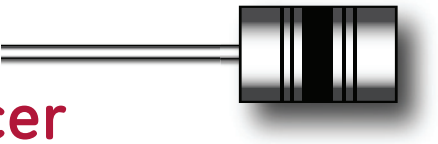
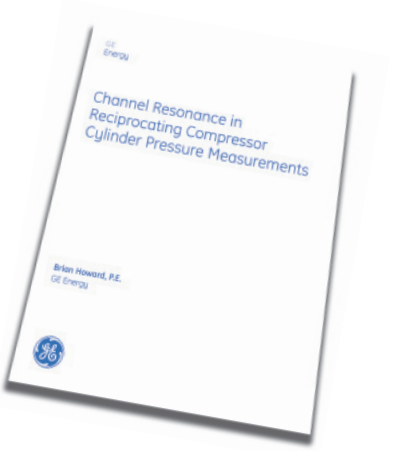


Cylinder Pressure Transducer Installation Pitfalls

Brian Howard
Field Applications Engineer, Reciprocating Compressor Condition Monitoring
GE Energy
brian.howard@ge.com

Cylinder pressure measurements are at the heart of effective condition monitoring for reciprocating compressors. Such transducers provide the all-important pressure-volume (PV) measurements needed to assess mechanical and thermodynamic performance of the cylinder and other parts of the machine. Since this is the part of the machine where compression actually takes place, accurate information is vital in order to ensure the machine is operating with maximum efficiency.

The single most common problem encountered in the field is improper installation of these transducers. When not installed correctly, pressure resonances can occur across the face of the transducer, leading to a transducer output that is completely overwhelmed by the high-amplitude resonance response. The effect is similar to blowing across the mouth of a bottle to create a musical note. If blown just right, the bottle will resonate, often quite loudly.



An in-depth applications note (GER-4273) has been developed to assist users in understanding this phenomenon and in designing a proper installation to preclude resonance problems. You can request a copy of the application note using the reader service card attached to this issue of ORBIT and at www.ge-energy.com/orbit, or by contacting your nearest sales professional.

ООО «Сервис Генерации» +7 (499) 992-09-90 121357, Москва, ул. Инициативная, дом 7, кор. 3, помещение 15 dme.bz