

SMART
GYRO

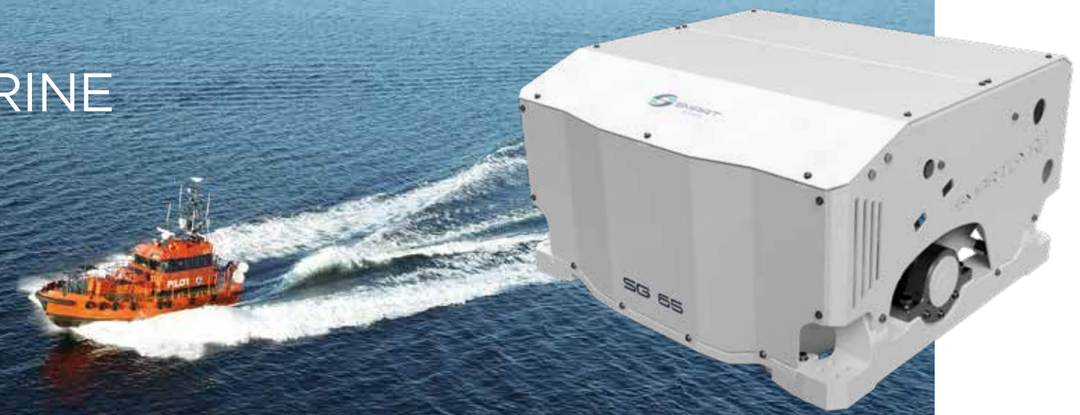
FEEL THE MAGIC

THE FUTURE OF MARINE STABILIZATION

Enhancing operational efficiency – and safety – with advanced gyro stabilizers

Smartgyro gyro stabilizers optimize maritime operations for commercial vessels, such as military, patrol and passenger boats. The cutting-edge technology offers significant benefits to ship owners and operators, with improved performance and exceptional stability enhancing efficiency and safety at sea.

Founded in 2014 and based in La Spezia (Italy), Smartgyro is backed by strategic partner YANMAR and its companies, including VETUS, Maxwell and Flexofold.



IMPROVED NAVIGATION AND SAFETY

Smartgyro's superior stability improves sensor and radar accuracy for precise navigation and ultimate safety.

INCREASED LONGEVITY

Reduced wear and tear on the vessel means less maintenance and an extended life cycle.

INCREDIBLE VERSATILITY

Designed for a wide range of commercial vessels – user-friendly, quick and easy to install.

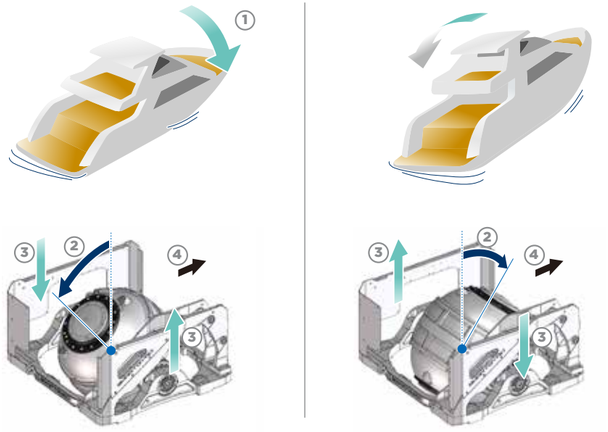
ENHANCED PRODUCTIVITY

Minimal vessel movement helps to decrease crew fatigue – promoting safer and more efficient operations.

HOW DOES SMARTGYRO WORK?

HERE IS THE KEY CONCEPT

When the boat rolls, it forces the gyroscope to change its orientation, resulting in a precession motion that generates a torque opposing this change of orientation.



1. Boat tilt
2. Precession angle
3. Anti-roll torque
4. Bow



ENHANCED STABILITY

Smartgyro actively stabilizes the vessel by reducing roll motion, ensuring a steady platform even in rough waters. This is vital for precision tasks, such as offshore construction or research operations.

INCREASED SAFETY

By reducing roll, Smartgyro improves safety by lowering the risk of accidents, keeping cargo secure, and helping crew members maintain their balance.

MINIMIZED CREW FATIGUE

Gyros significantly reduce vessel roll, which decreases motion sickness and fatigue among crew members. A well-rested crew operates more efficiently and with fewer errors.



IMPROVED FUEL EFFICIENCY

With less rolling, drag is reduced, leading to more efficient fuel consumption, cost savings, and a smaller environmental footprint – especially for workboats on extended operations.

HIGHER PRODUCTIVITY

Stability improvements allow vessels to operate longer and in different sea states where you might need to slow down or delay operations.

EASY INSTALLATION AND INTEGRATION

Smartgyro can be easily retrofitted or fitted to new builds without major modifications, making it a flexible solution for various workboat sizes and configurations.



WHAT MAKES SMARTGYRO SPECIAL?

Every second counts in the challenging world of commercial marine operations. That's why Smartgyro is designed to minimize not only unwanted movement, but also downtime during maintenance.

EXISTING BOATS

The base frame can be broken down into parts to allow for installation through narrow access hatches, making refitting easier and more cost-efficient.

NEW BOATS

The unit's compact dimension allows boat builders to easily integrate Smartgyro into vessel design, including taking advantage of empty hull space.



MODULAR DESIGN

For easy assembly, servicing and maintenance inside the boat, reducing the need for downtime or expensive haul outs.

LIQUID COOLING

Removes heat generated by the motor, bearings, inverter and hydraulic manifold.

VACUUM FLYWHEEL ENCLOSURE

The built-in pump automatically restores the vacuum, ensuring top performance at all times.

GYRO CONTROL MODULE

Monitors and processes boat behaviour data in real time.

DRIVING PERFORMANCE

Stops the gyro's counteracting forces during quick turns for a smoother ride.

CONTROL YOUR SMARTGYRO

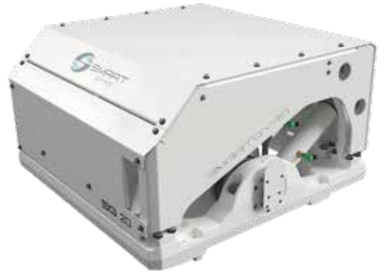
Effortlessly manage Smartgyro's features with intuitive controls

Operators can easily navigate Smartgyro's key functions through an intuitive graphic user interface. Each Smartgyro unit comes equipped with a 5-inch touchscreen display or can seamlessly connect to multifunctional displays (MFDs).





PREMIUM WARRANTY



Committed to keeping your maritime operations running smoothly, Smartgyro offers a tailored 1 year/1000* hours warranty program for commercial applications. For detailed information, please contact the Smartgyro team.

*whichever occurs first



GLOBAL NETWORK

Smartgyro has a worldwide distribution network. To find a dealer near you, please go to the website:

smartgyro.com/find-dealer

BACKED BY A GLOBAL LEADER

Smartgyro is part of YANMAR.

YANMAR is a privately-held, multinational company with headquarters in Osaka, Japan.

YANMAR

SMART GYRO · vetus · MAXWELL · flexofold sailboat propellers

SPECIFICATIONS



SG 20



SG 45



SG 65







	SG 20	SG 45	SG 65			
Target boat	45 – 55' or up to 25 tons	50 – 60' or up to 40 tons	55 – 68' or up to 50 tons	60 – 75' or up to 60 tons	70 – 85' or up to 75 tons	85 – 110' or up to 100 tons
Maximum rated speed	9.500 RPM	6.500 RPM	6.000 RPM	5.500 RPM	4.500 RPM	4.500 RPM
Angular momentum at max. rated speed	5.900 Nms	9.100 Nms	14.000 Nms	15.400 Nms	28.000 Nms	37.000 Nms
Max. anti-rolling torque at max. rated speed	15.500 Nm	21.000 Nm	38.500 Nm	42.300 Nm	68.200 Nm	90.100 Nm
"Spool-up" time to max. rated speed	55 minutes	45 minutes	45 minutes	50 minutes	60 minutes	65 minutes
"Spool-up" time to stabilization	35 minutes (65% of rated speed)	25 minutes (65% of rated speed)	26 minutes (65% of rated speed)	27 minutes (65% of rated speed)	40 minutes (65% of rated speed)	45 minutes (65% of rated speed)
Input voltage (AC)	115V nominal, 50/60 Hz, single phase 220V nominal, 50/60 Hz, single phase	220V nominal, 50/60 Hz, single phase	220V nominal, 50/60 Hz, single phase	220V nominal, 50/60 Hz, single phase	380V nominal, 50/60 Hz, three phase	380V nominal, 50/60 Hz, three phase
Control DC power input	12 Vdc	24 Vdc	24 Vdc	24 Vdc	24 Vdc	24 Vdc
Max. "spool-up" AC power (*)	3.5 kW	3.5 kW	4.2 kW	4.9 kW	5.5 kW	6.0 kW
Operating AC power (*) (**)	1.5 – 2.5 kW	1.5 – 2.2 kW	1.8 – 3.0 kW	2.0 – 3.5 kW	2.0 – 3.0 kW	2.0 – 3.5 kW
Control DC power ("spool-up" and operating)	150 W (including display)	150 W (including display)	150 W (including display)	150 W (including display)	250 W (including display)	250 W (including display)
Sea water supply	15 (min) – 30 (max) LPM [4 (min) – 8 (max) GPM]	15 (min) – 30 (max) LPM [4 (min) – 8 (max) GPM]	15 (min) – 30 (max) LPM [4 (min) – 8 (max) GPM]	15 (min) – 30 (max) LPM [4 (min) – 8 (max) GPM]	30 (min) – 50 (max) LPM [8 (min) – 13.5 (max) GPM]	35 (min) – 55 (max) LPM [9 (min) – 15 (max) GPM]
Operating temperature	0 – 55 °C [32 – 131 °F]	0 – 60 °C [32 – 140 °F]	0 – 60 °C [32 – 140 °F]	0 – 60 °C [32 – 140 °F]	0 – 60 °C [32 – 140 °F]	0 – 60 °C [32 – 140 °F]
Envelope dimensions (L x W x H)	770 x 760 x 650 mm [30.3 x 29.9 x 25.6 in]	930 x 870 x 670 mm [36.6 x 34.3 x 26.4 in]	890 x 956 x 694 mm [35.0 x 37.8 x 27.2 in]	1111 x 1080 x 870 mm [43.7 x 42.5 x 34.3 in]	1418 x 1361 x 1021 mm [55.8 x 53.6 x 40.2 in]	1418 x 1361 x 1021 mm [55.8 x 53.6 x 40.2 in]
Weight	495 kg [1091 lbs]	625 kg [1378 lbs]	799 kg [1761 lbs]	980 kg [2160 lbs]	1770 kg [3902 lbs]	1960 kg [4321 lbs]
Noise output	70 – 72 dBC @ 1 meter	68 – 70 dBC @ 1 meter	65 – 68 dBC @ 1 meter	68 – 70 dBC @ 1 meter	72 – 74 dBC @ 1 meter	72 – 74 dBC @ 1 meter

smartgyro.com/products

(*) Sea water pump excluded
(**) Sea state dependent

VISIT
smartgyro.com

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V2.0

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