

CONFIDENCE BY CONTROL

2008



SIDE-POWER
Thruster systems





YOU'VE GOT THE POWER



SIDE-POWER THRUSTER SYSTEMS

CONFIDENCE BY CONTROL

SIDE-POWER



by Sleipner Motor AS

100 years of service

2008 marks Sleipner Motor's 100th year servicing the boating community. While our product development focuses on making boating easier, safer, more accessible and more comfortable, our historic commitment has always been to offer the highest quality and reliability to our customers. Over the years we have grown to be the global leader in thrusters (with over 100,000 put into service) and we are proud to know that our products have enhanced the boating experience for so many people.

It makes docking easy

As marinas get more crowded and slips become tighter, docking a boat safely is more challenging than ever before. Thrusters give you total control of your boat and allow you to maneuver into and out of tight spots with ease.

Confidence in all conditions

Boating is meant to be fun. Why end your day or week on the water with a stressful experience? A Sidepower thruster offers the help you need to be in full control when docking and departing regardless of wind conditions and currents.

Simple shorthanded boating

A thruster makes you less dependent on having a skilled crew. The independence a thruster provides will allow you to use your boat whenever you want, whether alone or with others.

"There are two types of boaters: those who have a bow thruster and those who wish they had one!"

- Eric Vader -
World Boater

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FAIRLINE

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SIDE-POWER THRUSTER SYSTEMS

CONFIDENCE BY CONTROL

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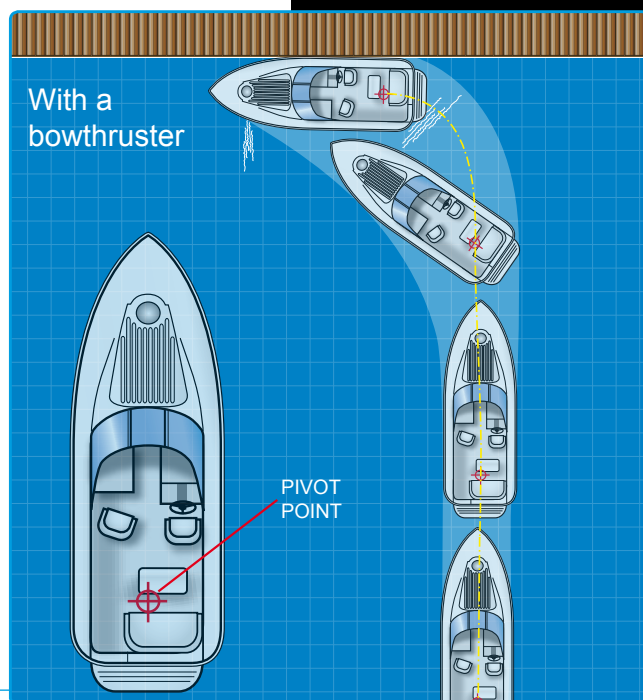
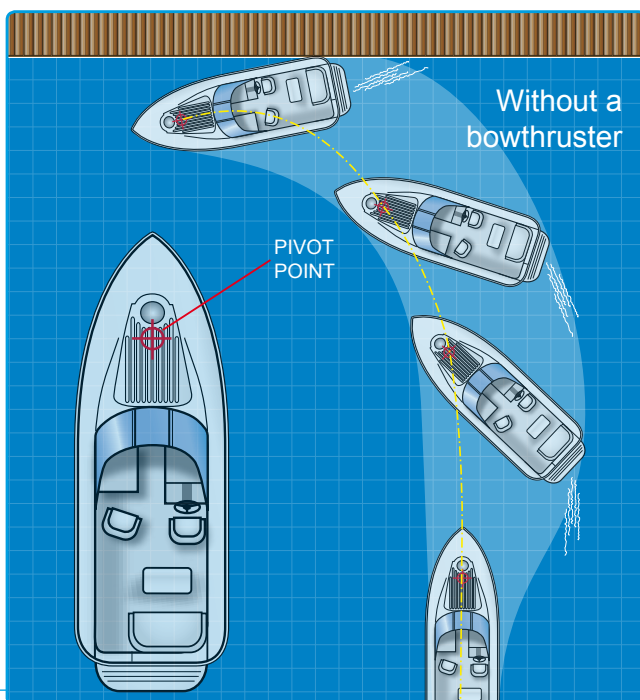
The popularity of bowthrusters is easy to understand as it greatly improves the boating experience for all boaters. And, while most people realize that a thruster moves the bow sideways, many may not fully comprehend how thrusters effect the boats motion and why a thruster makes such a difference.

Slow speed manoeuvring is a challenge for many boat operators. Single engine boats generally have less slow speed control than twin engine boats. A single engine boat really has no tool other than aggressive driving to counter the feeling of “losing” the bow in crosswinds, not to mention steering while reversing. While a twin engine boat is more controllable, it is by no means simple to handle in tight spots. It takes skill and training to become proficient at docking a boat without a bowthruster.

Many boaters are also challenged by the fact that a boat in water reacts very differently than a car on the road. While a car will follow its “bow” by steering the front wheels, a boat actually steers by pushing the stern over so you literally have to “go around” your bow, of course while moving forward or backward. By having to “go around” your bow, you also need a lot more space. And then of course, you are in a liquid so that it does not stand still and are affected by wind and currents adding even more factors to consider.

With a bowthruster, you steer the bow of the boat and make the boat move like a car, and you can even move the bow sideways without moving forward or backward, fine-tuning the docking action or tight spot manoeuvre. Today, bowthrusters are installed in all kind of boats from 20' / 6m and up. These installations are easy to do both in new boats and as retrofits as well. The group with arguably the biggest advantage are single engine boats, and it is now common for even boats with outboard engines to fit a bowthruster. Some might be worried about cutting a “big hole” in their boat below the waterline, but in fact, fitting a fiberglass tube actually increases both the rigidity and strength of the hull.

While installing a thruster may be a larger investment than some other accessories (like electronics), the upside is that it adds more long term value to the boat because it does not go out of fashion or is likely to ever need replacement.



TOTAL CONTROL

with a bow- and stern thruster

Even with twin engines and a bow thruster you may not always have full control of the boat when at slow speeds. Engaging the main propellers usually results in sudden movements, making smaller movements in restricted spaces difficult to achieve by the use of the main engines.

The solution is to install a stern thruster to gain total control of your boat. The Sidepower dual joystick panel and docking panel provides control of both thrusters with just one hand.

A stern thruster consists of a standard Sidepower thruster mounted in a special tunnel fixed onto the transom of the boat, either by bolts or bonding. These tunnels are designed to enhance the performance of the thruster, and the fiberglass/composite construction makes them extremely strong and durable.

Many installers find a stern thruster installation easier than a bow thruster installation as it normally does not include fiberglass work.

Stern thruster kits are available to suit boats from 20ft/6m up to the superyacht size.



Add-on cowls

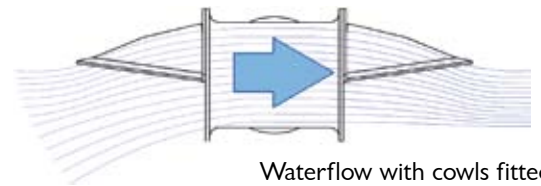
Sidepower offers add-on cowls for the sternthrustrer tunnels. These are effective to redirect waterflow away from other obstructions (trimtabs, sterndrives etc.) on the transom. These add-on cowls are equally effective for installations where the stern tunnel is close to the waterline as they prevent ventilation.

External sternthrustrer assembly

Finally a functional stern thruster option for boats with twin stern drives! Sidepower now offers a complete external sternthrustrer assembly, specially designed for installation on boats with twin stern drives. It utilizes special cowls to enable good performance by diverting the waterflow past the stern drive legs, which normally blocks the waterflow and the thrust. The units come pre-assembled, wired and sealed in the waterproof box, and only require a small hole into the boat's transom to attach the power and control cables. The cable connection points are fully sealed, so that it is Ignition Protected and can be installed in gasoline powered boats. This stern thruster option can also be the best choice for boats without stern drives, if the inside configuration of the boats stern makes a standard thruster installation impractical. Available with three different size thrusters, SE60, SE80 and SE100. See special product information for more details. Patents pending.



Sternthrustrer assembly



Waterflow with cowls fitted



Sternthrustrer tunnel with cowls



External sternthrustrer assembly shown without cowls

HIGH SAFETY

with IP Thrusters



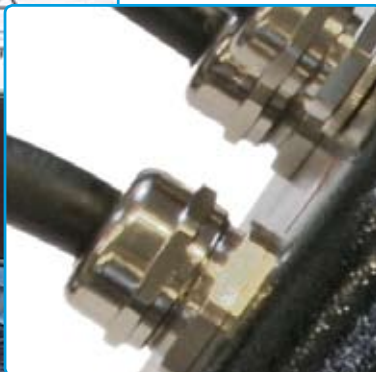
For several years, Side-Power has manufactured ignition protected thruster models. Now, the second generation is here with added features and many more models.

High safety standards

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.

Ignition Protected Features

- Certified to ISO 8846 Ignition Protected standards
- Water Proof (not for submerged mounting)
- Stainless cable seals
- Manufactured, tested and delivered as a ready sealed unit, ensuring that the installer does not have to fit any other parts that can jeopardize the hermetical seal
- Supplied with 1 m/3.28 ft main power cables and termination blocks for easy and safe installation
- Supplied with 1 m/3.28 ft plug and go control cable
- Ignition protected housing can be opened and thereby retains serviceability of components inside the enclosure



DC Power Control for more precision

With many boat customers now having had several boats with thrusters, many choose to upgrade to more powerful versions to be sure that the thrusters work well for them in all situations. However, very powerful single speed thrusters can, in light weather conditions, be a bit difficult to use as they push the boat too fast. The solution is to fit the new Sidepower DC Power Controller which enables proportional speed control of a DC electric thruster. By also controlling the thrusters power, you get even more precise handling of the boat in all conditions.

Another great advantage is that when you run the thruster at less than full power, the usable run time is extended, with close to continuous usage being possible when you are running the thruster at less than 50% of full power (percentage of thrust with continuous duty depending on thruster model).

Installation

The DC Power Controller is built with the same high safety standards as all Sidepower 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.

This controller becomes an integral part of the thruster system together with the “Yacht series” proportional control panels and have intelligent safety features monitoring both the thruster motor as well as its own function and performance.

DC Power Control features

- Plug and play control cable wiring
- Easy to access, solid main cable terminals
- Easy to place as it can be located anywhere between the batteries and the thruster, also in areas requiring ignition protected parts
- Reliable solid state switching
- Increases the thrusters directional solenoid's lifetime because the solenoids will not switch with load
- IPC intelligence for extra safety
- Active cooling for continuous usage
- Can be retro-fitted to compatible Sidepower thrusters



HYDRAULIC thruster systems

There is a limit to the power you can practically generate with DC electrical systems, so for super yachts and other larger, heavier vessels DC thrusters are rarely an option.

Larger thruster models and extended run time make hydraulic thrusters the ideal choice for commercial crafts and other less maneuverable yachts. In conjunction with a good hydraulic system these thrusters offer continuous operation and you can get variable speed control with proportional control and valves.

With models from 100 to 550kg of thrust for use as either bow or stern thrusters, Sidepower has suitable models for a wide variety of yachts and commercial vessels. To ensure matching quality of all components in a hydraulic thruster system, we also offer complete hydraulic systems with guaranteed performance and reliability.

Please see the separate hydraulic system brochure or ask your dealer for more details.



SIDE-POWER

- the boatbuilder's choice

Leading boatbuilders all over the world choose Sidepower for performance, reliability, ease of installation and unrivalled safety features. This commitment to quality and product development has made the Sidepower range of thrusters the benchmark in the industry.

Performance

The high performance of a Sidepower thruster is a result of our continuous efforts in product development and testing.

- propulsion technology know-how
- lightweight composite propellers
- purpose-built high power electric motors
- streamlined gearhouse design

Installation

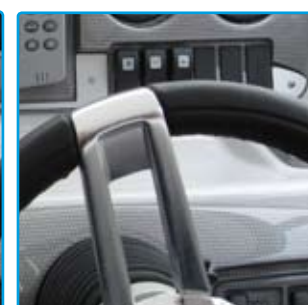
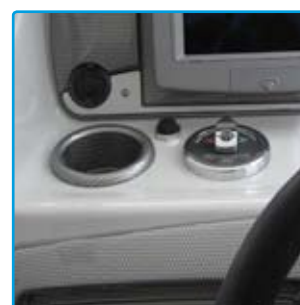
Based on our experience and co-operation with major boatbuilders we have designed our systems to ensure it is easy to install a Sidepower thruster correctly.

- compact-sized units
- "Plug &Go" electric wiring
- easily accessible battery cable terminals
- easy installation of control panels
- fast and safe propeller mounting with locknut
- professional and solid GRP/composite stern thruster kits
- easy access zinc anodes
- easy fit sealed gearlegs

Safety & Reliability

The safety of the boat and those on board is our utmost priority. All Sidepower thrusters include standard features that protect against operator errors and technical problems, minimizing potential consequences. Sidepower thrusters are purpose built for professional use with no compromise on quality.

- overheat protection of electric motor
- mechanical protection of drive gear
- self-locking "high pressure" contacts
- extra wear and heat protection of internal wires
- non conductive and self extinguishing solenoid covers
- control panels have child safe On/Off (instant On) and automatic deactivation timed from last use
- in-house manufacturing, assembly and quality control
- 2-year limited warranty



BENEFITS

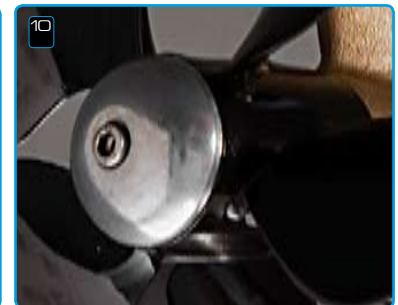
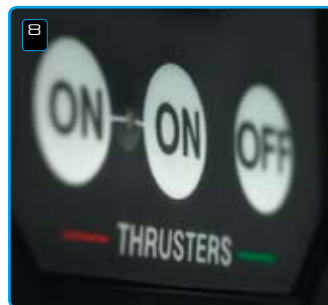


	safety	lifetime & reliability	better performance	easy installation	easy service
Control panels with child safe on/off and time lapse auto-off prevents accidental or unintentional operation	✓				
Self re-setting overheat protection automatically stops the thruster before overheating	✓	✓			
Intelligent direction change delay simplifies operation and prevents damage from operator error	✓	✓			
Control system only accepts continuous run signal for 3 min. User warning before overheat protection activates	✓	✓			
Sidepower-developed special solenoid contactors ensures correct function and maximum lifetime in a boat	✓	✓	✓		
Closed solenoid contacts prevents dust from getting into the contacts	✓	✓		✓	
External main power terminals ensures fast, easy and safe connection of heavy power cables	✓			✓	✓
GRP tunnels are purpose built for thruster applications, they are precise, strong, and protected against osmosis		✓	✓	✓	
Lightweight composite propellers on all thrusters are strong yet lightweight, and always perfectly shaped for high power and low noise		✓	✓		
Lock nut fastening of propellers provides easy and reliable fitting of the propellers		✓		✓	✓
All panels, thrusters and accessories have "Plug & Go" wiring for easy, correct and reliable wiring		✓		✓	✓
Zinc anodes outside propellers makes them easy to access and change without having to remove propellers		✓		✓	✓
Electromotors designed and rated for actual voltage in boat ensures correct performance and efficiency in real life conditions		✓	✓		
Oil filled gearleg with long life special seals ensures a long, trouble free lifetime of the thruster		✓	✓	✓	
Hardened spiral-cut gears gives you extended lifetime, low noise and more compact gearhouse design		✓	✓		
All bearing and sealing surfaces machined in CNC machines ensures correct tolerances, surfaces and angles		✓	✓		
Slim, hydrodynamically shaped gearlegs minimize resistance and possibility for cavitation			✓		
Galvanic isolation of underwater parts remove chance of serious failure due to current leaks or accidental short circuits	✓	✓			
Intelligent Power Control (IPC) automatically safeguard against inherent risks in high-current equipment.	✓	✓	✓		✓

THE DIFFERENCE

is in the details

- 1 Compact sized and modern styled control panels with hidden screw heads.
- 2 The round cut-out hole, the pre-fitted seal and easy front mount with hidden screws ensures fast and flawless installation.
- 3 Sidepower thrusters come standard with an integrated processor, protecting the unit against operator errors and technical problems
- 4 Lightweight, sturdy and non-corrosive, composite propellers are perfect for thrusters of all sizes.
- 5 Hardened spiral-cut gears for extended lifetime, low noise and more compact gearleg design.
- 6 Machined and assembled to perfect tolerances, using high end purpose made components ensures extended lifetime for professional use.
- 7 Sidepower developed electric motors for maximum performance and efficiency in real-life onboard conditions. Details increasing safety and ease of installation are standard.
- 8 The child safe on/off system minimizes the risk of accidental or unintentional operation.
- 9 While other joysticks might appear similar, the unique Sidepower joysticks are made of fully UV protected silicon based rubber to ensure long term reliability.
- 10 Sidepower's zinc anodes are outside the propellers for easy access and replacement



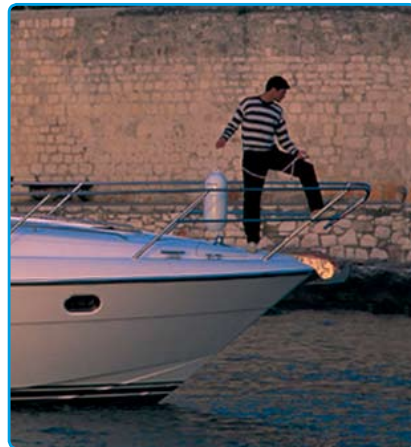
THRUSTER sizing

By definition, any thruster will to some extent do a job in any boat. The key is to ensure that the chosen thruster will do the job you want it to in your boat. This is one of two main factors deciding the right thruster size for each boat.

Today most pleasure craft over 35' have a bow thruster as standard equipment which normally will meet the expectations of most customers when using the boat under normal weather conditions. The sizes used by the boatbuilders will vary depending on the boat's intended usage and price level. In today's production boats, the typical thruster will push the boat's bow against a direct sidewind of 21-23 knots.

Some custom built or very high end boats may have a high power bow thruster that pushes the bow against a direct sidewind of 24-26 knots.

For boatowners that use their boats in more demanding conditions or have for example a strong current in their local marina, or for other reasons require very high performance, many boatbuilders offer upgrades to a more powerful thruster system. While most pleasure crafts will have ample power in most conditions when the thruster can push the bow against a direct sidewind of 25-27 knots, this year's addition of the "DC Power Control" product will allow for even more powerful DC electric thrusters to be used comfortably.



The thruster's performance on a boat is basically determined by the boat's wind area, the wind area distribution and the thruster's tunnel position in the hull. By knowing these factors we can calculate the wind pressure on the boat and the centre point of this wind pressure. From these calculations we can determine what thrust is needed to counter the wind pressure with the given thruster position. The boat weight is normally not a major factor for most pleasure craft.

Charts

The charts shown here are general guidelines and your dealer will be able to give more detailed advice on the thruster size to use for your boat.

Example

If you have a 45'/13,5m boat, you have 4 thrusters to choose from within "normal" sizing.

If your boat does not have a lot of wind area and you use it mostly in good weather conditions, you can choose the least powerful thruster, the SE80 in a 185mm tunnel.

If you want to keep the ø185mm tunnel dia, but require more power, the SE100 is a good choice.

If you have room for a larger tunnel diameter, there are models in both ø215mm and ø250mm tunnels that are suitable for this boat size, so there are many options.

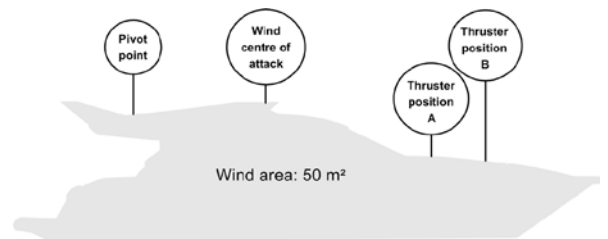
Please note that generally, a larger tunnel diameter will be more energy efficient and generate less noise.

Conclusion

The two main factors that decide correct thruster sizing are:

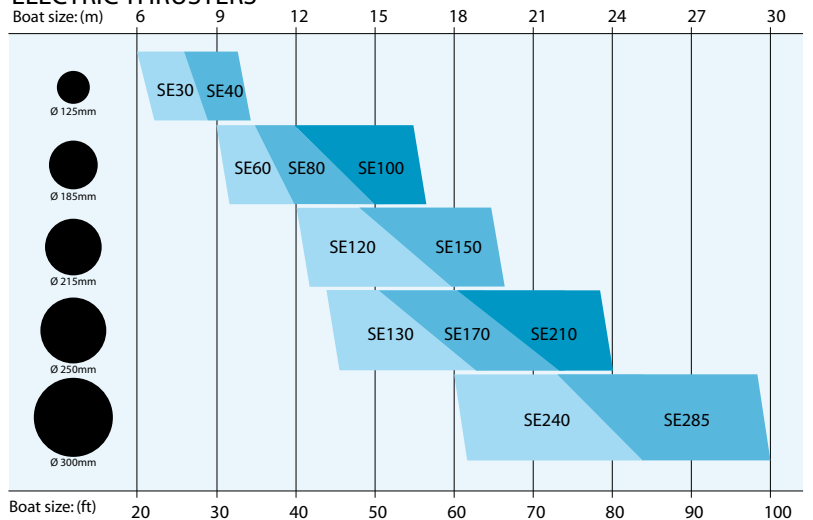
- boatowner's performance requirements
- boat size, type and shape

Thruster model	SE130/250T	SPI70/250TC
Thruster position A	21,2 kn	23,9 kn
Thruster position B	22,4 kn	25,2 kn

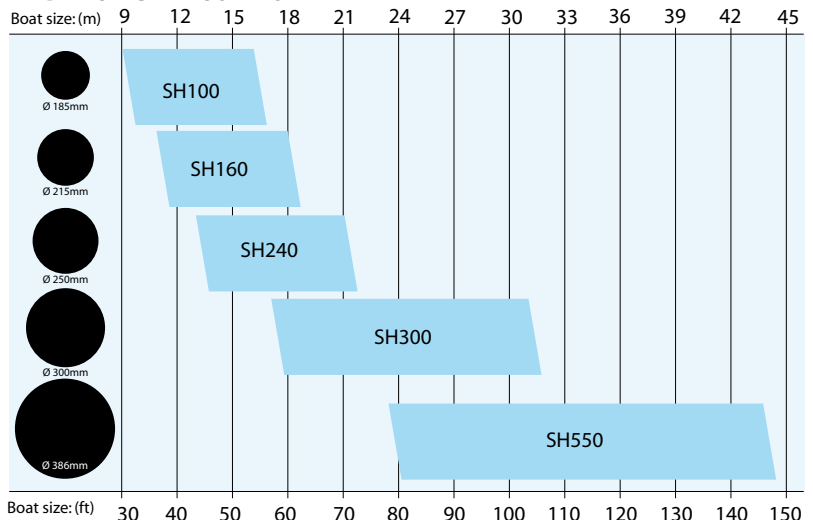


The example above shows the different wind speeds that two different thruster installations can counter and the increased leverage gained when the thruster is positioned further forward.

ELECTRIC THRUSTERS



HYDRAULIC THRUSTERS



THRUSTER FEATURES

Q-prop

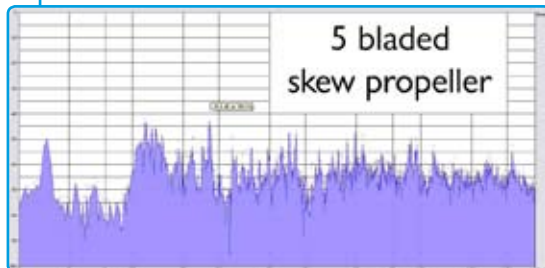
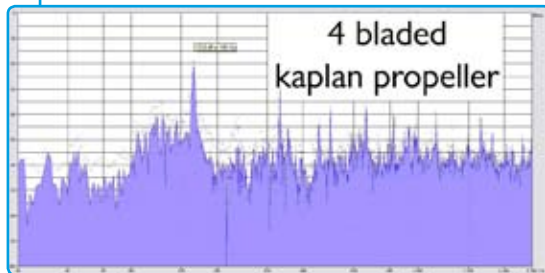
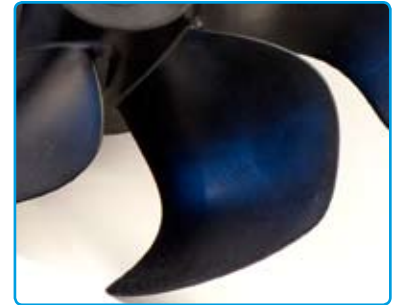


The new 5 blade special skew propellers is the result of over 2 years of development work and thousands of tests. They have been designed to reduce the noise level, while maintaining the exceptional efficiency of the old 4 blade Sidepower propellers. This goal was achieved, and we even chose to make a little bit more aggressive on some models, increasing the thrust on most thrusters. Please see individual information on each new thruster for more details.

Details:

- 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 Sidepower models during 2008 except the SP550
- Upgrade kits are available for most “SP” series thrusters with special adaptors

* Actual noise reduction will vary with boat type and thruster installation.



NOISE AND EFFICIENCY

Principally, more blades on a propeller means that you spread the load more so that the pressure peaks (heard as noise) are individually lower. Another factor is that the majority of noise you hear in a boat from a thruster is what is called structural borne noise, that travels through the boats structure. Principally, a higher frequency will travel a shorter distance. However, there is a “cost” also to add more propeller blades. Principally you loose efficiency because more blades means that they are closer together and thereby will disturb the water for the “next blade”. More blades also means more friction. The skew shape of the blades “slice” through the water “gradually” instead of hitting the water all at the same time with a straight edge. This makes for a smoother noise picture, again reducing the level of the “peaks” as seen in the frequency analysis. But also skew must be used carefully as it increases the edge length of the propeller and thereby the friction in the water, reducing the propellers efficiency.

The key is obviously to find the best compromise between noise and efficiency, and we have made our choice based on thousands of carefully documented tests. We have accomplished maintaining the exceptional efficiency of our old propellers by sculpting the new propellers very perfectly and changing to a new high-tech composite material allowing a thinner blade to reduce friction.

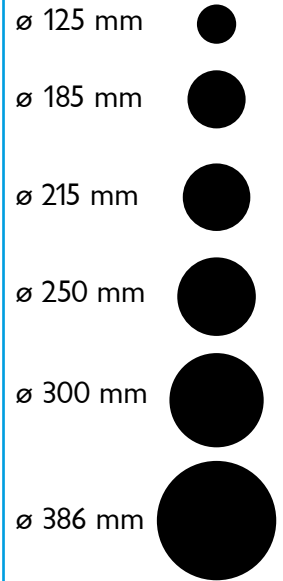


Tunnel diameters

With the ever growing demand for increased performance, we continue to expand our offering of tunnel diameters to allow customers to choose more powerful thrusters in tunnel sizes that will fit in their boat. This year we launch a 215mm tunnel, between the existing $\varnothing 185\text{mm}$ and $\varnothing 250\text{mm}$ sizes. This size is very important for boat sizes around the 50' / 15m mark, where we have seen that boats have become much more voluminous than before, requiring larger thrusters to achieve the same maneuverability. We will continue to launch new tunnel diameters where appropriate to let our customers get the performance they want in their boats.

Facts about tunnel sizes:

- Principally a larger tunnel diameter will always be more energy efficient than a smaller tunnel diameter for the same thrust. The factor is water speed, and this is decided by the amount of water you move through the possible opening which is the square area of the tunnel less the area blocked by the thrusters gearleg.
- The opening in the boat hull is not only the circular size of the tunnel diameter. Because the hull is angled, you get a much larger oval opening, and this makes a larger tunnel diameter more difficult to fit properly into the hull.

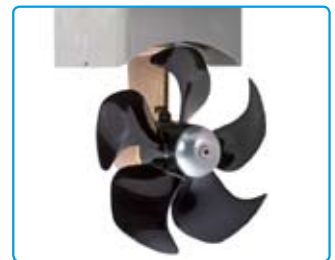


Propulsion systems



SINGLE PROPELLER:

A properly engineered single propeller system will be the most energy efficient thruster. Its compact design fits easily into narrow bows making it the perfect match for our smaller models. With more than 60.000 single propeller thrusters in use, the Sidepower single series system has proven its reliability.



TWIN PROPELLERS:

The twin propeller system can give more thrust than a single propeller system in the same tunnel diameter. This is our choice for our mid-range models where high thrust is required in a small tunnel diameter. Due to the compact design and high performance, the twin models have become the thrusters of choice among boat builders around the world.



TWIN COUNTERROTATING PROPELLERS:

Two counter-rotating propellers can give the most thrust at a good performance ratio in a minimal tunnel diameter. This system is used in our larger thrusters for maximum power. The TC models are the favourite thrusters among leading boatbuilders for their high-end yachts.



THRUSTER FEATURES

Intelligent Power Control



The Sidepower unique thruster controller that intelligently protects the thruster from potential inherent problems in all high current applications as well as user faults. It includes several important safety features imperative in a product with such high power, run by DC electrics, as a thruster.

Details:

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



Galvanic separation / isolation



The gearhouse / drive legs of most Sidepower DC Electric thrusters are now 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 effected as they could be with direct electric contact.

Details:

- 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.



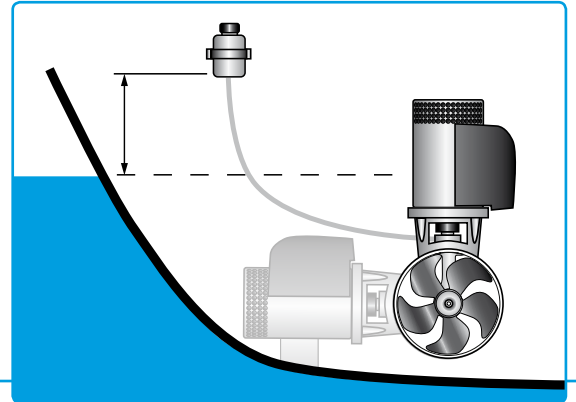
Gravity Feed Lubrication



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.

Details:

- 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.



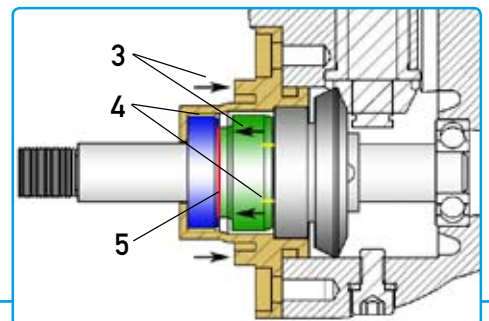
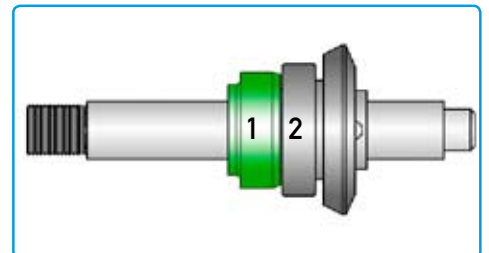
Sealed Drive / Lifetime Lubricated



Sealed gear leg 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.

Details:

- “Mechanical” seals with surfaces of ceramic and carbon for ultimate security against water intrusion
- 1) Shaft part of mechanical seal. It has an internal spring and rotates with the propeller shaft.
 - 2) Ball bearing. The outer ring is fastened in the housing and the inner ring support the propeller shaft/crown gear and sealing part.
 - 3) When the lid/housing part of the seal is fitted, the spring compress, pushing the ceramic and carbon surfaces together.
 - 4) Both the shaft and lid parts of the seal assembly sits still in their seats with rubber seals, ensuring a secure seal against the shaft and housing
 - 5) The polished ceramic and carbon surfaces form the only moving parts of the seal, ensuring sealing with a very high pressure resistance, thereby ensuring an extreme lifetime.



SIDE - POWER

Going into our centennial year, the Sidepower range of thrusters has taken another giant leap forward. The product range is larger than ever, and there are several important product upgrades in all product categories.

DC electric thruster series

The new models throughout the range have increased thrust and several important new features as described in detail previously in this brochure. We are also launching a totally new tunnel diameter and the DC Power Controller that will further improve precise maneuvering.

Ignition protected thruster series

We are launching no less than 4 new Ignition protected thrusters this year, now also offering large thrusters in IP versions. This is primarily important for larger boats that can now securely fit stern thrusters where it can be difficult to ensure a totally dry installation for the electric motor.

Hydraulic thrusters

The hydraulic thruster series also have a new model, and will with the new propellers be more powerful and quiet than ever before.



DC thrusters



SE 30/I25 S



Thrust at 10.5V/21V* (kg • lbs)	30 • 66
Thrust at 12V/24V* (kg • lbs)	40 • 88
Typical boat size (ft • m)	20' - 28' • 6 - 8.5
Tunnel I.D. (mm • in)	125 • 4.92"
Propulsion system	Single
Power at 10.5V/21V* (kw • Hp)	1.5 • 2
For DC system (V)	12
Weight (kg • lbs)	9.5 • 21
Min. Batt. Cap (CCA**)	200
Item Code I2V	SE30/I25S

Measurements

A (mm • in)	125 • 4.92
B (mm • in)	234 • 9.2
C min. (mm • in)	125 • 4.92
D (mm • in)	92 • 3.6
D recommended (mm • in)	184 • 7.25
E min. (mm • in)	4 • 0.16
E max. (mm • in)	5 • 0.20

Stern Thrusters (electric)

I (mm • in)	196 • 7.72
II (mm • in)	190 • 7.48
III min. (mm • in)	135 • 5.31
IV max. (mm • in)	14 • 0.55
Tunnel length (mm • in)	197 • 7.76

Item code	
Stern thruster kit	90I25i
Cowls	90I26



SE 40/I25 S



Thrust at 10.5V (kg • lbs)	40 • 88
Thrust at 12V (kg • lbs)	48 • 105
Typical boat size (ft • m)	26' - 34' • 8 - 10.5
Tunnel I.D. (mm • in)	125 • 4.92"
Propulsion system	Single
Power at 10.5V (kw • Hp)	2.2 • 3
For DC system (V)	12
Weight (kg • lbs)	10 • 22
Min. Batt. Cap (CCA**)	300
Item Code I2V	SE40/I25S

Measurements

A (mm • in)	125 • 4.92
B (mm • in)	234 • 9.2
C min. (mm • in)	125 • 4.92
D (mm • in)	92 • 3.6
D recommended (mm • in)	184 • 7.25
E min. (mm • in)	4 • 0.16
E max. (mm • in)	5 • 0.20

Stern Thrusters (electric)

I (mm • in)	196 • 7.72
II (mm • in)	190 • 7.48
III min. (mm • in)	135 • 5.31
IV max. (mm • in)	14 • 0.55
Tunnel length (mm • in)	197 • 7.76

Item code	
Stern thruster kit	90I25i
Cowls	90I26



SE 60/I85 S



Thrust at 10.5V/21V* (kg • lbs)	60 • 132
Thrust at 12V/24V* (kg • lbs)	73 • 161
Typical boat size (ft • m)	29' - 38' • 9 - 12
Tunnel I.D. (mm • in)	185 • 7.3"
Propulsion system	Single
Power at 10.5V/21V* (kw • Hp)	3.1 • 4
For DC system (V)	12/24
Weight (kg • lbs)	16 • 35
Min. Batt. Cap (CCA** 12/24v)	350 • 175
Item Code I2V	SE60/I85S-I2V
Item Code 24V	SE60/I85S-24V

Measurements

A (mm • in)	185 • 7.3
B (mm • in)	265 • 10.4
C min. (mm • in)	150 • 5.91
D (mm • in)	117 • 4.6
D recommended (mm • in)	234 • 9.2
E min. (mm • in)	4 • 0.16
E max. (mm • in)	6 • 0.24

Stern Thrusters (electric)

I (mm • in)	225 • 8.90
II (mm • in)	256 • 10.08
III min. (mm • in)	150 • 5.91
IV max. (mm • in)	35 • 1.38
Tunnel length (mm • in)	337 • 13.27

Item code	
Stern thruster kit	90052i
Cowls - short model	90075
Cowls - long model	90077



SE 80/I85 T



Thrust at 10.5V/21V* (kg • lbs)	80 • 176
Thrust at 12V/24V* (kg • lbs)	96 • 212
Typical boat size (ft • m)	35' - 48' • 10 - 15
Tunnel I.D. (mm • in)	185 • 7.3"
Propulsion system	Twin
Power at 10.5V/21V* (kw • Hp)	4.4 • 6
For DC system (V)	12/24
Weight (kg • lbs)	20 • 44
Min. Batt. Cap (CCA** 12/24V)	550/300
Item Code I2V	SE80/I85T-I2V
Item Code 24V	SE80/I85T-24V

Measurements

A (mm • in)	185 • 7.3
B (mm • in)	361 • 14.21
C min. (mm • in)	200 • 7.87
D (mm • in)	170 • 6.7
D recommended (mm • in)	340 • 13.4
E min. (mm • in)	6 • 0.24
E max. (mm • in)	8 • 0.31

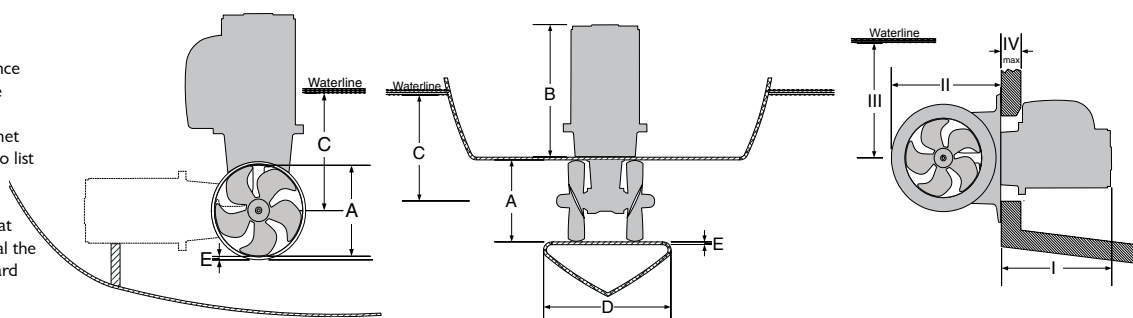
Stern Thrusters (electric)

I (mm • in)	321 • 12.64
II (mm • in)	256 • 10.08
III min. (mm • in)	200 • 7.87
IV max. (mm • in)	54 • 2.13
Tunnel length (mm • in)	337 • 13.27

Item code	
Stern thruster kit	90086i
Cowls - short model	90075
Cowls - long model	90077

* All Sidepower thrusters gets 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



SIDE - POWER



SE 100/185 T



Thrust at 10.5V/21V* (kg • lbs)	100 • 220
Thrust at 12V/24V* (kg • lbs)	116 • 256
Typical boat size (ft • m)	35' - 55' • 12 - 17
Tunnel I.D. (mm • in)	185 • 7.3"
Propulsion system	Twin
Power at 10.5V/21V* (kw • Hp)	6.3 • 8.4
For DC system (V)	12/24
Weight (kg • lbs)	31 • 68
Min. Batt. Cap (CCA** 12/24V)	750/400
Item Code 12V	SE100/185T-12V
Item Code 24V	SE100/185T-24V

Measurements

A (mm • in)	185 • 7.3
B (mm • in)	389 • 15.3
C min. (mm • in)	200 • 7.87
D (mm • in)	170 • 6.7
D recommended (mm • in)	340 • 13.4
E min. (mm • in)	6 • 0.24
E max. (mm • in)	8 • 0.31

Stern Thrusters (electric)

I (mm • in)	349 • 13.7
II (mm • in)	256 • 10.08
III min. (mm • in)	200 • 7.87
IV max. (mm • in)	54 • 2.13
Tunnel length (mm • in)	337 • 13.27

Item code

Stern thruster kit	90086i
Cowls - short model	90075
Cowls - long model	90077



SE 120/215 T



Thrust at 10.5V/21V* (kg • lbs)	120 • 264
Thrust at 12V/24V* (kg • lbs)	139 • 306
Typical boat size (ft • m)	42' - 60' • 13 - 18
Tunnel I.D. (mm • in)	215 • 8.46"
Propulsion system	Twin
Power at 10.5V/21V* (kw • Hp)	6.4 • 8.55
For DC system (V)	24
Weight (kg • lbs)	34 • 74
Min. Batt. Cap (CCA**)	400
Item Code 24V	SE120/215T

Measurements

A (mm • in)	215 • 8.46
B (mm • in)	389 • 15.3
C min. (mm • in)	215 • 8.5
D (mm • in)	280 • 11
D recommended (mm • in)	560 • 22
E min. (mm • in)	6 • 0.24
E max. (mm • in)	8 • 0.31

Stern Thrusters (electric)

I (mm • in)	349 • 13.7
II (mm • in)	300 • 11.8
III min. (mm • in)	215 • 8.46
IV max. (mm • in)	54 • 2.13
Tunnel length (mm • in)	330 • 13

Item code

Stern thruster kit	90135i
Cowls	90136



SE 130/250 T



Thrust at 10.5V/21V* (kg • lbs)	130 • 284
Thrust at 12V/24V* (kg • lbs)	160 • 352
Typical boat size (ft • m)	42' - 62' • 13 - 19
Tunnel I.D. (mm • in)	250 • 9.8"
Propulsion system	Twin
Power at 10.5V/21V* (kw • Hp)	6.5 • 8.7
For DC system (V)	12/24
Weight (kg • lbs)	37 • 77
Min. Batt. Cap (CCA** 12/24V)	500/250
Item Code 12V	SE130/250T-12V
Item Code 24V	SE130/250T-24V

Measurements

A (mm • in)	250 • 9.84
B (mm • in)	398 • 15.7
C min. (mm • in)	230 • 9.0
D (mm • in)	280 • 11
D recommended (mm • in)	560 • 22
E min. (mm • in)	7 • 0.28
E max. (mm • in)	10 • 0.39

REPLACES SP I25Ti - Q2 2008

Stern Thrusters (electric)

I (mm • in)	359 • 14.13
II (mm • in)	340 • 13.39
III min. (mm • in)	250 • 9.84
IV max. (mm • in)	60 • 2.36
Tunnel length (mm • in)	350 • 13.78

Item code

Stern thruster kit	90140i
Cowls	90132



SE 150/215 T



Thrust at 10.5V/21V* (kg • lbs)	150 • 330
Thrust at 12V/24V* (kg • lbs)	182 • 400
Typical boat size (ft • m)	44' - 64' • 14 - 20
Tunnel I.D. (mm • in)	215 • 8.46"
Propulsion system	Twin
Power at 10.5V/21V* (kw • Hp)	6.6 • 8.8
For DC system (V)	24
Weight (kg • lbs)	38 • 79
Min. Batt. Cap (CCA**)	300
Item Code 24V	SE150/215T

Measurements

A (mm • in)	215 • 8.46
B (mm • in)	398 • 15.7
C min. (mm • in)	215 • 8.46
D (mm • in)	280 • 11
D recommended (mm • in)	560 • 22
E min. (mm • in)	7 • 0.28
E max. (mm • in)	10 • 0.39

Stern Thrusters (electric)

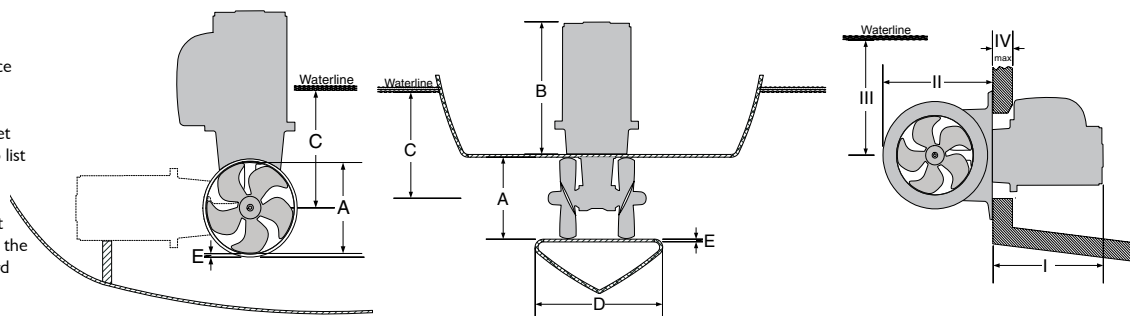
I (mm • in)	359 • 14.13
II (mm • in)	300 • 11.8
III min. (mm • in)	215 • 8.46
IV max. (mm • in)	54 • 2.13
Tunnel length (mm • in)	330 • 13

Item code

Stern thruster kit	90135i
Cowls	90136

* All Sidepower thrusters gets 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



DC thrusters



SE 170/250 TC



REPLACES SP155TCi - Q2 2008

Thrust at 21V* (kg • lbs)	170 • 374
Thrust at 24V* (kg • lbs)	210 • 462
Typical boat size (ft • m)	50' - 70' • 15 - 22
Tunnel I.D. (mm • in)	125 • 4.92"
Propulsion system	Twin Counter rot.
Power at 10.5V/21V* (kw • Hp)	8 • 10.7
For DC system (V)	24
Weight (kg • lbs)	44 • 97
Min. Batt. Cap (CCA**)	550
Item Code 24V	SE170/250TC

Measurements	
A (mm • in)	250 • 9.84
B (mm • in)	421 • 16.6
C min. (mm • in)	250 • 9.84
D (mm • in)	300 • 11.81
D recommended (mm • in)	600 • 23.6
E min. (mm • in)	7 • 0.28
E max. (mm • in)	10 • 0.39

Stern Thrusters (electric)	
I (mm • in)	382 • 15.04
II (mm • in)	340 • 13.39
III min. (mm • in)	250 • 9.84
IV max. (mm • in)	60 • 2.36
Tunnel length (mm • in)	350 • 13.78

Item code	
Stern thruster kit	90140i
Cowls	90132



SE 210/250 TC



REPLACES SP200TCi - Q2 2008

Thrust at 10.5V/21V* (kg • lbs)	210 • 462
Thrust at 12V/24V* (kg • lbs)	250 • 550
Typical boat size (ft • m)	55' - 78' • 17 - 24
Tunnel I.D. (mm • in)	250 • 9.8"
Propulsion system	Twin Counter rot.
Power at 10.5V/21V* (kw • Hp)	10 • 13.15
For DC system (V)	24
Weight (kg • lbs)	68 • 150
Min. Batt. Cap (CCA**)	650
Item Code 24V	SE210/250TC

Measurements	
A (mm • in)	250 • 9.84
B (mm • in)	478 • 18.8
C min. (mm • in)	300 • 11.81
D (mm • in)	300 • 11.81
D recommended (mm • in)	600 • 23.6
E min. (mm • in)	7 • 0.28
E max. (mm • in)	13 • 0.51

Stern Thrusters (electric)	
I (mm • in)	420 • 16.54
II (mm • in)	360 • 14.20
III min. (mm • in)	300 • 11.81
IV max. (mm • in)	50 • 1.97
Tunnel length (mm • in)	456 • 17.95

Item code	
Stern thruster kit	90180i
Cowls	90132



SE 240/300 TC



REPLACES SP240TCi - Q3 2008

Thrust at 21V* (kg • lbs)	240 • 528
Thrust at 24V* (kg • lbs)	300 • 660
Typical boat size (ft • m)	60' - 84' • 18 - 25
Tunnel I.D. (mm • in)	300 • 11.8"
Propulsion system	Twin Counter rot.
Power at 21V* (kw • Hp)	11.4 • 15.5
For DC system (V)	24
Weight (kg • lbs)	70 • 154
Min. Batt. Cap (CCA**)	700
Item Code 24V	SE240/300TC

Measurements	
A (mm • in)	300 • 11.81
B (mm • in)	490 • 19.3
C min. (mm • in)	300 • 11.81
D (mm • in)	300 • 11.81
D recommended (mm • in)	600 • 23.6
E min. (mm • in)	10 • 0.39
E max. (mm • in)	10 • 0.39

Stern Thrusters (electric)	
I (mm • in)	441 • 17.36
II (mm • in)	420 • 16.54
III min. (mm • in)	300 • 11.81
IV max. (mm • in)	60 • 2.36
Tunnel length (mm • in)	456 • 17.95

Item code	
Stern thruster kit	90200i
Cowls	90220



SE 285/300 TC



REPLACES SP285TCi - Q3 2008

Thrust at 21V* (kg • lbs)	285 • 627
Thrust at 24V* (kg • lbs)	340 • 748
Typical boat size (ft • m)	74' - 100' • 22 - 30
Tunnel I.D. (mm • in)	300 • 11.8"
Propulsion system	Twin Counter rot.
Power at 21V* (kw • Hp)	15 • 20
For DC system (V)	24 (48V motor)
Weight (kg • lbs)	73 • 160
Min. Batt. Cap (CCA**)	2x450 - 24V
Item Code 24V	SE285/300TC

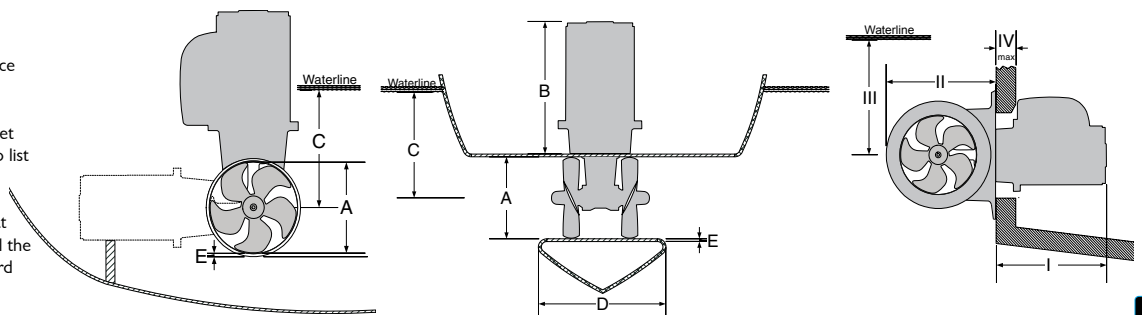
Measurements	
A (mm • in)	300 • 11.81
B (mm • in)	455 • 17.90
C min. (mm • in)	300 • 11.81
D (mm • in)	300 • 11.81
D recommended (mm • in)	600 • 23.6
E min. (mm • in)	10 • 0.39
E max. (mm • in)	13 • 0.52

Stern Thrusters (electric)	
I (mm • in)	406 • 15.98
II (mm • in)	420 • 16.54
III min. (mm • in)	300 • 11.81
IV max. (mm • in)	60 • 2.36
Tunnel length (mm • in)	456 • 17.95

Item code	
Stern thruster kit	90200i
Cowls	90220

* All Sidepower thrusters gets 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



SIDE - POWER



SE 30/125 S IP



Thrust at 10.5V/21V* (kg • lbs)
 Thrust at 12V/24V* (kg • lbs)
 Typical boat size (ft • m)
 Tunnel I.D. (mm • in)
 Propulsion system
 Power at 10.5V/21V* (kw • Hp)
 For DC system (V)
 Weight (kg • lbs)
 Min. Batt. Cap (CCA**)
Item Code I2V

30 • 66
 40 • 88
 20' - 28' • 6 - 8.5
 125 • 4.92"
 Single
 1.5 • 2
 12
 9.5 • 21
 200
SE30/125S-IP

Measurements

A (mm • in) 125 • 4.92
 B (mm • in) 234 • 9.2
 C min. (mm • in) 125 • 4.92
 D (mm • in) 92 • 3.6
 D recommended (mm • in) 184 • 7.25
 E min. (mm • in) 4 • 0.16
 E max. (mm • in) 5 • 0.20

Stern Thrusters (electric)

I (mm • in) 220 • 8.66
 II (mm • in) 190 • 7.48
 III min. (mm • in) 135 • 5.31
 IV max. (mm • in) 14 • 0.55
 Tunnel length (mm • in) 197 • 7.76

Item code

Stern thruster kit 90125i
Cowls 90126



SE 40/125 S IP



Thrust at 10.5V (kg • lbs)
 Thrust at 12V (kg • lbs)
 Typical boat size (ft • m)
 Tunnel I.D. (mm • in)
 Propulsion system
 Power at 10.5V (kw • Hp)
 For DC system (V)
 Weight (kg • lbs)
 Min. Batt. Cap (CCA**)
Item Code I2V

40 • 88
 48 • 105
 26' - 34' • 8 - 10.5
 125 • 4.92"
 Single
 2.2 • 3
 12
 10 • 22
 300
SE40/125S-IP

Measurements

A (mm • in) 125 • 4.92
 B (mm • in) 234 • 9.2
 C min. (mm • in) 125 • 4.92
 D (mm • in) 92 • 3.6
 D recommended (mm • in) 184 • 7.25
 E min. (mm • in) 4 • 0.16
 E max. (mm • in) 5 • 0.20

Stern Thrusters (electric)

I (mm • in) 220 • 8.66
 II (mm • in) 190 • 7.48
 III min. (mm • in) 135 • 5.31
 IV max. (mm • in) 14 • 0.55
 Tunnel length (mm • in) 197 • 7.76

Item code

Stern thruster kit 90125i
Cowls 90126



SE 60/185 S IP



Thrust at 10.5V/21V* (kg • lbs)
 Thrust at 12V/24V* (kg • lbs)
 Typical boat size (ft • m)
 Tunnel I.D. (mm • in)
 Propulsion system
 Power at 10.5V/21V* (kw • Hp)
 For DC system (V)
 Weight (kg • lbs)
 Min. Batt. Cap (CCA** 12/24v)
Item Code I2V
Item Code 24V

60 • 132
 73 • 161
 29' - 38' • 9 - 12
 185 • 7.3"
 Single
 3.1 • 4
 12/24
 16 • 35
 350 • 175
SE60/185S-I2IP
SE60/185S-24IP

Measurements

A (mm • in) 185 • 7.3
 B (mm • in) 265 • 10.4
 C min. (mm • in) 150 • 5.91
 D (mm • in) 117 • 4.6
 D recommended (mm • in) 234 • 9.2
 E min. (mm • in) 4 • 0.16
 E max. (mm • in) 6 • 0.24

Stern Thrusters (electric)

I (mm • in) 265 • 10.43
 II (mm • in) 256 • 10.08
 III min. (mm • in) 150 • 5.91
 IV max. (mm • in) 35 • 1.38
 Tunnel length (mm • in) 337 • 13.27

Item code

Stern thruster kit 90052i
Cowls - short model 90075
Cowls - long model 90077



SE 80/185 T IP



Thrust at 10.5V/21V* (kg • lbs)
 Thrust at 12V/24V* (kg • lbs)
 Typical boat size (ft • m)
 Tunnel I.D. (mm • in)
 Propulsion system
 Power at 10.5V/21V* (kw • Hp)
 For DC system (V)
 Weight (kg • lbs)
 Min. Batt. Cap (CCA** 12/24V)
Item Code I2V
Item Code 24V

80 • 176
 96 • 212
 35' - 48' • 10 - 15
 185 • 7.3"
 Twin
 4.4 • 6
 12/24
 20 • 44
 550/300
SE80/185T-I2IP
SE80/185T-24IP

Measurements

A (mm • in) 185 • 7.3
 B (mm • in) 361 • 14.21
 C min. (mm • in) 200 • 7.87
 D (mm • in) 170 • 6.7
 D recommended (mm • in) 340 • 13.4
 E min. (mm • in) 6 • 0.24
 E max. (mm • in) 8 • 0.31

Stern Thrusters (electric)

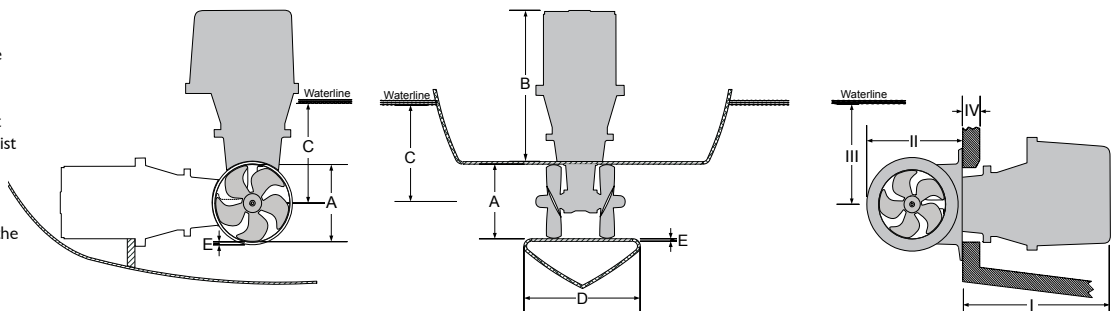
I (mm • in) 399 • 15.70
 II (mm • in) 256 • 10.08
 III min. (mm • in) 200 • 7.87
 IV max. (mm • in) 54 • 2.13
 Tunnel length (mm • in) 337 • 13.27

Item code

Stern thruster kit 90086i
Cowls - short model 90075
Cowls - long model 90077

* All Sidepower thrusters gets 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



IP DC thrusters



SE 100/185 T IP



Thrust at 10.5V/21V* (kg • lbs)	100 • 220
Thrust at 12V/24V* (kg • lbs)	116 • 256
Typical boat size (ft • m)	35' - 55' • 12 - 17
Tunnel I.D. (mm • in)	185 • 7.3"
Propulsion system	Twin
Power at 10.5V/21V* (kw • Hp)	6.3 • 8.4
For DC system (V)	12/24
Weight (kg • lbs)	31 • 68
Min. Batt. Cap (CCA** 12/24V)	750/400
Item Code 12V	SE100/185T-12IP
Item Code 24V	SE100/185T-24IP

Measurements

A (mm • in)	185 • 7.3
B (mm • in)	389 • 15.3
C min. (mm • in)	200 • 7.87
D (mm • in)	170 • 6.7
D recommended (mm • in)	340 • 13.4
E min. (mm • in)	6 • 0.24
E max. (mm • in)	8 • 0.31

Stern Thrusters (electric)

I (mm • in)	407 • 16.02
II (mm • in)	256 • 10.08
III min. (mm • in)	200 • 7.87
IV max. (mm • in)	54 • 2.13
Tunnel length (mm • in)	337 • 13.27

Item code

Stern thruster kit	90086i
Cowls - short model	90075
Cowls - long model	90077



SE 120/215 T IP



Thrust at 21V* (kg • lbs)	120 • 264
Thrust at 24V* (kg • lbs)	139 • 306
Typical boat size (ft • m)	42' - 60' • 13 - 18
Tunnel I.D. (mm • in)	215 • 8.46"
Propulsion system	Twin
Power at 10.5V/21V* (kw • Hp)	6.4 • 8.55
For DC system (V)	24
Weight (kg • lbs)	34 • 74
Min. Batt. Cap (CCA**)	400
Item Code 24V	SE120/215T-IP

Measurements

A (mm • in)	215 • 8.46
B (mm • in)	389 • 15.3
C min. (mm • in)	215 • 8.5
D (mm • in)	280 • 11
D recommended (mm • in)	560 • 22
E min. (mm • in)	6 • 0.24
E max. (mm • in)	8 • 0.31

Stern Thrusters (electric)

I (mm • in)	407 • 16.02
II (mm • in)	300 • 11.8
III min. (mm • in)	215 • 8.46
IV max. (mm • in)	54 • 2.13
Tunnel length (mm • in)	330 • 13

Item code

Stern thruster kit	90135i
Cowls	90136



SE 130/250 T IP



Thrust at 10.5V/21V* (kg • lbs)	130 • 284
Thrust at 12V/24V* (kg • lbs)	160 • 352
Typical boat size (ft • m)	42' - 62' • 13 - 19
Tunnel I.D. (mm • in)	250 • 9.8"
Propulsion system	Twin
Power at 10.5V/21V* (kw • Hp)	6.5 • 8.7
For DC system (V)	12/24
Weight (kg • lbs)	37 • 77
Min. Batt. Cap (CCA** 12/24V)	500/250
Item Code 12V	SE130/250T-12IP
Item Code 24V	SE130/250T-24IP

Measurements

A (mm • in)	250 • 9.84
B (mm • in)	398 • 15.7
C min. (mm • in)	230 • 9.0
D (mm • in)	280 • 11
D recommended (mm • in)	560 • 22
E min. (mm • in)	7 • 0.28
E max. (mm • in)	10 • 0.39

REPLACES SP I25Ti - Q2 2008

Stern Thrusters (electric)

I (mm • in)	407 • 16.02
II (mm • in)	340 • 13.39
III min. (mm • in)	250 • 9.84
IV max. (mm • in)	60 • 2.36
Tunnel length (mm • in)	350 • 13.78

Item code

Stern thruster kit	90140i
Cowls	90132



SE 170/250 TC IP



Thrust at 21V* (kg • lbs)	170 • 374
Thrust at 24V* (kg • lbs)	210 • 462
Typical boat size (ft • m)	50' - 70' • 15 - 22
Tunnel I.D. (mm • in)	250 • 9.8"
Propulsion system	Twin Counter rot.
Power at 10.5V/21V* (kw • Hp)	8 • 10.7
For DC system (V)	24
Weight (kg • lbs)	44 • 97
Min. Batt. Cap (CCA**)	550
Item Code 24V	SE170/250TC-IP

Measurements

A (mm • in)	250 • 9.84
B (mm • in)	421 • 16.6
C min. (mm • in)	250 • 9.84
D (mm • in)	300 • 11.81
D recommended (mm • in)	600 • 23.6
E min. (mm • in)	7 • 0.28
E max. (mm • in)	10 • 0.39

REPLACES SP I55TCi - Q2 2008

Stern Thrusters (electric)

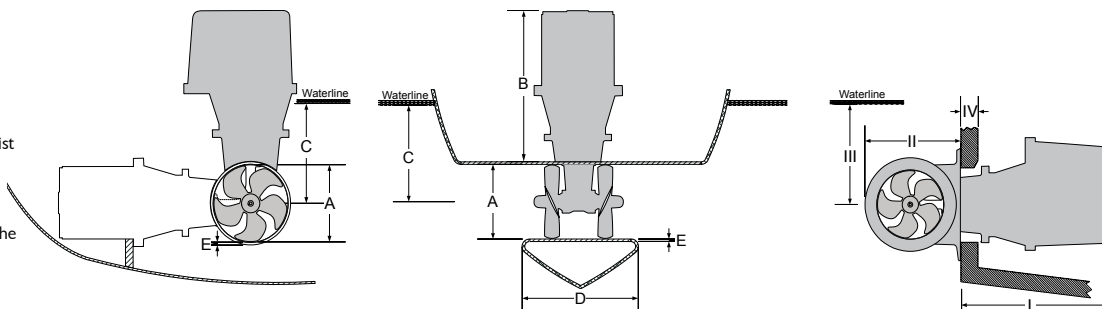
I (mm • in)	407 • 16.02
II (mm • in)	340 • 13.39
III min. (mm • in)	250 • 9.84
IV max. (mm • in)	60 • 2.36
Tunnel length (mm • in)	350 • 13.78

Item code

Stern thruster kit	90140i
Cowls	90132

* All Sidepower thrusters gets 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



SIDE - POWER



SH 100/185 T



Light duty thrust up to (kg • lbs)	100 • 220
Heavy duty thrust up to (kg • lbs)	80 • 176
Typical boat size (ft • m)	30' - 34' • 9 - 16
Tunnel I.D. (mm • in)	185 • 4.92"
Propulsion system	Twin
Hydraulic power up to (kw • Hp)	8.2 • 11.0
Propeller output up to (kw • Hp)	6.9 • 9.3
Weight (kg • lbs)	9.0 • 19.8
Item Code	SH100/185T-xxx

Measurements

A (mm • in)	185 • 7.28
B (mm • in)	195 • 7.64
B max (mm • in)	212 • 8.34
C min. (mm • in)	200 • 7.87
D (mm • in)	170 • 6.70
D recommended (mm • in)	340 • 13.4
E min. (mm • in)	6 • 0.24
E max. (mm • in)	8 • 0.31

Stern Thrusters

I (mm • in)	172 • 76.72
II (mm • in)	256 • 10.08
III min. (mm • in)	150 • 5.91
IV max. (mm • in)	35 • 1.38
Tunnel length (mm • in)	337 • 13.27

Item code

Stern thruster kit	90086i
Cowls - short model	90075
Cowls - long model	90077



SH 160/215 T



Light duty thrust up to (kg • lbs)	160 • 352
Heavy duty thrust up to (kg • lbs)	140 • 308
Typical boat size (ft • m)	35' - 62' • 11 - 19
Tunnel I.D. (mm • in)	215 • 8.46"
Propulsion system	Twin
Hydraulic power up to (kw • Hp)	13.1 • 17.5
Propeller output up to (kw • Hp)	11.0 • 14.8
Weight (kg • lbs)	10.5 • 23
Item Code	SH160/215T-xxx

Measurements

A (mm • in)	215 • 8.46
B (mm • in)	195 • 7.64
B max (mm • in)	230 • 9.05
C min. (mm • in)	215 • 8.5
D (mm • in)	280 • 11
D recommended (mm • in)	560 • 22
E min. (mm • in)	6 • 0.24
E max. (mm • in)	8 • 0.31

Stern Thrusters

I (mm • in)	172 • 76.72
II (mm • in)	300 • 11.8
III min. (mm • in)	215 • 8.46
IV max. (mm • in)	54 • 2.13
Tunnel length (mm • in)	330 • 13

Item code

Stern thruster kit	90135i
Cowls	90136



SH 240/250 TC



Light duty thrust up to (kg • lbs)	240 • 528
Heavy duty thrust up to (kg • lbs)	220 • 440
Typical boat size (ft • m)	42' - 75' • 13 - 23
Tunnel I.D. (mm • in)	250 • 9.8"
Propulsion system	Twin Counter rot.
Hydraulic power up to (kw • Hp)	17.7 • 23.7
Propeller output up to (kw • Hp)	14.9 • 20.0
Weight (kg • lbs)	15.9 • 35.0
Item Code	SH240/250TC-xxx

Measurements

A (mm • in)	250 • 9.84
B (mm • in)	213 • 8.38
B max (mm • in)	230 • 9.05
C min. (mm • in)	230 • 9.0
D (mm • in)	280 • 11
D recommended (mm • in)	560 • 22
E min. (mm • in)	7 • 0.28
E max. (mm • in)	10 • 0.39

Stern Thrusters

I (mm • in)	191 • 7.52
II (mm • in)	340 • 13.39
III min. (mm • in)	250 • 9.84
IV max. (mm • in)	60 • 2.36
Tunnel length (mm • in)	350 • 13.78

Item code

Stern thruster kit	90140i
Cowls	90132

REPLACES SP220HYD - Q2 2008



SH 300/300 TC



Light duty thrust up to (kg • lbs)	300 • 660
Heavy duty thrust up to (kg • lbs)	270 • 594
Typical boat size (ft • m)	55' - 100' • 17 - 31
Tunnel I.D. (mm • in)	300 • 11.8"
Propulsion system	Twin Counter rot.
Hydraulic power up to (kw • Hp)	20.6 • 27.6
Propeller output up to (kw • Hp)	17.4 • 23.3
Weight (kg • lbs)	19.5 • 42.9
Item Code	SH300/300TC-xxx

Measurements

A (mm • in)	300 • 11.81
B (mm • in)	220 • 8.66
B max (mm • in)	244 • 9.61
C min. (mm • in)	300 • 11.81
D (mm • in)	300 • 11.81
D recommended (mm • in)	600 • 23.6
E min. (mm • in)	10 • 0.39
E max. (mm • in)	10 • 0.39

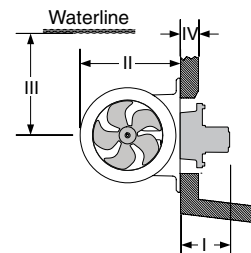
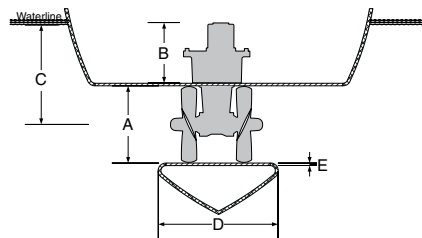
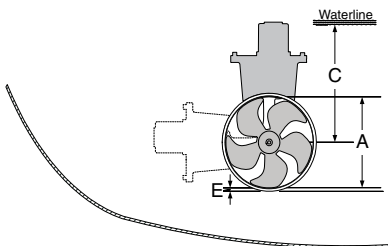
Stern Thrusters

I (mm • in)	195 • 7.68
II (mm • in)	420 • 16.54
III min. (mm • in)	300 • 11.81
IV max. (mm • in)	60 • 2.36
Tunnel length (mm • in)	456 • 17.95

Item code

Stern thruster kit	90200i
Cowls	90220

REPLACES SP220HYD - Q3 2008



HYDRAULIC thrusters



SH 550/386 TC



Light duty thrust up to (kg • lbs)	550 • 1210
Heavy duty thrust up to (kg • lbs)	500 • 1100
Typical boat size (ft • m)	76 - 145' • 23 - 44
Tunnel I.D. (mm • in)	386 • 15.2"
Propulsion system	Twin Counter rot.
Hydraulic power up to (kw • Hp)	51.0 • 68.4
Propeller output up to (kw • Hp)	42.9 • 57.5
Weight (kg • lbs)	52.6 • 115.7
- with aluminium gearleg	42.1 • 92.6
Item Code	SE550/386TC-xxx

Measurements

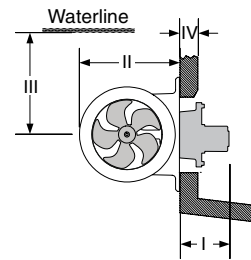
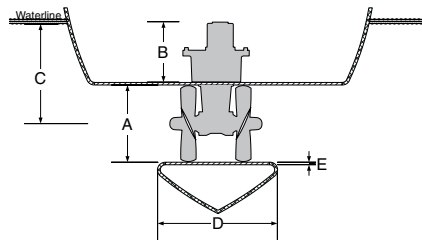
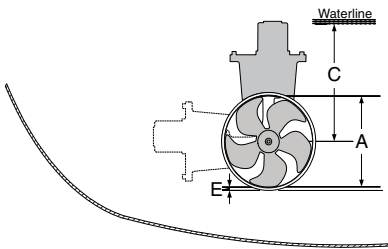
A (mm • in)	386 • 15.2
B (mm • in)	292 • 11.5
B max (mm • in)	372 • 14.65
C min. (mm • in)	380 • 15.0
D (mm • in)	500 • 19.7
D recommended (mm • in)	750 • 29.5
E min. (mm • in)	10 • 0.39
E max. (mm • in)	15 • 0.59

Stern Thrusters

I (mm • in)	257 • 10.12
II (mm • in)	540 • 21.25
III min. (mm • in)	380 • 15.00
IV max. (mm • in)	
Tunnel length (mm • in)	550 • 21.65

Item code

Stern thruster kit	90550
Cowls	90560



SIDE - POWER

Sidepower offers a unique series of «smart» control panels, an important part of a thruster system. Choose between our compact touch button, the popular joystick controls, the «docking» control panel with the most intuitive thruster control ever or the new exclusive round panel. Why not try the radio remote control for full mobility onboard, being the perfect tool for shorthanded boating. Radio linked panels is also an option. Mix or match, the choice is yours!

Easy installation

- 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



Touch panels

The compact and flush design keeps smaller dashboards tidy and prevents ropes from snagging on sailboats.

	Touch panel	Round touch panel
H (mm • in)	70 • 2.76	-
W (mm • in)	70 • 2.76	Ø86.5
Item code (12 & 24V)	8950	8955



Joystick panel

Our most popular model that provides a comfortable and user friendly control of the bow thruster.

Boat switch panel

The boat switch panel have the advantage of being as user friendly as the joystick panel while still being very low and designed so that ropes or clothing does not snag, a more user friendly solution for sailboats than the traditionally used touch panels.

	Joystick panel	Boat switch panel
H (mm • in)	70 • 2.76	-
W (mm • in)	70 • 2.76	Ø86.5
Item code (12 & 24V)	8960	8965



Dual joystick panel

The professional choice when having two thrusters is this space saving dual joystick panel. Easy control of both bow and stern thruster with just one hand.

Docking panel

The docking panel is a revolutionary concept in thruster control. It provides intuitive control of bow and stern thrusters by simply moving the boat shaped switch the way you want your boat to move (patented).

	Dual Joystick panel	Docking panel
H (mm • in)	120 • 4.72	120 • 4.72
W (mm • in)	70 • 2.76	70 • 2.76
Item code (12 & 24V)	8940	8909



Hydraulic info panel

To ensure that also single speed hydraulic thruster systems have a maximum level of safety we have developed a hydraulic info panel. This panel includes both a visual and audible alarm for oil level and oil temperature and also has an emergency stop that shuts down the pump function in a Sidepower hydraulic system.

	Info panel
H (mm • in)	70 • 2.76
W (mm • in)	70 • 2.76
Item code (12V/ 24V)	8980-12V/8980-24V

control panels

Handheld radio remotes

A radio remote control makes your thruster system even more helpful around the docks. Providing full simultaneous control of a bow and a stern thruster or a bow thruster and a windlass, making shorthanded boating much easier.

	Radio remotes
H (mm • in)	95 • 3.74 (transmitter)
W (mm • in)	48 • 1.89 (transmitter)

Item code:

Radio remote set (bow + stern thruster) / Radio remote set (bow thruster + windlass) **8980 / 8985**
 Extra transmitter (bow + stern thruster) / Extra transmitter (bow thruster + windlass) **8981 / 8986**



Proportional control panels

Proportional thruster control allows you to control the actual power of your thruster. This is important for vessels that use thrusters for more than just docking manoeuvres and vessels with a very powerful thruster system. You will not have to run at full power thereby creating rough movements of the vessel in light wind conditions or similar.

Proportional control panels for hydraulic thrusters

Sidepower offer two types of proportional control panels, both are available for single and dual hydraulic thrusters.

- full speed control of the thruster(s)
- control light
- warning lights and audible alarm for oil level and temperature
- emergency stop
- waterproof from front (IP65)
- “Plug & Go” wiring in panel ends



“Yacht” version panels

The yacht version panels are primarily designed for use in pleasure craft.

- compact size for easy positioning
- low profile proportional joysticks
- rubber grip on joystick(s) for comfortable and safe operation

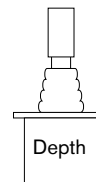


“Pro” version panels

The pro panels are designed for use on both leisure and commercial vessels.

- joysticks are lockable in running position at any speed setting for continuous thrust
- entire panel waterproof (IP65)

	Yacht Single	Yacht Dual	Pro Single	Pro Dual
Height (mm • in)	71 • 2.80	122 • 4.80	125 • 4.92	206 • 8.11
Width (mm • in)	71 • 2.80	71 • 2.80	106 • 4.17	106 • 4.17
Depth (mm • in) A/B	60 • 2.36/42 • 1.65	60 • 2.36/42 • 1.65	115 • 4.43/100 • 3.94	115 • 4.43/100 • 3.94
Item code (12 V)	895112-S	895112-D	896112-S	896112-D
Item code (24 V)	895124-S	895124-D	896124-S	896124-D

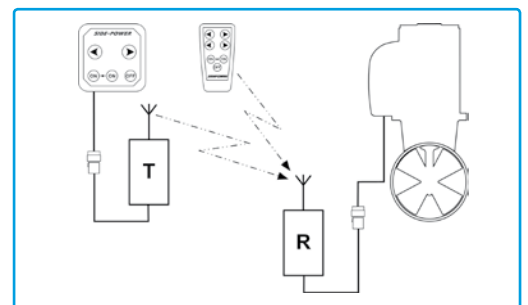


Radio link for control panels

The radio link eliminates the need for difficult cable runs between control panel(s) and thruster. Consisting of a transmitter box, that connects to a control panel and a remote control receiver that plugs into the thruster(s), the receiver accepts up to 4 independent transmitters or hand held radio remotes. The multi-channel system supports two thrusters and can be mixed with hard wired control panels. Full Sidepower safety level with child-safe activation and intelligent auto-off, even at the receiver.

Item codes:

Radio link kit	8970
Extra transmitter unit for radio link kit	8975



SIDE - POWER



Tunnels

GRP tunnels are available in several lengths for each thruster model. They are purpose built for our thrusters and provide ultimate strength, accuracy and osmosis protection to ensure an easy and safe thruster installation. The wall thickness is adapted to each thruster's power and boat size. We also offer a selection of aluminium and steel tunnels.

Stern thruster kits

These transom-mounted tunnels are meticulously designed to enhance the performance of the thruster. Manufactured in fibreglass, they are extremely strong and durable. The complete installation is very easy and meets the high Sidepower standards. The additional cowls make it possible to allow a stern thruster installation in boats with shallow draft or obstructions on the stern.

ø185mm stern tunnels

Injection mould tunnels with extra safety features; 30% stronger and specific breaking point design. Available for SE60, SE80, SE100 and SH100 thrusters.

Item code	SE 30/40	SE 60	SE 80/100	SE 120/150
Stern thruster kit	90125i	90052i	90086i	90086i
Cowls - short model	-	90075	90075	90075
Cowls - long model	90126	90077	90077	90077

Item code	SE 130/170	SE210	SE 240 / 285
Stern thruster kit	90140i	90180i	90200i
Cowls - short model	-	-	-
Cowls - long model	90132	90132	90220

Item code	SH 100	SH 160	SH 240	SH 300	SH 550
Stern thruster kit	90086i	90135i	90140i	90200i	90550
Cowls - short model	90075	-	-	-	-
Cowls - long model	90077	90136	90132	90220	90560

Control cables

Make sure that the complete installation meets the Sidepower 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. Colour coded to match the wiring diagrams with high quality connectors they ensure a correct installation.

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 thrusters 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)

	For SE 120 /150/170	For SE200/SP240
H x W x D (mm)	285 x 265 x 110	285 x 265 x 110
H x W x D (in)	11.2 x 10.4 x 4.3	11.2 x 10.4 x 4.3
Item code	I0112A	I5112A



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 Sidepower control panel. Added safety is provided by the panel's auto-off and the thrusters 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 Sidepower thrusters (necessary fuse not included)

	12 Volt	24 Volt
H x W x D (mm)	175 x 205 x 140	175 x 205 x 140
H x W x D (in)	6.9 x 8.1 x 5.5	6.9 x 8.1 x 5.5
Item code	897612	897624



Fuse holder / Fuses

Sidepower 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 sizes to match all of our thrusters.

Item code	Fuse	For thruster
ANL150	150A	SE30/125S - SE60/185S-24V
ANL250	250A	SE40/125S - SE60/185S-12 - SE80/185T-24
ANL325	325A	SE100/185T-24 - SE120/215T-24 - SE130/250T-24 - SE285/300TC
ANL400	400A	SE80/185T-12 - SE150/215T-24 - SE170/250TC
ANL500	500A	SE100/185T-12 - SE130/250T-12 - SE210/250TC - SE240/300TC
ANLHOLD	Fuseholder for all ANL type fuses	
ANLHOLD-C	Fuseholder including clear cover	



Sidepower web site

Visit www.side-power.com for more in-depth information about thrusters and system. New information is posted regularly and it is the source for the most recent specifications. You can download owners manuals, pictures, drawings, movies and other educational material. Here you can also find your local authorized dealer or service centre from our world wide network.





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All Sidepower products fulfill the requirements of the relevant CE-directives.

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