

Mission™ Drilling Olympia™ Double Mechanical Seal



An economical solution for premature single mechanical seal failure.

When operating conditions cause premature failure of centrifugal pump mechanical seals, turn to National Oilwell Varco for the solution. National Oilwell Varco offers a tungsten carbide versus tungsten carbide primary seal with a tungsten carbide to carbon secondary double mechanical seal. The Olympia Double Mechanical Seal can reduce downtime, maintenance and operating costs.

A barrier fluid, rather than the fluid being transferred, lubricates the double mechanical seal. This eliminates seal failure caused from pumps running dry, transferring oil base muds with low aniline points, high temperature muds, and extremely abrasive fluids. Standard mechanical seals must be replaced upon failure and whenever the stuffing box is replaced. If a stuffing box failure occurs, the lock tabs can be installed on the double mechanical seal and the seal can be removed from the old stuffing box and reinstalled in the new stuffing box. This eliminates the cost of a new seal and reduces the repair cost of a failed stuffing box by 250%. Additionally, the Olympia seal is equipped with its own shaft sleeve, eliminating the need to replace the pump shaft sleeve.



Olympia Seal

Olympia Double Mechanical Seal



Installation Kit (above photo)

- 1 Mechanical Seal**
Stuffing box Hard iron 316 ss or high Chrome
- 2 Gaskets**
Fiber fill gaskets
- 3 Olympia Seal**
Cartridge style Mechanical seal
- 4 Bolts**
Gland Bolt assembly
- 5 Hoses**
Hydraulic hoses for reservoir with quarter turn ball valve and threaded end connection
- 6 Stand**
Steel stand for barrier fluid reservoir
- 7 Fluid Reservoir**
Reservoir assembly with check valve, relief valve, pressure regulator and pressure gage

The barrier fluid reservoir is filled with 100% filtered water (or 60% filtered water, 40% glycol mixture for areas that may encounter freezing temperatures) and air charged to 10 to 15 psi adjust as required. This charge pressure ensures that the barrier fluid is lubricating the seal faces. The reservoir is equipped with a check valve that allows the air line to be removed after charging the vessel. Other standard equipment includes a pressure gauge, pressure regulator and relief valve.

The relief valve is set at 60 PSI and the pressure vessel is rated up to 80 PSI. The double mechanical seal can be installed on centrifugal pumps previously equipped with single mechanical seals, or ordered as a feature of a new pump. A double mechanical seal installation kit is shipped complete with the Olympia seal, stuffing box, barrier fluid reservoir, hoses, gaskets, bolts, studs, nuts, mounting bracket, and lubricant.



Fluid Reservoir

Features and benefits:

- Can be removed and reinstalled
- Equipped with shaft sleeve
- Longer run times
- Fewer failures
- Lower operating costs
- Installation kit shipped complete

Application:

- Pumps that have run dry
- Oil base muds with a low aniline point
- High temperature mud applications
- Extreme abrasive applications

Available on:

- Magnum™ Pumps
- Sandmaster Pumps
- 2500 Supreme Pumps