Mechanical seals are a type of dynamic sealing to prevent leakage along the power transmitting shaft of a rotating machine. The mechanical seals prevent the fluid (water or oil) from leaking to the external environment (the atmosphere or a body of water).

The mechanical seal technology is a combination of mechanical engineering and physical properties. More specifically, the core of the mechanical seal technology is tribology (friction, wear and lubrication) used to control the face surfaces where the stationary and rotary rings rub (slide) against each other.

The face materials where the stationary ring and the rotary ring rub against each other are the most important portions as a barrier to the fluid. If the clearance is too small, the friction increases, hindering the shaft motion or resulting in seal breakage. Conversely, if the clearance is too large, the liquid will leak. Consequently, it is necessary to control the clearance in the order of micrometers to prevent leakage, but at the same time ensuring lubrication by the fluid, thereby reducing the sliding torque and avoiding hindrance to the machines’ rotation.

Mechanical seals with improved functionality will not only prevent the liquid or gas handled by a machine from leaking to the outside, but can also improve machine operating efficiency, thereby helping achieve energy saving and prevent environmental contamination. Moreover, in some cases, rotating machines handle media that, in the case of leakage, can lead to a dangerous accident. Therefore, mechanical seals are required to be highly reliable through manufacturing backed by solid engineering expertise.

With Total Prime, it is possible to fit the pumps with mechanical seals from any supplier. You as the client determine which seal supplier you prefer. However, Total Prime can also assist you in finding a high-quality and durable solution.

Features:

- API Seals

- Split Cartridge Seals

- Single Cartridge Seals

- Dual Cartridge Seals

- OEM Replacement Mechanical Seals

- Slurry Pump Seals

- Engineered Component Seals

- Mixer/Agitator Seals

- Gas Mechanical Seals

- Multi-Lip Cartridge Seal