

Abstract

The role of improved valve technology in the utilization of natural gas resources

To safeguard the future supply with natural gas considerable investments into compression equipment in gas gathering, gas processing, gas storage and gas transportation is required. In order to keep cost of investment low, compressors are rated at higher speed asking for substantially increased valve performance and valve reliability.

In this paper an approach to overcome the physical limits of standard valve technologies is outlined. It is demonstrated how recent results in mathematical modeling of valve dynamics, material science and manufacturing technology lead to innovative solutions for cope with said challenges.

Numerous successful field installations and performance measurement all over the world demonstrate impressive power saving potentials and reliability gains for the compressor user.

By: Dr. Bernhard Spiegl, Hoerbiger Kompressortechnik Holding, Vienna