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Torad Engineering Releases Prototype Spool Compressor Performance Data

Purdue University, Indiana -- (July 18, 2012) – Torad Engineering, LLC presented performance data for their fourth generation rotary spool compressor prototype at Purdue University's International Compressor Conference. Joseph Orosz, president of Torad Compressor presented a paper titled *Performance and Operating Characteristics of a Novel Rotating Spool Compressor*.

Professor Eckhard Groll, chairman of the Purdue Compressor Conferences and expert in the field of compressor technology, commented, "the simplicity of the design has allowed the development to proceed very quickly, considering it is a completely new compressor type. Combine this with the minimal complexity of manufacturing, and the industry benefits will be substantial."

The rotary spool compressor is in its fourth generation of prototype development and is moving rapidly towards a commercially viable product. The current level of prototype performance puts the spool compressor in the middle of the efficiency spectrum relative to legacy compressor technologies currently in the marketplace.

Joe Orosz commented "the spool machine technology has demonstrated the ability to function over a wide operating range with excellent performance. The spool compressor's unique characteristics include a positive displacement rotary mechanism that employs active sealing, a simple design and a low manufacturing cost structure, which will allow rapid application of the spool compressor across a wide range of the marketplace."

In addition to the performance paper, four additional papers were presented at the conference on spool technology.

- A Comprehensive Model of a Novel Rotating Spool Compressor Dr. Craig Bradshaw, Purdue University
- Spool Compressor Tip Seal Design Considerations and Testing Greg Kemp, Torad Engineering
- Spool Seal Design and Testing for the Spool Compressor Greg Kemp, Torad Engineering
- Modeling of a Novel Spool Compressor with Multiple Injection Ports Dr. Margaret Mathison, Marquette University

Torad's spool compressor technology features a simple rotary design with four main components: rotor, main housing, vane, and bearing housing. Unlike the complex scroll and screw compressors, the components can be manufactured utilizing lower cost capital equipment. Reliability features include tolerance of liquid flood back, one moving assembly and no axial loads assisting in bearing longevity.

To learn more about Torad's spool compressor and download the papers presented at the conference, please visit http://toradengineering.com/resources/.

About Torad Engineering, LLC

Based in Alpharetta, Georgia, Torad Engineering conducts research, development and licensing of its patented spool machine technology. Torad is currently developing its spool machine technology which holds the promise of breakthrough cost and efficiency advantages for all types of air-conditioning and refrigeration applications, including mobile, stationary, commercial and industrial applications. Torad Engineering, LLC is a privately held company. For more information, visit <u>www.toradengineering.com</u>.