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RadMax Technology Update

Multiple RadMax engineering teams are working simultaneously on prototypes of a variety of devices utilizing the RadMax rotary technology. All developmental processes proceed from a theoretical phase to a design phase to the physical creation of a prototype. We expect to finish successful concept prototypes of five of these devices in the 1st half of 2017. These are, in order of progress:

Small Volume Fluid Pump

A prototype has been designed, built, and successfully tested. This required less than 30 days. Our plan is to scale this model for additional applications.

Diesel Engine

Testing of the diesel engine has been continuing at a steady pace. The following goals have been achieved:

1. Spin testing to validate vane actuation mechanism and drive system up to 20% of top speed.
2. Lube oil system and vane cooling system testing
3. Static seal testing and validation

The results to date have been promising with the lubrication and cooling systems performing well. Wear and friction numbers are looking promising.

The dynamic seals appear to be performing as designed, with initial test results providing promising pressure data. However, dynamic seal spin testing has been suspended for about a week while the cam hardened coating is being evaluated and repaired after adhesion problems were discovered during the initial spin tests.

Low Density Refrigerant Compressor

The theoretical concept phase has been completed, and we are 80% through the initial design phase.

Natural Gas Distribution System Throttling and Power Generation Valve

Theoretical concept work will be completed within the next three weeks, with the prototype design/build stage commencing immediately thereafter.

Air Conditioning Throttling Valve with Integrated Power Generation

This is still in its theoretical phase, and will be completed in 2Q 2017.

Each of these devices utilizes the rotary RadMax technology, and derives significant benefits from that technology.

We continue talking with interested companies and look to initiate face to face meetings during March 2017.

Paul W. Chute, President