

DG10 - Mechanical (Liquid) Seals: General (Installation, Operation, Troubleshooting, and Retrofitting)

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Mechanical seals are the most common method of sealing industrial centrifugal pumps and other rotary equipment. Although the basic concepts of a seals are simple, successfully using seals requires an understanding of the selection and operational requirements which can be unique for a specific application. In this discussion group, we will cover many of these considerations along with other application experiences from end users and seal OEMs. The discussion group will actively solicit topics from the attendees so the discussions will address real-world problems and challenges faced by the group.

Suggested Topics for Mechanical Seals (Liquid) - Discussion group:

Advancements in mechanical sealing – API 682 4th Edition

Air testing of seals in pumps prior to installation

- Challenges with low temperatures sealing
- Effective leakage containment of single seals
- The Selection and Design of Dual Pressurized Liquid Sealing Systems
- Strengths and weaknesses in Plan 53A, 53B, and 53C piping plans

Considerations when sealing abrasive slurries

- How to apply dual pressurized gas seals
- Mechanical seals for multiphase applications
- Advances in seal face materials
- Process for handling problem pump and seal applications
- Definition of mean time between failure and industry best practices

How and when to use split seals

- Seal & System for rotating equipment other than pumps
- Polymer and Elastomers sealing elements – reliability in Mechanical Seals