

## PHC I30 IN LINE PASSIVE HEAVE COMPENSATOR

The I30 TENSA In-Line Surface Passive Heave Compensator (PHC) is used in conjunction with a standard winch to maintain a relatively constant load on the winch wire.

This capability is used in the following situations:


- supporting a load which is held stationary on the seabed from a heaving vessel (locked-to-bottom operation)
- limiting the motion and landing velocity of a load lowered onto a stationary support (e.g. seabed or fixed platform).
- to minimize load variations (reduce DAF) when lowering an object through the wave zone
- to maintain tension in a fixed line from a vessel to seabed e.g. guide wire or umbilical
- limiting dynamic line loads when towing

The PHC I30 is a fluid damped air spring with a low spring rate. The active cylinder utilizes water based hydraulic fluid. Energy is stored in high pressure air vessels (APVs) which are charged by a small high pressure air supply such as a diving air system. The tensioning cylinder is based on a proven drilling riser tensioner design with an extremely corrosion and wear resistant metallic/ceramic coating.

Line tension is adjusted by varying the APV pressure.

Tensa can supply the tensioner unit or we can supply a complete system including HP air system and APVs. The equipment is designed to DnV standards. Purchasers may request certification from other recognized certification organisations.

The TENSA PHC I30 is rugged and simple to set up and use. It is designed to fit in a standard sea container for transport. The APVs can normally be located within the compensator frame. A small manual control panel on the frame is used to control the pressure of the system.

	<p><b>SPECIFICATIONS:</b></p> <p><b>Design Pressure:</b> 210 bar</p> <p><b>Maximum Compensating Load:</b> 30 metric tonnes at 160 bar (DAF 1.33)</p> <p><b>Operating Stroke:</b> cylinder stroke 3810mm, wire stroke 7620mm (25 ft) Longer stroke by special order. We can supply a 4 part system with 15240 stroke (50ft) at higher cost.</p> <p><b>Hydraulic Fluid:</b> glycol/water based. Eg Houghtosafe 273</p> <p><b>Accumulators:</b> 400l volume at 210 bar WP. APVs will give load variation of 2.0 over full stroke. Eg 15t at full extension and 30t when fully retracted. Accumulators can be mounted inside PHC tower (not shown on image). Additional APVs can be provided to give a lower load variation over stroke.</p> <p><b>Overall Dimensions:</b> 2370(L)x1970(W)x6520(H) mm</p> <p><b>Weight:</b> tba kg depending on accumulators</p> <p><b>Surface Treatment:</b> Marine coating</p> <p><b>Operating Temperature:</b> 0° C to +50° C</p>
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