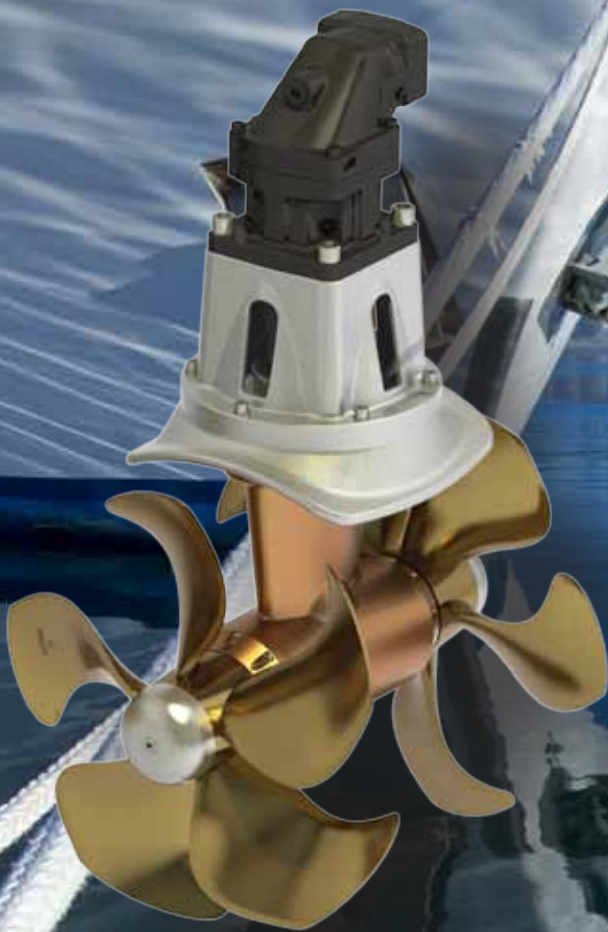


SIDE-POWER
Thruster Systems



Confidence
by Control!



Thrusters
by Side-Power

Confidence by Control

SIDE-POWER





Side-Power by Sleipner Motor

The leading position of Side-Power as a thruster manufacturer has been our focus on the products performance, functionality and reliability.

For many years Side-Power has been the one brand that others have tried to copy, but through extensive research and development we have remained ahead of the pack.

Over the last nine years we have evolved into the Commercial and Superyacht sectors with the SP550 thruster, allowing us to gain the necessary experience to satisfy these sectors. One point that makes us different from many of the traditional suppliers found in the Commercial and Superyacht industry is that we develop a high quality product extremely efficiently. This comes from our experience in making thousands of smaller thrusters a year for the production builders around the world. The production markets demand high quality and reliable products with an eye on cost effectiveness. We focus on investing in the development of products with the efficiency of volume in mind.

Many of the leading Yacht Builders worldwide use our complete hydraulic systems for models up to 30m (100ft). The quality and performance of these products improves with constant product development. As the size of yachts increases so too does our product offering with the SH1000 and the SH1400 for hydraulic based systems and the SAC386 through SAC610 for AC based systems.

SH1000 & SH1400

The SH1000 delivers up to 1000 kg (2205lbs) of thrust from a 20 inch tunnel while the SH1400 delivers up to 1400 kg (3086lbs) from a 24 inch tunnel.

Both the SH1000 and the SH1400 are type approved by Det Norske Veritas and comply with all other shipping standards. As with all other Side-Power systems, they are controlled using the S-Link system thus benefiting from all the advantages of a bus based digital control system.



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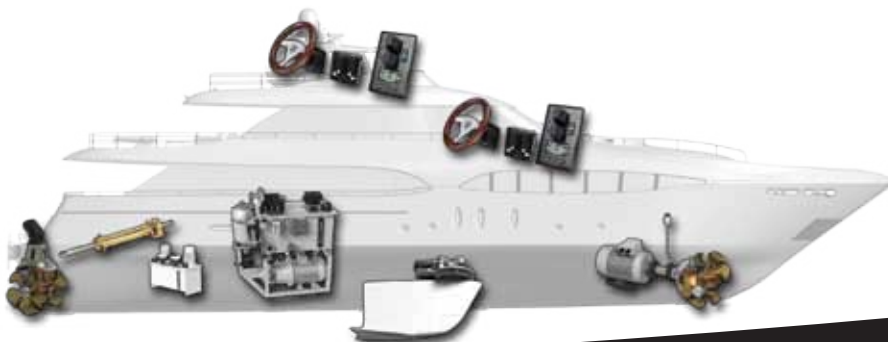
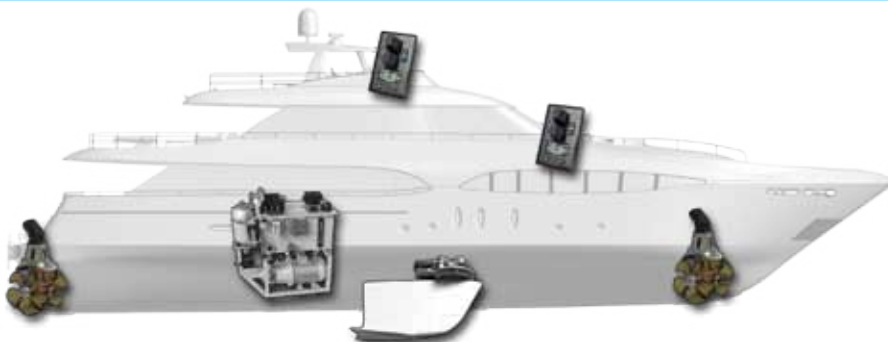
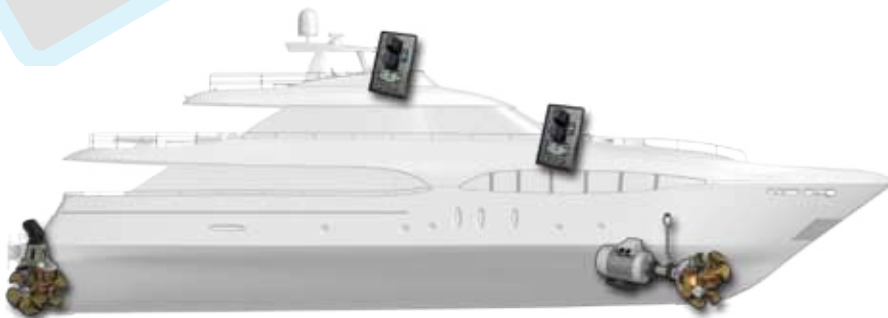
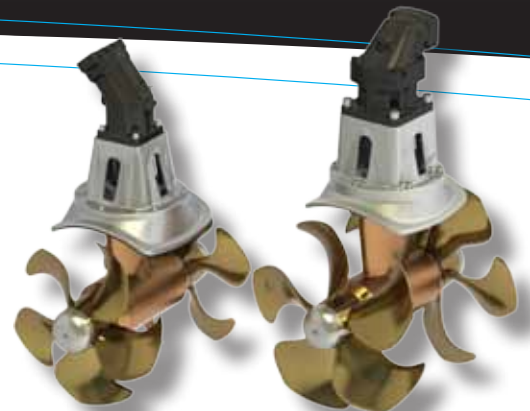


TOTAL INTEGRATION

The new thrusters in the SH and the SAC range are part of a total yacht control system. All of the Side-Power systems communicate on a shared CAN-Bus based S-Link system. The S-Link system enables the best integration possible no matter what the combination of equipment. AC Thrusters can be combined with hydraulic stabilizers. An AC bow thruster can be used with a hydraulic stern thruster and, in fact, any combination of Side-Power equipment imaginable can be used. Even two bow thrusters and two stern thrusters can be controlled on a single backbone. This is a major advantage not found in competing systems.

The examples shown below are just an indication of the many ways to integrate previously separate systems, giving a wide area of benefits both during construction and in refit scenarios. It also simplifies operation and maintenance of systems.

Additional information about our S-link compatible products is found in our separate product brochures as well as on our web site: www.side-power.com





Description

SH1000/513TC

SH1400/610TC

Typical boat size (m•ft):	30 - 43 • 100 - 140	40 - 52 • 130 - 170
Tunnel inside diameter:	513mm/20"	609,6mm/24"
Propulsion system:	Counter rotating	Counter rotating
Weight:	146,5 kg/323 lbs.	170 kg/375 lbs.

Weight stated include thruster, props & bellhousing ONLY.
Weight of hydraulic motor (typical 25 - 40 kg) comes in addition

Gearleg:

- Seawater resistant bronze, CNC machined in one process to ensure 100% correct tolerances, angles and measurements.
- Oil filled, with header tank and venting to ensure long lifetime.
- Marine grade seals with protective lip and mechanically protected by specific propeller hub design. Hardened and ground precision spiro-conical gears.
- Propeller shaft with double ball bearings.
- Driveshaft with ball bearing and purpose designed sleeve bearing in correct tolerances.
- 5 bladed bronze "Q-prop" propeller, skewback design.
- Anode protection directly on propeller, easy to access and change.

Performance and specifications at one tunnel diameter depth*:

SH1000/513TC

SH1400/610TC

Thrust:	1000 kg/2205 lbs.	1400 kg/3086 lbs.
Hydraulic power ¹⁾ :	63 kW/84.5 Hp	87,8 kW/117.7 Hp
Hydraulic motors:	80/90/110 ccm	150/160/180 ccm
Flow rating up to:	117/132/160 lit./min.	183/195/220 lit./min.
Pressure drop up to:	323/287/235 bar	288/270/240 bar

¹⁾ most hydraulic thrusters are rated at their necessary hydraulic power supply

Significant features:

- Type Approval by Det Norske Veritas (DNV) for commercial use
- Q-prop propeller - highly energy efficient and very quiet
- Thruster control by the digital bus-based S-link control system



Notes:

* Actual performances will vary for each installation depending on many factors.
Specifications shown here are based on a thruster installed at a depth equal to one tunnel diameter and with hydraulic power at thruster as shown.



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Description

Typical boat size (m•ft):
Tunnel inside diameter:
Propulsion system:
Weight**):

SAC386-450/450*)

23 - 37 • 75 - 120
386mm/15.2"
Counter rotating
253 kg/558 lbs.

SAC386-520/520*)

26 - 40 • 85 - 130
386mm/15.2"
Counter rotating
303 kg/668 lbs.

Description

Typical boat size (m•ft):
Tunnel inside diameter:
Propulsion system:
Weight**):

SAC513-600/750*)

27 - 43 • 90 - 140
513mm/20"
Counter rotating
392 kg/871 lbs.

SAC513-750/900*)

30 - 46 • 100 - 150
513mm/20"
Counter rotating
462 kg/1019 lbs.

Description

Typical boat size (m•ft):
Tunnel inside diameter:
Propulsion system:
Weight**):

SAC513-900/1100*)

32 - 48 • 105 - 155
513mm/20"
Counter rotating
505 kg/1114 lbs.

SAC513-1100/1100*)

34 - 49 • 110 - 160
513mm/20"
Counter rotating
635 kg/1400 lbs.

Description

Typical boat size (m•ft):
Tunnel inside diameter:
Propulsion system:
Weight**):

SAC610-1000/1300*)

37 - 49 • 120 - 160
609,6mm/24"
Counter rotating
660 kg/1455 lbs.

SAC610-1200/1400*)

40 - 52 • 130 - 170
609,6mm/24"
Counter rotating
810 kg/1786 lbs.

*) SAC thrusters is available as both 220/230V and 380/400V models (suffix -2 or -4).

**) Weight stated is for complete thruster excluding VFD and Filter

SAC thrusters installed in areas with high humidity and/or fluctuating temperatures can be equipped with anti-condensation heaters (optional).

Gearleg:

- Seawater resistant bronze, CNC machined in one process to ensure 100% correct tolerances, angles and measurements.
- Oil filled, with header tank and venting to ensure long lifetime.
- Marine grade seals with protective lip and mechanically protected by specific propeller hub design.
- Hardened and ground precision spiro-conical gears.
- Propeller shaft with double ball bearings.
- Driveshaft with ball bearing and needle bearing.
- 5 bladed bronze "Q-prop" propeller, skewback design.
- Anode protection directly on propeller, easy to access and change.

Performance and specifications at one tunnel diameter depth*:

	SAC386-450/450	SAC386-520/520	SAC513-600/750	SAC513-750/900
Thrust, continous ¹⁾ :	450 kg/992 lbs.	520 kg/1146 lbs.	600 kg/1323 lbs.	750 kg/1653 lbs.
Thrust, intermittent ¹⁾ :	450 kg/992 lbs.	520 kg/1146 lbs.	750 kg/1653 lbs.	900 kg/1984 lbs.
Thruster input power:	28 kW/38 Hp *	36 kW/49 Hp *	39 kW/53 Hp**	53 kW/72 Hp**
	SAC513-900/1100	SAC513-1100/1100	SAC610-1000/1300	SAC610-1200/1400
Thrust, continous ¹⁾ :	900 kg/1984 lbs.	1100 kg/2425 lbs.	1000 kg/2405 lbs.	1200 kg/2646 lbs.
Thrust, intermittent ¹⁾ :	1100 kg/2425 lbs.	1100 kg/2425 lbs.	1300 kg/2866 lbs.	1400 kg/3086 lbs.
Thruster input power:	71 kW/96 Hp**	71 kW/96 Hp *	74 kW/101 Hp**	83 kW/113 Hp**

¹⁾ See table for setup options

*) Continuous power

**) Intermittent power

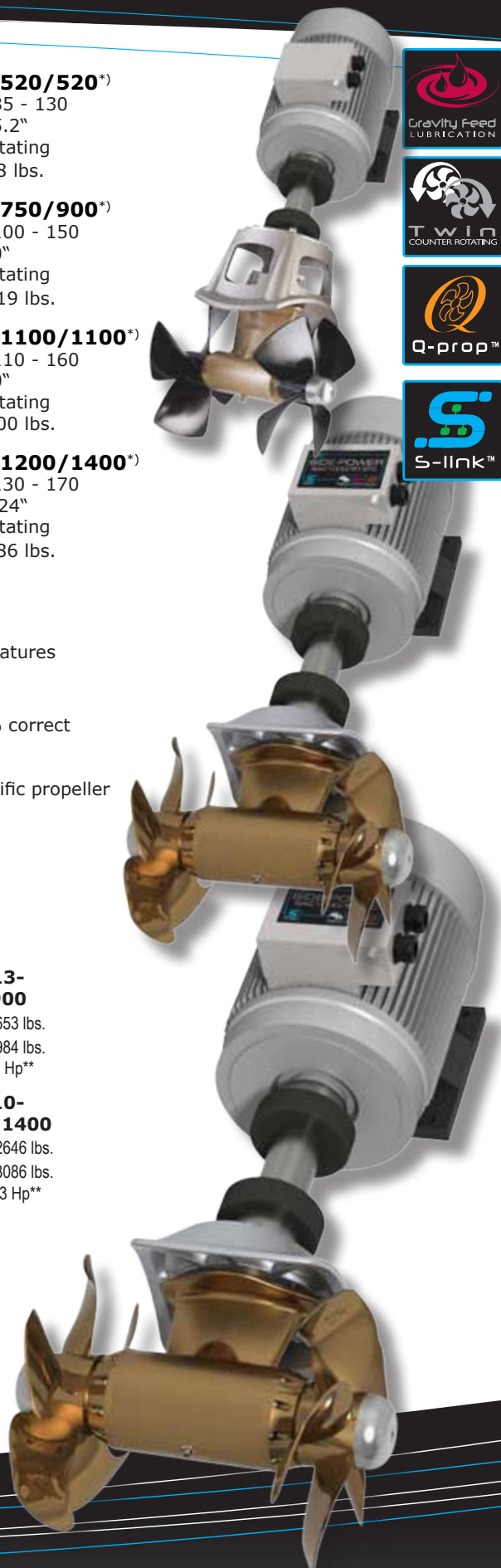
Significant features:

- Type Approval by Det Norske Veritas (DNV) for commercial use
- Q-prop propeller - highly energy efficient and very quiet
- Thruster control by the digital bus-based S-link control system
- High quality marine standard flexible motor coupling

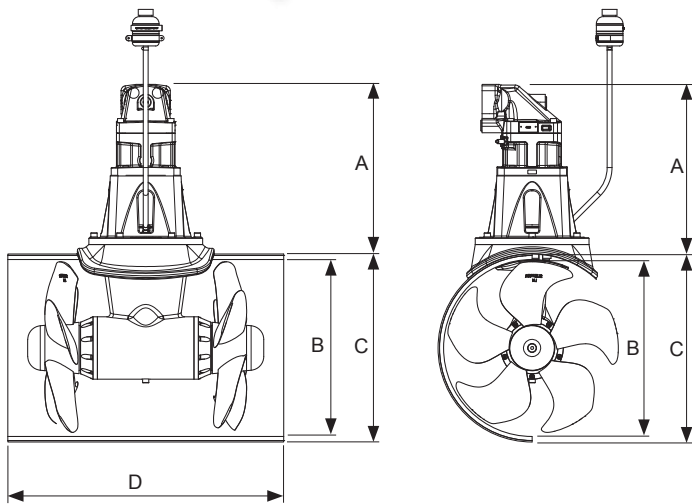


Notes:

* Actual performances will vary for each installation depending on many factors. Specifications shown here are based on a thruster installed at a depth equal to one tunnel diameter and with hydraulic power at thruster as shown.



Measurements Hydraulic



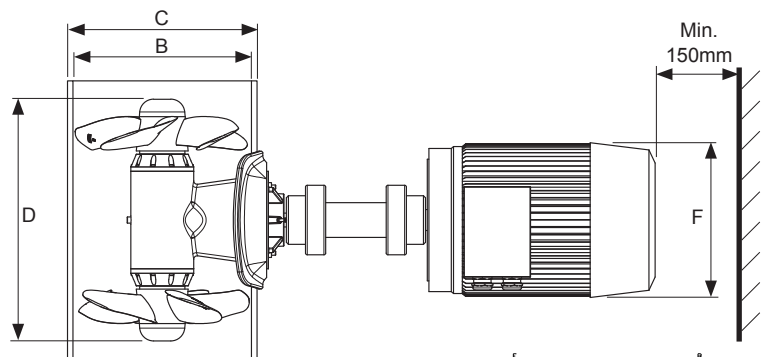
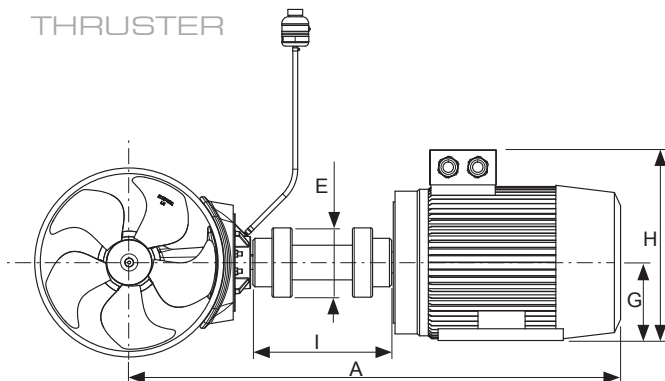
	SH1000	SH1400
A	483mm*	500mm**
B	513mm	610mm
C	545mm	646mm
D	685mm	685mm

* Height with 110 ccm Bent Axis Hydraulic motor

** Height with 160 ccm Bent Axis Hydraulic motor

Measurements AC

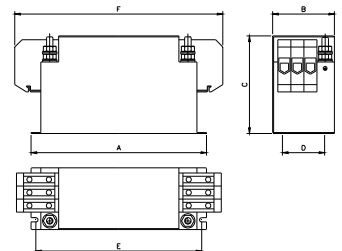
THRUSTER



MODEL	A* (mm)	A** (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I* (mm)
SAC386-450/450-2	1313	1450	386	406	503	122	364	180	442	284
SAC386-520/520-2	1313	1450	386	406	503	122	402	200	500	284
SAC386-450/450-4	1313	1450	386	406	503	122	364	180	442	284
SAC386-520/520-4	1313	1450	386	406	503	122	402	200	500	284
SAC513-600/750-4	1376	1510	513	545	685	170	402	200	500	360
SAC513-750/900-4	1446	1580	513	545	685	170	445	225	550	360
SAC513-900/1100-4	1516	1650	513	545	685	200	445	225	550	382
SAC513-1100/1100-4	1627	1760	513	545	685	200	495	250	642	382
SAC610-1000/1300-4	1728	1890	610	646	685	200	495	250	642	432
SAC610-1200/1400-4	1838	2000	610	646	685	200	555	280	712	432

* With standard length universal joint shaft
** With external cooling unit (optional)

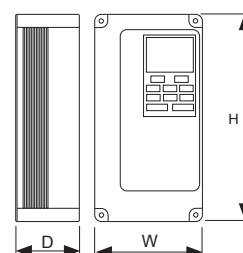
FILTER



A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
270	95	150	65	255	325

MEASUREMENTS TYPICAL FOR SAC513-750/900

VFD



WxDxH (mm)

SAC513-750/900-4: 325x283x518



Yachts & Commercial Vessels

Side-Power equipment has made its way into a wide range of vessels, both in the Superyacht and commercial segment.

The unique advantages made possible by a common digital control bus enables systems to be tailor-made for almost any application.

Service and spare parts are available through our world-wide distributor network - along with valuable product knowledge for advice on suitable solutions for every need.



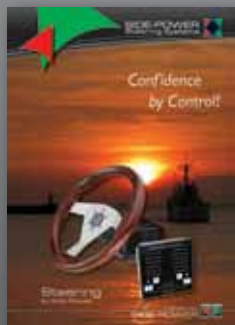
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