

Oilgear TFS Passive Filtration System

Patent Pending

CONTINUOUS FILTRATION FOR OFFSHORE MOTION COMPENSATION SYSTEMS.

OILGEAR™



Oilgear is redefining maintenance for offshore motion compensation systems with a new Passive Filtration System that keeps tensioners online while fluid is continuously cleaned

Problem: Dirty Fluid Drives Tensioner Failures

The number one reason for tensioner failures is contaminated hydraulic fluid, which accelerates wear on valves, cylinders, and critical motion compensation components. Traditional filtration approaches often require taking systems offline, forcing operators to choose between production uptime and fluid cleanliness.

Solution: Continuous, Passive Filtration While Online

The TFS Passive Filtration System continuously cleans hydraulic fluid while your motion compensation system stays online. It harnesses natural ocean heave to move hundreds of gallons of fluid per day through high-capacity, dirt holding filters—no electrical power required.

Continuous filtration while tensioners remain in service.

Fully passive operation driven by heave-induced pressure variation—no motors, pumps, or drives to power or certify.

- High dirt holding proprietary filter media for extended element life and longer intervals between changeouts.

This hands off system operates autonomously in the background, so crews can stay focused on drilling and production instead of scheduling maintenance windows.

Proven Performance

In recent field use, the Passive Filtration System improved hydraulic fluid cleanliness from NAS 12 to NAS 7 in under 3 days and maintained NAS 6 for weeks, creating a cleaner and more stable operating environment for motion compensation equipment.

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What It Means for Offshore Rig Owners and Operators:

- Continuous hydraulic fluid filtration with no interruption to operations.
- Fully passive operation with no electrical components to install, power, or certify.
- Longer filter change intervals thanks to high capacity filter media.
- Extended hydraulic fluid life for lower operating cost and fewer fluid changeouts.
- Reduced tensioner and valve wear, helping preserve critical components and extend system life.
- Cleaner, more stable hydraulic environment for motion compensation systems and associated equipment.



By keeping filtration always on and in the background, the TFS Passive Filtration System helps operators reduce unplanned downtime, improve system reliability, and protect high value motion compensation assets.

Why It's Different

Unlike traditional filtration setups that require systems to come offline for dedicated filtration or maintenance cycles, the Passive Filtration System filters continuously during normal operation. Competitor offerings often depend on powered skids or auxiliary pumps, while TFS requires no electrical inputs and integrates directly into existing hydraulic circuits.

If you're operating offshore and looking to reduce downtime, improve hydraulic fluid cleanliness, and extend component life, the Oilgear TFS Passive Filtration System can be integrated with your existing motion compensation systems.

