

## **Fallbrook Technologies' NuVinci® Delta Series drive test demonstrates potential for annual fuel savings of up to \$1,500 for bus AC unit**

*– Patented continuously variable planetary (CVP) transmission coupled with a 210cc air conditioning compressor replaced a 330cc unit in Chengdu bus; results to be showcased at COMVEC –*

**(San Diego, Calif. – October 5, 2010)** – [Fallbrook Technologies](#) Inc. (Fallbrook), a company dedicated to improving the performance and flexibility of transmissions for engine and human-powered devices, today announced that recent field testing simulating drive conditions produced results that project an annual fuel savings of up to \$1,500 for bus air conditioning systems. The test results showed Fallbrook's NuVinci® Delta Series continuously variable planetary (CVP) [transmission](#), coupled with a 210cc AC compressor, replaced a 330cc unit inside a bus made by Chinese-based Chengdu, Ltd.

“Our product line is designed to enable auto accessories such as air conditioning compressors to run more efficiently regardless of what the engine is doing by continually optimizing compressor speed -- something that, before now, wasn't possible,” said Rob Smithson, Fallbrook's Vice President of Business Development and CTO. “Better yet, we believe that implementing such systems requires little in the way of design modifications, since we can use nearly the same footprint as a current AC unit with a smaller compressor alongside our CVP system. Therefore, accessories no longer need to be sized to meet worst case load conditions at low engine speeds, such as idle. Our NuVinci Delta Series technology is designed to be a practical, economical and universally adaptable way for transportation manufacturers to improve both fuel efficiency and performance.”

Transit buses, government trucks and commercial vehicles share a common air conditioning problem – namely that a belt-driven AC compressor is undersized for the refrigerating capacity desired because installation of a larger compressor is limited by available package space in the existing engine compartment. The NuVinci compressor drive is designed to deliver the ideal compressor speed all the time – optimizing AC operation and performance, thereby enhancing performance, increasing system efficiency and improving fuel economy.

Unlike conventional gear and clutch transmissions, the NuVinci CVP uses a set of rotating and tilting balls positioned between the input and output components of the transmission that tilt to vary the speed of the transmission. Tilting the balls changes their contact diameters and varies the speed ratio. As a result, the NuVinci CVP offers a seamless and continuous transition to any ratio within its range.

The benefits include:

- Better AC compressor performance at idle
- Reduced AC compressor power consumption at engine speeds above idle
- Quiet, smooth operation
- Compact, in-line packaging

“We’re also leveraging this same technology for other auto accessories, such as alternators for government, transit and commercial vehicles, as well as for other industries like wind turbines and agricultural equipment,” said William G. Klehm III, President, CEO and Chairman for Fallbrook. “The *NuVinci* Delta Series is a new class of continuously variable transmission technology that acts as a power management system to control the speed and optimize the productivity. We believe it changes the game for many markets confronting the seemingly incompatible tasks of optimizing both fuel efficiency and performance.”

Fallbrook’s announcement comes as the company prepares to present its simulated drive test findings as well as the technical specifications for its AC and alternator accessory drive products at the Society for Automotive Engineers’ [Commercial Vehicle Engineering Congress](#) in Rosemont, Ill., this week. More information is available at [http://www.fallbrooktech.com/03\\_CVAD.asp](http://www.fallbrooktech.com/03_CVAD.asp).

#### **About Fallbrook Technologies Inc.**

Headquartered in San Diego, Fallbrook Technologies Inc. is dedicated to improving the performance and flexibility of transmissions for vehicles and equipment. The company’s *NuVinci* continuously variable planetary (CVP) technology is applicable to machines that use a transmission, including bicycles, light electric vehicles, automobiles, agricultural equipment and wind turbines. *NuVinci* technology offers companies the flexibility to design and produce next-generation products better tailored to their unique business, market and competitive requirements.

Fallbrook Technologies has built an extensive portfolio of over 350 patents and patent applications worldwide. More information is available at [www.fallbrooktech.com](http://www.fallbrooktech.com).

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