FSA Introduces the KnowledgeBase Technical Reference

By Rob Phillips

FSA Member, Flowserve Corporation

key element of the mission statement for the Mechanical Seal division of the Fluid Sealing Association (FSA) states that we intend to be "... the primary source of technical information for our products and their application." For many years, this objective was partially met through the publication and regular updating of the FSA Mechanical Seal Handbook.

For many who have relied on this FSA handbook for technical guidance on mechanical seals and support systems, changes in technology and user behaviors have caused their preferred source of reference material to shift from printed hardcopy materials to searchable online content. Therefore, we have spent the last few years converting FSA's mechanical seal technical documentation into a format that is conducive to self-instruction by online users. This content has been developed, reviewed and vetted by representatives of the leading mechanical seal manufacturers and is considered to be representative of generally accepted best design practices for the industry.

The content has been loaded into a newly developed online knowledge base which includes a search function that quickly links the user with material related to their area of interest. This tool is known as the FSA KnowledgeBase and is accessible at



fsaknowledgebase.org, or via the FSA website, fluidsealing.com.

Anyone interested in a better understanding of mechanical seal and support system design and the best practices for their selection, installation, maintenance and operation is invited to visit the FSA KnowledgeBase. Access is free to all, but users are asked to create a user account so that interest for the KnowledgeBase content can be monitored.

While any user can view KnowledgeBase material, only employees of FSA member companies are able to download content. These employees will be recognized by their company domain in e-mail addresses entered in their user profile.

While the KnowledgeBase can support content in a variety of file formats, it currently contains presentation slides, reports and video. The predominant format for files is Microsoft PowerPoint. This presentation format has been emphasized

because it proves effective for knowledge transfer in a group presentation format and for individual readers.

The KnowledgeBase is segmented into four different subject repositories: Mechanical Seals, Gaskets, Pump and Valve Packings and Expansion Joints. These four repositories will accommodate planned extension of the KnowledgeBase to other product areas that are included within scope of the FSA. However, at this time content is only loaded in the Mechanical Seals repository. Within this repository, content can be accessed by using the search function to navigate directly to a file that contains the topic of interest or by browsing the content in one of seven mechanical seal library categories:

- Fundamentals of Mechanical Seals
- Arrangements of Mechanical Seals
- Material Selection for Mechanical Seals

- Environmental Conditions
- Installation of Mechanical Seals
- Troubleshooting of Mechanical Seals
- Life Cycle Costs of Mechanical Seals

The FSA KnowledgeBase is being officially launched in May 2017 with a library of over 35 files of content and videos, each covering and explaining specific topics. The Mechanical Seal Division Technical Committee of FSA is continuing to develop, format and publish new content to the KnowledgeBase so all users are encouraged to visit the KnowledgeBase often to access the latest submissions.

When setting up their user account, users have the option to request automated email updates any time new content is added to any of the KnowledgeBase subject repositories (although currently only the Mechanical Seal repository is being maintained).

The FSA KnowledgeBase also offers free access to an online version of the Compressor Seal Lifecycle Calculator (LCC) tool, which provides an estimation of the costs, energy requirements and greenhouse gas emissions associated with operating a rotary shaft seal on a centrifugal gas compressor. This tool allows users to compare these parameters for different seal and system configurations so that users can make fully informed decisions on new capital projects or system upgrade projects. Access to other LCC tools will also be provided

as their online versions become available.

Anyone who has an interest in improving their seal knowledge and remaining abreast of the latest mechanical seal industry best practices is encouraged to reference this as their primary source of information. As the FSA seeks to continue to enhance the value provided by this tool to the mechanical seal user community, we encourage users to provide feedback on how the FSA KnowledgeBase can be improved by submitting input through the available link on the homepage. ■

Next Month: Gasket Installation Best Practices

We invite your suggestions for article topics as well as questions on sealing issues so we can better respond to the needs of the industry. Please direct your suggestions and questions to sealingsensequestions@fluidsealing.com.



Rob Phillips is Flowserve Corporation's vice president of global engineering. He has 25 years of experience in the seals and rotating equipment industry. Phillips has his B.S. and M.S. degrees in Mechanical Engineering from Penn State University and a M.S. in Engineering Management from Western Michigan University.

