

# SEAKEEPER 2.0 Anti-Roll Gyro

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It used to be that shipboard gyrostabilizers were the exclusive domain of supersized yachts and sport-fishers. With the introduction of Seakeeper's newest and most compact model 2 unit last year, an entire new world of "comfort at sea" has been extended to boats in the 27- to 31-foot range. Employing the Seakeeper's computer-controlled gyroscope can eliminate up to 95 percent of boat roll with the flick of a switch.

The Seakeeper's proprietary design, inspired by aerospace technology, centers on a powerful steel flywheel that spins at high speeds in a near vacuum, eliminating air friction and allowing weight, heat generation, and power consumption to be minimized. The technology works in all sea conditions, both at rest and underway. Completely self-contained, the Seakeeper produces no drag and, unlike fin stabilizers, has no risk of damage from impact. It can be installed as a new build feature or can be retrofitted to virtually anywhere on the boat. The first practical, modern, anti-roll gyro, Seakeeper is designed for vessels 27 feet and up to 7 tons (14,000 pounds). It requires modest electrical 12-volt power via a dedicated house battery and is engineered with extreme precision.

When the boat rolls, the gyro's frame tilts fore and aft, producing a powerful gyroscopic torque to port and starboard that counteracts the boat's roll. Once engaged, the flywheel spins at speeds up to 9,700 rpm (557 mph), generating enough force to stop a boat from rolling. Seakeeper's patented cooling system removes heat generated from within the vacuum enclosure and dissipates it through a combination of glycol and seawater in its heat exchanger. This enables the flywheel to spin at an extremely high rate of speed, providing ultimate performance in the smallest and lightest package possible. Seakeeper's active control works as smart technology, automatically gauging the sea state and reacting instantaneously with any requisite adjustments to counteract your boat's rolling motion. Its dashboard display's intuitive operator interface does all of its work automatically, and you simply set it and forget it.

According to factory sea trials, in September 2018, a Seakeeper 2 was installed on a Grady-White Freedom 275 DC. The results were conducted by Tri Sea Stabilizers in Englewood, Florida to measure the performance of the Seakeeper 2 system at zero speed in beam seas with a 10- to 15-knot east wind blowing, creating a tight washboard chop of waves. With the Seakeeper off, the Grady 275 exhibited a plus to minus 6 degrees of roll; with the Seakeeper on, this was reduced down



to less than plus to minus 1 degree of roll. This translates to over a 90 percent roll reduction with the Seakeeper 2 unit activated.

Although the Seakeeper model 2, as well as its larger sister units, are ideal when set into place at the factory when your new boat is being constructed, roughly 25 percent of the 8,000 Seakeepers manufactured to date have been installed as retrofits to existing boats. The unit's small size allows it to be installed virtually anywhere, with many consumers opting for a leaning post replacement, which can be done with no major structural modifications. The Seakeeper 2 can also be mounted below decks, either on or off the centerline.

Because of the complexity of the inner workings and vacuum sealed gyro housing, the annual maintenance is best left to your dealer and Seakeeper recommends having this done after every 1,000 hours of use or once a season, whichever comes first. The current cost of the Seakeeper 2 is \$22,700 and installation is extra. The complexity of the installation will determine its cost, but even the relatively simple leaning post solution will take roughly 18-man hours

to accomplish, so be advised. Seakeeper's website offers a variety of videos that explain the unit's operation, as well as installation. The good news is that many boat builders (like Scout, Grady-White, Contender, Invincible, Albemarle, Regulator, Boston Whaler, etc.) are now offering Seakeeper units

as either optional or standard equipment. The unit measures 24.8 inches L x 25.5 inches W x 20 inches H and weighs 414 pounds. It comes with a two-year warranty with an extended warranty available. For more information visit [www.seakeeper.com](http://www.seakeeper.com).

