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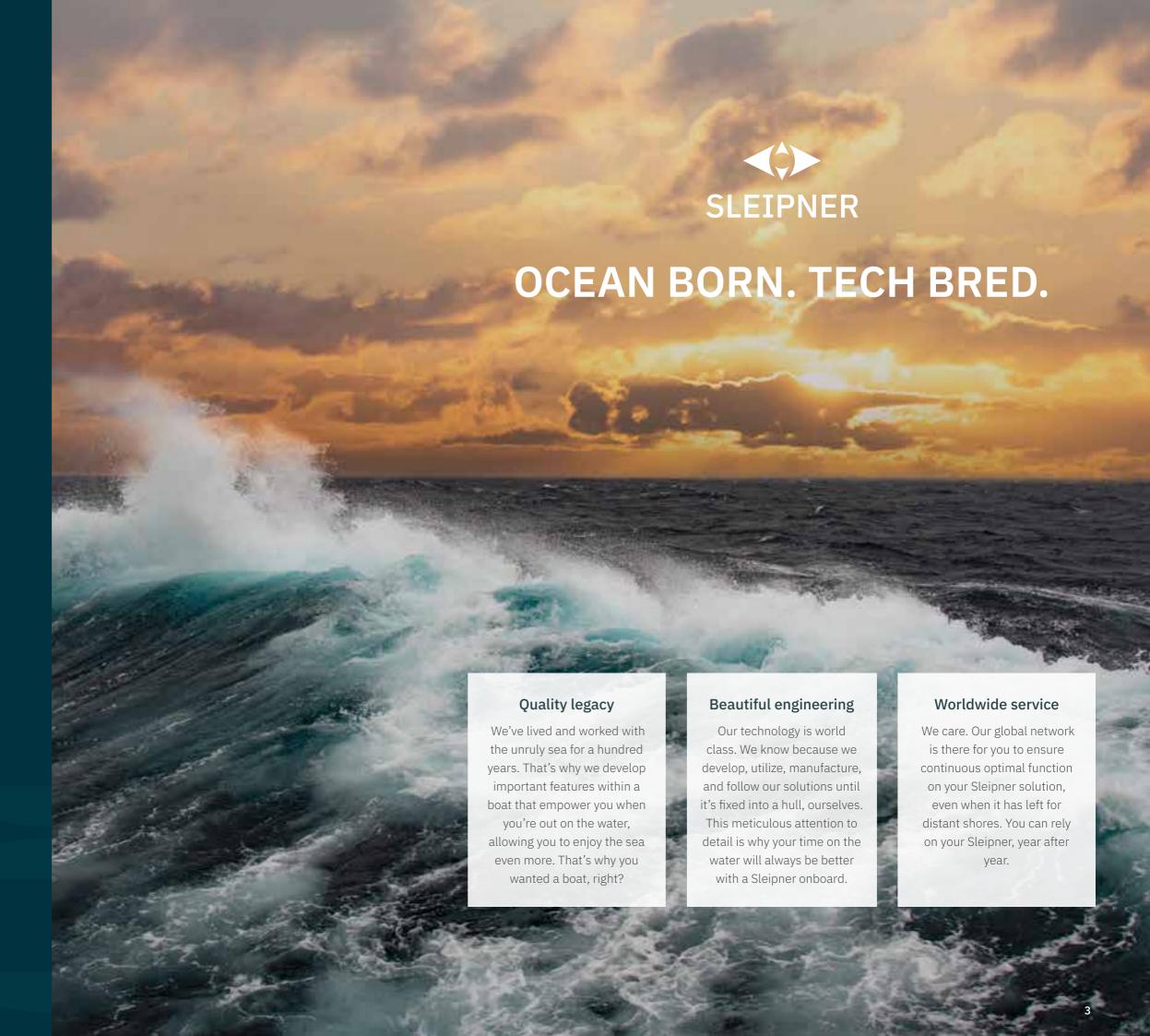
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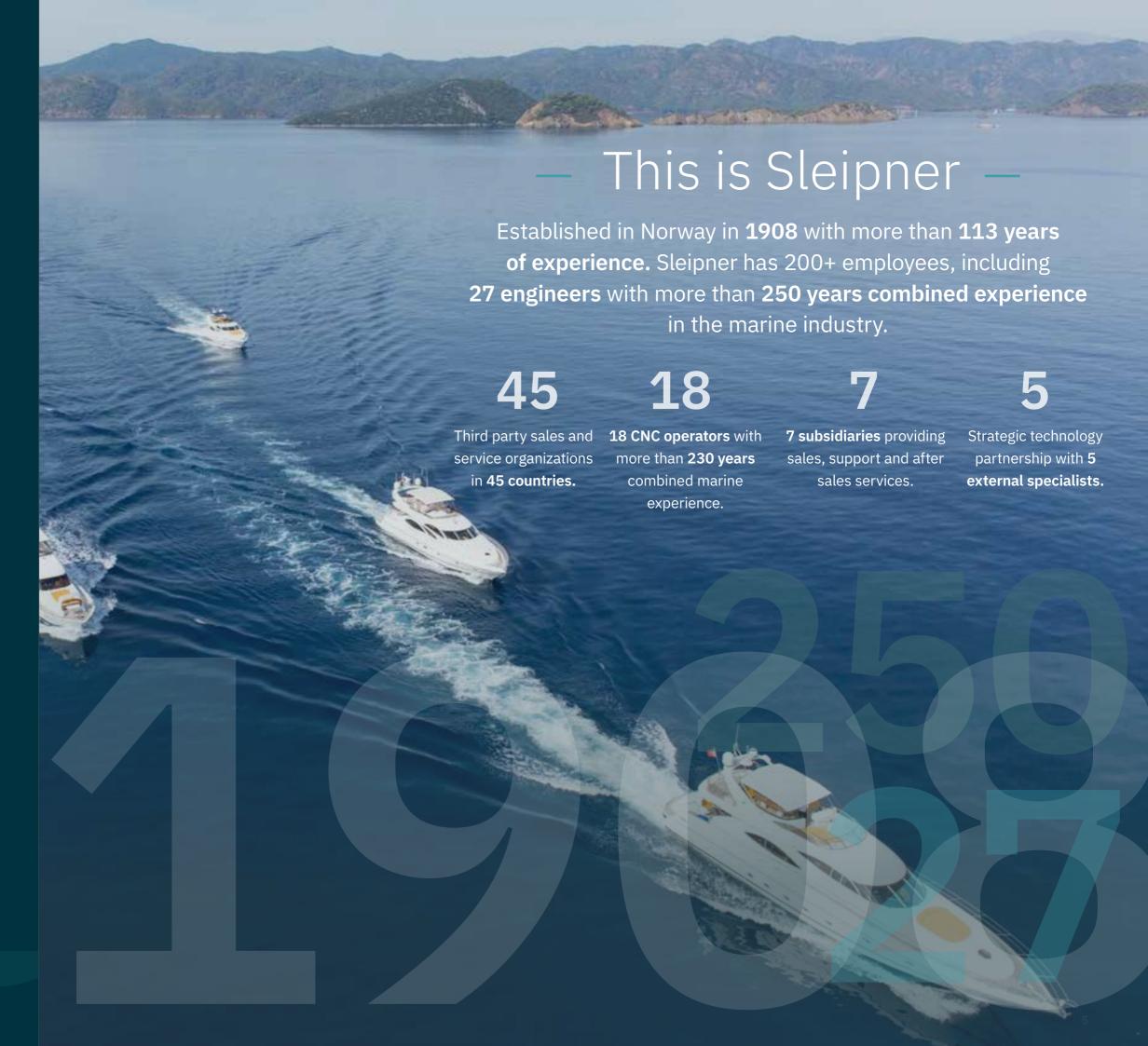
We are a Norwegian technology driven company, focused on creating world leading products and solutions of uncompromised quality to improve safety and comfort at sea. As boaters we know what safety at sea *means*.

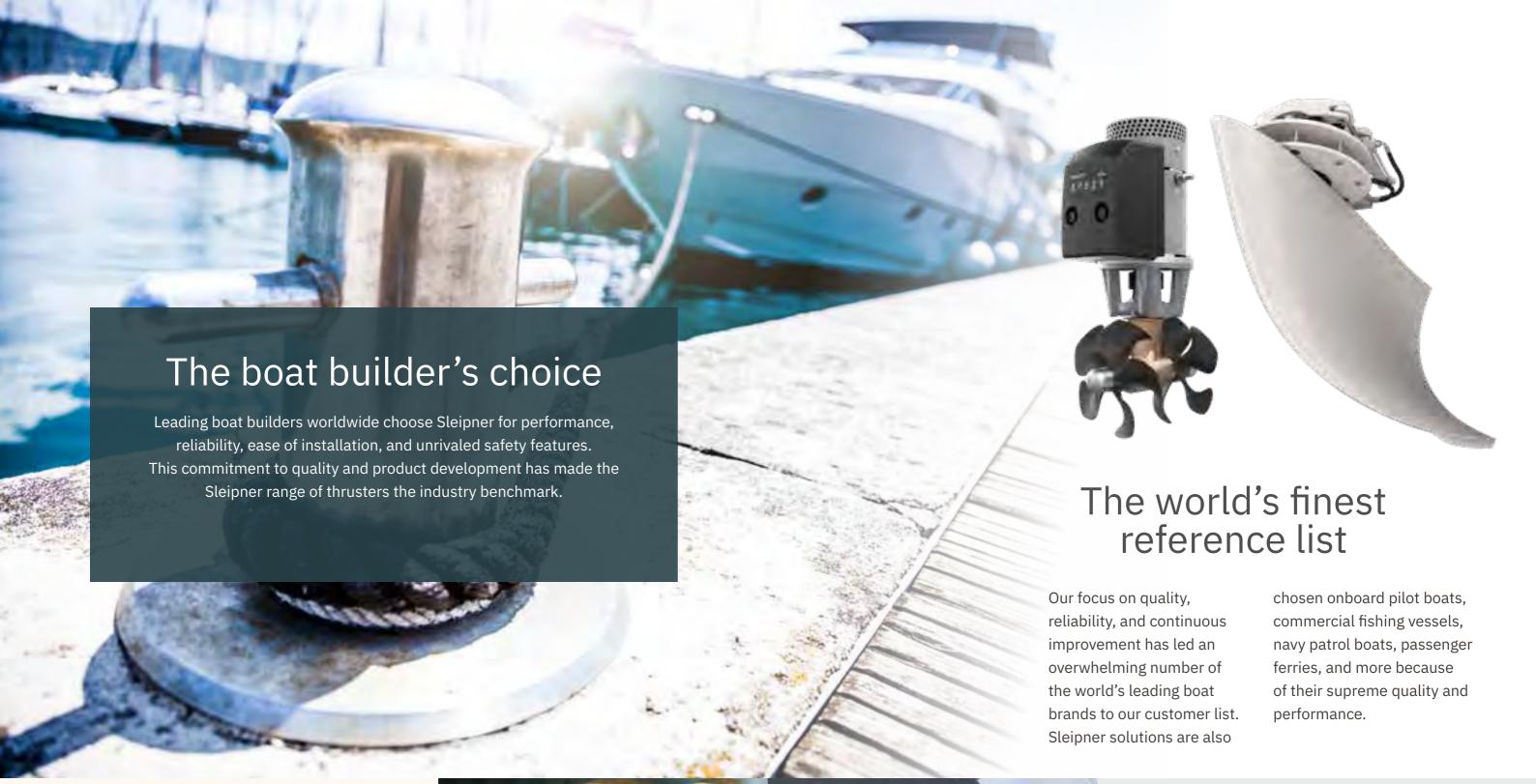
So, we don't let our solutions slip out of sight for a second; We manufacture them ourselves, using technologies we have developed ourselves – and we work in close parthership with boat builders and our global service network to ensure optimal function throughout their lifetime.

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.



Thrustworthy • Knowledgeable • Future ready



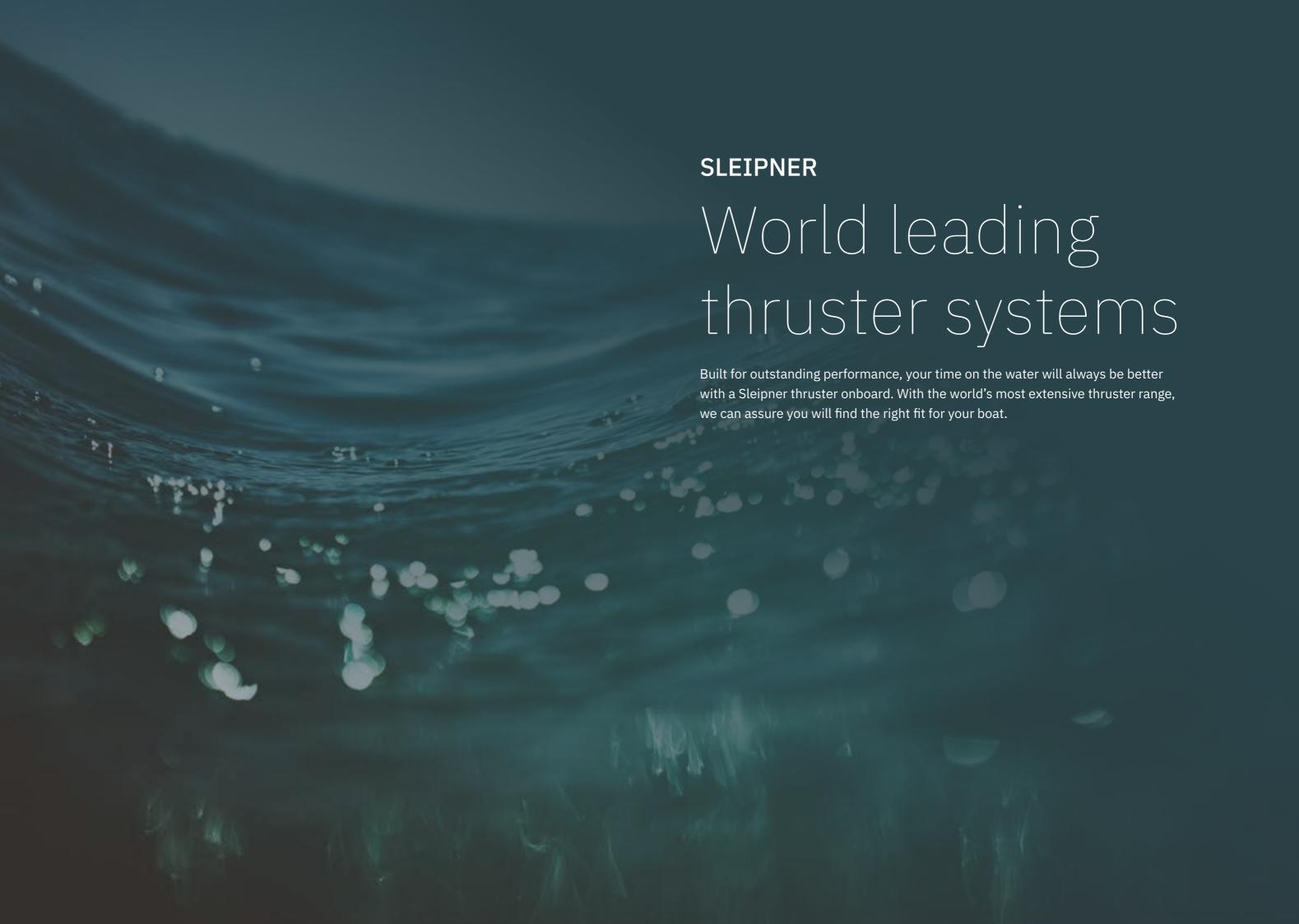


"

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

CEO Ronny Skauen





# 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 size of thruster you need to achieve the required performance, the next step is to find the right thruster system based upon your available space in the boat.

In general, there are three groups of thrusters based on their installation principle:

- Tunnel thrusters
- Retractable thrusters
- Externally mounted thrusters

Tunnel thrusters are the standard fit for most boats, but some boats cannot fit the tunnel in the desired position, where is when retractable or externally mounted thrusters might be the best solution.

# 3. Features

Perhaps the most important choice is to decide if you want a standard On/Off thruster or a thruster with Variable Speed Control, also called proportional.

Main benefits proportional thrusters:

- Hold-function allows for single-handed docking
- Longer run-times
- Less noise
- Suited for joystick integration

Most Sleipner thruster models are available with Variable Speed Control and most older Side-Power models can also be upgraded.

Other optional features to consider:

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

# 4. Planning your system

When you have an idea about the thruster size, installation placement 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 set up of:

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

Please visit sleipnergroup.com to get in contact with vour closest dealer.

# Visit our website for in-depth information

How much power do I need from a thruster



https://sleipnergroup.com/blog/thrusters/ how-much-power-do-i-need-from-a-boat-

Do I need a bow thruster on a small boat?



https://www.sleipnergroup.com/blog/ thrusters/do-i-need-a-bow-thruster-on-asmall-boat

Explore bow and stern thrusters



https://sleipnergroup.com/thrustersystems?IS\_LEISURE=1/

How to choose the right thruster for your boat



https://sleipnergroup.com/blog/thrusters/ how-to-choose-the-right-thruster-for-your-boat

Pros and cons of different thruster solutions



https://sleipnergroup.com/blog/thrusters/ pros-and-cons-of-different-thrustersolutions

Thruster 3D files for professionals



Five benefits with variable speed control



https://sleipnergroup.com/blog/thrusters/ five-benefits-with-variable-speed-control

Watch

Magnus Rassy elaborates on speed controlled thrusters onboard a HR412

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

Watch

User experience speed controlled thrusters on a Bavaria Virtess 42 Fly

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

Find and contact your local dealer



https://sleipnergroup.com/support/map

Guide

Bow and Stern Thrusters for Leisure Boat

https://sleipnergroup.com/blog/thrusters/

# 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 prefered choice by most leading boat builders. With the world's largest selection of tunnel thrusters, there should be no comprise finding a good fit for your vessel.







	DC electric	<b>AC electric</b>	Hydraulic
Ideal Vessel Class	Motor boat, Sail boat	Yacht, Commercial	Yacht, Commercial
Ideal Vessel Size	6-30m / 20-100ft	13-55m / 42-175ft	9–55m / 30–175ft
Power source	DC 12/24/48V	AC	HYD
Thrust	20-340kg (12/24V)	320-1400kg	80–1400kg
Tunnel diameter	110-300 mm	250-610 mm	185–610 mm
Placement	Bow / Stern	Bow / Stern	Bow / Stern
Speed Control	Available	Yes	Available
Ignition Protected	Available	Yes	Yes
Catalog page number	20-27	28-31	32–37

# **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
Ideal Vessel Class	Motor boat, Sail boat	Motor boat	Motor boat, Sail boat
Ideal Vessel Size	6-11m / 20-37ft	10-17m / 35-55ft	6-18m / 20-59ft
Power source	DC 12V	DC 12/24V	DC 12/24V
Thrust (12/24V)	42–62kg	96-116kg	42–116kg
Tunnel diameter	140 mm	185 mm	140–185 mm
Placement	Bow / Stern	Stern	Bow / Stern
Speed Control	Available	Yes	No
Ignition Protected	Yes	Yes	Yes
Catalog page number	44–47	48–49	49–50

# **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
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 source	DC 12/24/48V	HYD	HYD
Thrust	806-340kg (12/24V)	320kg	240–320kg
Tunnel diameter	185–300 mm	300 mm	250–300 mm
Placement	Bow / Stern	Bow / Stern	Bow / Stern
Speed Control	Available	Available	Available
Ignition Protected	Available	Yes	Yes
Catalog page number	38-41	38–42	38–42



# Main thruster features



# GALVANIC SEPARATION

The gear house and drive legs are fully galvanically isolated/separated from the electric motor and motor bracket. This ensures that even if there is an accidental short circuit or a current leak for other reasons, the immersed parts are not affected as they could be with direct electric contact.

- Achieved by composite bushings around the bolts and beneath the washers and a bushing in the motor bracket electrically isolating the drive housing from the motor bracket.
- Available on DC electric models with flexible couplers only, where the flexible coupler provides galvanic separation of the motor and gearleg shaft.



# GRAVITY FEED LUBRICATION

The thruster gearleg is filled with oil from a remote reservoir located above the waterline. This generates overpressure, making an effective seal against water intrusion in the gear leg

- Separate oil reservoir placed above the waterline
- Allows easy access for oil changes
- Having the advantage to be able to change oil in units used commercially, with hundreds of running hours per year



To provide reliable and safe thruster installations in more boats, we offer modified versions of our DC electric thrusters in watertight housings for use in stern and other locations that may get wet or be exposed to gasoline fumes. These thrusters are fully ignition protected (ISO 8846) for use in boats with gasoline engines. They have a hermetically sealed composite housing around all electric parts. This provides the ignition protection as no gasoline fumes can enter and be ignited by sparks.

The other advantage is that the electric parts that could be damaged by water are also covered and protected, making these thrusters the ideal choice for other stern thruster installations where it is difficult to ensure that the thruster will always remain dry.



# INTELLIGENT POWER CONTROL

- Provides delay between drive directions
- Monitors solenoid functions to reduce the chance of solenoid lock-in
- Will stop the thruster in case of a lockedin solenoid, without extra user action and even without controlling a main switch.



Detects when internal components become too hot. When an unsafe temperature is detected, the switch automatically shuts off the unit to prevent overheating.



# PROPORTIONAL VARIABLE SPEED CONTROL

A PRO thruster system with variable speed control allows for more precise handling of the boat in all conditions, applying only the necessary power needed to complete your maneuver confidently.

By limiting the power under normal weather conditions, noise levels are significantly reduced. The system also includes a practical hold-function in a twin thruster system. With a single press of a button, the bow and stern thruster will keep you alongside the docks - making docking truly a one-person job. PRO thrusters are the best choice for joystick interaction.

A PRO system contains three main elements - a control panel, a power control unit, and a DC electric thruster - all tied together with the S-Link™ control system. All mechanical and main electric parts are from the well-proven thruster range produced by Sleipner for many years.

All of Sleipner's 12 and 24 volt DC electric thrusters can be enabled for variable speed control by authorized Sleipner service personnel, even past models.



# **Q-PROF**

- Noise reductions of up to 75% measured in controlled environments
- The expected and tested normal noise reduction in average installations: 20-40%
- Will be delivered on all Sleipner models except models with 300 and 385 mm tunnel diameter
- Upgrade kits are available for most SP series thrusters with special adaptors



# SAFE STARTUP

Sleipner control panels use duel ON buttons to engage the product to start. The safe start-up prevents the accidental initiation of products for a child-safe environment and peace of mind while on your vessel.



# SEALED DRIVE LUBRICATION

- Sealed gearleg with long-life
   "mechanical" seal where highly polished
   ceramic and carbon surfaces form the
   only moving sealing surfaces, ensuring
   protection against damaging water
   intrusion into the gear leg.
- Pre-filled with special gear oil for lifetime lubrication.



# S-Link™

S-Link™ is a CAN-bus-based control system with full intelligent communication between all units in the system, much like a computer network.

# Main advantages include:

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



# SMART SHUT-OFF

Sleipner control panels are programmed to shut down automatically after approximately 6 minutes without use. This avoids accidental activation of our products, improving safety

# 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.

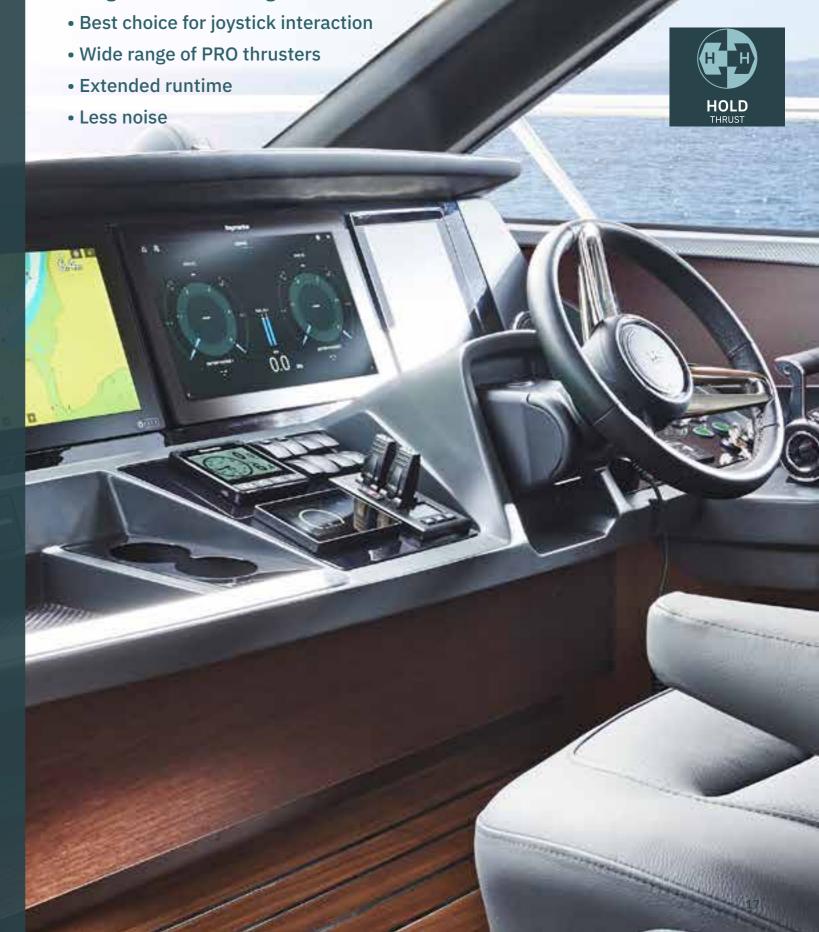
Visit www.sleipnergroup.com to learn more.



# Main features:

- Full proportional speed control
- Unique hold-function
- Single-handed docking





# Available thruster upgrades

# Improve the performance of your existing thruster system

Most thruster systems can be upgraded with several practical benefits.

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 exisiting thruster system adding practical value for years to come.

Online resource



# 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.







# 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 slighly increasing thrust output.

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



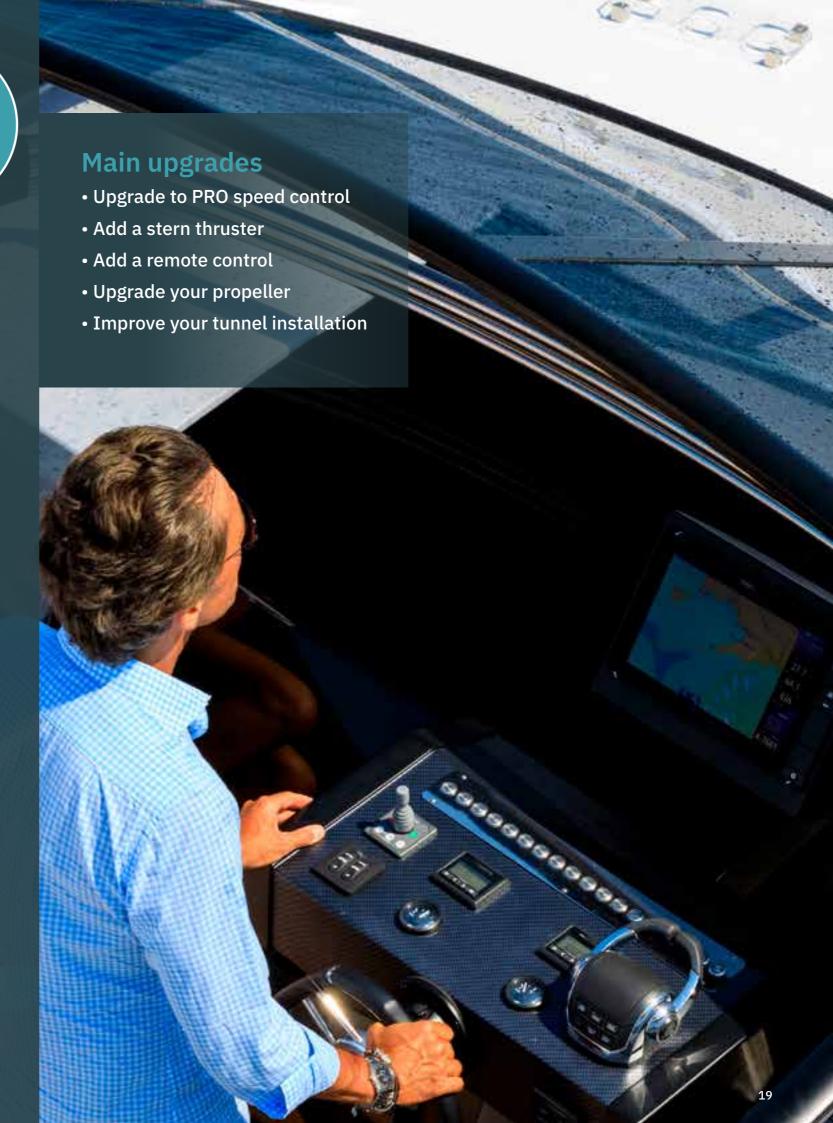


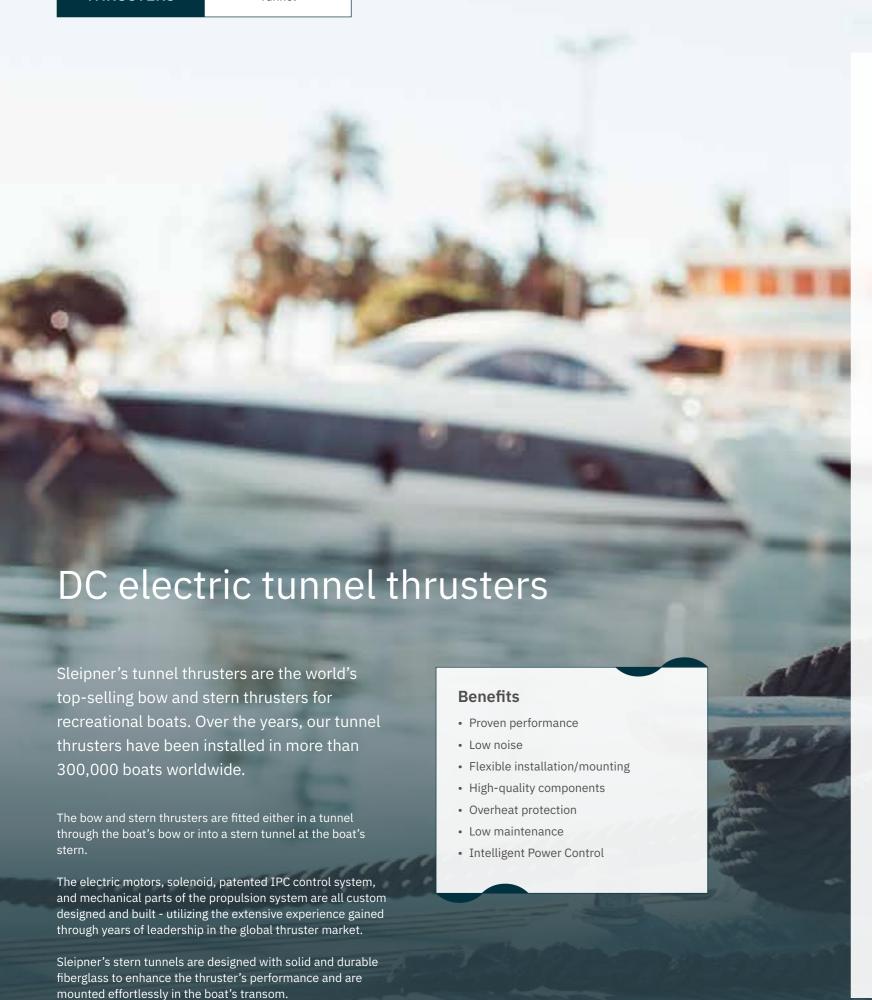
# Improve your tunnel installation

A good tunnel installation with rounded openings are vital for both effecient thrust delivery as well as noise levels

Scan the QR code to see our video about optimal tunnel installation









# **Product features**



i INTELLIGENT POWER CONTROL



SEALED DRIVE LUBRICATION



 **Q-PROP™** 

# Technical details

Motor boat, Sail boat
6-30m / 20-100ft
DC 12/24/48V
25-340kg / 55-749lbs
110-300 mm
Bow / Stern

























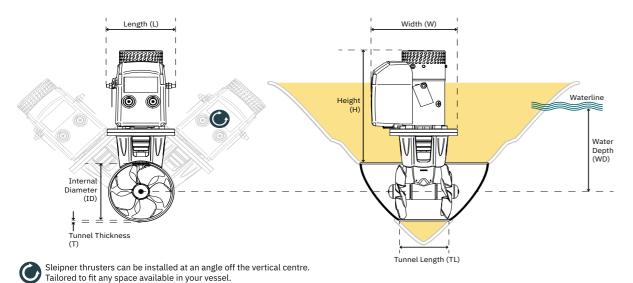




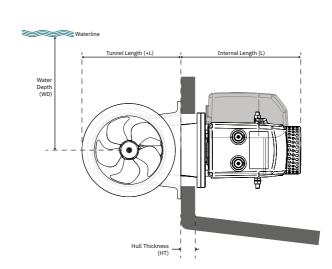


SE250/300TC	SE300/300TC
24V	48V
300	340
250	300
18-25/60-84	22-30/72-100
300	300
Twin Counter	Twin Counter

SE Thruster*	SE20/110S	SE25/110S	SE30/125S21	SE40/125S21	SE50/1	40S	SE60/18	85S2	SE80/18	35T	SE100/	185T	SE120/215T	SE130/2	50T	SE150/215T	SE170/250TC	SE210/250TC	SE250/300TC	SE300/300TC
	12V	12V	12V	12V	12V	24V	12V	24V	12V	24V	12V	24V	24V	12V	24V	24V	24V	24V	24V	48V
Thrust at 12/24V (kg)	25	30	40	48	62	62	73		96	96	116	116	139	160	160	182	210	250	300	340
Thrust at 10.5/21V (kg)	20	25	30	40	50	50	60		80	80	100	100	120	130	130	150	170	210	250	300
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	10-15/3	5-48	12-17/3	5-55	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
Internal Diameter (mm)	110	110	125	125	140	140	140	140	185	185	185	185	215	250	250	215	250	250	300	300
Propulsion System	Single	Single	Single	Single	Single	Single	Single	Single	Twin	Twin	Twin	Twin	Twin	Twin	Twin	Twin	Twin Counter	Twin Counter	Twin Counter	Twin Counter
Power Output (kW)	1.5	1.5	1.5	2.2	2.4	2.4	2.4	2.4	4.4	4.4	6.3	6.3	6.4	6.5	6.5	8.8	8.8	10	11.4	15
Power requirement (V)	12V	12V	12V	12V	12V	24V	12V	24V	12V	24V	12V	24V	24V	12V	24V	24V	24V	24V	24V	48V
Weight (kg)	9.5	9.5	9.5	10	15	15	15	15	20	20	31	31	34	37	37	38	44	68	70	73
Min. Battery CCA (DIN)	200	200	200	300	350	175	350	175	550	300	750	400	450	750	400	560	560	560	700	400
Item Code 12V	SE20/110S	SE25/110S	SE30/125S2	SE40/125S2	SE50/14	10S-12V	SE60/18	35S2-12V	SE80/18	85T-12V	SE100/	185T-12V		SE130/2	50T-12V					
Item Code 24V					SE50/14	10S-24V	SE60/18	35S2-24V	SE80/18	85T-24V	SE100/	185T-24V	SE120/215T	SE130/2	50T-24V	SE150/215T	SE170/250TC	SE210/250TC	SE250/300TC	SE300/300TC
Item Code 12V PRO	SEP20/110S	SEP25/110S	SEP30/125S2	SEP40/125S2	SEP50/1	L40S-12V	SEP60/1	L85S2-12V	SEP80/1	.85T-12V	SEP100	)/185T-12V		SEP130/2	250T-12V					
Item Code 24V PRO					SEP50/1	L40S-24V	SEP60/1	L85S2-24V	SEP80/1	.85T-24V	SEP100	)/185T-24V	SEP120/215T	SEP130/2	250T-24V	SEP150/215T	SEP170/250TC	SEP210/250TC	SEP250/300TC	SEP300/300TC-48
Stern tunnel kit	_	_	90124i	90124i	_		90052i		90086i		90086i		90135i	90150i		90135i	90150i	90150i	90200i	90200i
Cowls - short model	_	_	_	_	_		90075		90075		90075		_	_		_	_	_	_	_
Cowls - long model	_	_	90126	90126	_		90077		90077		90077		90136	90130		90136	90130	90130	90220	90220



		anoreu to	ill ally S	pace ava	павіе іп у	oui vess	ei.											
BOW	SE20	SE25	SE30 <sup>2</sup>	SE30 <sup>3</sup>	SE40 <sup>2</sup>	SE40 <sup>3</sup>	SE50	SE60	SE80	SE100	SE120	SE130	SE130	SE150	SE170	SE210	SE250	SE300
mm	12V	12V	12V	12V	12V	12V	12/24V	12/24V	12/24V	12/24V	24V	12V	24V	24V	24V	24V	24V	24V
(H)	209	252	263	242	263	242	264	272/264	352/344	393	394	398	398	412	412	480	490	457
(L)	183	183	183	186	183	183	208	208	206	240	243	250	250	245	247	274	274	274
(W)	200	198	199	198	206	205	200	200	252/261	292/272	266	296	277	292	292	337	337	350
(ID)	110	110	125	140	125	140	140	140	185	185	215	250	250	215	250	250	300	300
(WD)	110	110	125	140	125	140	140	140	185	185	215	250	250	215	250	250	300	300
(TL)	133	133	136	168	136	168	152	152	216	216	276	303	303	276	322	323	333	333
(TL min.)	111	111	111	140	111	140	124	124	179	179	233	253	253	233	272	273	273	273
(T min.)	4	4	4	5.2	4	5.2	5	5	6	6	7	7	7	7	7	7	10	10
(T max.)	6	6	6	7	6	7	7	7	8	8	9	9	9	9	9	9	12	12



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	
(L)	Internal Length
(+L)	Tunnel Length
(WD)	Stern Water Depth
(HT)	Maximum Hull Thickness

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

- SE30 and SE40 also available with Internal Diameter of 140 mm
   12552 version with Internal Diameter of 125 mm
   140 version with Internal Diameter of 140 mm
   SE20, 25, and 50 are not available as stern thruster
   Note See page 115



# **Ignition Protected** DC electric tunnel thrusters

# Benefits

- Tested according to ISO 8846 Ignition Protected standards
- Waterproof 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
- Plug-and-go control cables
- · Accessable components and easy maintanance
- 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	6-22m / 20-70ft
Power	DC 12/24/48V
Thrust	40-210kg / 88-462lbs
Tunnel diameter	125-250 mm
Placement	Bow / Stern











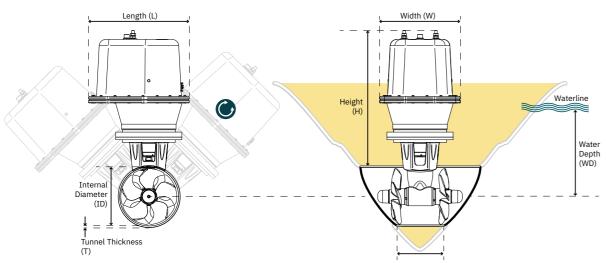








IP Thruster*	SE30/125S2-IP	SE40/125S2-12IP	SE50/140S-IP	SE60/185S2-IP
Thrust at 12/24V (kg)	40	48	62	73
Thrust at 10.5/21V (kg)	30	40	50	60
Ideal Vessel Size (m/ft)	6-8/20-28'	8-10.5/26-34'	8-11/27-37'	9-12/29-38'
(ID) Internal Diameter (mm)	125	125	140	185
Propulsion System	Single	Single	Single	Single
Power Output (kW)	1.5	2.2	2.4	2.4
Power requirement (V)	12V	12V	12/24V	12/ 24V
Weight (kg)	9.5	10	15	16
Min. Battery CCA* (DIN)	200	300	350	350
Item Code 12V	SE30/125S2-IP	SE40/125S2-IP	SE50/140S-12V-IP	SE60/185S2-12IP
Item Code 24V			SE50/140S-24V-IP	SE60/185S2-24IP
Item Code 12V PRO	SEP30/125S2-12IP	SEP40/125S2-12IP	SEP50/140S-12V-IP	SEP60/185S2-12IP
Item Code 24V PRO		SEP40/125S2-24IP	SEP50/140S-24V-IP	SEP60/185S2-24IP
Stern tunnel kit	90124i	90124i	-	90052i
Cowls - short model	_	_	_	90075
Cowls - long model	90126	90126	-	90077



0	Sleipner thrusters can be i Tailored to fit any space av	nstalled at an ar ⁄ailable in your v	ngle off the ressel.	vertical centr	e.

Bow Thruster	SE30-IP	SE40-IP	SE50-IP	SE50	SE60-IP	SE80-IP	SE100-IP	SE120-IP	SE130-IP	SE170-IP
mm	12V	12V	12V	24V	12/24V	12/24V	12V/ 24V	24V	12V/ 24V	24V
(H) Height	291	288	323	323	321	406	499/510	501	511	514
(L) Length	238	238	272	272	272	327	381	381	381	381
(W) Width	234	234	232	232	232	262	306	306	306	306
(ID) Internal Diameter	125	125	140	140	185	185	185	215	250	250
(WD) Water Depth	125	125	140	140	185	185	185	215	250	250
(TL) Recommended Tunnel Length	136	136	152	152	165	216	195/216	276	303	322
(TL min.) Minimum Tunnel Length	111	111	124	124	128	179	158	233	253	272
(T min.) Min. Tunnel Wall Thickness	4	4	5	5	4	6	6	6	6	7
(T max.) Max. Tunnel Wall Thickness	6	6	7	7	6	8	8	8	8	9



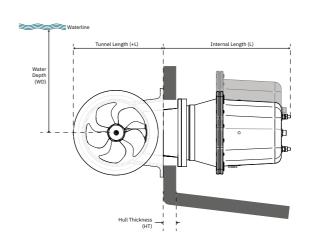








SE80/185T-IP	SE100/185T-IP	SE120/215T-24IP	SE130/250T-IP	SE170/250TC-IP
96	116	139	160	210
80	100	120	130	170
10-15/35-48'	12-17/35-55'	13-18/42-60'	13-19/42-62'	15-22/50-70'
185	185	215	250	250
Twin	Twin	Twin	Twin	Twin Counter
4.4	6.3	6.4	6.5	8.8
12/24V	12/24V	24V	12/ 24V	24V
20	31	34	37	44
550	750	450	400	560
SE80/185T-12V-12IP	SE100/185T-12V-12IP		SE130/250T-12V-12IP	
SE80/185T-24V-24IP	SE100/185T-24V-24IP	SE120/215T-IP	SE130/250T-24V-24IP	SE170/250TC-IP
SEP80/185T-12V-12IP	SEP100/185T-12V-12IP		SEP130/250T-12V-12IP	
SEP80/185T-24V-24IP	SEP100/185T-24V-24IP	SEP120/215T-IP	SEP130/250T-24V-24IP	SEP170/250TC-IP
90086i	90086i	90135i	90150i	90150i
90075	90075	_	_	_
90077	90077	90136	90130	90130



Stern Thruster	SE30-IP	SE40-IP	SE50-IP	SE50	SE60-IP	SE80-IP	SE100-IP	SE120-IP	SE130-IP	SE170-IP
mm	12V	12V	12V	24V	12/24V	12/24V	12V/ 24V	24V	12V/ 24V	24V
(L) Internal Length	256	268	-	-	278	364	458/468	463	463	362
(+L) Tunnel Length	188	188	-	-	265	265	265	300	345	345
(WD) Stern Water Depth	125	125	-	-	185	185	185/125	215	250	250
(HT) Maximum Hull Thickness	70	65	-	-	88	64	72	97	83	56

<sup>\*</sup> Note - See page 115

# 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<sup>™</sup> operating system
- Custom-made, ready to install with plug-and-go wiring
- The choice of leading boatbuilders
- DNV type approval for specific models
- Cost efficient, high quality components
- Suitable for joystick and DP integration



Range for leisure yachts up to 40m. Range for heavy duty use with DNV-GL certificate for superyachts of 18-55m

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



Q-PROP™



GALVANIC SEPARATION (OPTIONAL)



PRO-VARIABLE SPEED CONTROL

# Technical details

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

Image courtesy of Sunseeker Inc.







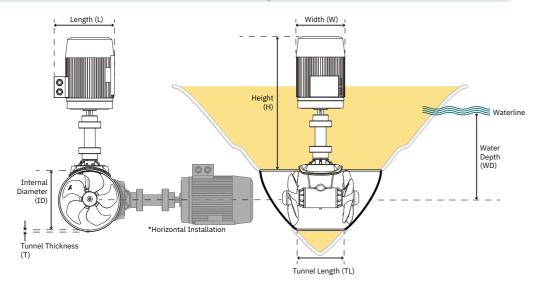




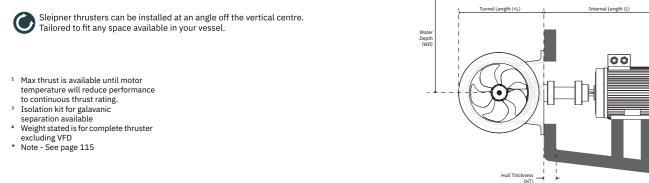


Performance & sizing*	SAC240/250-C	SAC320/300-I	SAC360/300-C	SAC450/386-C	SAC520/386-I	SAC520/386-C			
Continous Thrust (kg)	240	280	360	450	450	520			
Thrust, max. (kg) <sup>1</sup>	-	320	-	-	520	-			
Power Output (kW)	14	21	27	28	35	35			
Ideal Vessel Size (m/ft)	13-23/42-75	17-31/55-100	18-33/59-108	22-35/75-110	25-40/85-140	25-40/85-140			
Internal Diameter (mm)	250	300	300	386	386	386			
Item Code	SAC240/250-C-x-x	SAC320/300-I-x-x	SAC360/300-C-x-x	SAC450/386-C-x-x	SAC520/386-I-x-x	SAC520/386-C-x-x			
Features									
CE approved	Yes	Yes	Yes	Yes	Yes	Yes			
PROproportional speed	Yes	Yes	Yes	Yes	Yes	Yes			
Control system	S-Link™	S-Link™	S-Link™	S-Link™	S-Link™	S-Link™			
Q-propeller	Yes	Yes	Yes	No	No	No			
Propulsion system	Twin Counter	Twin Counter	Twin Counter	Twin Counter	Twin Counter	Twin Counter			
Lubrication	Sealed	Sealed	Gravity feed	Gravity feed	Gravity feed	Gravity feed			
Galvanic separation 3	No	No	No	No	No	No			
	For leisure usage								

Da	December 1
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	
(L)	Internal Length
(+L)	Tunnel Length
(WD)	Stern Water Depth
(HT)	Maximum Hull Thickness









						-	
SAC400/300-C	SAC700/412-C	SAC750/513-I	SAC900/513-I	SAC1100/513-I	SAC1100/513-C	SAC1300/610-I	SAC1400/610-I
400	700	600	750	900	1100	1100	1200
-	-	750	900	1100	-	1300	1400
30	42	41	53	70	70	74	83
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
SAC400/300-C-x-x	SAC700/412-C-x-x	SAC750/513-I-x-x	SAC900/513-I-x-x	SAC1100/513-I-x-x	SAC1100/513-C-x-x	SAC1300/610-I-x-x	SAC1400/610-I-x-x
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/ On water change					
No	No	No	No	No	No	No	No

For heavy duty usage										
Measurements (mm)	Н	L	W	ID	WD	TL	TL min.	T min.	T max.	Weight⁴ 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-and-go wiring
- The choice of leading boatbuilders
- Full documentation
- DNV type approval for specific
- Suitable for joystick and DP integration



# Product features



S-LINK™



SEALED DRIVE LUBRICATION GRAVITY FEED LUBRICATION



Q-PROP™



PRO-VARIABLE SPEED CONTROL

# Technical details

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















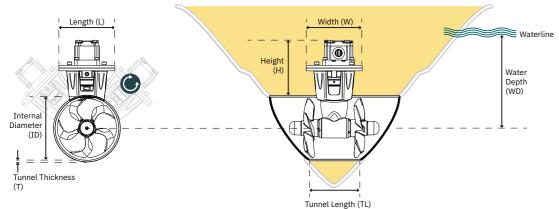






Performance & Sizing*	SH 100/185 T	SH 160/215 T	SH 240/250 TC	SH 320/300TC	SH 360/300 TC
Light duty thrust (kg)	100	160	240	320	-
Heavy duty thrust (kg)	80	140	220	270	360
Ideal Vessel Size (m/ft)	9-16/30-34	11-19/35-62	13-23/42-75	13-23/42-75	18-33/59-108
Power Output (kW)	6.9	10.0	14.9	21	28.6
Q-propeller	Yes	Yes	Yes	Yes	Yes
Propulsion system	Twin	Twin	Twin Counter	Twin Counter	Twin Counter
Lubrication	Sealed	Sealed	Sealed	Sealed	Gravity feed
Item Code	SH 100/185T	SH 160/215T	SH 240/250 TC	SH 320/300TC	SH 360/300 TC

# For leisure usage



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

Measurements Bow	SH100/185T	SH 160/215 T	SH 240/250 TC	SH 320/300TC	SH 360/300 TC
(ID) Internal Diameter (mm)	185	215	250	300	300
Weight¹ (kg)	7.8	11.4	13.5	17.16	26
(H) Height (mm)	215	195	235	245	356
(L) Length	203	203	203	258	258
(W) Width	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

(1 min.) Min. Turnet wall mickness	4	0	1	10	10
Measurements Stern	SH100/185T	SH 160/215 T	SH 240/250 TC	SH 320/300TC	SH 360/300 TC
(L) Internal Length	405	172	912	195	310
(+L) Tunnel Length	705	300	340	420	420
(WD) Stern Water Depth	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	-

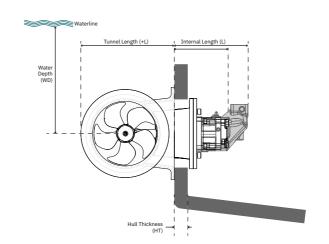
Weight stated include thruster, props & bellhousing ONLY.
 Weight of hydraulic motor comes in addition
 Note - See page 115

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SH 420/386 TC	SH 550/386 TC	SH 400/300	SH 700/412	SH 1000/513	SH 1400/610
-	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
26.2	39.9	30	43.4	59.8	80.1
No	No	Yes	Yes	Yes	Yes
Twin Counter	Twin Counter	Twin Counter	Twin Counter	Twin Counter	Twin Counter
Gravity feed	Gravity feed	Gravity feed	Gravity feed	Gravity feed/On water change	Gravity feed/On water change
SH 420/386 TC	SH 550/386 TC	SH 400/300	SH 700/412	SH 1000/513	SH 1400/610

For heavy duty usage



SH 420/386 T	SH 550/386 T	SH 400/300	SH 700/412	SH 1000/513	SH 1400/610
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.

sleipnergroup.com **35** 

For leisure usage



# 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<sup>™</sup> operating system
- Plug-and-go 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™



# **Product features**



HYDRAULIC



S-LINK™

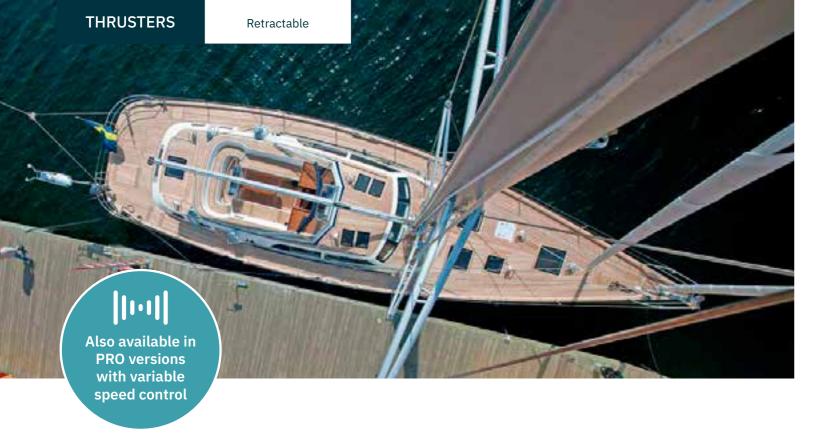


DIAGNOSTIC MONITORING

# **Technical details**

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

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# 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<sup>™</sup> 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





### **Product features**

INTELLIGENT POWER CONTROL







GRAVITY FEED LUBRICATION (Ø300MM TUNNELS)

### Technical details

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













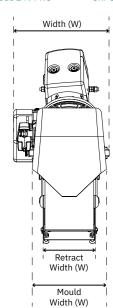


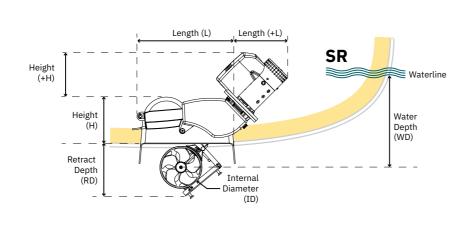




SR DC*	SR80/185T	SR100/185T	SRL80/185T	SRL100/185T	SRL130/250T	SRL170/250TC
	12/24V	12/24V	12/24V	12/24V	12/24V	12/24V
Thrust at 12/24V (kg)	96	116	96	116	160	210
Thrust at 10.5/21V (kg)	80	100	80	100	130	170
Ideal Vessel Size (m/ft)	10-15/35-48	12-17/35-55	10-15/35-48	12-17/35-55	13-19/42-62	15-22/50-70
(ID) Internal Diameter (mm)	185	185	185	185	250	250
Propulsion System	Twin	Twin	Twin	Twin	Twin	Twin Counter
Power Output (kW)	4.4	6.3	4.4	6.3	6.5	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
Item Code 12V	SR80/185T-12V	SR100/185T-12V	SRL80/185T-12V	SRL100/185T-12V	SRL130/250T-12V	
Item Code 24V	SR80/185T-24V	SR100/185T-24V	SRL80/185T-24V	SRL100/185T-24V	SRL130/250T-24V	SRL170/250TC-24V
Item Code 12V PRO	SRP80/185T-12V	SRP100/185T-12V	SRLP80/185T-12V	SRLP100/185T-12V	SRLP130/250T-12V	
Item Code 24V PRO	SRP80/185T-24V	SRP100/185T-24V	SRLP80/185T-24V	SRLP100/185T-24V	SRLP130/250T-24V	SRLP170/250TC-24V

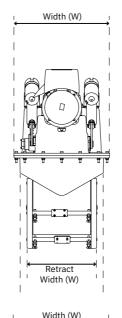
- 4									
SRV80/185T	SRV100/185T		SRV130/250	)T-12V	SRV170	/250TC	SRV	210/250TC	SRV300/300TC
12/24V	12/24V		12/24V		24V		24V		48V
96	116		160		210		250		340
80	100		130		170		210		300
10-15/35-48	12-17/35-55		13-19/42-62		15-22/5	0-70	17-2	4/55-78	22-30/72-98
185	185		250		250		250		300
Twin	Twin		Twin		Twin Co	unter	Twir	Counter	Twin Counter
4.4	6.3		6.5		8		10		15
12/24V	12/24V		12/24V		24V		24V		48V
31	44		82		88		112		120
550/300	750 /400		750/400		560		560		400
SRV80/185T-12V	SRV100/185T-12V	SRV130/	250T-12V						
SRV80/185T-24V	SRV100/185T-24V	SRV130/	250T-24V	SRV170/250	TC-24V	SRV210/250TC-24	4V	SRV250/300TC-24V	SRV300/300TC-48V
SRVP80/185T-12V	SRVP100/185T-12V	SRVP130	)/250T-12V						
SRVP80/185T-24V	SRVP100/185T-24V	SRVP130	)/250T-24V	SRVP170/25	OTC-24V	SRVP210/250TC-2	24V	SRVP250/300TC-24V	SRVP300/300TC-48V

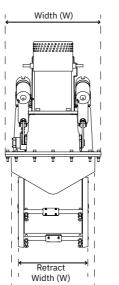


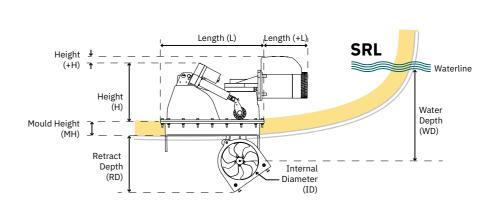


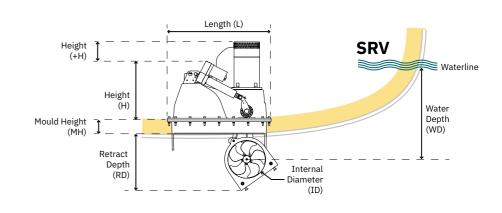
SRDC	SR80	SR100	SRL80	SRL100	SRL130	SRL170	SRV80	SRV100	SRV130	SRV170	SRV210	SRV300
Description	12/24V	12/24V	12/24V	12/24V	12/24V	24V	12/24V	12/24V	12/24V	24V	24V	48V
(H) Height	245	245	243	243	391/390	389	243	243	390	390	389	452
(+H) Additional Height	167/170	212/205	93/96	129/128	23	44	169/184	226/221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

\*Note - See page 115















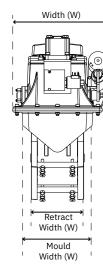


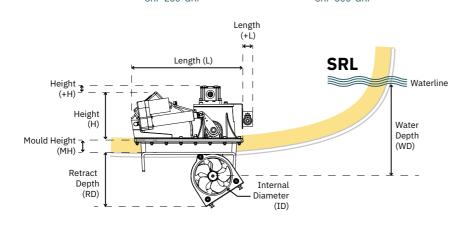




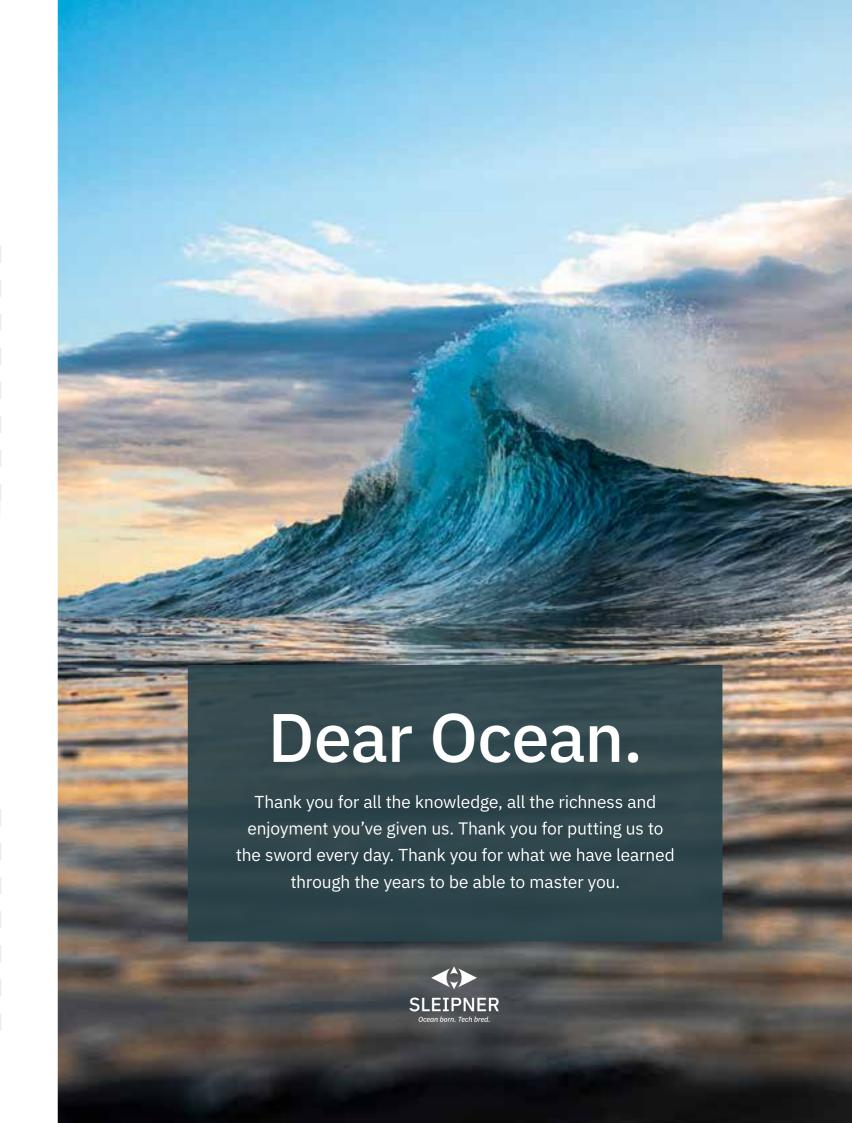


SR Thrusters	SRAC320/300TC	SRHP240-G16-24V	SRHP320/300TC-G16
Light Duty Thrust (kg)	320	240	320
Ideal Vessel Size (m/ft)	22-34/72-110	13-23/42-75	22-34/72-110
Internal Diameter (mm)	300	250	300
Power Output (kW)	21	14	21
Motor (Product power)	AC	Hydraulic	Hydraulic
Weight (kg)	140	82	88
Installation	flange	flange	flange
CE approved	Yes	Yes	Yes
PRO - Variable Speed Control	Yes	Yes	Yes
S-Link™	Yes	Yes	Yes
Q-Propeller	Yes	Yes	Yes
Twin Counter Rotating	Yes	Yes	Yes
Sealed Drive Lubrication	Yes	Yes	Yes
Galvanic Separation	No	No	No
Item Code	SRAC320TC-2/ SRAC320TC-4	SRHP240/300TC	SRHP320/300TC
Mould-in frame	TBA*	SRF-250-GRP	SRF-300-GRP





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











# 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 semiplanning 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







# **Product features**



SX35/50





**Ģ** Q-PROP™

# Technical details

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







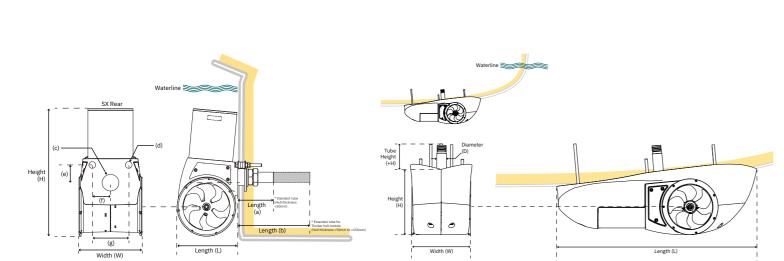








SX Thruster	SX35/140 50MM	SX35/140 150MM	SX50/140 50MM	SX50/140 150MM	SX35/140 50POD	SX50/140 50POD
Thrust at 12V (kg)	42	42	62	62	42	62
Thrust at 10.5V (kg)	35	35	50	50	35	50
Ideal Vessel Size (m/ft)	6-10/19-32	6-10/19-32	8-11/27-37	8-11/27-37	6-10/19-32	8-11/27-37
ID (mm)	140	140	140	140	140	140
Single Propeller	Yes	Yes	Yes	Yes	Yes	Yes
Power Output (kW)	1.8	1.8	2.8	2.8	1.8	2.8
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



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





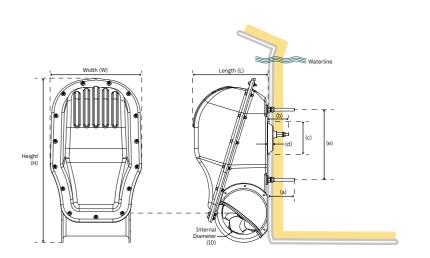








SX Thrusters*	SX 80/185 T	SX 100/185 T
Thrust at 12/24V (kg)	96	116
Thrust at 10.5/21V (kg)	80	100
Ideal Vessel Size (m/ft)	10-15/35-48	12-17/35-55
(ID) Internal Diameter (mm)	185	185
Propulsion System	Twin	Twin
Power Output (kW)	4.4	6.3
Power requirement (V)	12/24	12/24
Weight (kg)	52	57
Min. Battery 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



Measurements	SX80	SX100
mm	12/24V	12/24V
(H) Height	692	692
(+H) Additional Height	-	-
(L) Length	314	314
(+L) Additional Length	-	-
(W) Width	361	361
(a)	115	115
(b)	91	91
(c)	140	140
(d)	-	-
(e)	-	-







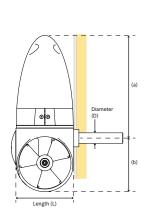


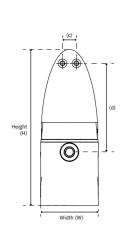


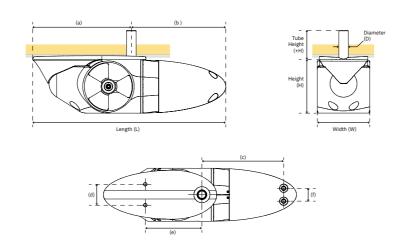
EX Thruster*	EX70C	EX95S
Thrust at 23V (kg)	67	67
Performance thrust at 24V (kg)	95	95
Ideal Vessel Size (m/ft)	10-15/35-48	10-15/35-48
Tunnel ID (mm)	150	150
Propulsion system	Single	Single
Power Output (kW)	3.0	3.0
Power requirement (V)	24V	24V
Weight (kg)	19.5	19.5
Min. Batt. Cap CCA (DIN)	190	190
Item Code 12V	-	-
Item Code 24V	EX70C	EX95S



EX Thruster	EX180D
Thrust at 21V (kg)	130
Performance thrust at 24V (kg)	180
Ideal Vessel Size (m/ft)	14-18/44-59
Tunnel ID (mm)	150
Propulsion system	dual
Power Output (kW)	6.0
Power requirement (V)	24v
Weight kg	35
Min. Batt. Cap CCA DIN	375
Item Code 12V	-
Item Code 24V	EX180D

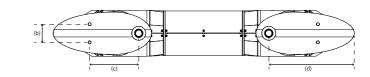






Measurements	EX70C	EX95S
mm	24V	24V
(H) Height	447	165
(+H) Additional Height	-	137.5
(L) Length	165	600
(+L) Additional Length	-	-
(W) Width	165	165
(a)	294	306
(b)	153.5	294
(c)	40	137.5
(d)	254	65
(e)	-	176
(f)	-	254
(g)	-	40

Length (L)



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)	-

\*Note - See page 115





# PJC 211 and PJC212 Single and Dual Joystick for DC Speed Control

- For proportional thruster control with S-Link™ thruster systems
- Finger tip control with purpose designed joysticks
- · Hold-function for easy docking, runs thrusters at selected power
- Back-lit LCD display with instant feedback
- System status
- Amount of thrust & direction of thrust
- Battery and temperature status on DC thrusters
- Interactive multi-language menus
- · System setup via "wizard"
- Diagnostics via panel/computer interface
- · Built-in alarm buzzer
- · Connector for external alarm buzzer
- Also available for hydraulic systems
- Can be used as On/Off panel with SR retractable thrusters



#### RC-2 series remote controls

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

#### 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
- More energy efficient transmitter uses only one battery, maintains operating time from earlier models with two batteries
- Dedicated version for S-Link<sup>™</sup> thrusters (8730 interface is no longer required)

ON/OFF







































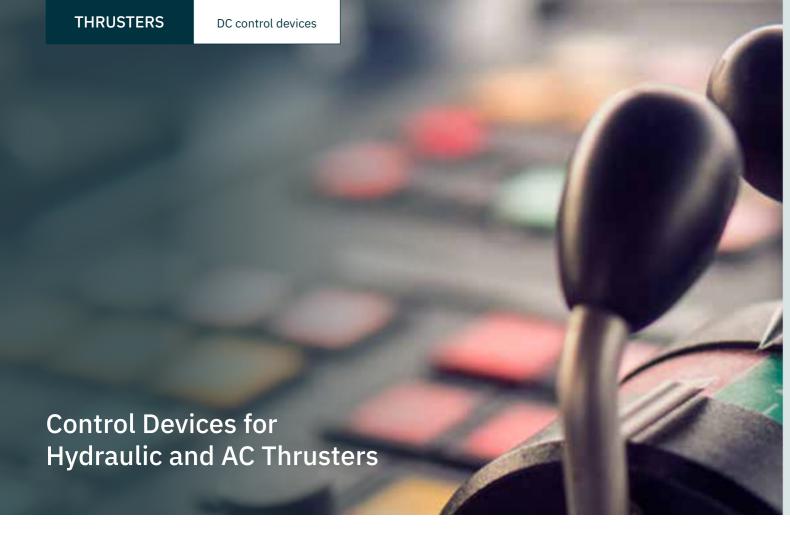
The remote receiver accepts up to four



independent transmitters.

Control Panels	8950	8955	8960	8965	8940	8909	8700 💲	PJC211 <b>⑤</b>	PJC212 <b>\$</b>	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 Contro	l -	-	-	-	-	-	-	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

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



## PJC4 series

The new PJC4 controllers are delivered with the newly developed external TP-35 display. The bright 3,5" daylight touch screen with an intuitive interface offers an easy day to day operation.

- For proportional thruster control with S-Link™ controlled DC, AC and Hydraulic Thrusters
- Back-lit touch color LCD with instant feedback:
- System status
- Amount of thrust & direction of thrust
- Battery and temperature status on DC thruster
- Temperature status on AC thruster
- Oil temperature & pressure on Hydraulic thrusters
- Built-in Wi-Fi module future ready
- Interactive multi-language menus
- · CAN-Bus communication with thrusters and accessories
- Plug & play cables, waterproof and compact connectors
- Diagnostics via panel
- Environmental testing according to:
- DNVGL-CG-0339:2019
- IACS E10:2018
- IEC 60945
- IEC 60092-504:2016





- DNV design approved product variant for all available lever types\*
- Power supply fault monitoring
- Display of propeller rpm
- Gear house low oil level monitoring
- Connector to external "buzzer" for loud audible alarm
- Flush or top mount
- IPX7
- HxW(mm): 143x112

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

# PJC2 series

- For proportional thruster control with S-Link™ thruster systems
- Finger tip speed control with purpose designed
- joysticks
- Hold-function for easy docking, runs thrusters at selected power step
- Compact design
- Back-lit LCD display with instant feedback
- System status
- Amount of thrust & direction of thrust
- Battery and temperature status on DC thruster
- Temperature status on AC thruster
- Oil temperature & pressure on Hydraulic thrusters
- Interactive multi-language menus
- S-Link™ CAN-Bus communication with thrusters and accessories

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

- · Plug & go cables, sealed and compact connectors
- · Built-in alarm buzzer
- · Connector for external alarm buzzer
- Supports Sleipner retractable thrusters
- with/without Speed Control
- Supports Sleipner stabiliser on/off control









Control Devices	PJC211	PJC212	PJC221	PJC222
For thruster type	AC/DC electric	AC/DC electric	DC/AC/Hydraulic	DC/AC/Hydraulic
Display	Internal	Internal	Internal	Internal
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/Stop function	Yes / No	Yes / No	No / Yes	No / Yes
Number of joystick/lever	1	2	1	2
Joystick/lever type	Spring / Hold-button	Spring / Hold-button	Spring / Hold-button	Spring / Hold-button
Item Code	PJC211	PJC212	PJC221	PJC222
Item Code DNV approved version*	N/A	N/A	N/A	N/A



All PJC4 controllers are S-Link™ compatible and delivered standard with TP-35 LCD color touch display















PJC421-PVREL	PJC422-PVREL	PJC421-LE90	PJC422-LE90	PJC421-LF90X	PJC422-LF90X	PJC421-LF90	PJC422-LF90
DC/AC/Hydraulic	DC/AC/Hydraulic	DC/AC/Hydraulic	DC/AC/Hydraulic	DC/AC/Hydraulic	DC/AC/Hydraulic	DC/AC/Hydraulic	DC/AC/Hydraulic
External (TP-35)	External (TP-35)	External (TP-35)	External (TP-35)	External (TP-35)	External (TP-35)	External (TP-35)	External (TP-35)
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 / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes
1	2	1	2	1	2	1	2
Spring twist detent	Spring twist detent	Detent	Detent	Detent	Detent	Detent	Detent
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

# 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.

# **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 example: Control Panel Bow Automatic Power mainswitch thruster Supply

# 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)



# 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



### 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



# S-Link™ 4-Port T-connector

Allows four spur cable connections in the same devic for a more tidy installation with fewer parts. Two sealing caps included for protection. Item code: 6 1403

# **Accessories S-Sink system**



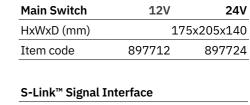
## PRO upgrade kits

To upgrade a standard on/off thruster to a speed controlled thruster, you need a PPC Power Control Unit and a new 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 the automatic main switch/fuse. The main power to the thruster is conveniently controlled by the Side-Power control panel. Added safety is provided by the panel's auto-off and the thruster's overheat sensor, also controlling the main switch. Flexible mounting options, S-Link™ control cable, heavy terminals allowing double cables and only one item to fit ensures fast and easy installation.



8 1999 SE25/30/40/60/80/130/150/170

Compatible with

SE30-130 24V

Compatible with

48V models

SR80/100

285/300

SE25/30/40/50/60 12V

all models except 48V

SE50/100/120/210/240/250/

**PPC Unit** 

PPC520

PPC820

PPC840

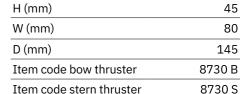
Wiring

8 1997

8 1998

# 8730B / 8730S S-Link™ Interface

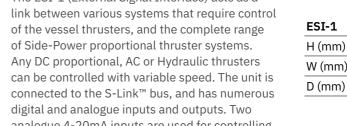
S-Link™ interface to connect foot switches and standard radio remotes/control panels to a S-Link™ system (Foot switches/Panels/Radio Remote not included). Multivoltage 12/24V.



The GW-1 gateway is the link between NMEA2000 networks and S-Link™. Sleipner allows numerous vendors of boat maneuvering systems to communicate with S-Link™ thrusters through the GW-1. Controlling S-Link™ systems through GW-1 is restricted to certified vendors. GW-1 is also enabling the use of GPS data for S-Link™ devices. GPS messages can be received from NMEA2000 compatible GPS-receivers, or optionally through the NMEA0183 input connector provided on the unit.

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

The ESI-1 (External Signal Interface) acts as a of the vessel thrusters, and the complete range of Side-Power proportional thruster systems. Any DC proportional, AC or Hydraulic thrusters digital and analogue inputs and outputs. Two analogue 4-20mA inputs are used for controlling thruster speed.





# 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)

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

# **Foot Switch**

Diameter (mm)	105
Item code (kit)	8751

# SX35/50 series accessories



**SX extension Block** For stern mount

Available in 10 and 50 mm. Galvanic isolation for stern installation.

- 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

# SX Controller

- Side-Power IPC system
- easy installation
- easy mounting
- little space requirements through compact measurements
- enclosure in rugged flameretardent ABS material
- for On/off and Pro models. Additional PPC, S-Link™ cables and Panel needed for Pro models. Own/seperate controller box available for each model. Comes with/ Included.



#### Cowls

- · made of reinforced UV resistant composite material
- easy installation and retrofit
- shallow installations (more thrust, less noise)
- guide thrust away from flaps or stern drive
- factory or as retrofit kit.



# Grid safety kit

- hydrodynamic shape to reduce resistance
- · made of reinforced UV resistant composite material
- removable for cleaning and propeller service
- Either preassembled from factory or as retrofit kit.

Item code GRID-SX35/50

# · remove cavitation on

- - Either preassembled from

Item code COWL-SX35/50

# **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

# EX series accessories



### Basic installation kit

with 2 mounting bolts, complete with sealing kit. (For EX COMPACT)

Item code 50151



Mooring protector

made of stainless steel for EX-Series motor housing, incl. fixing kit.

Item code 50154



Installation kit

complete with sealing kit (not for COMPACT)

Item code 50152



**GRP Adapter** 

with streamline rubber adapter, for bow installation on V-shaped hulls.

Item code 50155

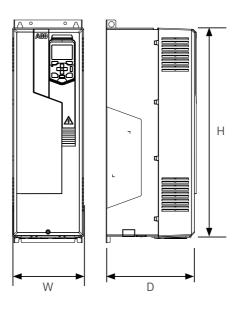


Charger & voltage transformer 12-24V

10 A, including charging voltage control (VST).

Item code 50211

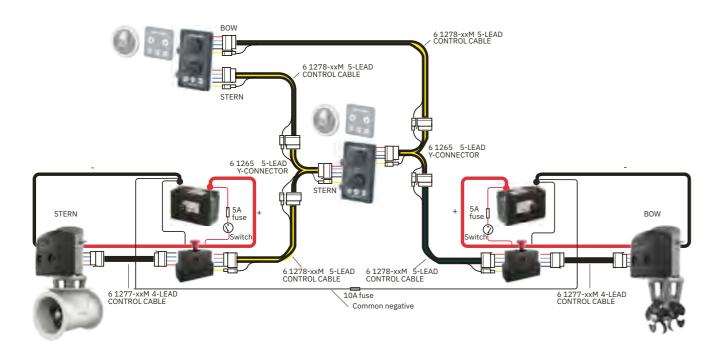
# Variable frequency drive (VFD)



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	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	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
SACSOU	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
3AC400	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	SAC450/386-C-4-x <sup>2</sup>	ACS580-01-062A-4	19	258	203	600
	SAC520/386-I-2-x <sup>2</sup>	ACS580-01-144A-2	42,4	369	252	727
SAC520	SAC520/386-I-4-x <sup>2</sup>	ACS580-01-089A-4	28,3	295	203	732
SACSZU	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
SAC/00	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
SACIIUU	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 thrusters and tunnels (bow or 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.

To simplify installation and further increase the safety, we recommend using the original Sleipner Automatic Main Switch which also has a built-in fuse, reducing the number of necessary components. Where the Automatic Main switch is used, you need a 5-lead control cable between the panel and main switch, while only a 4-lead is needed to the thruster or if a manual or other auxiliary main switch and separate fuse is used.

The electric motors used on the thrusters require a good electric power supply for safe operation and to achieve the desired power. Thereby, both the main power cable sizes and the available battery capacity are important.



# Serial-parallel switch box

This switch box enables the installation of 24V thrusters in boats with a 12V system. With an additional 12V battery, you supply 24V for the thruster's operation, while all batteries are charged by your normal 12V system when the thruster is not running. The reliability of this fully automatic system has been proven in hundreds of boats over many years.

To install 24V thrusters in 12V boats (necessary extra battery is not included)

Switch box	SE 120/130/150/170
HxWxD (mm)	285 x 265 x 110
Item code	10112A
Switch box	SE200/250
Switch box HxWxD (mm)	SE200/250 285 x 265 x 110



# **Automatic Main Switch**

The most user friendly and safe installation is provided with the 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. Flexible mounting options, "Plug & Go" wiring, heavy terminals allowing double cables and only one item to fit ensures fast and easy installation.

For Sleipner thrusters (necessary fuse not included)

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



# Fuse holder / Fuses

Sleipner manufactures fuse holders that are 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	125A	EX55S·EX110D	EX40C · EX180D	
ANL150	150A	$SE20 \cdot SE25 \cdot SE30 \cdot SX35$	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

Make sure that the complete installation meets the Sleipner quality standard and take advantage of our "Plug & Go" wiring system by using original control looms. They are available in many different lengths and Y-connectors tie multiple control positions together. Color coded to match the wiring diagrams with high quality connectors to ensure a 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, as the extra lead will actively control the switch and thereby the main power to the thruster, adding extra safety. Please see schematics on top of page.

Description	Item code 4-lead	Item code 5-lead
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

- thrusters (bow or stern or both)
- tunnels (bow or stern or both)
- control cables
- main switches (automatic or manual)
- fuse and fuse-holder,
- control panel(s)
- main power cables
- radio remote

58 sleipnergroup.com 59



# Anchor with ease with Sleipner anchor windlasses

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.







External mounting





MAXI

# Product features for lead line



AUTOMATIC FREE FALL CONTROL



PARKING-MODE



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 and 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 202	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 202 is suitable for boats up to 25 feet and the Maxiseries 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.

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

#### **Electrical Cables**

- 4-lead cables.
- · Battery cable kit.

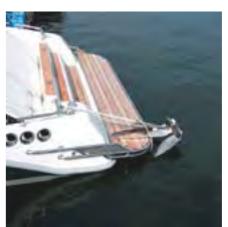
#### Anchor Swivel (Recommended)

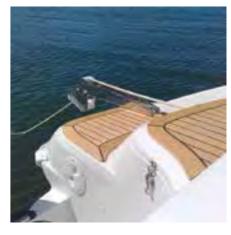
A swivel is a rotating shackle between the line and the anchor, which prevents the anchor from spinning and twisting the line/chain and at the same time holds the anchor in place in theanchor roll. Recommended for all installations.

#### **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 finial 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 202	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.



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.





### Midi 202

Anchor windlass for internal mounting, suitable for boats up to 25 feet/3 tons. Midi 202 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.





#### 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.



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 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.



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 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.

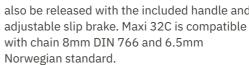
Maxi 34-4G is for mounting on the starboard side with the electric motor on the inside and the line wheel facing the bathing platform port.



## 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













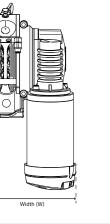
Modell	Midi 202
Mounting	Internal
Motor output	600W
Weight (kg)	12
Power Requirement (V)	12 V
Pulling power (max)	200 kg
Pull speed	20 m / min vid 30 kg load
Ideal Vessel Size	< 25 fot / 7,6 m
Auto stop function	Yes
Recommended fuse	150 Amp - 12V
Recommended anchor/ weight	7,5 - 15kg
Line	12 mm Anchor line, leaded
Item code 12V	36-12106

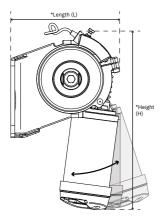
		Motor output 12 V
		Motor output 24 V
		Weight (kg)
		Power Requirement
d		Pulling power (max)
		Pulling power (max)
		Pull speed
		Ideal Vessel Size
led		Auto stop function
		Recommended fuse
		Rec. min. battery cap
		Rec. min. battery cap
-¦		Recommended anch
-	-	
 #1:		Line
当		Item code 12V starb
		Item code 12V port
4	*Height	Item code 24V starb

Mounting

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
	< 21.3 m - 1500 W
Auto stop function	Yes
Recommended fuse	150 Amp
Rec. min. battery capacity 12V	100 Ah
Rec. min. battery capacity 24V	60 Ah
Recommended anchor/ weight	10–26 kg - 1000 W
	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)

Maxi 43 & 44 Internal



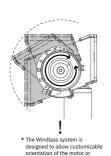


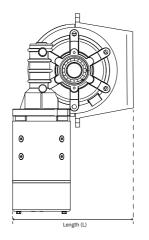
1	Width (W)	ı
mm		Midi 202
(H) Height		330
(L) Length		180
(W) Width		150
(a)		85
(b)		29
(c)		14
(d)		25
(e)		70
(f)		30
(g)		13

32.5

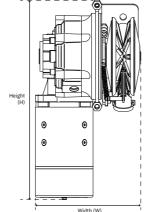
14

(h)





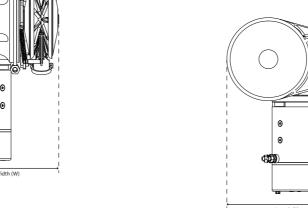
mm	Maxi 43 & 44
(H) Height	238mm
(L) Length	393mm
(W) Width	219mm

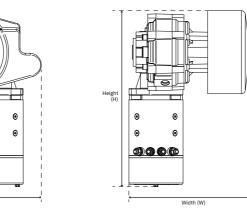






Modell	Maxi 34-G	Maxi 34-D
Mounting	Side-mounting	On deck
Motor output 12 V	1000 W	1000 W
Motor output 24 V	1500 W	1500 W
Weight (kg)	20 kg	20 kg
Power Requirement (V)	12 V / 24 V	12 V / 24 V
Pulling power (max) 12 V	500 kg	500 kg
Pulling power (max) 24 V	850 kg	850 kg
Pull speed	20–25 m / min	20-25 m / min
Ideal Vessel Size	< 15.2 m - 1000 W	< 15.2 m - 1000 W
	< 21.3 m - 1500 W	< 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	10–26 kg - 1000 W
	10–30 kg - 1500 W	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





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









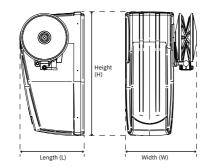


Modell	Maxi 31	Maxi 40
Mounting	External	internal
Motor output 12 V	1000 W	1000 W
Motor output 24 V	1500 W	1500 W
Weight (kg)	20 kg	20 kg
Power Requirement (V)	12 V / 24 V	12 V / 24 V
Pulling power (max) 12 V	500 kg	500 kg
Pulling power (max) 24 V	850 k	850 kg
Pull speed	20–25 m / min	20–25 m / min
Ideal Vessel Size	< 15.2 m - 1000 W	< 15.2 m - 1000 W
	< 21.3 m - 1500 W	< 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	10–26 kg - 1000 W
	10–30 kg - 1500 W	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

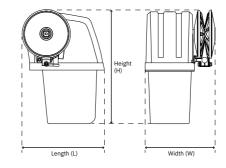




Modell	Maxi 32	Maxi 32C
Mounting	External	External
Motor output 12 V	1000 W	1000 W
Motor output 24 V	1500 W	1500 W
Weight (kg)	20 kg	20 kg
Power Requirement (V)	12 V / 24 V	12 V / 24 V
Pulling power (max) 12 V	500 kg	650 kg
Pulling power (max) 24 V	850 kg	1000 kg
Pull speed	20–25 m / min	20-25 m / min
Ideal Vessel Size	< 15.2 m - 1000 W	< 15.2 m - 1000 W
	< 21.3 m - 1500 W	< 21.3 m - 1500 W
Auto stop function	Yes	No
Recommended fuse	200 Amp	200 Amp
Rec. min. battery capacity	100 Ah	100 Ah
	60 Ah	60 Ah
Recommended anchor/ weight	10–26 kg - 1000 W	10–26 kg - 1000 W
	10–30 kg - 1500 W	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 / mm	Maxi 31	Maxi 40
(H) Height	200 mm	200 mm
(L) Length	396 mm	396 mm
(W) Width	230 mm	230 mm



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









### Control panels and remote controls for windlasses

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

Why not try the radio remote control for full mobility on board. 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 facingshore, you can pull the boat out from land remotely, reducing the risk of waves from passing boats causing your boat's bow to poundagainst 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



- round cut-out hole (std.instrument size)
- · installs from front side
- pre-fitted O-ring seal
- multi-voltage (12 & 24V)

#### Safety

- child-safe on/off system
- power / control light
- · automatic deactivation
- · easy operation

#### Quality

- · waterproof (IP65-front)
- UV safe
- · CE -approved

#### Design

- compact size
- modern styling
- no visible screw heads
- · 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
- 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,

Length	Iterm code
1,5 meter	6 1277-01,5M
4 meter	6 1277-04M
7 meter	6 1277-07M
9 meter	6 1277-09M
12 meter	6 1277-12M
4 meter 7 meter 9 meter	6 1277-04M 6 1277-07M 6 1277-09M

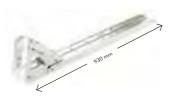


Circuit breaker for windlass

Circuit breaker	Fuse	Windlass	Windlass
Iterm 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
	Pivoting anchor		Pivoting anchor		Pivoting anchor		Platform anchor
61-30001	roller, SSL, 350mm	61-30002	roller, SSL, 500mm	61-30003	roller, SSL,800mm	61-30004	roller, SSL









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









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









Item Code	Description	Item Code	Description	Item Code	Description	Item Code	Description
	Through-hull for		Through-hull		Through-hull		Through-deck
	windlass chain,		anchor line		anchor line		anchor line guide
39-72000	SSL	39-73000	guide, SSL	39-74000	guide, SSL	39-75000	with 1 roller, SSL
			AIDLO MAYL		AVI		DI 9 MAVI



Item Code Description

39-76000 guide, SSL

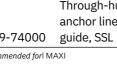


Through-hull

anchor line guide,

39-77000 sviveling gooseneck 54-00040 5-15kg

Item Code Description





	Item Code	Description	Item Code	Description	
		D-shackle 9mm,		D-shackle 12mm,	
		SSL,		SSL,	
	54-00040	5-15kg	54-00041	20-30kg	

recommended for MIDI recommended for MIDI & MAXI

Through-hull,

anchor line





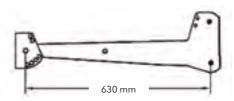


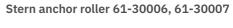
Item Code	Description	Item Code	Description	Item Code	Description
85-00000	Swivel for anchors, SSL, 15-30kg, L=120mm	85-00001	Swivel for anchors, SSL, 5-15kg, L=100mm,	12-00212	Safety chain for anchors, SSL, L=60cm

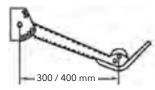
All accessories made of stainless steel (SSL).

# Pivoting anchor roller [80000]

Anchor roller 61-30005

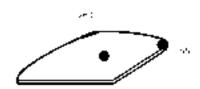






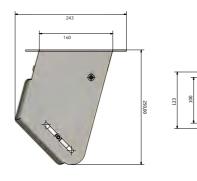
	Item code	Description	Length
61-30006 Stern anchor ro		Stern anchor roller	300 mm
	61-30007	Stern anchor roller	400 mm

Plattform 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

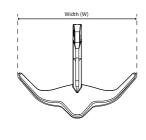


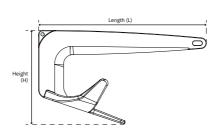
39-75000	39-77000
Through-hull anchor line guide	Through-hull anchor line guide,
with 1 roller	sviveling gooseneck
147	136
61	50
66	83
	Through-hull anchor line guide with 1 roller  147 61

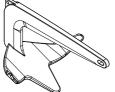
# Anchors & ropes

#### Plow anchor

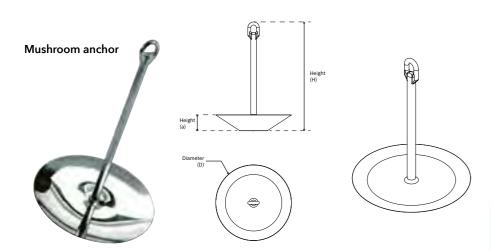








Item Code	Weight	Model	Item Code	Weight	Model	Measur	ement i	n mm	
	Galvanized		Stainl	ess steel (SS	SL)	Н	L	W	Max boat weight
85-80005	5 Kg	Galvanized	85-81005	5 Kg	SSL	225	465	310	2 ton
85-80075	7,5 Kg	Galvanized	85-81075	7,5 Kg	SSL	258	520	378	3,5 ton
85-80010	10 Kg	Galvanized	85-81010	10 Kg	SSL	294	585	382	6 ton
85-80015	15 Kg	Galvanized	85-81015	15 Kg	SSL	342	650	423.4	10 ton
85-80020	20 Kg	Galvanized	85-81020	20 Kg	SSL	360	640	503.2	20 ton
85-80030	30 Kg	Galvanized	Also av	ailable in 30	kg.				30 ton



Item Code	Weight	Model	Measure	ment in m	m	
Stainle	ess steel (S	SSL)	Н	D	a	Max boat weight
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	4 ton
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.

#### Anchor line



Item Code	Description	Diameter	Length	Weight	<b>Breaking Point</b>
80-10109	Anchor line, leaded	12 mm	30 m	7,9 Kg	1 600 Kg
80-10110	Anchor line, leaded	12 mm	50 m	11,6 Kg	1 600 Kg
80-10111	Anchor line, leaded	14 mm	50 m	16,1 Kg	2 000 Kg
80-10120	Anchor line, leaded	16 mm	50 m	21,7 Kg	2 400 Kg
80-10121	Anchor line, leaded	16 mm	75 m	32,0 Kg	2 400 Kg
80-10122	Anchor line, leaded	16 mm	100 m	43,0 Kg	2 400 Kg
85-00000	Swivel for anchors, stainless polished steel, L=1	20mm			
85-00001	Swivel for anchors, stainless polished steel, L=1	00mm			
12-00212	Safety chain for anchors, stainless, 60cm				
80-20655	Chain for windlass, NS galvanized	6,5 mm	50 m	-	-
80-20850	Chain for windlass, galvanized	8 mm	50 m	-	-
80-22655	Chain for windlass, stainless	6,5 mm	50 m	-	-
80-22850	Chain for windlass, stainless	8 mm	50 m	-	-
Notel For optimal fu	nction of the anchor winch use the original Sleinner anchor line				

 ${\it Note!} \ {\it For\ optimal\ function\ of\ the\ anchor\ winch,\ use\ the\ original\ Sleipner\ anchor\ line.}$ 

#### GRP box for external mounting of windlass on platform

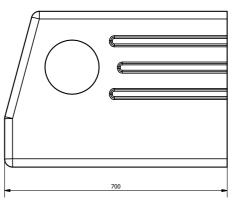
For Maxi 32 & Maxi 32C, can be adapted to the boat hull.

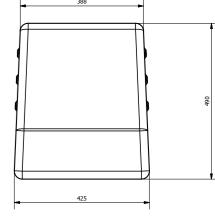
Linen / chain box for Maxi 32/32-C. The box is open at the rear edge and fits into the transom. Comes complete with mounting brackets and screws. Holds 50 m of leaded anchor line or about 30 m of chain.



Adaptable GRP box Item Code 39-32000

Position	Measurement in mm
A Width top	425
B Width bottom	388
C Length	700
D Height	490







# 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

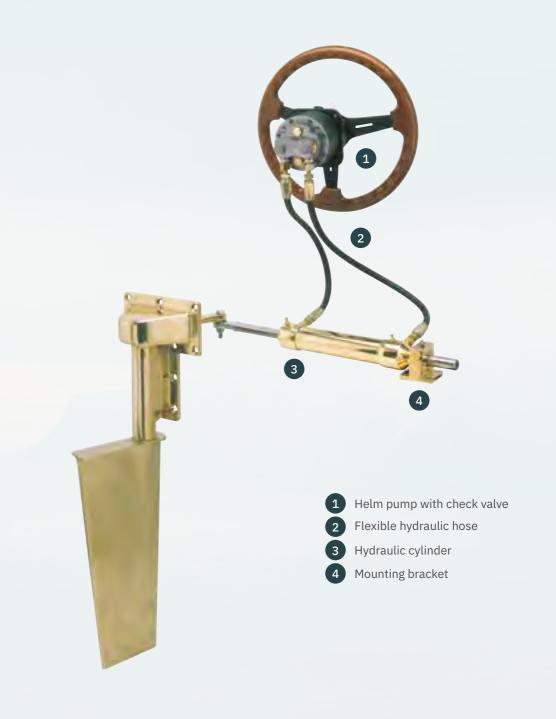
Sleipner produces its hydraulic cylinders for rudders and water jets in various sizes, making them adaptable to almost any boat. They are available as heavy duty cylinders and standard cylinders.

#### **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.

#### **Technical details**

Ideal Vessel Class	Commercial vessel,
	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

80 81

### 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 blogg 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.

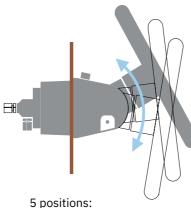
### Sleipner offers three different models for different boats and dashboard designs.

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



-10°, 0°, 10°, 20 , 30°





Helm pump with flange



Helm pump with flush mount

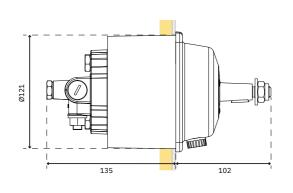


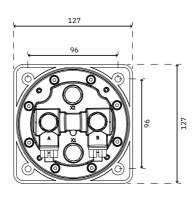
Helm pump with tilt

# Helm pumps 26-43 ccm

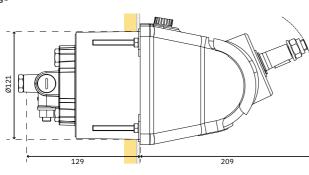
Item number 72061-72069

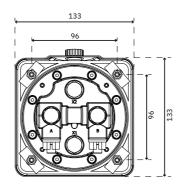
Helm pumps with flange



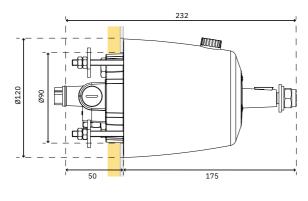


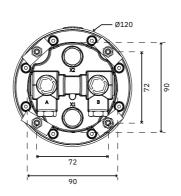
Helm pumps with flange and tilt





Helm pumps flush mount

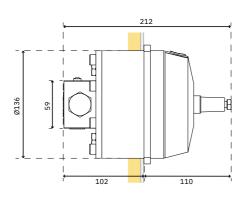


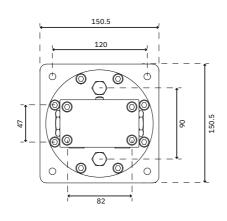


# Helm pump 70 ccm

Item number 72070

Helm pumps with flange





Item code	Port Flange Thread	Helm pump	Port din	nensions BSP 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,

T-coupling

By-pass valve

#### 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** 

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

Hydraulic oil

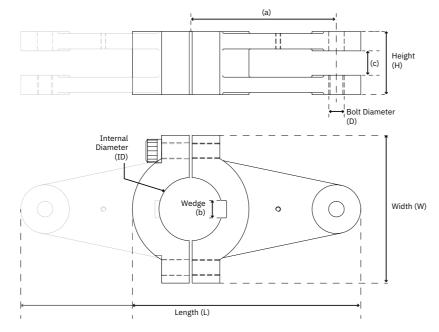
Description	Item code standard	Item code stainless
Union fitting 1/4"BSPx10mm	72200	72210
Hose coupling, 10mm for 3/8" hose	72335	72336
T-coupling for 10mm	72500	73510
Hose coupling, 90°, 10mm	72400	72410
Hydraulic hose for steering, 3/8" 1 layer steel braided	72135	
Hyd. hose for steering, PA/11 2004, non pressure ventilation hose	72140	
By-pass valve 10mm	72600	
By-pass valve 12mm	72612	
Hydraulic oil for steering, 1ltr	72750	
Hydraulic oil for steering, 12 pack (12x1ltr)	72760	
Hydraulic oil for steering, 2,5ltr	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

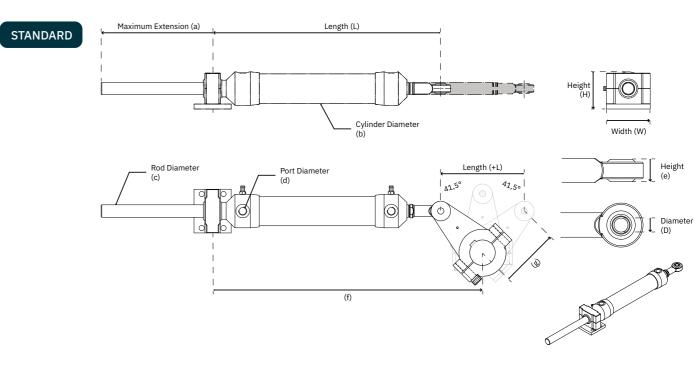
Measurements in mm

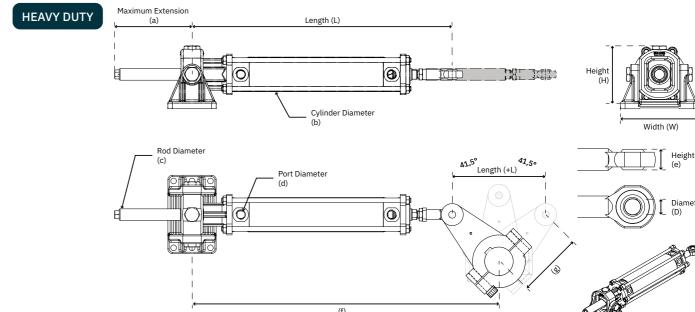
#### Rudder rotations and cylinder pump volumn

Item code	26 ccm	35 ccm	43 ccm	70 ccm
71030*	4,2	3,1	-	_
71060	4,8	3,6	-	_
71090	8,3	6,1	5,0	-
71140	-	_	8,0	4,9
71220	_	_	_	8,1

Item code	43 ccm	70 ccm
6525-200-xx	13,1	8,1
6530-200-xx	12,1	7,5
8032-200-xx	-	12,0
9032-200-xx	-	16,7
8032-305-xx	-	18,5

Recommended





Item code	Volumn (ccm)	Max rudder torque (kgm) v/150mm tiller	Working pressure (bar)	Recom. hose ID	Cylinder diam. (b) mm	Rod diam. (c) mm	Port dimension (d)	Max Extension (a) mm	Length (L) mm	(f) mm	Stroke length (+L) mm	(g) mm	Diameter (D) mm	Height (e) mm
Standard cylinder														
71030*	110	45 kgm	50 bar	3/8"	38	16	1/4"	158	337,5	425	175	150	12	150
71060	125	45 kgm	50 bar	3/8"	38	16	1/4"	180	355	460	200	150	12	150
71090	215	80 kgm	50 bar	3/8"	48	20	1/4"	180	365	465	200	150	12	150
71140	345	130 kgm	50 bar	1/2"	57	20	1/4"	165	392	492	200	150	14	150
71220	565	210 kgm	50 bar	1/2"	75	25	3/8"	175	350	520	200	150	16	150
Heavy duty cylinde	er													
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. \*Rudder angle +/- 35° for Item code 71030. \*\*with shock and by-pass valve



# Vector Fins<sup>™</sup> systems

# Superior stabilization in every situation

Stabilizer systems have been used on larger passenger ships and supervachts 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 stabilisation 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 stabilisation 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
- · 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: force = speed2.

Gyro-type stabilisers 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.

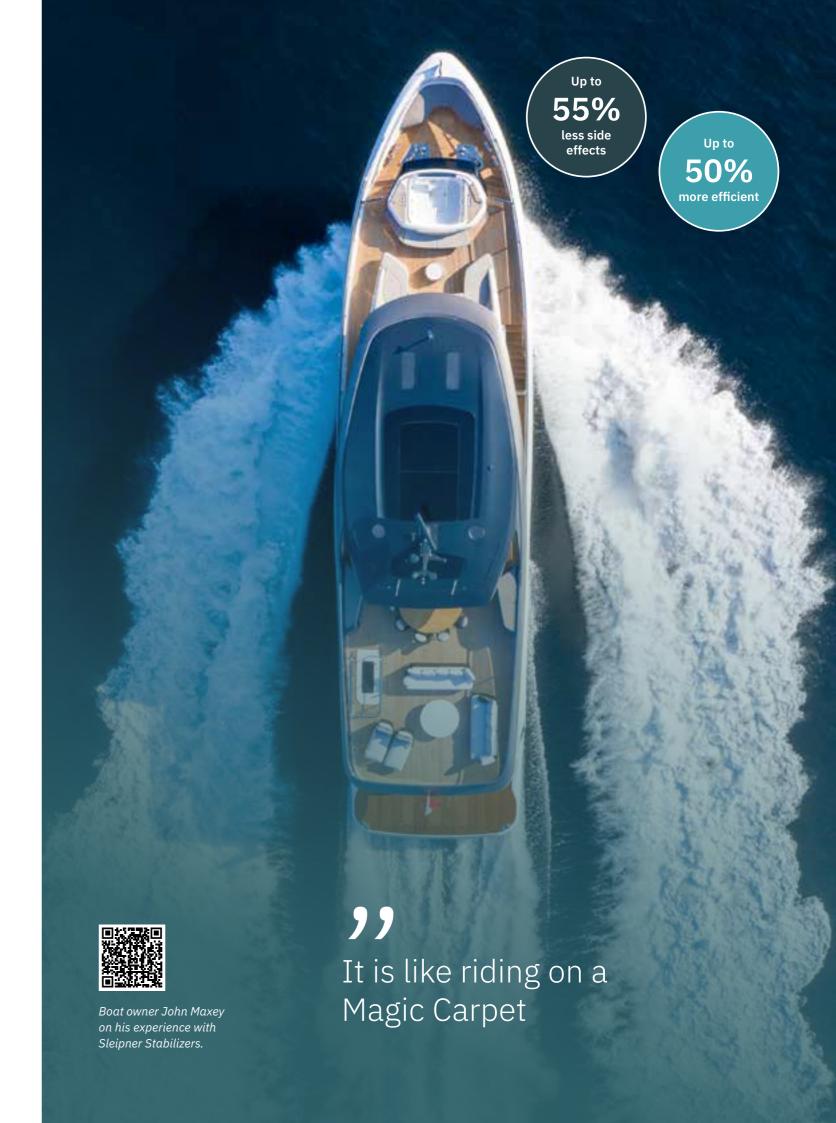
Fin stabilisers on the other hand act in the water and have two ways of creating roll reduction force, depending on the boat's speed. At zero speed or 'at anchor' mode, the fins rotate rapidly (flap) to generate force and like the gyro, have a definite limit. However, when the boat is moving forward, 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 fin stabilizer

- 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 stabilisation 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 stabilisation 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.





# 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 stabilisation 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 stabilisation 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.

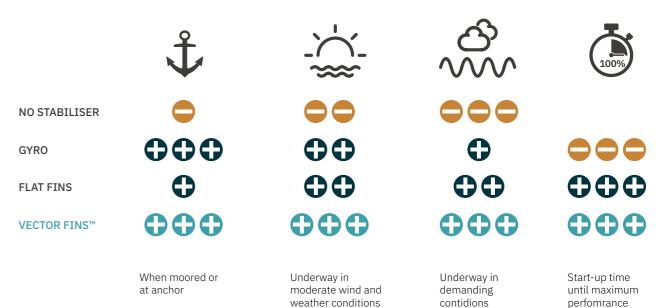
#### Performance of different stabiliser technologies

A stabiliser 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.



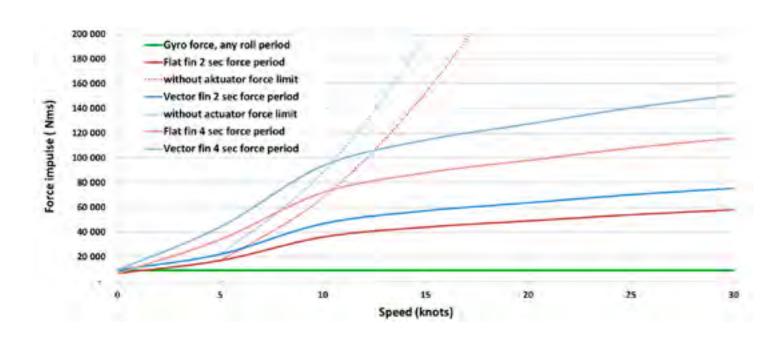
A stabilizer system with Vector Fins<sup>™</sup> is the only system that effectively handles both cruising and at anchor situations.

# Vector Fins<sup>TM</sup> - it's all about the physics

Most boaters who have ever had a stabilised boat would never buy another boat without. Most stabiliser 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 effeciency 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 stabilisation both at anchor and underway, while gyro is good choice for boaters who are primarily focused on at anchor stabilisation. The reason is that gyro stabilisers has a maximum stabilisation force while fins will increase their stabilising effeciency 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 0,6m<sup>2</sup> Vector Fins™

		T		
	No stabilizer	Vector Fins™	Reduction of roll	Reduction of seasickness
		*		
Cruising at 11 knots				
Maximum roll movement	10.4°	0.3°	97%	99.8%
Average roll movement	5.7°	0.15°	97%	99.9%
At Anchor				
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

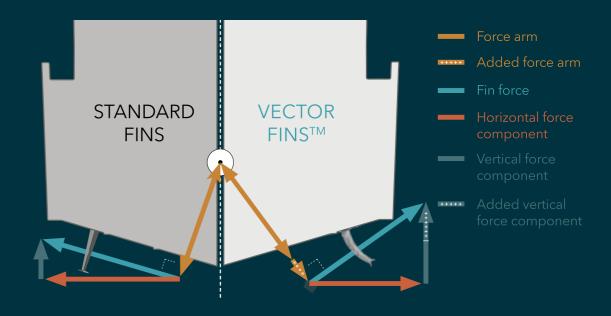
Rolling around at sea is something most people will prefer to avoid if they can. With the modern stabilizing systems available on the market today, they do reduce the risk of becoming seasick by 80-90 percent.

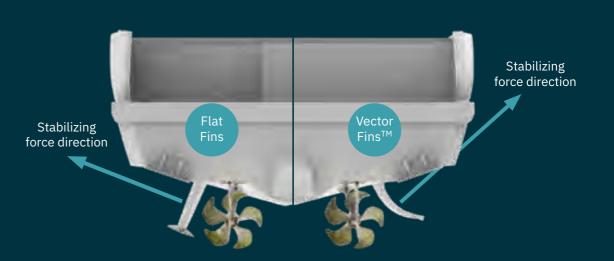
Another aspect worth considering is plain and simple onboard safety.

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.







Vector Fins<sup>™</sup> – more stabilization force in every situation

96 97

# 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 busy harbour!

the same maximum total force they can apply to reduce roll, independent 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





HYDRODYNAMICAL SHAPE



INSTANT-ON (MAX POWER AT START-UP)

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

98



#### 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

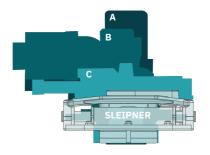
- Precision machining and assembly ensures a long lifetime and durability.
- No additional center lock, this is automatic in the standard hydraulic system – very safe due to the hydraulics having extreme safety limits.
- Dual cylinders provide
- balanced load unlike single cylinder solutions.
- less 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 nonmoving 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

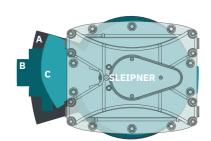
their bearings, meaning either a part change, lubrication and/or mechanical adjustments. Side-Power's latest generation of bearings do not need any of that, saving time and money for the owner with lifetime lubricated high-end bearings as standard, meaning one less service point on your vessel.

- Fins are installed and removed very easily and quickly from the outside for best convenience in transport or other haulout 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.

# Advantages of a centralized hydraulic power system

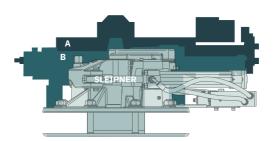
- High efficiency for moving and holding high loads
- Proven and reliable technology
- Most used power system on boats from 60-70 feet and larger
- Can power many applications from one central hub
- Low maintenance
- Silent operation





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





# The most compact actuator



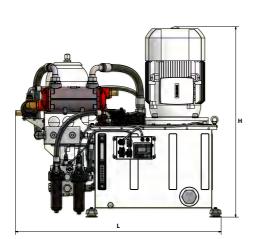


Hydraulic Power pack for standalone installations

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 4475C-W-xx-xx	10 44110C-W-xx-xx	10 44150C-W-xx-xx
Rated power (kw)	3.5	4.6	5.5	7.5	11	15
Weight (kg • lbs)	111 • 245	116 • 256	135 • 298	N/A	300 • 661	312 • 687
L (mm • in)	726 • 28.6	726 • 28.6	780 • 30.7	1087 • 42.8	1087 • 42.8	1087 • 42.8
W (mm • in)	432 • 17	432 • 17	465 • 18.3	506 • 19.9	506 • 19.9	506 • 19.9
H (mm • in)	762 • 30	756 • 29.8	790 • 31.1	1006 • 39.6	1006 • 39.6	1006 • 39.6
Generator load (kVA)*	4.6	6	7	9.8	13	18
For fin size (short r. p.)*	VF650 (SPS55)	VF800 (SPS55B)	-	VF1050 (SPS66B)	VF1350 (SPS93B)	VF1650 (SPS93B)
For fin size (long r. p.)*	VF650 (SPS55)	VF800 (SPS55B)	VF1050 (SPS66B)	VF1350 (SPS93B)	VF1350 (SPS93B)	VF1650 (SPS93B)

<sup>\*</sup> 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



without additional computer tool or service technicians.

• Allows for faster support, as service technicians can remotely access the control system upon request.

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

SIDE-POWER

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

#### **Features**

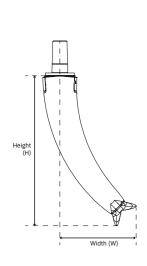
- Continuous development of the best control software possible, cooperating with leading companies in control technologies.
- Self adjusting advanced algorithms also "Any/No Speed" functions for stabilization at anchor.
- Easy upgrade of software ensures future compatibility and improvements.
- Reverse 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.

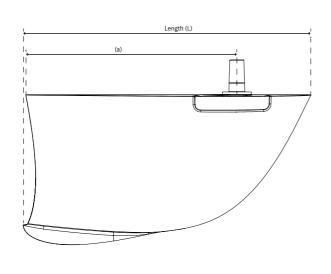






# Vector fins™



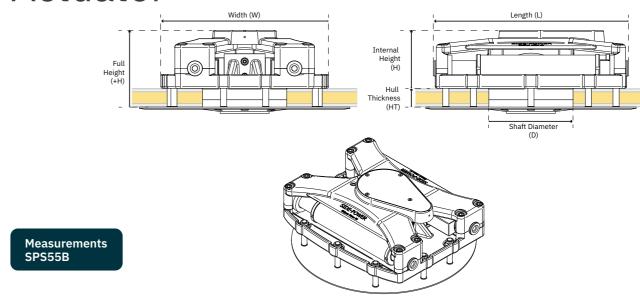


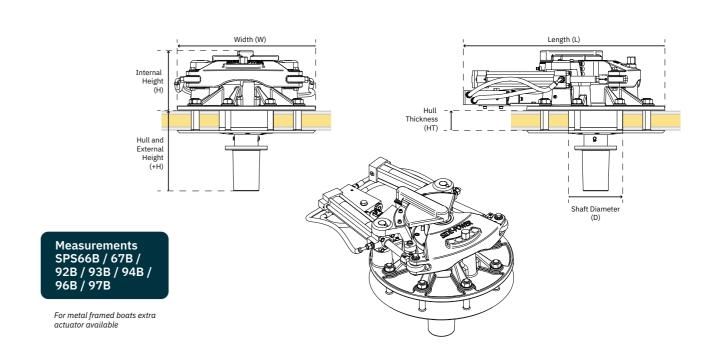


Vector Fins™ (mm)	VF650	VF800	VF1050-66	VF1350	VF1650	VFS1950-M
(H) Height	661	733	847	956.5	956.5	1054.1
(L) Length	1271	1395	1618	1835	1835	2081
(W) Width	337	337	429	485	485	533
Size	VF650	VF800	VF1050	VF1350	VF1650	VF1950-A/M/HS
Weight	0 weight in water					

Patents: sleipnergroup.com/patents

# Actuator





Actuator (mm)	SPS55B	SPS66B	SPS67B	SPS92B	SPS93B	SPS94B	SPS96B	SPS97B
(H) Height	149.5	190	190	260	260	260	346	346
(+H) Additional Height	201	318	-	347	347	-	-	-
(L) Length	510	770	770	871	871	871	871	871
(W) Width	430	650	650	700	700	700	700	700
(D) Diameter	-	175	175	235	235	235	235	235
(HT) Hull Thickness	49	70	159	86	86	237	86	237
Weight	100	105	114	185	185	190	185	190



# **Imprint**

#### **FOOTNOTES**

#### Note 1)

All Sleipner / Side-Power thrusters get their thrust rating from the actual performance you can expect in a boat, at the voltage a normal installation will provide at the thruster. We have chosen to use the net performance at 10.5V/21V, but we also list the effect at 12V/24V for comparison.

All Battery CCA Ratings are stated at the DIN Rating, multiply by 1.9 to equal the SAE rating at 0° F which is ABYC standard. Cold cranking amperes (CCA) is the amount of current a battery can provide at 0° F (–18° C). The rating is defined as the current a lead-acid battery at that temperature can deliver for 30 seconds and maintain at least 1.2 volts per cell (7.2 volts for a 12-volt battery). It is a more demanding test than those at higher temperatures. This is the most widely used cranking measurement for comparison purposes.

Contact you battery supplier/electrical engineer for technical details regarding batteries.

#### Note 2)

Performance thrust equivalent (kgf x 1.4) due to increased leverage, depth of installation and short transverse tunnel.

Depending on displacement and hull shape considerations

The EX series are not recommended as bow thruster on planing hulls, since the external unit may cause unwanted spray. A tunnel thruster is recommended for planing hulls.

#### **IMAGERY**

Sleipnergroup thanks our partners for providing the imagery for this catalogue. Specials thanks to (in alphabetical order) Ferretti, Hallberg Rassy, Princess, Sunseeker Int.

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Some product images used in this brochure are 3D model illustrations and might deviate in color and texture from actual product.

All Sleipner / Side-Power products fulfill the requirements of the relevant CE-directives.

Sleipner\_Leisure Catalogue INT\_EN\_6839\_rev01\_2021









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# We create

world-leading technologies that consistently improve safety and comfort at sea and set the benchmark for the boating of tomorrow.





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