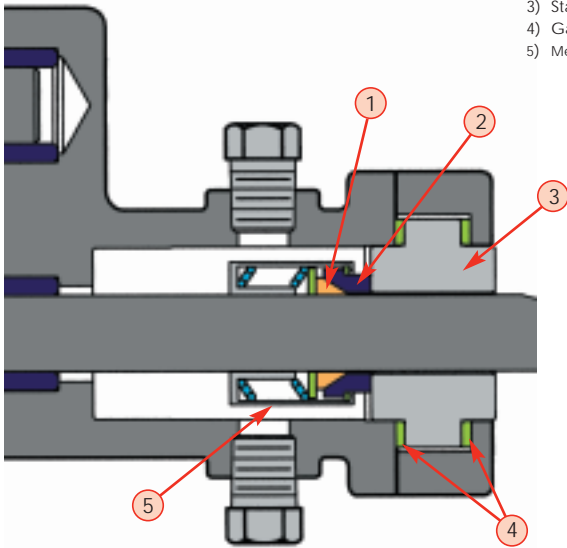


Liquiflo Seals Every Deal

Liquiflo Has a Seal Arrangement for Every Application

Single Mechanical Seal - Internally Mounted

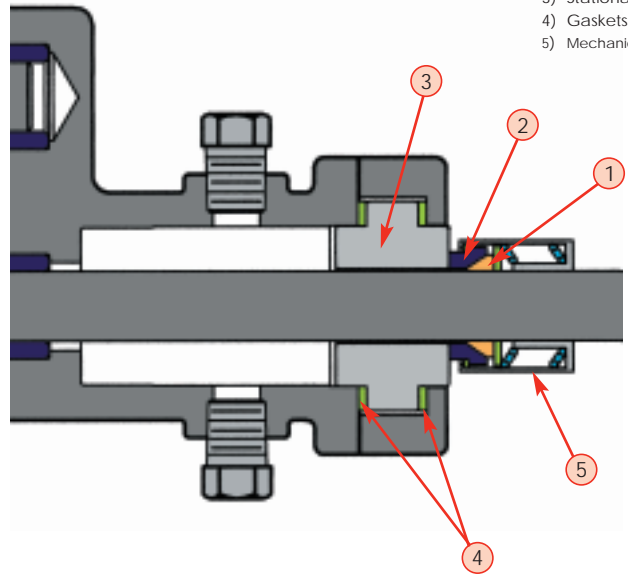
- 1) Seal Wedge
- 2) Rotating Seal Face
- 3) Stationary Seal Seat
- 4) Gaskets for Seal Seat
- 5) Mechanical Seal Body



The **Single Mechanical Seal** arrangement is the standard and is by far the most commonly used when pumping any type of chemical where leakage needs to be kept to a minimum. This seal type can tolerate limited amounts of abrasive particles. The maximum fluid viscosity recommended is 5000 CPS.

Single Mechanical Seal - Externally Mounted

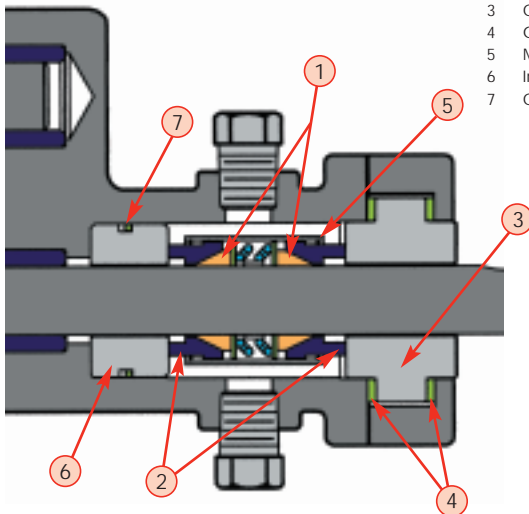
- 1) Seal Wedge
- 2) Rotating Seal Face
- 3) Stationary Seal Seat
- 4) Gaskets for Seal Seat
- 5) Mechanical Seal Body



The **External Mechanical Seal** arrangement is used when system pressures are below atmospheric pressure (vacuum). This is because the atmospheric pressure will assist in holding the seal faces together. This seal arrangement isolates the mechanical seal from the fluid being pumped which can be an advantage when pumping chemicals that are not compatible with the seal body. The maximum fluid viscosity recommended is 5000 CPS.

Double Mechanical Seal

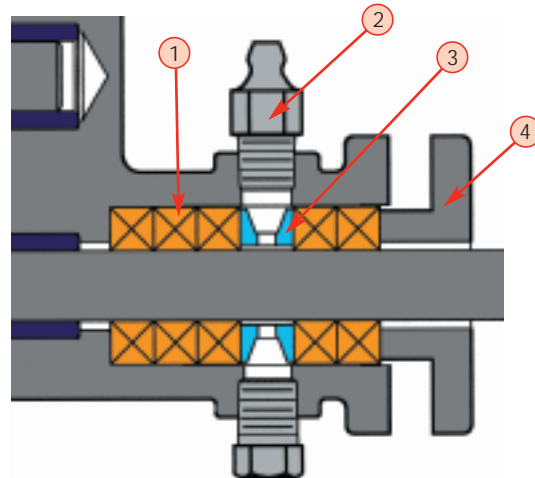
- 1 Seal Wedges
- 2 Rotating Seal Face
- 3 Outboard Seal Seat
- 4 Gaskets for Seal Seat
- 5 Mechanical Seal Body
- 6 Inboard Seal Seat
- 7 O-Ring



The **Double Mechanical Seal** arrangement relies on a lubricating system to cool the seal faces. The lubricating barrier liquid washes the seal faces and must be safe and compatible with the pumpage. Accordingly, double seals are preferred for crystallizing or abrasive liquids as the seal faces are only exposed to the flush liquid. Double seals must be pressurized so that the seal chamber has about 15 PSI higher pressure than the pump discharge pressure.

Packing

- 1 Packing
- 2 Grease Fitting
- 3 Lantern Ring
- 4 Gland Plate



Although **Packing** is still used, it is not very common in the chemical processing industry. It is still considered to be an acceptable solution when pumping safe liquids or where the seal drainage can be captured. Flocculants, water, and caustics are common examples of fluids which use this type of seal. Teflon is the standard packing material. Grafoil packing is used for high-temperature applications. A leakage rate of 8-10 drops per minute is required to lubricate the packing-shaft interface.