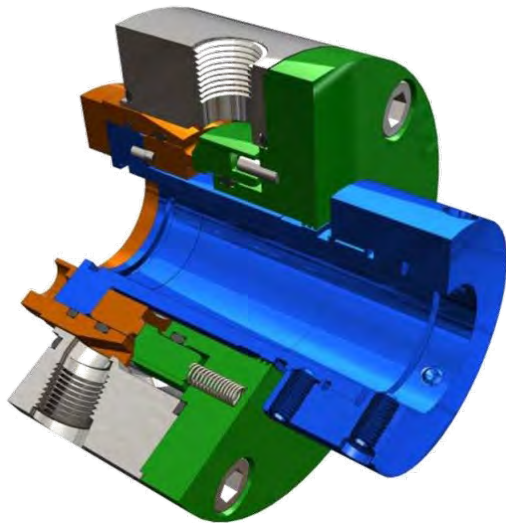


Tori Seal Mechanical Seal Case Histories

Preheater Recirculation Pump

Plant Type:	<i>Power Generation</i>
Pump Model:	<i>End-Suction Pump</i>
Service:	<i>Preheater Recirculation Pump</i>
Liquid:	<i>Condensate</i>
Pumping Temperature:	<i>179°C</i>
Flow Rate:	<i>267m³/hr</i>
Total Head:	<i>72 mtrs</i>



Seal Type:	<i>MT2514 Stationary Balanced Cartridge Seal</i>
Shaft Size:	<i>40mm</i>
Metallurgy:	<i>316 Stainless Steel</i>
Face Materials:	<i>Silicon Carbide/Antimony Carbon</i>
Elastomers:	<i>Kalrez</i>
Seal Pressure:	<i>6.3 MPaG</i>
Pump Speed:	<i>3,550 rpm</i>
Face Velocity:	<i>13.3 m/s</i>
API Plan:	<i>23</i>



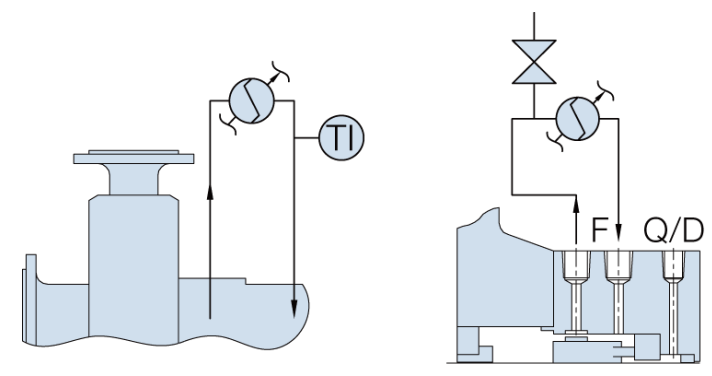
Tori Seal Mechanical Seal Case Histories

Preheater Recirculation Pumps preheat condensate water before it goes into the boiler in a Combined Cycle Power Plant (CCPP). The condensate is at very high temperature and pressure, therefore the pump and mechanical seal must be able to handle these extreme conditions.

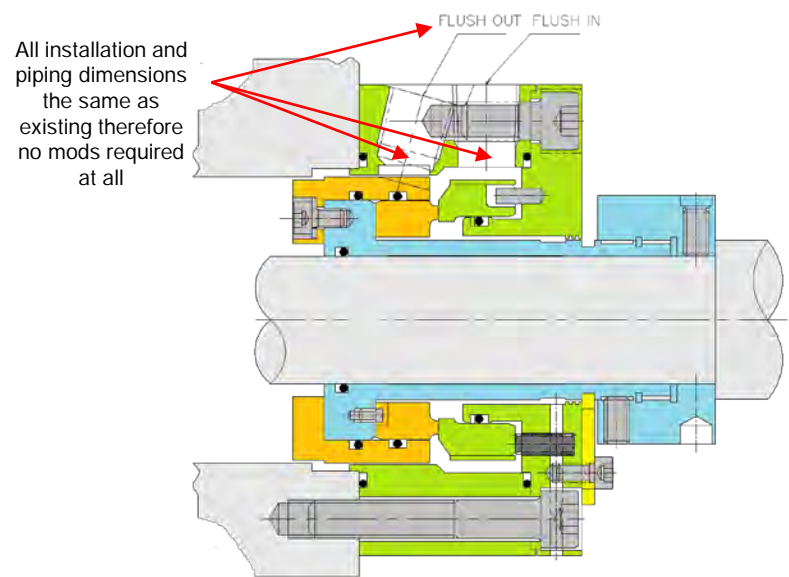
The Tori Seal MT2514 which was supplied was kept in the same style and materials as the existing seal – a stationary cartridge design to handle the high shaft speed and for easy installation, balanced for high pressure capabilities up to 75 barG, and with Kalrez elastomers to withstand any high peak temperatures.

The MT2514 was also supplied without any modifications required to the pump or piping, making it an easy and problem free change-out. The existing cooling system could be used without any changes.

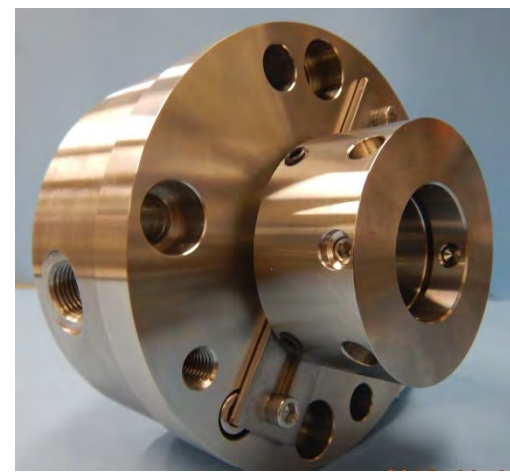
Tori Seal was also able to offer a more cost effective alternative to the previous mechanical seal.



Plan 23 Cooling System



Tori Seal MT2514



Tori Seal MT2514

