

HU2500R Stabilizer Hull Unit

DESCRIPTION

A stabilizer hull unit is the energy transfer device in Quantum’s fin stabilizer systems. The hull unit is installed at the turn of the bilge with its main shaft penetrating through the vessel’s hull to connect to the stabilizer fin. It uses hydraulic cylinders to rotate the main shaft, which deflects the fin to reduce roll.

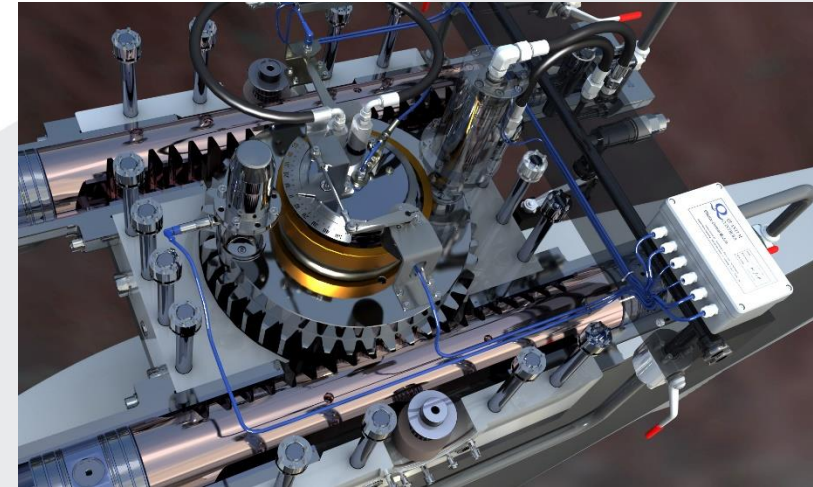
The QC2500R is a rugged machine capable of significantly reducing vessel roll during both underway and Zero Speed™ operations. The rack and pinion through which the unit receives its “R” designation represents the best technology and materials available. The shift from cylinder-tiller actuation to rack-and-pinion actuation dramatically extends maintenance intervals and raises performance through greater fin travel and efficient force transfer through the entire range.

To maximize capabilities, the QC2500R can be made available with built-in porting and electronics to allow this unit to be used with Quantum’s innovative extendable (XTTM) fin system for the best possible performance at any speed.

FEATURES:

- **SIMPLE INSTALLATION:** The hull unit is delivered fully assembled for easy installation into the vessel’s structure, bolting on to the supplied welding bushing.
- **PRECISE FITS AND CLEARANCES:** The main shaft features a tapered cut for a powerful stabilizer fin connection utilizing hydraulic cone expansion for a press fit. A spline connection fits a pinion gear with two racks using four single-acting hydraulic cylinders. The precise fit results in a smooth transfer of energy from the hydraulic cylinders to the stabilizer fin.
- **SAFETY PRECAUTIONS:** A hydraulic locking pin maintains the center position with a manual backup for maintenance operations. A stand-alone hand pump can be connected to the servo manifold to actuate the hydraulic locking pin as well.
- **LOAD HANDLING:** Two tapered roller bearings and one straight roller bearing bear the brunt of the load transfer from the fin to the vessel while the precision cut pinion gear and racks maintain a steady force on the fin.
- **MINIMAL MAINTENANCE:** The hull unit is simple to maintain with stainless steel components to minimize corrosion. Easily accessible grease nipples are built-in with internal porting for greasing the bearings. The unit is designed for replacement of o-rings, seals, and bearings during vessel haul-outs every 15,000 hours.

*Equipment is covered by Quantum’s 1-year comprehensive warranty.
Service and technical support are available worldwide.*



Typical Vessel Length*	75-130m (246-427ft)
Fin Size Range**	6.0-9.5m ² (65-102ft ²)
Max XT™ Fin Size(s) Available	9.5x12.3m ² (102x132ft ²)
Length (including centering cylinders)***	1189mm (47")
Width***	1962mm (77")
Height (overall)***	2132mm (84")
Height (inside vessel after install)***	1282mm (50")
Weight (dry)***	2494kg (5498lbs)

** Provided for reference only. Consult a Quantum representative for system sizing.
** Size may be limited for higher speed vessels; see a Quantum representative for more information.
***Dimensions are of the equipment, and do not include service allowances.*

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