

Safety and precautions manual

Thruster systems

DOWNLOADS



Installation manuals, user manuals, and additional documentation are available digitally. Scan the QR code or use link below to access the complete product documentation online. Technical documentation hub: www.sleipnergroun.com/document-hub



Keep this manual with the product at all times.

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Thank you for choosing a Sleipner product.

Who should read this manual?

This manual contains important safety information for users, installers, and service personnel.

This document provides important safety information and precautions for Sleipner thruster systems and is intended for users and installers of the product. Read this manual carefully before operating, installing, inspecting or servicing the product. It must remain with the product and be accessible to all operators.

Installation manuals, user manuals, and additional documentation are available digitally. Scan the QR code at the front of this document to access the complete product documentation online.

This manual covers AC and hydraulic thrusters available in tunnel and retractable configurations, as well as the following Sleipner DC thruster series:

Proportional thrusters

- E-series
- SXE
- SEP, SRP, SRVP, SRLP
- SEP IP, SRVP IP, SRLP IP
- SXP

ON/OFF thrusters, brushed motor

- SE, SR, SRV, SRL
- SE IP, SRV IP, SRL IP
- SX
- EX

Thrusters with brushed motor that are not ignition-protected

- SE, SR, SRV, SRL
- SEP, SRP, SRVP, SRLP

Liability

Sleipner Motor AS shall not be liable for damage, injury, or loss resulting from:

- Misuse of the product.
- Incorrect installation.
- Failure to comply with the instructions and limitations provided in official product documentation.

It is essential to read, understand, and follow all instructions, warnings, cautions, and procedures contained within this document. Failure to do so may result in serious injury, death, damage to property or equipment, product malfunction, and may affect warranty coverage.

Warnings and cautions requiring special attention are highlighted. Always read and understand the relevant safety information before using this product or performing any procedure described in this document.



WARNING

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury or damage to the product.

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Symbols

The symbols presented in this section are used throughout this safety manual and the complete product documentation. Each symbol represents a specific category of information, such as hazards, mandatory actions, or important notices.

Understanding these symbols helps ensure consistent interpretation of safety information across all product documentation.

Symbol	Meaning
	CRUSH or PINCH HAZARD Risk of crushing or pinching injury from moving mechanical components.
	ELECTRICAL HAZARD Risk of electric shock, arc flash, or electrical injury.
	ROTATING PARTS Risk of entanglement or severe injury from rotating components.
	FIRE HAZARD Risk of fire or burn injury from heat or flammable materials.

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Introduction

The information in this section is essential for the safe operation of the thruster system. All users, including the owner, captain, and crew members, must read and understand this information before operating the system.

Responsibility

Users are responsible for ensuring that the thruster system is operated in accordance with the instructions and limitations specified in this manual.

Intended use



WARNING

Unintended use or operation while cruising may result in loss of control, collision, serious injury, or death.

- The thruster is intended solely for manoeuvring and docking operations.
- Maximum vessel speed during thruster operation: 4 knots.
- Do not operate multiple control panels or remote controls at the same time, as this may result in unintended operation.
- The thruster system is intended for adult users. Children must not operate the system.
- Follow all applicable onboard safety procedures.
- Maintain awareness of surrounding vessels, people, and obstacles when manoeuvring the vessel.
- Know the location of the main switch and how to operate it to stop the thruster system in the event of unintended operation.

Operating limitations



CAUTION

Operating the thruster outside the specified operating limitations may cause severe damage to the thruster system, loss of control, or require operation to be suspended for a specified period.

- Thruster operating time may be limited by the following conditions:
 - DC thrusters: Low battery voltage.
 - DC and AC thrusters: High motor temperature.
 - Hydraulic thrusters: High hydraulic oil temperature.
- Do not operate the thruster while the vessel is out of the water. If such operation is unavoidable during system checks or servicing, run the thruster for no more than 1 second at a time and allow the motor to come to a complete stop before changing direction.
- Allow sufficient cooling time between operations to prevent overheating.
- Keep the main engine running during thruster use to maintain battery charge and ensure expected performance.
- Battery capacity decreases over time and with use. Ensure that the batteries are maintained in good condition and provide sufficient power to operate the thruster system. Replace batteries that no longer meet the required performance specifications.

Abnormal operation



WARNING

Continued operation during abnormal performance may result in sudden thrust loss, mechanical failure, collision, grounding, serious injury, or death.

Immediately stop thruster operation if the system:

- Stops producing thrust.
- Produces abnormal noise.
- Vibrates excessively.
- Operates irregularly.

Inspect or service the system only after it has been disconnected from the power supply.

Accidental start-up

WARNING

Accidental start-up may result in severe injury or death.

- Switch off the control device when not in use.
- If a manual main switch is installed, switch it off when the thruster system is not in use to prevent accidental activation.

Rotating propellers

WARNING

Rotating propellers and water suction may cause severe injury or death.

- Ensure no persons, animals, or objects are in the water near the thruster tunnel before activation.

Electric thruster

WARNING

Risk of electric shock from high-voltage components that may result in severe injury or death.

- Do not open, modify, or service electrical components. Electrical work must only be performed by qualified personnel.
- Always disconnect the main power supply before servicing or inspecting the thruster system.

Hydraulic thruster systems

WARNING

Hot pressurized hydraulic fluid can cause serious injury or death.

- Relieve system pressure before inspection or servicing.

Inspection and service

WARNING

Accidental activation during inspection or servicing may result in serious injury or death.

- Assess potential risks before operating, inspecting, or maintaining the thruster system.
- Stop thruster operation.
- Switch off the control system.
- Always disconnect the main power supply before servicing or inspecting the thruster system.
- Verify that the system is fully powered down before inspection or maintenance.
- Wear appropriate personal protective equipment (PPE).

CAUTION

Failure to inspect the thruster system may result in system failure.

- Ensure all electrical components, connectors, plugs, and cable joints are installed in dry locations.
- Ensure to keep loose objects away from the thruster motor to prevent interference, short circuits, or damage.

This section contains information essential to the safe and correct installation and servicing of the thruster system. Anyone who installs or services the thruster system, including qualified installers, service technicians, and marine electricians, must read, understand, and follow this information before beginning work.

The installer is responsible for ensuring that installation and servicing comply with all applicable regulations, codes, and standards, including those of the vessel's flag state, classification society, and local authorities.

General safety



WARNING

Failure to follow the installation instructions may result in severe injury or death, damage to the vessel, or damage to the product.

- Download, read, and follow the instructions in the installation manual.
- Where required by local regulations, installation and servicing must be performed by qualified personnel, such as a licensed electrician.
- Do not install the thruster system in positions requiring modification of hull stiffeners or stringers, as this may compromise vessel structural integrity.
- If structural modification is necessary, consult the vessel builder or a qualified naval architect before installation.



WARNING

Accidental start-up may result in severe injury or death.

- Ensure that the power supply is disconnected before working near the propeller.
- Ensure that no personnel are in the vicinity of the propeller when testing or operating the thruster.
- Operation without propeller resistance is not recommended. If such operation is unavoidable during system checks or servicing, run the thruster for no more than 1 second at a time and allow the motor to come to a complete stop before changing direction.

Ignition protected systems



WARNING

Improper installation, modification or disassembly may create an explosion or fire hazard that may result in severe injury or death.

- Follow applicable marine safety regulations and installation standards.
- Do not tamper with, open, or modify ignition-protected equipment.
- Only install ignition-protected equipment in areas where it is required due to the risk of gasoline vapour.

Sleipner S-Link™ systems



CAUTION

Connecting unauthorized equipment directly to the S-Link™ bus may void warranties for connected Sleipner products.

Only Sleipner S-Link™ products or authorized third-party control equipment may be connected directly to the S-Link™ bus. Non-authorized third-party equipment must always be connected through a Sleipner interface product.

If third-party control equipment is interfaced to the S-Link™ bus through a Sleipner interface product, at least one Sleipner control panel must be installed to enable efficient system diagnostics and troubleshooting.

Retractable thrusters



WARNING

Accidental activation of the retract mechanism can cause serious injury or death due to the high forces generated when closing the hatch.



Before installing the retractable thruster or performing work around or inside the retract hatch, disconnect the power supply to the retract mechanism to prevent accidental activation. Do not restore power until all work is complete and the area is clear. If the hatch must be operated while work is being performed nearby, use extreme caution and ensure that all personnel are clear of the moving parts.

Electrical



WARNING

High motor temperatures and improper cable routing may create a fire hazard or electrical short circuits that may result in severe injury or death.

- Do not open, modify, or service electrical components. Electrical work must only be performed by qualified personnel.
- Install motors in dry, well-ventilated compartments.
- Ensure motors installed in small compartments are dry and well-ventilated to allow the electric motor to cool.
- Avoid prolonged exposure of motors, cables, and electrical components to water or moisture.
- Keep combustible materials and loose objects away from the motor area.
- Route electrical cables away from high-temperature surfaces.
- Ensure that the thruster power supply circuit uses correctly sized cables and includes a fuse of the recommended rating and a battery isolation switch.
- Ensure that all installed cables are free from damage.

AC thruster



WARNING

Risk of electric shock from high-voltage components that may result in severe injury or death.

- Electrical work must only be performed by a licensed electrician.

Thrusters with brushed motor that are not ignition-protected



CAUTION

Carbon dust generated by DC electric motors may contaminate nearby equipment and stored items.

- The thruster must be installed in a compartment separate from storage areas to prevent carbon dust from contaminating stored items and nearby equipment.

Proportional thrusters



CAUTION

An under-rated battery management system (BMS) may suddenly disconnect the load, which could result in hazardous operating conditions.

- Ensure that the lithium battery system is capable of delivering the required continuous thruster current.
- Only high-quality lithium battery systems designed for maritime applications should be used.
- All Sleipner proportional thrusters are compatible with lithium batteries.

Lithium batteries for Brushed DC thrusters

CAUTION

High-capacity lithium batteries may supply a higher operating voltage than ON/OFF thrusters are designed to handle. Operating the thruster above its rated voltage may reduce service life, accelerate component wear, and cause damage to the thruster system. Operation outside the specified voltage ratings will void the warranty.

- Do not exceed the rated battery supply voltage.

Hydraulic thruster

WARNING

Hot pressurized hydraulic fluid can cause serious injury or death.

- Wear appropriate personal protective equipment (PPE) when working on the hydraulic system.

External hydraulic power systems

CAUTION

Incorrect hydraulic system configuration may damage the thruster system.

If the hydraulic power pack is not supplied by Sleipner, ensure that the following requirements are met:

- Install an oil filter to maintain oil cleanliness.
- Install an oil cooler when required.
- Maintain hydraulic oil temperature between 40–60°C.
- Ensure hydraulic pressure and flow remain within specified operating limits.
- Install a shock valve set to 10–15% above maximum system pressure.

**Service and support**

Find your local certified Sleipner dealer for expert service and support.

[Visit sleipnergrouper.com/support](https://www.sleipnergrouper.com/support)

**Spare parts and documentation**

Find spare parts, technical documentation, and additional resources for your Sleipner product.

[Scan the QR code to access the online resources.](#)

**Patents**

Learn more about Sleipner's patented designs and technological innovations in the marine industry.

[Visit our website for more information.](#)

**Fault code navigator**

Enter a fault code to view its description and troubleshooting guidance. A complete fault code list and troubleshooting guide are also available online.

[Scan the QR code to open the navigator.](#)

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Introduction:

At Sleipner Group, we prioritize sustainability and encourage the repair and re-manufacturing of products to extend their life cycles. If disposal is necessary, please follow these guidelines to recycle and manage waste responsibly, ensuring our efforts align with environmental protection efforts.

Electric motors and electronics

- Disconnect from any power sources and dismantle them carefully.
- Recycle components through certified e-waste recycling centers that can adequately handle and recover electronic materials.
- Dispose of any non-recyclable electronic parts according to local environmental regulations.

Metals:

- Collect and sort metal parts for recycling as scrap metal.
- To increase recycling efficiency, ensure that metals are clean and free from non-metal attachments.

Plastics:

- Identify recyclable plastics based on local recycling guidelines.
- Remove any non-plastic components and clean them before recycling to improve the quality of the recycled material.

Hazardous materials:

- Correctly identify any hazardous substances within components, such as batteries or capacitors etc.
- Follow local regulations for the safe disposal of hazardous materials to prevent pollution and protect environmental health.

General disposal instructions:

- Consult local recycling programs to determine the acceptability of various materials.
- Use authorized disposal services to ensure compliance with environmental standards.

Safe disposal practices:

- Adhere to local laws and regulations for waste management to minimize environmental impact and ensure community safety.

This guide is designed to help reduce our products' environmental footprint through responsible end-of-life management. Please contact your local waste management supplier or our support team for more specific disposal information or further assistance.

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Sleipner Group Sustainability

Sleipner Group is committed to leading the way in sustainable marine technology. Our dedication to the planet and its people drives every aspect of our business, from research and development to production and community engagement.

[Scan the QR code to visit our website.](#)

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1. Sleipner Motor AS (The “Warrantor”) warrants that the equipment (parts, materials, and embedded software of products) manufactured by the Warrantor is free from defects in workmanship and materials for purpose for which the equipment is intended and under normal use and maintenance service (the “Warranty”).
2. This Warranty is in effect for two years (Leisure Use) or one year (Commercial and other Non-leisure Use) from the date of delivery/purchase by the end user, with the following exceptions:
 - (a) For demonstration vessels, or vessels kept on the water, the dealer is considered as the end user from 6 months after their launch of the vessel;
 - (b) The warranty period starts no later than 18 months after the first launch of the vessel.Please note that the boat manufacturer and dealer must pay particular attention to correct maintenance and service both by the products manuals as well as general good practice for the location the boat is kept in the period the boat is in their care. In cases where the 6 and 18 months grace periods for boat builders and dealers are passed, it is possible to obtain a full warranty upon inspection and approval of the warrantor or such representative.
3. Certain parts, classified as wearable or service parts, are not covered by the warranty. A failure to follow the required maintenance and service work as described in the product manual render all warranty on parts or components directly or indirectly affected by this void. Please also note that for some parts, time is also a factor separately from actual operational hours.
4. This Warranty is transferable and covers the equipment for the specified warranty period.
5. The warranty does not apply to defects or damages caused by faulty installation or hook-up, abuse or misuse of the equipment including exposure to excessive heat, salt or fresh water spray, or water immersion except for equipment specifically designed as waterproof.
6. In case the equipment seems to be defective, the warranty holder (the “Claimant”) must do the following to make a claim:
 - (a) Contact the dealer or service centre where the equipment was purchased and make the claim. Alternatively, the Claimant can make the claim to a dealer or service centre found at www.sleipnergroupp.com. The Claimant must present a detailed written statement of the nature and circumstances of the defect, to the best of the Claimant’s knowledge, including product identification and serial nbr., the date and place of purchase and the name and address of the installer. Proof of purchase date should be included with the claim, to verify that the warranty period has not expired;
 - (b) Make the equipment available for troubleshooting and repair, with direct and workable access, including dismantling of furnishings or similar, if any, either at the premises of the Warrantor or an authorised service representative approved by the Warrantor. Equipment can only be returned to the Warrantor or an authorised service representative for repair following a pre-approval by the Warrantor’s Help Desk and if so, with the Return Authorisation Number visible postage/shipping prepaid and at the expense of the Claimant.
7. Examination and handling of the warranty claim:
 - (a) If upon the Warrantor’s or authorised service Representative’s examination, the defect is determined to result from defective material or workmanship in the warranty period, the equipment will be repaired or replaced at the Warrantor’s option without charge, and returned to the Purchaser at the Warrantor’s expense. If, on the other hand, the claim is determined to result from circumstances such as described in section 4 above or a result of wear and tear exceeding that for which the equipment is intended (e.g. commercial use of equipment intended for leisure use), the costs for the troubleshooting and repair shall be borne by the Claimant;
 - (b) No refund of the purchase price will be granted to the Claimant, unless the Warrantor is unable to remedy the defect after having a reasonable number of opportunities to do so. In the event that attempts to remedy the defect have failed, the Claimant may claim a refund of the purchase price, provided that the Claimant submits a statement in writing from a professional boating equipment supplier that the installation instructions of the Installation and Operation Manual have been complied with and that the defect remains.
8. Warranty service shall be performed only by the Warrantor, or an authorised service representative, and any attempt to remedy the defect by anyone else shall render this warranty void.
9. No other warranty is given beyond those described above, implied or otherwise, including any implied warranty of merchantability, fitness for a particular purpose other than the purpose for which the equipment is intended, and any other obligations on the part of the Warrantor or its employees and representatives.
10. There shall be no responsibility or liability whatsoever on the part of the Warrantor or its employees and representatives based on this Warranty for injury to any person or persons, or damage to property, loss of income or profit, or any other incidental, consequential or resulting damage or cost claimed to have been incurred through the use or sale of the equipment, including any possible failure or malfunction of the equipment or damages arising from collision with other vessels or objects.
11. This warranty gives you specific legal rights, and you may also have other rights which vary from country to country.

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