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COMPARING OUR SEALS

Illustrating the differences between the Lasdrop Mechanical Face Seal & Lip Seal design and function.

1) Water injected into the water lubricated bearing through dual water cooling ports

face seal



2) The compressed pressure housing (which is secured to the shaft) with integrated stainless rotor spins against the carbon graphite friction ring.

3) THE SEAL: A thin film of hydroplaning water forms between the compressed stainless rotor and carbon graphite friction ring during rotation creating the dripless **Mechanical Face Seal**. When shaft rotation slows or stops, hydroplaning stops and the compression maintains its dripless design.

HOUSING ASSEMBLY (WITH SEAL)

1) Water injected into the water lubricated bearing through dual water cooling ports

> MOVING PARTS (PROPELLER SHAFT)

2) Shaft passes through the housing assembly which contains the primary Nitrile Lip Seal. The shaft spins against this fixed seal that is secured inside the housing.

3) THE SEAL: Through the rotation of the shaft, injected water lifts the **Lip Seal** away from the shaft resulting in a **thin layer of hydroplaning water between the fixed seal and rotating shaft.** This hydroplaning prevents direct Nitrile Lip Seal contact while in motion (preventing dry rubbing and excessive friction wear). When shaft rotation slows, or stops, the hydroplaning action stops, and the seal returns to directly contact the shaft maintaining its dripless design.

EliteSeal Dry Seal

FRICTION

HOUSING

ASSEMBLY

MOVING PARTS



-WHY LASDROP



compression created by a spring **pressure housing**



compression created by a **bellows hose** (requiring frequent replacement)

pressure housing friction

housing

Integrated bearings allow the seal body to follow the shaft

Our Integrated water lubricated bearing will allow the seal body to follow the shaft insuring proper face seal alignment.

• NO set screws to damage the shaft.

The pressure housing secures to the shaft through an integrated clamping system.



A proven commercial grade mechanical face seal with stainless steel pressure housing rotating against the carbon friction housing surface providing dripless operation resulting in no shaft wear or damage.







lip seal

A simple replacement to a traditional stuffing box, our rotary lip seal design offers dripless reliability. All EliteSeal models includes 1 spare lip seal (with available room for 2 seals) inside the spare seal case; serviceable without removing the propeller shaft courtesy of our innovative split face plate.

-WHY LASDROP

Integrated bearings allow the seal body to follow the shaft

Our Integrated water lubricated bearing will allow the seal body to follow the shaft insuring proper face seal alignment.





Built on the proven technology of our EliteSeal design, the DrySeal is an economical replacement to a traditional stuffing box. This simplified rotary lip seal design offers dripless reliability, space-saving size, and is popular with rudder shaft applications.