



TFH BARRIER FLUID FILL SYSTEM

SAFE, EFFICIENT, AUTOMATIC FLUID LEVEL MAINTENANCE

Barrier (buffer) fluid provides critical functionality for dual or tandem mechanical seals, preventing leakage, lubricating the seal, and dissipating heat from the seal area. The TFH Barrier Fluid Fill System makes dual seal maintenance simpler and more precise by automatically controlling barrier fluid levels.

Manual Fluid Maintenance

Servicing barrier fluid levels manually has multiple drawbacks.

- **Safety risks:** every manual operation carries safety risks for the technician performing the task and others in the area.
- **Labor intensive:** adding fluid manually requires time and effort to stretch a supply hose from the oil drum to each pot, as well as ready availability of a drum pump and drum of special oil that must be kept on the unit.
- **Contamination:** repeated access to a barrier fluid drum introduces risks of water and cross-lube contamination.
- **Human error:** as with all manual procedures, there are risks of adding the wrong fluid or wrong volume of fluid to the seal cavity.
- **Spill risks:** manual filling has a high risk of oil spills.

TFH Barrier Fluid Fill System

Protect the integrity of dual mechanical seals and the equipment assets they secure with a TFH Barrier Fluid Fill System. The system virtually eliminates manual intervention, enabling multiple seal pots to draw from a common, 120-gallon bulk storage tank.

The system boosts the reliability of the seal and supported equipment while significantly reducing labor requirements. Replenishing barrier oil from a self-contained, bulk system helps assure the proper oil is used while maintaining oil in clean, ready condition.

- ✓ Improves safety
- ✓ Maintains seal integrity/ equipment reliability
- 👷 Increases labor productivity
- 💧 Maintains barrier fluid purity
- ✨ Enhances cleanliness/ environmental compliance



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TYPICAL OPERATION

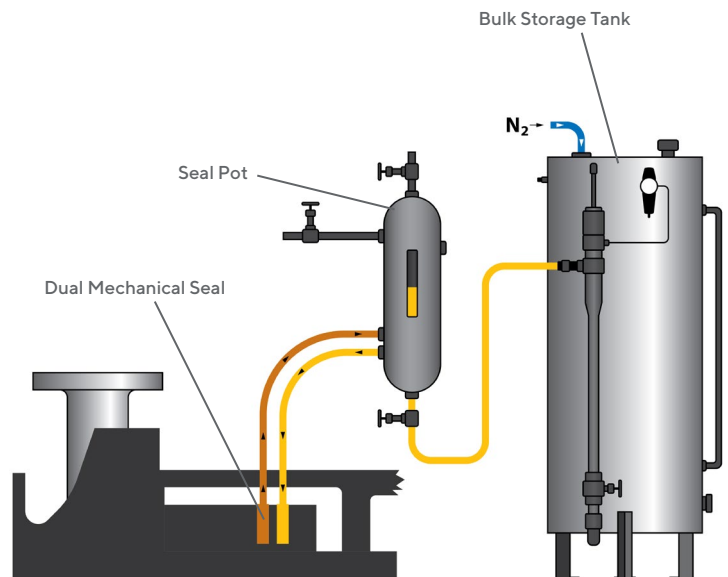
A TFH Barrier Fluid Fill System includes a 120-gallon Bulk Storage Tank (BST) containing new barrier seal oil, which is protected from moisture contamination by a nitrogen purge. This nitrogen blanket ensures the oil remains clean and dry.

The BST is equipped with an air-powered pump that remains off until filling is required. When it's time to fill the seal oil pots, the operator:

- **Opens the air supply** to activate the air-powered pump, which pressurizes the oil supply line to each seal oil pot.
- **Walks to the pumps** where the seal oil pots are located.
- **Opens the fill line valves** at each pot to allow new oil to flow in.
- **Monitors the filling process** to ensure each pot is filled appropriately.

After all pots have been filled, the operator:

- Returns to the BST, and
- **Closes the air supply**, shutting down the pump and stopping the oil flow.



TFH SUPPORT SERVICES

T.F. Hudgins offers TFH Barrier Fluid, a premium high viscosity index synthetic fluid for barrier or buffer seal applications.

The following support services are also available to support your TFH Barrier Fluid Fill Systems:

- Installation of Barrier Fluid Fill System
- Bulk storage tank fluid maintenance and supply, eliminating the need to inventory barrier fluid
- Drum disposal or installation of 330-gal tote

