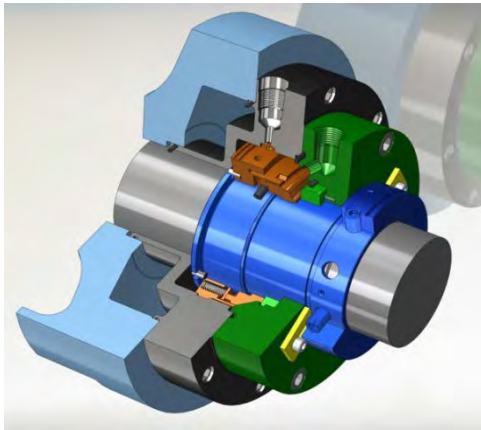


# Tori Seal Mechanical Seal Case Histories

## Boiler Feed Pump

Plant Type:	<i>Power and Desalination</i>
Pump Model:	<i>Multi-Stage Ring Section Pump</i>
Service:	<i>Boiler Feed</i>
Liquid:	<i>Feed Water</i>
Pumping Temperature:	<i>139°C</i>
Flow Rate:	<i>392 m³/hr</i>
Total Head:	<i>980 mtrs</i>



Seal Type:	<b><i>MT2706 Rotating Balanced Cartridge Seal</i></b>
Shaft Size:	<i>96mm</i>
Metallurgy:	<i>316 Stainless Steel</i>
Face Materials:	<i>Silicon Carbide/Antimony Carbon</i>
Elastomers:	<i>Viton B</i>
Seal Pressure:	<i>4.5 – 11.4 barG</i>
Pump Speed:	<i>2,982 rpm</i>
Face Velocity:	<i>18.7 m/s</i>
API Plan:	<i>02, 23</i>



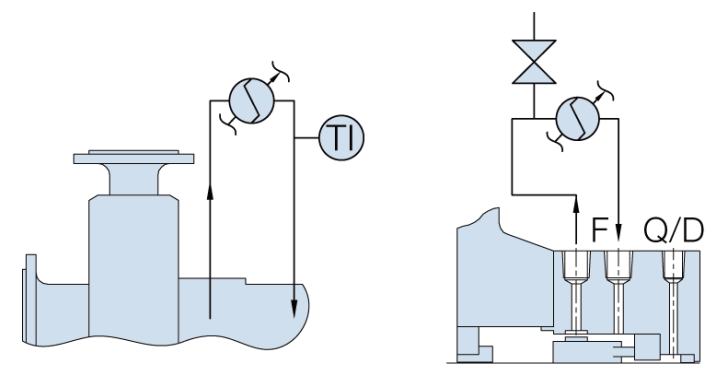
# Tori Seal Mechanical Seal Case Histories

The cooling systems for the mechanical seals on a boiler feed pump are a crucial part of the pump. In order to cool the environment in the stuffing box, the mechanical seal includes a pumping ring to circulate the water through a heat exchanger.

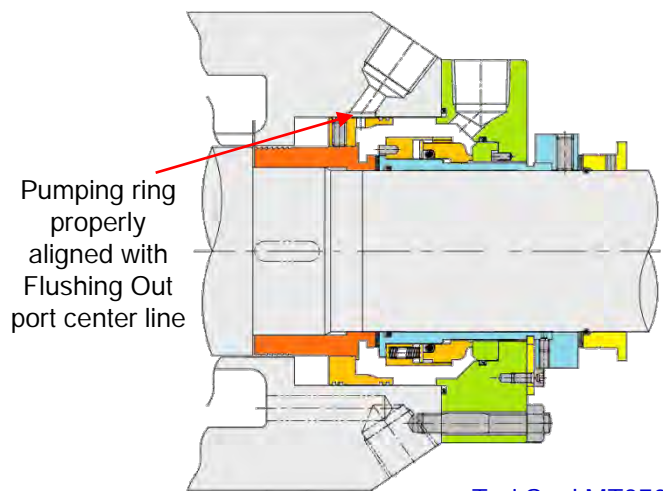
On the previous seal fitted to the boiler feed pump, the pumping ring was not well aligned with the Flushing Out port of the stuffing box. This could hinder and reduce the flow rate of the circulating water thus negatively impacting the cooling efficiency and causing more heat at the seal faces.

During the design of the Tori Seal MT2706 retrofit, this was addressed by ensuring the pumping ring was properly aligned with the Flushing Out port center line to ensure optimal flow and circulation of the cooling water thereby achieving maximum cooling efficiency and extended seal life.

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



Plan 23 Cooling System



Tori Seal MT2706



Tori Seal MT2706



**TORI SEAL**

Over Half a Century of Sealing Reliability

