope guide is also rotatable, simplifying the installation considerably by enabling mounting on surfaces with a different angle in relation to the transom.



Midi 203



**Maxi 31**  
Anchor windlass for external mounting on the transom. Maxi 31 is a windlass with features such as automatic free fall and parking mode. A classic and proven model that is very common on boats with limited space.



**Maxi 40**  
Anchor windlass for internal mounting on the transom, suitable for boats up to 70 feet. Maxi 40 is built into a plastic cover and has features such as automatic free fall and parking mode.



**Maxi 32**  
Anchor windlass for external mounting on deck or anchor box, suitable for boats up to 70 feet. Maxi 32 is a windlass with features such as automatic free fall and parking mode.

A classic proven model which is very common on boats with a stern cabin and bathing platform where space is limited.



**Maxi 32C**  
Anchor windlass with chain for external mounting on deck or anchor box, suitable for boats up to 70 feet. 32C is a classic proven model which is very common on boats with a stern cabin and bathing platform where space is limited.

**The anchor line** is driven in and out but can also be released with the included handle and adjustable slip brake. Maxi 32C is compatible with chain 8mm DIN 766 and 6.5mm Norwegian standard.



**Maxi 34-D**  
Anchor windlass designed for external deck mounting in various locations at the aft, bow, anchor or bathing platform (with access to internal space) of the boat. Fully equipped with functions such as automatic free fall and parking mode.

Commonly the Maxi 34D is installed at the bow of the vessel, however, in larger classes, it can be installed on the bathing platform provided that space allows for the rope to drop downwards.



**Maxi 34-G**  
Anchor windlass for external mounting/ side-mounting suitable for boats up to 70 feet with a built-in bathing platform or extension. Maxi 34G is a windlass with features such as automatic free fall and parking mode.

**Maxi 34-3G** is for mounting the port side, with the electric motor inside the vessel and the line wheel facing the bathing platform starboard.

**Maxi 34-4G** is for mounting on the starboard side with the electric motor on the inside and the line wheel facing the bathing platform port.



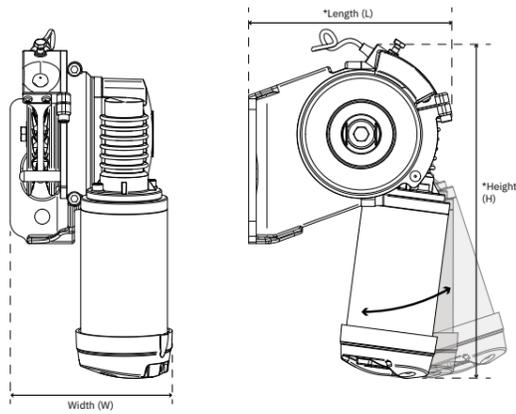
| Modell                     | Midi 203                  |
|----------------------------|---------------------------|
| Mounting                   | Internal                  |
| Motor output               | 600 W                     |
| Weight (kg)                | 12                        |
| Power Requirement (V)      | 12 V                      |
| Pulling power (max)        | 200 kg                    |
| Pull speed                 | 20 m / min vid 30 kg load |
| Ideal Vessel Size          | < 25 fot / 7,6 m          |
| Auto stop function         | Yes                       |
| Recommended fuse           | 150 Amp - 12V             |
| Recommended anchor/ weight | 7,5 - 15 kg               |
| Line                       | 12 mm Anchor line, leaded |
| Item code 12V              | 36-12106                  |



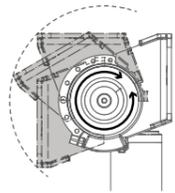
| Modell                          | Maxi 43 & 44                           |
|---------------------------------|--|
| Mounting                        | Internal                               |
| Motor output 12 V               | 1000 W                                 |
| Motor output 24 V               | 1500 W                                 |
| Weight (kg)                     | 20 Kg                                  |
| Power Requirement (V)           | 12 V / 24 V                            |
| Pulling power (max) 12 V        | 500 kg                                 |
| Pulling power (max) 24 V        | 850 kg                                 |
| Pull speed                      | 20–25 m / min                          |
| Ideal Vessel Size               | < 15.2 m - 1000 W<br>< 21.3 m - 1500 W |
| Auto stop function              | Yes                                    |
| Recommended fuse                | 150 Amp                                |
| Rec. min. battery capacity 12 V | 100 Ah                                 |
| Rec. min. battery capacity 24 V | 60 Ah                                  |
| Recommended anchor/ weight      | 10–26 kg - 1000 W<br>10–30 kg - 1500 W |
| Line                            | 14–16 mm Anchor line, leaded           |
| Item code 12V starboard         | 43-12110 (line gypsy starboard)        |
| Item code 12V port              | 44-12110 (line gypsy port)             |
| Item code 24V starboard         | 43-24115 (line gypsy starboard)        |
| Item code 24V port              | 44-24115 (line gypsy port)             |



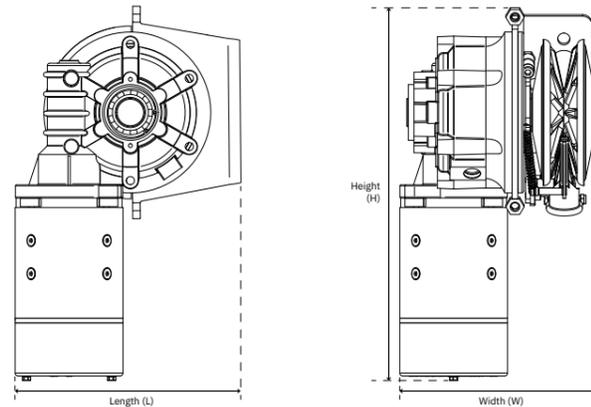
| Modell                         | Maxi 34-G                              | Maxi 34-D                              |
|--------------------------------|--|--|
| Mounting                       | Side-mounting                          | On deck                                |
| Motor output 12 V              | 1000 W                                 | 1000 W                                 |
| Motor output 24 V              | 1500 W                                 | 1500 W                                 |
| Weight (kg)                    | 20 kg                                  | 20 kg                                  |
| Power Requirement (V)          | 12 V / 24 V                            | 12 V / 24 V                            |
| Pulling power (max) 12 V       | 500 kg                                 | 500 kg                                 |
| Pulling power (max) 24 V       | 850 kg                                 | 850 kg                                 |
| Pull speed                     | 20–25 m / min                          | 20–25 m / min                          |
| Ideal Vessel Size              | < 15.2 m - 1000 W<br>< 21.3 m - 1500 W | < 15.2 m - 1000 W<br>< 21.3 m - 1500 W |
| Auto stop function             | Yes                                    | Yes                                    |
| Recommended fuse               | 200 Amp                                | 200 Amp                                |
| Rec. min. battery capacity 12V | 100 Ah                                 | 100 Ah                                 |
| Rec. min. battery capacity 24V | 60 Ah                                  | 60 Ah                                  |
| Recommended anchor/ weight     | 10–26 kg - 1000 W<br>10–30 kg - 1500 W | 10–26 kg - 1000 W<br>10–30 kg - 1500 W |
| Line                           | 14–16 mm Anchor line, leaded           | 14–16 mm Anchor line, leaded           |
| Item code 12V starboard        | -                                      | -                                      |
| Item code 24V                  | -                                      | -                                      |
| Item code 12V starboard        | 34-3G-12110 (line gypsy starboard)     | -                                      |
| Item code 12V port             | 34-4G-12110 (line gypsy port)          | 34-D-12110                             |
| Item code 24V starboard        | 34-3G-24115 (line gypsy starboard)     | -                                      |
| Item code 24V port             | 34-4G-24115 (line gypsy port)          | 34-D-24115                             |



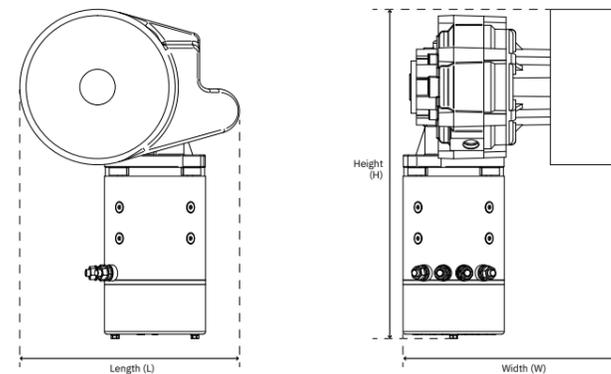
|                 | Midi 203 |
|-----------------|----------|
| (H) Height (mm) | 330      |
| (L) Length (mm) | 180      |
| (W) Width (mm)  | 150      |
| (a)             | 85       |
| (b)             | 29       |
| (c)             | 14       |
| (d)             | 25       |
| (e)             | 70       |
| (f)             | 30       |
| (g)             | 13       |
| (h)             | 32.5     |
| (i)             | 14       |



\* The Windlass system is designed to allow customizable orientation of the motor or support bracket. Offering for more flexibility to install the windlass system in the space you have available.



| mm              | Maxi 43 & 44 |
|-----------------|--------------|
| (H) Height (mm) | 238          |
| (L) Length (mm) | 393          |
| (W) Width (mm)  | 219          |

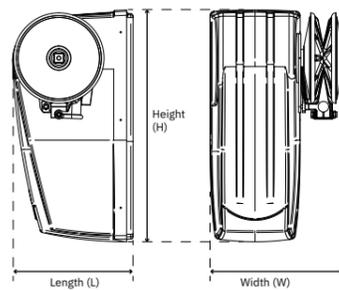


|            | Maxi 34-G | Maxi 34-D |
|------------|-----------|-----------|
| (H) Height | 370mm     | 250mm     |
| (L) Length | 283mm     | 283mm     |
| (W) Width  | 255mm     | 250mm     |

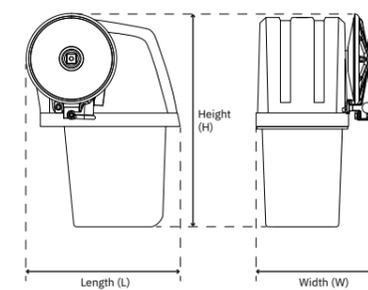


| Modell                         | Maxi 31                                | Maxi 40                                |
|--------------------------------|--|--|
| Mounting                       | External                               | internal                               |
| Motor output 12 V              | 1000 W                                 | 1000 W                                 |
| Motor output 24 V              | 1500 W                                 | 1500 W                                 |
| Weight (kg)                    | 20 kg                                  | 20 kg                                  |
| Power Requirement (V)          | 12 V / 24 V                            | 12 V / 24 V                            |
| Pulling power (max) 12 V       | 500 kg                                 | 500 kg                                 |
| Pulling power (max) 24 V       | 850 k                                  | 850 kg                                 |
| Pull speed                     | 20–25 m / min                          | 20–25 m / min                          |
| Ideal Vessel Size              | < 15.2 m - 1000 W<br>< 21.3 m - 1500 W | < 15.2 m - 1000 W<br>< 21.3 m - 1500 W |
| Auto stop function             | Yes                                    | Yes                                    |
| Recommended fuse               | 200 Amp                                | 200 Amp                                |
| Rec. min. battery capacity 12V | 100 Ah                                 | 100 Ah                                 |
| Rec. min. battery capacity 24V | 60 Ah                                  | 60 Ah                                  |
| Recommended anchor/ weight     | 10–26 kg - 1000 W<br>10–30 kg - 1500 W | 10–26 kg - 1000 W<br>10–30 kg - 1500 W |
| Line                           | 14–16 mm Anchor line, leaded           | 14–16 mm Anchor line, leaded           |
| Item code 12V                  | 31-12110                               | 40-12110                               |
| Item code 24V                  | 31-24115                               | 40-24115                               |

| Modell                     | Maxi 32                                | Maxi 32C                               |
|----------------------------|--|--|
| Mounting                   | External                               | External                               |
| Motor output 12 V          | 1000 W                                 | 1000 W                                 |
| Motor output 24 V          | 1500 W                                 | 1500 W                                 |
| Weight (kg)                | 20 kg                                  | 20 kg                                  |
| Power Requirement (V)      | 12 V / 24 V                            | 12 V / 24 V                            |
| Pulling power (max) 12 V   | 500 kg                                 | 650 kg                                 |
| Pulling power (max) 24 V   | 850 kg                                 | 1000 kg                                |
| Pull speed                 | 20–25 m / min                          | 20–25 m / min                          |
| Ideal Vessel Size          | < 15.2 m - 1000 W<br>< 21.3 m - 1500 W | < 15.2 m - 1000 W<br>< 21.3 m - 1500 W |
| Auto stop function         | Yes                                    | No                                     |
| Recommended fuse           | 200 Amp                                | 200 Amp                                |
| Rec. min. battery capacity | 100 Ah<br>60 Ah                        | 100 Ah<br>60 Ah                        |
| Recommended anchor/ weight | 10–26 kg - 1000 W<br>10–30 kg - 1500 W | 10–26 kg - 1000 W<br>10–30 kg - 1500 W |
| Line / chain               | 14–16 mm Anchor line, leaded           | 8 mm DIN 766 / 6,5 mm                  |
| Item code 12V              | 32-12110                               | 32-C-12110                             |
| Item code 24V              | 32-24115                               | 32-C-24115                             |



| Position        | Maxi 31 | Maxi 40 |
|-----------------|---------|---------|
| (H) Height (mm) | 200     | 200     |
| (L) Length (mm) | 396     | 396     |
| (W) Width (mm)  | 230     | 230     |



| Position (mm) | Maxi 32 | Maxi 32C |
|---------------|---------|----------|
| (H) Height    | 200mm   | 200mm    |
| (L) Length    | 255mm   | 255mm    |
| (W) Width     | 230mm   | 230mm    |



## Control panels and remote controls

A waterproof and child-proof control panel makes anchoring safe and easy.

With an additional radio remote, you can operate the windlass from anywhere in the boat and even remotely. When the boat is anchored up with the bow facing shore, you can have the windlass pull the boat out from land, reducing the risks of waves from passing boats causing your boat's bow to pound against shore.

### Remote control features:

- Two way communication - audiovisual warning for communication error and low thruster voltage
- External antenna solution for better reception and easier remote placement of the antenna (Extension cable available)
- Maintains operating time from earlier models with two batteries

### Easy installation

- Round cut-out hole (standard size)
- Installs from front
- Pre-fitted O-ring seal
- Multi-voltage 12V/24V

### Safety

- Child-safe on/off system
- Power/control light
- Automatic deactivation
- Easy operation

### Quality

- Waterproof IP65
- UV safe
- CE approved

### Design

- Compact size
- Modern look
- No visible bolts
- Selected models available in black



### Electronic control unit for windlasses

The controller from SleiPner monitors the windlass' operating time and power consumption. These data are used to protect the overloading the motor and secure normal windlass operation. In addition, the box regulates motor speed, maximum pull power providing a lower speed and less power when the anchor gets pulled into parking mode. It's easy to mount and compatible with SleiPner's remote controls, allowing you to operate the windlass from wherever you choose.

Item code 150800

### Features and benefits

- Programmable windlass type (Midi/Maxi/Maxi Chain)
- Automatic detection of 12V or 24V system
- Fully insulated circuit board with fixed bolts for easy connection
- PVM speed control (soft start and reduced speed after the first end-stop or by double click "up")
- Voltage compensated (the traction decreases after the first end-stop mode)
- Easy connection of both series and permanent magnet motors
- Protected against the incorrect connection of +/- connection (polarity protection)
- LEDs for to indicate operation status and errors. (ie. endstop detection, low voltage etc.)
- Engine protection against overheating and overload
- The control unit has a temperature sensor
- Safety relays that breaks in the event of a short circuit
- Quick-connect terminals for panel and end stop sensor
- Fixed points for the supply cables



| Control Panels    | 86-08950         | 86-08955         | RC-21               | RC-22              | RC-23                    |
|-------------------|------------------|------------------|---------------------|--------------------|--------------------------|
| Description       | Touchpanel       | Round touchpanel | Remote bow/windlass | Remote windlass x2 | Remote bow x2/windlassx2 |
| H (mm)            | 70               | Ø86.5            | 95                  | 95                 | 95                       |
| W (mm)            | 70               |                  | 48                  | 48                 | 48                       |
| Colour            | Grey / Black     | Grey / Black     | Black               | Black              | Black                    |
| Multi-voltage     | Yes              | Yes              | Yes                 | Yes                | Yes                      |
| Child safety      | Yes              | Yes              | Yes                 | Yes                | Yes                      |
| Cable length      | Sold seperately* | Sold seperately* | -                   | -                  | -                        |
| No. of windlasses | 1                | 1                | 1                   | 2                  | 2                        |
| Item Code Grey    | 86-08950         | 86-08955         | -                   | -                  | -                        |
| Item Code Black   | 86-08950 S       | 86-08955 S       | RC-21E              | RC-22E             | RC-23E                   |



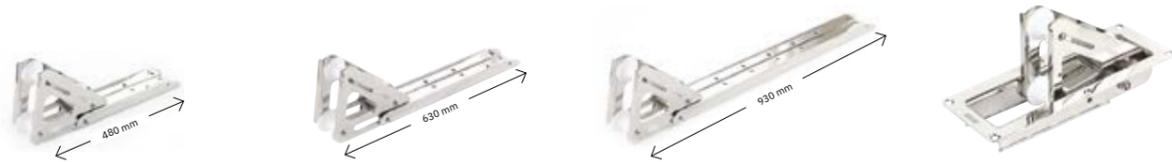
Control cable for panel and remote controller, 4-lead

| Length    | Item code    |
|-----------|--------------|
| 1,5 meter | 6 1277-01,5M |
| 4 meter   | 6 1277-04M   |
| 7 meter   | 6 1277-04M   |
| 9 meter   | 6 1277-09M   |
| 12 meter  | 6 1277-12M   |



Circuit breaker for windlass

| Circuit breaker | Fuse  | Windlass | Windlass |
|-----------------|-------|----------|----------|
| Item code       |       | 12 V     | 24 V     |
| 119-00015       | 150 A | Midi     | -        |
| 119-00004       | 200 A | Maxi     | Maxi     |



| Item Code | Description                        | Item Code | Description                        | Item Code | Description                        | Item Code | Description                 |
|-----------|------------------------------------|-----------|------------------------------------|-----------|------------------------------------|-----------|-----------------------------|
| 61-30001  | Pivoting anchor roller, SSL, 350mm | 61-30002  | Pivoting anchor roller, SSL, 500mm | 61-30003  | Pivoting anchor roller, SSL, 800mm | 61-30004  | Platform anchor roller, SSL |



| Item Code | Description        | Item Code | Description                     | Item Code | Description                     | Item Code | Description                 |
|-----------|--------------------|-----------|---------------------------------|-----------|---------------------------------|-----------|-----------------------------|
| 61-30005  | Anchor roller, SSL | 61-30006  | Stern anchor roller, SSL, 300mm | 61-30007  | Stern anchor roller, SSL, 400mm | 61-30010  | Platform anchor roller, SSL |



| Item Code | Description   | Item Code | Description   | Item Code | Description                    | Item Code | Description                    |
|-----------|---|-----------|---|-----------|--------------------------------|-----------|--------------------------------|
| 65-50001  | Platform anchor roller, narrow type, SSL, roll w. 45 mm | 65-50002  | Platform anchor roller, wide type, SSL, roll w. 75 mm | 60-50000  | Compact anchor roller, 90° SSL | 60-65000  | Compact anchor roller, 45° SSL |



| Item Code | Description                          | Item Code                              | Description                         | Item Code                   | Description                         | Item Code                              | Description                                       |
|-----------|--------------------------------------|--|-------------------------------------|-----------------------------|-------------------------------------|--|---|
| 39-72000  | Through-hull for windlass chain, SSL | 39-73000                               | Through-hull anchor line guide, SSL | 39-74000                    | Through-hull anchor line guide, SSL | 39-75000                               | Through-deck anchor line guide with 1 roller, SSL |
|           |                                      | <i>recommended for MIDI &amp; MAXI</i> |                                     | <i>recommended for MAXI</i> |                                     | <i>recommended for MIDI &amp; MAXI</i> |   |



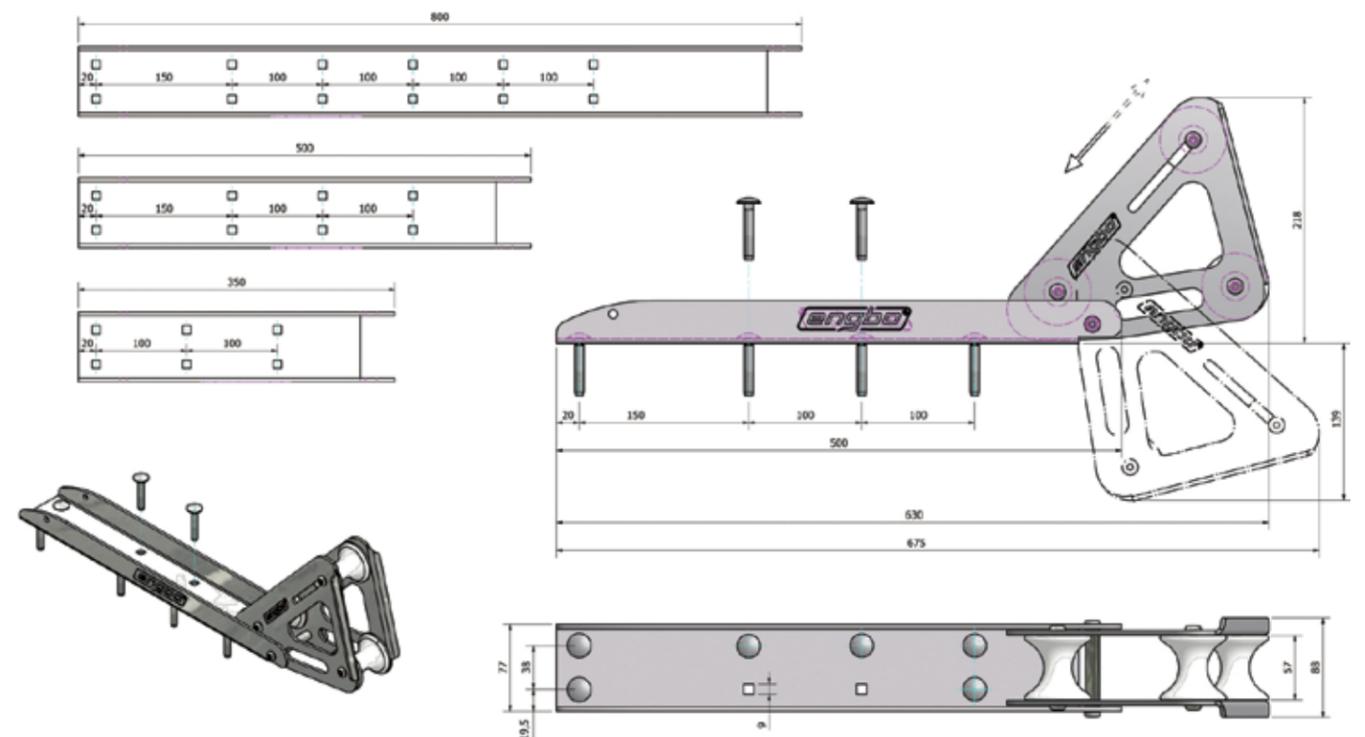
| Item Code | Description                          | Item Code                              | Description   | Item Code | Description                | Item Code | Description                  |
|-----------|--------------------------------------|--|---|-----------|----------------------------|-----------|------------------------------|
| 39-76000  | Through-hull, anchor line guide, SSL | 39-77000                               | Through-hull anchor line guide, swiveling gooseneck | 54-00040  | D-shackle 9mm, SSL, 5-15kg | 54-00041  | D-shackle 12mm, SSL, 20-30kg |
|           | <i>recommended for MIDI</i>          | <i>recommended for MIDI &amp; MAXI</i> |   |           |                            |           |                              |



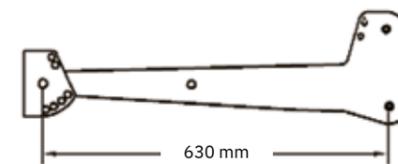
| Item Code | Description                               | Item Code | Description                               | Item Code | Description                           |
|-----------|---|-----------|---|-----------|---------------------------------------|
| 85-00000  | Swivel for anchors, SSL, 15-30kg, L=120mm | 85-00001  | Swivel for anchors, SSL, 5-15kg, L=100mm, | 12-00212  | Safety chain for anchors, SSL, L=60cm |

All accessories made of stainless steel (SSL).

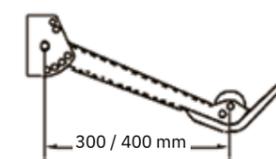
Pivoting anchor roller



Anchor roller 61-30005

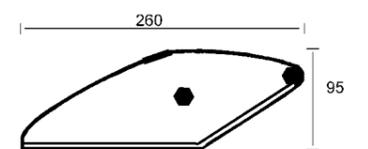


Stern anchor roller 61-30006, 61-30007



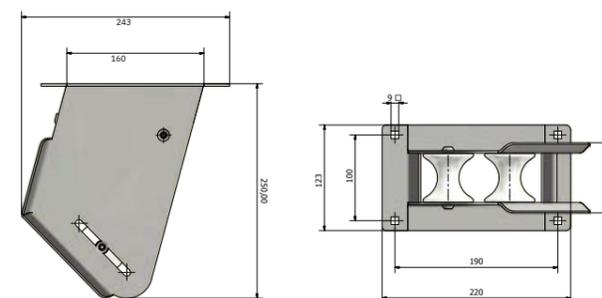
| Item code | Description         | Length |
|-----------|---------------------|--------|
| 61-30006  | Stern anchor roller | 300 mm |
| 61-30007  | Stern anchor roller | 400 mm |

Platform anchor roller



| Item code | Model        | Length |
|-----------|--------------|--------|
| 65-50001  | narrow 45 mm | 120 mm |
| 65-50002  | wide 75 mm   | 140 mm |

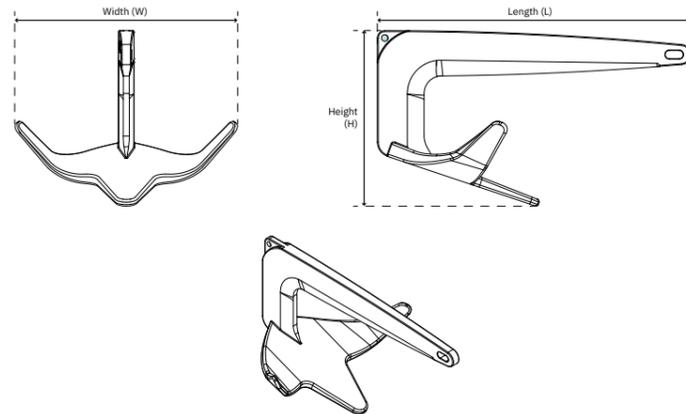
61-30010 Platform anchor roller



| Item code   | 39-75000                                     | 39-77000  |
|-------------|--|---|
| Description | Through-hull anchor line guide with 1 roller | Through-hull anchor line guide, swiveling gooseneck |
| Length      | 147  | 136   |
| Width       | 61   | 50  |
| Height      | 66   | 83  |

# Anchors and lines

## Plow anchor



| Item code  | Weight | Model      | Item code               | Weight | Model | Measurments (mm) |     |       | Max boat weight |
|------------|--------|------------|-------------------------|--------|-------|------------------|-----|-------|-----------------|
| Galvanized |        |            | Stainless steel (SSL)   |        |       | H                | L   | W     |                 |
| 85-81075   | 7,5 Kg | Galvanized | 85-81075                | 7,5 Kg | SSL   | 258              | 520 | 378   | 3,5 ton         |
| 85-81010   | 10 Kg  | Galvanized | 85-81010                | 10 Kg  | SSL   | 294              | 585 | 382   | 6 ton           |
| 85-81015   | 15 Kg  | Galvanized | 85-81015                | 15 Kg  | SSL   | 342              | 650 | 423,4 | 10 ton          |
| 85-30020   | 20 Kg  | Galvanized | 85-81020                | 20 Kg  | SSL   | 360              | 640 | 503,2 | 20 ton          |
| 85-80030   | 30 kg  | Galvanized | Also available in 30 kg |        |       | 300              | 770 | 577   | 30 ton          |

## Anchor line

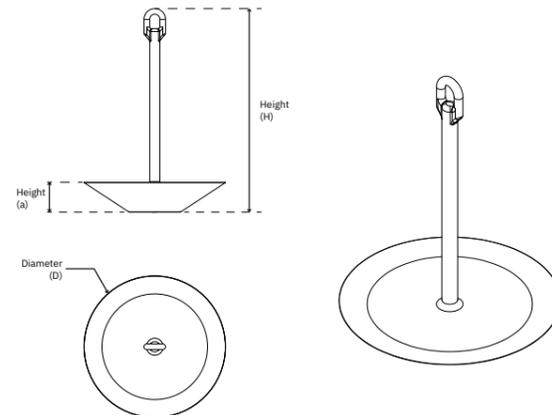


- Art nr på 12mm 50m är 80-10110
- Art nr på 16mm 50m är 80-10120
- Art nr på 16mm 75m är 80-10121
- Art nr på 16mm 100m är 80-10122

| Item code | Description  | Diameter (mm) | Length (m) | Weight (Kg) | Breaking point (Kg) |
|-----------|--|---------------|------------|-------------|---------------------|
| 80-10109  | Anchor line, leaded                                    | 12            | 30         | 7,9         | 1600                |
| 85-80010  | Anchor line, leaded                                    | 12            | 50         | 11,6        | 1600                |
| 80-10111  | Anchor line, leaded                                    | 14            | 50         | 16,1        | 2000                |
| 80-10120  | Anchor line, leaded                                    | 16            | 50         | 21,7        | 2400                |
| 80-10121  | Anchor line, leaded                                    | 16            | 75         | 32          | 2400                |
| 80-10122  | Anchor line, leaded                                    | 16            | 100        | 43          | 2400                |
| 85-00000  | Swivel for anchors, stainless polished steel, L=120 mm |               |            |             |                     |
| 85-00001  | Swivel for anchors, stainless polished steel, L=100 mm |               |            |             |                     |
| 12-00212  | Safety chain for anchors, stainless, 60 cm             |               |            |             |                     |
| 80-20655  | Chain for windlass, NS galvanized                      | 6,5           | 50         | -           | -                   |
| 80-20850  | Chain for windlass, galvanized                         | 8             | 50         | -           | -                   |
| 80-22655  | Chain for windlass, galvanized                         | 6,5           | 50         | -           | -                   |
| 80-22850  | Chain for windlass, galvanized                         | 8             | 50         | -           | -                   |

Note! For optimal function of the anchor winch, use the original Slepner anchor line.

## Mushroom anchor



| Item code             | Weight | Model | Measurments (mm) |     |    | Max boat weight |
|-----------------------|--------|-------|------------------|-----|----|-----------------|
| Stainless steel (SSL) |        |       | H                | D   | a  |                 |
| 85-30005              | 5 Kg   | SSL   | 350              | 200 | 42 | 1 ton           |
| 85-30008              | 8 Kg   | SSL   | 300              | 230 | 53 | 2 ton           |
| 85-30010              | 10 Kg  | SSL   | 360              | 250 | 53 | 3 ton           |
| 85-30012              | 12 Kg  | SSL   | 380              | 275 | 60 | 4ton            |
| 85-30020              | 20 Kg  | SSL   | 485              | 310 | 67 | 8 ton           |

### Maintenance of stainless steel products

Polishing and waxing stainless steel parts protect against stains. Superficial rust stains caused by chemical and electrical contamination in the seawater can be removed with a bit of oil on a cloth.

An aerial photograph of a boat's wake in deep blue water, with white foam from the wake visible on the left side. The image is overlaid with a semi-transparent dark blue filter.

**SLEIPNER**

# Hydraulic Steering

Sleipner's hydraulic steering systems are perfectly adapted to a wide range of recreational boats. You can easily select the best-suited equipment for your boat's specific needs within a wide range of pumps, cylinders, and accessories made from seawater resistant materials.

# Experience the difference in steering comfort

Sleipner's hydraulic steering systems are perfectly adapted to a wide range of recreational boats. You can easily select the best-suited equipment for your boat's specific needs within a wide range of pumps, cylinders, and accessories made from seawater resistant materials.

### Cylinders

Sleipner produces its hydraulic cylinders for rudders and water jets in various sizes, making them adaptable to almost any boat. They are available as heavy duty cylinders and standard cylinders.

### Steering Pump

Sleipner's steering pumps are a result of intensive R&D and many years of experience in the production of hydraulic steering systems.

### Advantages

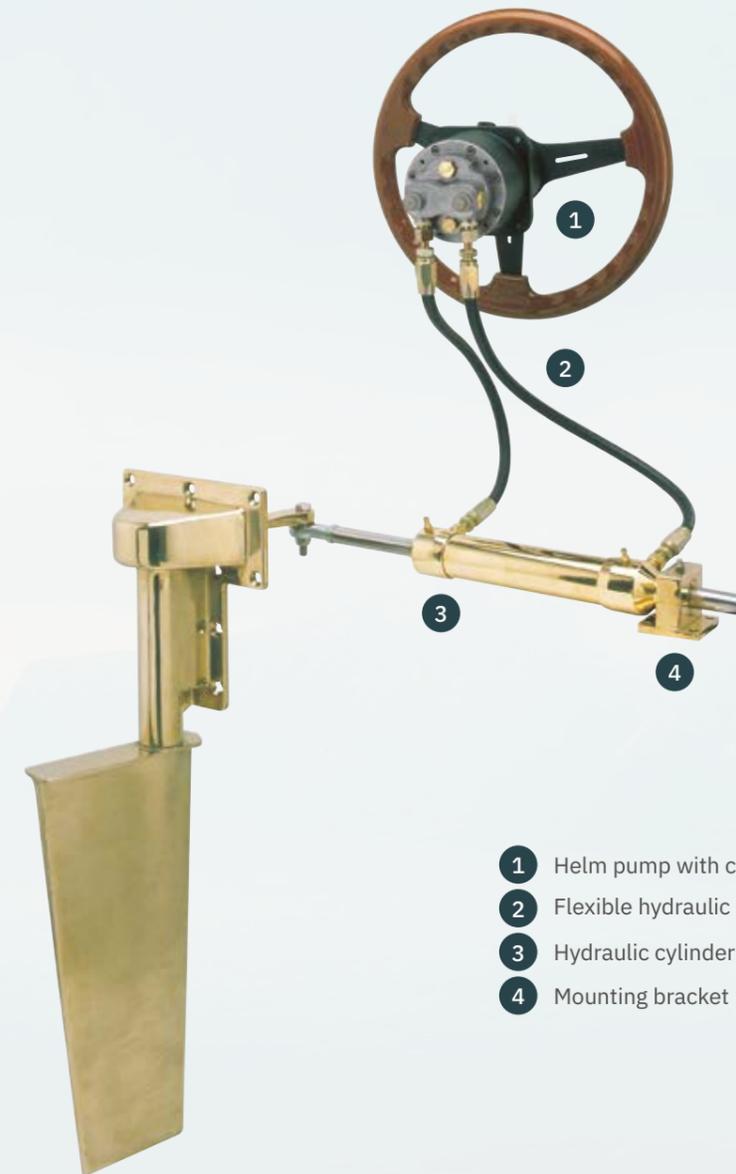
- Safer and more precise control of your vessel
- An integrated non-return valve helps the rudder maintain its position without holding the steering wheel
- Minor mechanical wear means minimal maintenance and extended product-life
- Best alternative if you want two or more steering positions
- Stable course with minimal use of force



### Certification

**Heavy Duty Cylinders**  
DNV type approved

**Standard Cylinders**  
Approved by the Norske Veritas for Recreational Boats.



- 1 Helm pump with check valve
- 2 Flexible hydraulic hose
- 3 Hydraulic cylinder
- 4 Mounting bracket

### Technical details

|                        |   |
|------------------------|---|
| Ideal Vessel Class     | Commercial vessel,<br>Motor boat, Sail boat |
| Steering Positions     | Multiple                                    |
| Standard Cylinder      | 110–565 cm <sup>3</sup> / 50 bar            |
| Heavy duty Cylinder    | 1111–1187 cm <sup>3</sup> / 70–85 bar       |
| Helm Pumps             | 26, 35, 43, 70 cm <sup>3</sup>              |
| Helm pump installation | Flange, flush, tilt                         |

## Hydraulic cylinders

Sleipner's hydraulic cylinders fit a wide range of installations. They are adaptable to most rudders and water jets as long as the rudder torque does not exceed what the cylinder is intended for.

### Finding the right cylinder

#### Rudders

To find the proper steering for boats with rudders, you must calculate the rudder torque. The calculation formula can be found under technical details in the cylinder's product information.

#### Pump Jets

For water jets and other types of installations, please contact a Sleipner dealer that can assist you.



#### Heavy Duty Cylinders

Our series of heavy-duty cylinders are designed to deliver maximum performance and reliability for our power steering systems. Still, several of the cylinders are equally suitable with a traditional hydraulic steering pump. Teflon gaskets of the highest quality provide a smooth ride with minimal friction and maintain high pressure.

- Three sets of connection ports allow for installation of an optional shock and by-pass valve
- DNV Type approved

#### Standard Cylinders

Sleipner's standard cylinders are of very high quality and are in use in thousands of boats. The cylinders are proven and have a very long service life.

- Robust construction in stainless steel and brass
- Long lifetime
- Easy air purging
- Supplied with attachment nipples
- Approved by the Norwegian Veritas for Recreational Boats

Learn more at our blog or at our website.



## Hydraulic steering pumps

The steering pump is the heart of a hydraulic steering system. This component decides how much oil to pump through to the system's muscle which is the cylinder.

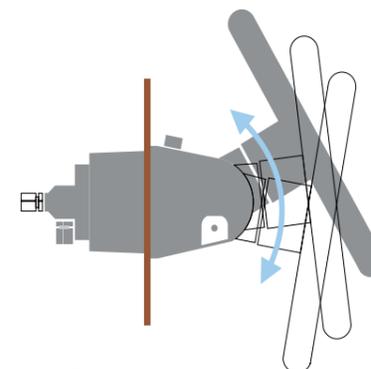
### Sleipner offers three different models for different boats and dashboard designs.

All three models are available in 26 cm<sup>3</sup>, 35 cm<sup>3</sup> and 43 cm<sup>3</sup> for adaption to different hydraulic cylinders, or the desire to choose a steering wheel mandrel.

Additionally, we have a more extensive steering pump of 70 cm<sup>3</sup>, which has 10 pistons. This pump is mainly used together with our largest cylinder, only available as a recessed model.

DNV EN30592

- Axial piston pump with fine-tuned piston angles
- Seven pistons for smooth and precise steering
- Piston in hardened steel
- Stable and rigidly mounted acid-resistant steering shaft with four ball bearings
- Integrated non-return valve
- Large internal oil reservoir
- All parts in corrosion-free materials



5 positions:  
-10°, 0°, 10°, 20°, 30°



Item code: WH28SS  
Constructed material: Stainless steel  
Diameter: 28 cm



Item code: WH28SORT  
Constructed material: Stainless steel/rubber  
Diameter: 28 cm



Helm pump with flange



Helm pump with flush mount

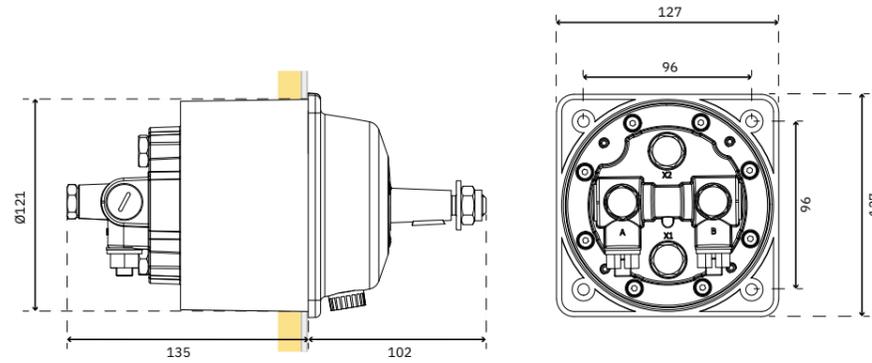


Helm pump with tilt

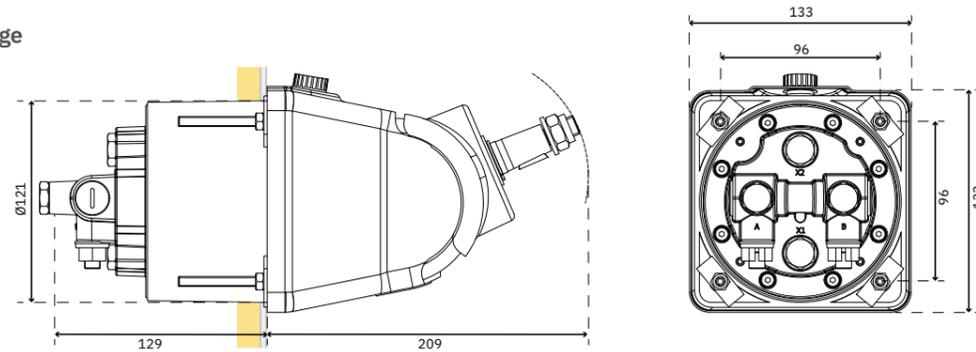
# Helm pumps 26–43 ccm

Item number 72061–72069

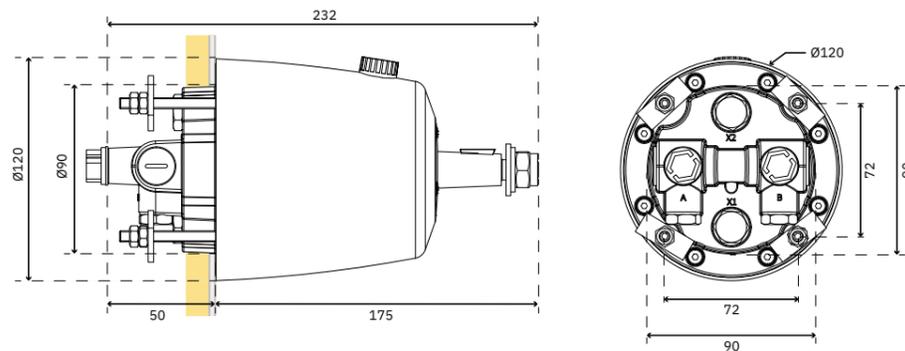
## Helm pumps with flange



## Helm pumps with flange and tilt



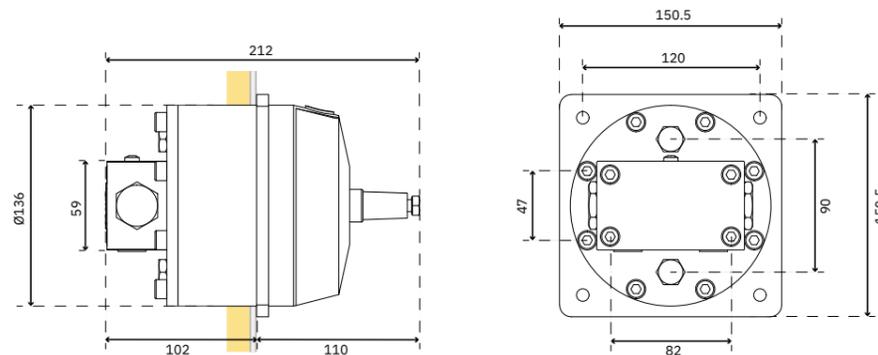
## Helm pumps flush mount



# Helm pump 70 ccm

Item number 72070

## Helm pumps with flange



| Item code | Port Flange Thread | Helm pump   | Port dimensions BSP A/B x1/x2 |      |
|-----------|--------------------|-------------|-------------------------------|------|
| 72061     | 26 ccm             | with flange | 1/4"                          | 1/4" |
| 72062     | 35 ccm             | with flange | 1/4"                          | 1/4" |
| 72063     | 43 ccm             | with flange | 1/4"                          | 1/4" |
| 72064     | 26 ccm             | with tilt   | 1/4"                          | 1/4" |
| 72065     | 35 ccm             | with tilt   | 1/4"                          | 1/4" |
| 72066     | 43 ccm             | with tilt   | 1/4"                          | 1/4" |
| 72067     | 26 ccm             | flush mount | 1/4"                          | 1/4" |
| 72068     | 35 ccm             | flush mount | 1/4"                          | 1/4" |
| 72069     | 43 ccm             | flush mount | 1/4"                          | 1/4" |
| 72070     | 70 ccm             | with flange | 3/8"                          | 1/4" |



Hose coupling, 90°



T-coupling



By-pass valve



Hydraulic oil

Meets ISO-VG-15, DIN 51524-3 HVLV specifications.



Hydraulic hose for steering

1 layer steel braided  
Inner Ø: 9,5 mm (3/8").  
Outer Ø: 12 mm  
Meets DNV standard EN 30592



Union fitting

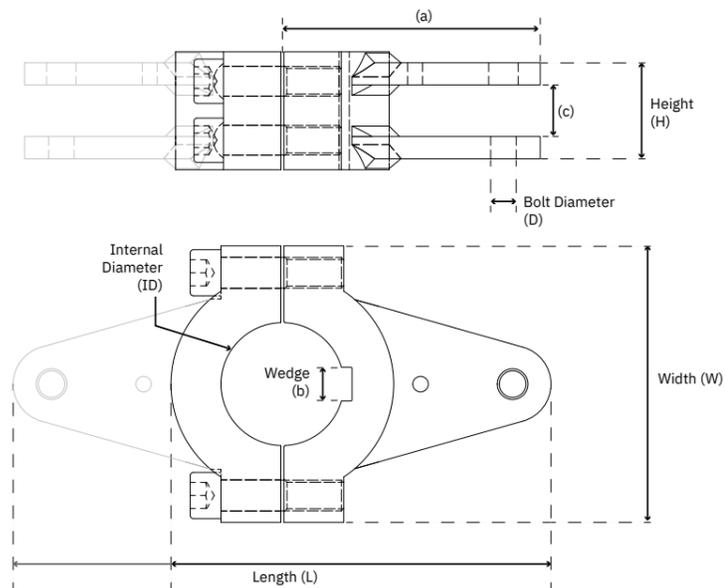
| Description   | Item code standard | Item code stainless |
|---|--------------------|---------------------|
| Union fitting 1/4" BSP x 10 mm                                    | 72200              | 72210               |
| Hose coupling, 10 mm for 3/8" hose                                | 72335              | 72336               |
| T-coupling for 10 mm  | 72500              | 73510               |
| Hose coupling, 90°, 10 mm   | 72400              | 72410               |
| Hydraulic hose for steering, 3/8" 1 layer steel braided           | 72135              |                     |
| Hyd. hose for steering, PA/11 2004, non pressure ventilation hose | 72140              |                     |
| By-pass valve 10 mm   | 72600              |                     |
| By-pass valve 12 mm   | 72612              |                     |
| Hydraulic oil for steering, 1 ltr                                 | 72750              |                     |
| Hydraulic oil for steering, 12 pack (12x1 ltr)                    | 72760              |                     |
| Hydraulic oil for steering, 2,5 ltr                               | 72700              |                     |



**Rudder tiller arm**

Made of coated cast iron, available single or dual, for shafts of 40–80 mm diameter, length 215–345 mm, width 115-180 mm.

Contact us for more details and custom-made products.



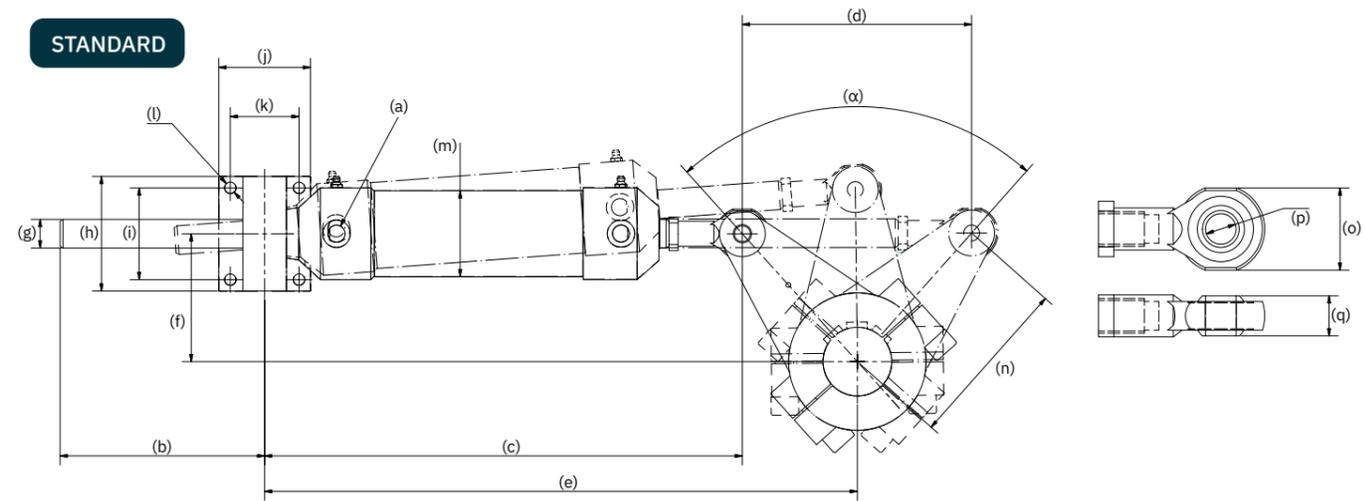
| Item code | Material         | Description | For shaft ID | Size Group | (H) Height | (L) Length | (W) Width | (D) Bolt dia. | (ID) | (a) | (b) | (c) |
|-----------|------------------|-------------|--------------|------------|------------|------------|-----------|---------------|------|-----|-----|-----|
| 72848     | Coated cast iron | Single      | 40           | 1          | 55         | 215        | 115       | 14            | 40   | 150 | 14  | 22  |
| 72849     | Coated cast iron | Dual        | 40           | 1          | 55         | 340        | 115       | 14            | 40   | 150 | 14  | 22  |
| 72844     | Coated cast iron | Single      | 40           | 1          | 55         | 340        | 115       | 16            | 40   | 150 | 14  | 22  |
| 72847     | Coated cast iron | Dual        | 40           | 1          | 55         | 215        | 115       | 16            | 40   | 150 | 14  | 22  |
| 72850     | Coated cast iron | Single      | 45           | 1          | 55         | 215        | 115       | 14            | 45   | 150 | 14  | 22  |
| 72851     | Coated cast iron | Dual        | 45           | 1          | 55         | 340        | 115       | 14            | 45   | 150 | 14  | 22  |
| 72836     | Coated cast iron | Single      | 45           | 1          | 55         | 215        | 115       | 16            | 45   | 150 | 14  | 22  |
| 72837     | Coated cast iron | Dual        | 45           | 1          | 55         | 340        | 115       | 16            | 45   | 150 | 14  | 22  |
| 72852     | Coated cast iron | Single      | 50           | 1          | 55         | 215        | 115       | 14            | 50   | 150 | 14  | 22  |
| 72853     | Coated cast iron | Dual        | 50           | 1          | 55         | 340        | 115       | 14            | 50   | 150 | 14  | 22  |
| 72838     | Coated cast iron | Single      | 50           | 1          | 55         | 215        | 115       | 16            | 50   | 150 | 14  | 22  |
| 72839     | Coated cast iron | Dual        | 50           | 1          | 55         | 340        | 115       | 16            | 50   | 150 | 14  | 22  |
| 72854     | Coated cast iron | Single      | 55           | 2          | 64         | 235        | 150       | 16            | 55   | 150 | 18  | 26  |
| 72855     | Coated cast iron | Dual        | 55           | 2          | 64         | 345        | 150       | 16            | 55   | 150 | 18  | 26  |
| 72856     | Coated cast iron | Single      | 60           | 2          | 64         | 235        | 150       | 16            | 60   | 150 | 18  | 26  |
| 72857     | Coated cast iron | Dual        | 60           | 2          | 64         | 345        | 150       | 16            | 60   | 150 | 18  | 26  |
| 72858     | Coated cast iron | Single      | 65           | 2          | 64         | 235        | 150       | 16            | 65   | 150 | 18  | 26  |
| 72859     | Coated cast iron | Dual        | 65           | 2          | 64         | 345        | 150       | 16            | 65   | 150 | 18  | 26  |
| 72860     | Coated cast iron | Single      | 60           | 2          | 64         | 235        | 150       | 20            | 60   | 150 | 18  | 35  |

Measurements in mm

**Rudder rotations and cylinder pump volum**

| Item code | 26 ccm | 35 ccm | 43 ccm | 70 ccm | Item code   | 43 ccm | 70 ccm |
|-----------|--------|--------|--------|--------|-------------|--------|--------|
| 71030*    | 4,2    | 3,1    | -      | -      | 8032-200-xx | -      | 12,0   |
| 71060     | 4,8    | 3,6    | -      | -      | 9032-200-xx | -      | 16,7   |
| 71090     | 8,3    | 6,1    | 5,0    | -      | 8032-305-xx | -      | 18,5   |
| 71140     | -      | -      | 8,0    | 4,9    |             |        |        |
| 71220     | -      | -      | -      | 8,1    |             |        |        |

Recommended



| Item code         | Volume (ccm) | Mrt 150* | Mrt 180* | Wp* | Recom. hose ID | (a) BSP | (b)   | (c)   | (d) | (e1)  | (e2)  | (f1)  | (f2)  | (g) | (h) | (i) | (j) | (k) | (l)  | (m) | (n1) | (n2) | (α) | (o) | (p) | (q) |
|-------------------|--------------|----------|----------|-----|----------------|---------|-------|-------|-----|-------|-------|-------|-------|-----|-----|-----|-----|-----|------|-----|------|------|-----|-----|-----|-----|
| Standard cylinder |              |          |          |     |                |         |       |       |     |       |       |       |       |     |     |     |     |     |      |     |      |      |     |     |     |     |
| 71030             | 110          | 45       | 55       | 50  | 3/8"           | 1/4"    | 151,5 | 338,5 | 175 | 424,5 | 428,5 | 122,9 | 172   | 16  | 60  | 42  | 50  | 35  | 6,5  | 38  | 150  | 180  | 70  | 32  | 12  | 16  |
| 71060             | 125          | 45       | 55       | 50  | 3/8"           | 1/4"    | 179,5 | 363,5 | 200 | 464   | 467   | 111,5 | 147,5 | 16  | 70  | 52  | 60  | 44  | 8,5  | 38  | 150  | 180  | 84  | 32  | 12  | 16  |
| 71090             | 215          | 80       | 95       | 50  | 3/8"           | 1/4"    | 178,5 | 366,5 | 200 | 465   | 470   | 111,5 | 147,5 | 20  | 70  | 52  | 60  | 44  | 8,5  | 48  | 150  | 180  | 84  | 32  | 12  | 16  |
| 71140             | 345          | 130      | 155      | 50  | 1/2"           | 1/4"    | 179   | 392   | 200 | 488,5 | 491   | 111,5 | 147,5 | 20  | 80  | 64  | 60  | 44  | 8,5  | 57  | 150  | 180  | 84  | 36  | 14  | 19  |
| 71220             | 565          | 210      | 250      | 50  | 1/2"           | 3/8"    | 178,5 | 416,5 | 200 | 520   | 520   | 111,5 | 147,5 | 25  | 100 | 80  | 80  | 60  | 10,5 | 75  | 150  | 180  | 84  | 44  | 16  | 21  |
| 71500             | 1170         | 440      | 500      | 50  | 5/8"           | M22x1,5 | 141,5 | 495,5 | 200 | 596   | 599   | 111,5 | 147,5 | 25  | 110 | 86  | 120 | 97  | 10   | 100 | 150  | 180  | 84  | 50  | 20  | 25  |

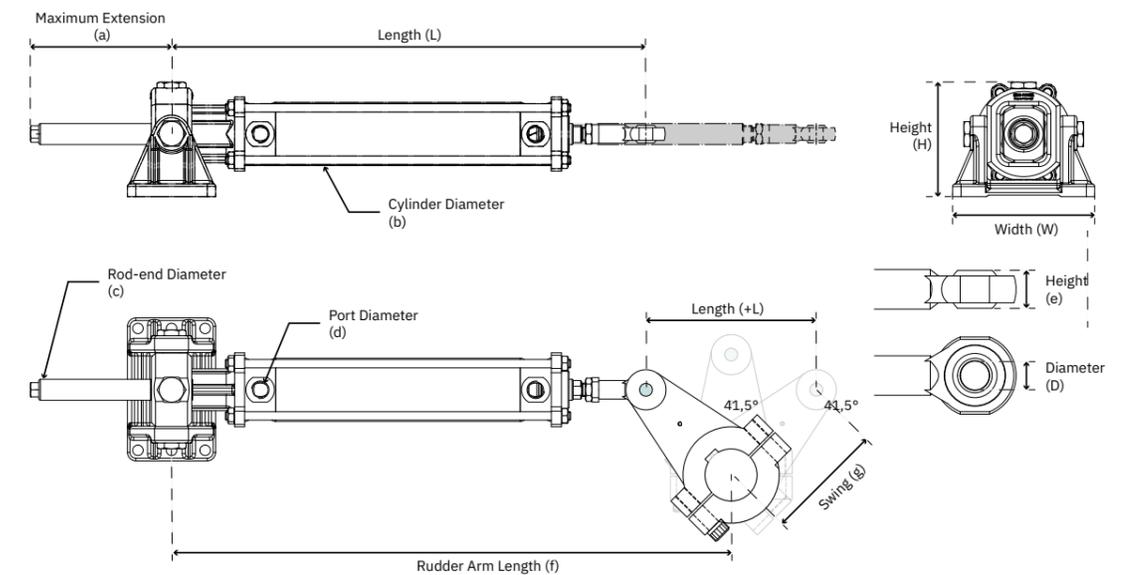
Measurements in mm.

Mrt1: Max rudder torque (kgm) with 150mm tiller arm  
Mrt2: Max rudder torque (kgm) with 180mm tiller arm

Wp: Max working pressure in bar  
(e1): with 150mm tiller arm  
(e2): with 180mm tiller arm

(f1): with 150mm tiller arm  
(f2): with 180mm tiller arm  
(n1): with 150mm tiller arm  
(n2): with 180mm tiller arm

**HEAVY DUTY**



| Item code           | Volum (ccm) | Max rudder torque (kgm) v/150mm tiller | Working pressure (bar) | Recom. hose ID | Cylinder diam. (b) | Rod diam. (c) | Port dimension (d) | Max Extension (a) | Length (L) (f) | Stroke length (+L) (g) | Diameter (D) | Height (e) |    |    |
|---------------------|-------------|--|------------------------|----------------|--------------------|---------------|--------------------|-------------------|----------------|------------------------|--------------|------------|----|----|
| Heavy duty cylinder |             |  |                        |                |                    |               |                    |                   |                |                        |              |            |    |    |
| 9032-200-7-60       | 1111        | 580                                    | 70                     | 1/2"           | 100                | 32            | 1/2"               | 135               | 556            | 656                    | 200          | 150        | 20 | 25 |
| 9032-200-7-70**     | 1111        | 580                                    | 70                     | 1/2"           | 100                | 32            | 1/2"               | 135               | 556            | 656                    | 200          | 150        | 20 | 25 |
| 8032-305-9-60       | 1287        | -                                      | 85                     | 1/2"           | 90                 | 32            | 1/2"               | 240               | 679            | 832                    | 305          | -          | 25 | 20 |
| 8032-305-9-70**     | 1287        | -                                      | 85                     | 1/2"           | 90                 | 32            | 1/2"               | 240               | 679            | 832                    | 305          | -          | 25 | 20 |

Measurements in mm. Contact Sleipner for more information and dimensioning.

\*\*with shock and by-pass valve

# Imprint

## THRUSTER POWER

Sleipner states thrust power ratings at the typical voltage you can expect in a boat. 10.5V and 21V is the voltage most installations will be able to deliver to the thruster unit. For comparison reasons, we also list the thrust power rating at 12V and 24V.

## BATTERY RATING

All battery CCA ratings are specified in DIN standard. Multiply by 1.9 for the corresponding SAE rating at 0°F, ABYC standard.

Cold Cranking Amperes (CCA) is the amount of current a battery can provide at 0°F (-18°C). The rating refers to the number of amps a 12-volt battery can deliver at 0°F for 30 seconds while maintaining a voltage of at least 7.2 volts.

Contact your battery supplier or electrical engineer for technical details regarding batteries.

## IMAGERY

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Some product images used in this catalog are 3D model illustrations and might vary in color and texture from the actual product.

All Sleipner products fulfill the requirements of the relevant CE directives.

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