Paper 15: Vibration Matters: Reliability in Motor-Driven Pumps and Compressors

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Abstract:

Reliable rotating equipment systems—such as pumps and compressors—are critical to achieving plant production goals and ensuring the financial success of organizations. Unexpected vibration behavior in rotating equipment can lead to production delays and introduce uncertainty into plant planning and operations. Achieving high reliability and availability to meet production and growth targets—and ultimately ensuring financial predictability—begins with proper equipment specification, procurement, and the selection of appropriate components that keep the rotating systems running efficiently.
In this paper, we will explore the causes of vibration in electric motor-driven systems and present real-world field issues. We will also discuss how these problems can be avoided through the correct selection of motors and couplings used to drive pumps and compressors.