

# Comfort at Any Speed!



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Fin stabilizers



Confidence by Control

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#### What do stabilizers do?

Stabilizer systems have been around for a long time, but typically only used on larger passenger ships and super yachts. However, the dramatically increased comfort and usability of any boat have made owners of also smaller leisure vessels wish for this.

By reducing the uncomfortable rolling motion of the boat up to 95% you get a lot of advantages:

- Increased comfort on board
  - More use of the boat as you can go out in more weather conditions,
  - People that often get seasick can enjoy boating.

- Less wear and tear of the boat as you do not have to always head into or away from larger waves to avoid the uncomfortable rolling motion

#### Less overall fuel consumption

- While adding fins (or other stabilizer types) basically will increasing the fuel consumption a little at the same speed, our claim is that the overall fuel consumption will be reduced because

- You can take the direct route to where you wish to go even in rough conditions

- You can go at a more fuel efficient speed with the waves from the side while still being comfortable (modern cruisers have less roll at higher speeds, thereby people often drive them hard to avoid the rolling)



#### Research & Development

In our focus to develop the best products for the marine market, we continuously invest to make all our products even better, especially in going further in integrating systems as well as making systems for larger yachts and commercial applications.

To ensure the best possible quality in product development, we have built a dedicated test boat :

- 58 ft twin 800hp engines top speed 37 knots.
- Full sensor package and logging computer for scientific data collection and analysis.

During the tests, we have taken the time to learn about existing solutions and products to have the best possible background to design a even better product and to continuously improve our existing products.





Key design features of fin stabilizers:

- Low drag for fuel efficiency and use on high speed vessels
- Compact installation measurements
- Easy installation and set up procedures for the boat
- Sturdy and reliable mechanical and hydraulic construction
- Controller intelligence, the most important difference between brands

#### The importance of low drag

- Fin design acheived with advanced hydrodynamic software.
- 20% 50% less resistance than other fins.
- All fins are prepared for "Any Speed" function 2:1 size ratio.



#### Pressure Pressure 1. 4997-004 - .7. 3441.00

#### Compact installation measurements

- The height inside the boat is a key factor to allow for installation in modern boats. SPS is typically 25% to 75% lower than others.
- Dual cylinders provide
  - balanced load unlike single cylinder solutions.
  - less bearing load, thereby allowing for a more compact shaft bearing assembly.
- Bearing and actuator design done with modern structural analysis systems ensures a safe, efficient and compact system.
- No additional centre lock, this is automatic in the standard hydraulic system very safe due to the hydraulics having extreme safety limits actually stronger than the shaft.





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## SIDE-POWER Stabilizer Systems

#### Easy installation and set up procedures

- Tooling for easy hull preparation.
- Internal hydraulic connections on actuators are pre-fitted, the installer only fits non-moving hoses/pipes. Easier and safer.
- No complex adjustments required to set up controller with lots of factors, these are set automatically on first sea-trial of the boat.

#### Sturdy and reliable construction

- The dual cylinder setup ensures that fins have the same power available in both directions as well as less load on all mechanical parts.
- Precision machining and assembly secures a long lifetime and durability
- No additional centre lock, this is automatic in the standard hydraulic system very safe due to the hydraulics having extreme safety limits actually stronger than the shaft.
- The fins are made in "one shot" in vacuum injected vinylester over pre-shaped core material with specially designed rowing and math layers. Most others are made in two halves and glued together.
- Purpose-designed dual shaft sealing superior to standard Simmer Ring lip seals.
- Lifetime lubricated SKF bearings.





- State of the art electronic controller, utilizing the latest developments in the fast moving world of electronics.
- Continuous development of the best control software possible, cooperating with leading companies in control technologies.
- Self adjusting predictive algorithms also "Any/No Speed" functions for stabilization at anchor.
- Prepared for 4 fins or fins + other stabilizing mechanics.
- Easy upgrade of software ensures future compatibility and improvements.
- Reverse gear position input, but also other sensors to safeguard that fins are centred and locked immediately if the boat is starting to move backwards.
- GPS speed input (no shaft sensor) helps control algorithms do the best possible job.
- S-link integrated common intelligence with thruster systems and main hydraulics.









	65mm shaft	90mm shaft	
<b>A</b> (mm):	260	340	
<b>B</b> (mm):	<b>19</b> 0	250	
<b>C</b> (mm):	70	<b>9</b> 0	
<b>D</b> (mm):	175	235	
<b>E</b> (mm):	146	171	
<b>F</b> (mm):	495	600	
<b>G</b> (mm):	247,5	300	
<b>H</b> (mm):	521	550	
(mm) <b>:</b>	650	700	
Weight* (kg)	105	180	

\*Complete actuator assembly, per side

Fin actuator assembly may be installed in any convenient radial  $360^{\circ}$  position in the hull by steps of  $6.9^{\circ}$  (65mm shaft) or  $4.4^{\circ}$  (90mm shaft)



### Fins for 65mm shaft diameter:

	<b>A</b> (mm)	<b>B</b> (mm)	<b>C</b> (mm)
).43m²	1000	1030	480
). <b>70</b> m²	1336	1397	642
l.0m²	1500	1596	725

#### Fins for 90mm shaft diameter:

	<b>A</b> (mm)	<b>B</b> (mm)	<b>C</b> (mm)
<b>I,3m</b> <sup>2</sup>	1725	1801	831
1.6m <sup>2</sup>	1875	1956	<b>9</b> 02
2m <sup>2</sup>	2300	2407	1111

Fins have zero weight in water



#### JSER EXPERIENCES

# "It is like riding a Magic Carpet..."

- John Maxey, owner Fairline 78



Visit our web pages www.side-power.com/stabilizers and learn more!



#### **SPS TOOL** for iPhone

Available on the App Store

The SP Stabilizer Tool for iPhone is a collection of functions that assists the boat owner/builder in choosing the right equipment as well as measuring the stabilizing effect from the system.

Screenshot from the SPS TOOL, actual test results from a Fairline 78 doing 20 knots boatspeed – in force 7 winds off Antibes - large, breaking waves directly beam on...





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