

Dry-running sealing systems in practice – new challenges by new materials

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In comparison with early plastic-based implementations of dry-running sealing systems, the progress gained in the tribology of friction pairings, in the design of the sealing elements and in the configuration of the sealing systems led to a considerable rise in performance.

However, in the euphoria about this positive development it occasionally has been missed that many of the old recommendations in handling dry-running sealing systems are still valid and, furthermore, some of the new materials show additional characteristics which have to be taken in consideration.

Without the necessary expert knowledge for the employment and maintenance of modern dry-running sealing systems neither their whole potential can be used nor maintained for an as long as possible duration. And also high-quality materials can fail rapidly, if the required conditions for a stable operation are not obeyed, as it is shown by some examples.