

## Overview on the Failure in the Multiphase Mechanical Seal in Centrifugal Pumps

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**Abstract :** Mechanical seals are essential components in centrifugal pumps since they help in controlling leaking out of the liquid that is pumped under pressure. Unlike the common types of packaging, mechanical seals are highly efficient and they reduce leakage by a great extent. However, all multiphase mechanical seals leak and they are subject to failure. Some of the factors that have been recognized to their failure include excessive heating, open seal faces, as well as environment related factors that trigger failure of the materials used to manufacture seals. The proposed research study will explore the failure of multiphase mechanical seal in centrifugal pumps. The objective of the study includes how to reduce the failure in multiphase mechanical seals and to make them more efficient.

**Keywords :** mechanical seals, centrifugal pumps, multi phase failure, excessive heating

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