

NuVinci[®] Continuously Variable Planetary Technology Included in Influential Mechanical Engineering Textbook

– Indicates growing viability and acceptance of traction drive continuously variable transmissions (CVTs) –

CEDAR PARK, TEXAS – March 14, 2017 – Fallbrook Technologies Inc., the inventor of the *NuVinci* continuously variable planetary (CVP) transmission technology, today announced that *NuVinci* technology is included in the latest edition of the influential and widely used mechanical engineering textbook, “Fundamentals of Machine Component Design 6th Edition,” by Robert C. Juvinall and Kurt M. Marshek, published by Wiley. This is the first edition of the textbook to include a section on traction drives, which includes *NuVinci* technology. The textbook includes a diagram showing a *NuVinci* CVP and a link to more traction drive information available in a newly created section on Fallbrook’s website at www.fallbrooktech.com/traction-drives.

NuVinci technology combines the time-proven versatility of the planetary gear arrangement with the advantages of seamless shifting in a continuously variable transmission (CVT). Just like a planetary gearset, it can split or sum power, or step speed and torque up or down. However, unlike traditional planetary gearsets, the *NuVinci* CVP can also vary the speed and torque of the power it is transmitting through an infinite set of ratios within its range, thereby providing a whole new set of solutions for engineers looking to optimize the efficiency of their systems in both cost and system level performance.

Acknowledging the significance of the inclusion of the *NuVinci* technology in the publication, Jeremy Carter, Fallbrook’s vice president of product development, notes that “for the first time, a widely used textbook for mechanical engineering students discusses traction drives, including the *NuVinci* CVP. This acknowledges traction drive CVTs as an accepted and recognized element of mechanical system design, just as gears

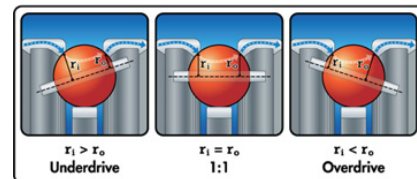
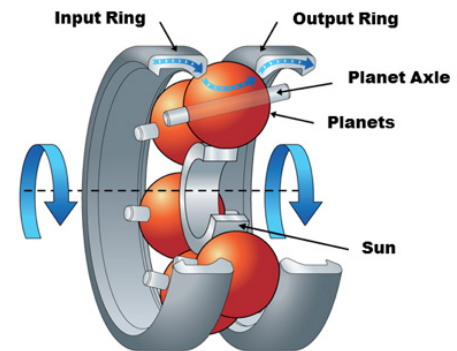


Photo: NuVinci CVP uses planets to transfer torque between an input ring and output ring. Tilting of the planet axis changes the ratio by varying the contact radii.

have been for centuries. *NuVinci* is a platform technology and is suitable for a broad range of applications.”

Since its incorporation in 2004, Fallbrook and its community of licensees from major industry players have invested hundreds of millions of dollars in the development of the technology. Last summer, Dana Incorporated presented its VariGlide® CVP variator using the *NuVinci* technology at the International VDI Wissenforum Conference in Friedrichshafen, Germany, and VanDyne Superturbo Inc. recently selected the technology for its next generation of variable speed SuperTurbo™ drives. Allison Transmission has licensed *NuVinci* for medium- and heavy-duty applications, while TEAM Industries has licensed it for light off-road and on-road applications. Additionally, Continental has adopted *NuVinci* technology for its urban mobility initiatives.

“The *NuVinci* CVP provides the most adaptable, scalable, and affordable CVT available today for companies that need a cost effective, easily controlled, and durable alternative to conventional transmissions or other CVTs,” said William G. Klehm III, Fallbrook’s chairman and CEO. “The *NuVinci* CVP can also be used as a variable planetary drive in virtually any mechanical device and is far simpler, offers more stable control, permits more scalability across product lines, is easier to package, and is less expensive to manufacture and assemble.” Since the invention of *NuVinci* technology, Fallbrook and the community of *NuVinci* licensees have developed and are developing numerous enhancements including support for faster shifting and increased power handling.

Included in the attachment below is additional information about the benefits of the *NuVinci* technology. Further information is available on the Fallbrook Technologies website: www.fallbrooktech.com.

The Juvinall and Marshek textbook is currently available directly from the publisher (Wiley) and will soon be available on Amazon and other booksellers.

About Fallbrook Technologies

Fallbrook Technologies is the inventor of the revolutionary NuVinci® continuously variable planetary (CVP) technology, which enables performance and efficiency improvements for machines that use an engine, pump, motor, or geared transmission system – including urban mobility vehicles, cars and trucks, industrial equipment, and many other applications. Fallbrook has a unique collective development model and community through which *NuVinci* technology licensees share enhancements, which adds to the value of the technology and accelerates product development. This approach enables forward-looking companies, who wish to create visionary new products with *NuVinci* technology, to move quickly from concept to market commercialization. Fallbrook is based in Cedar Park near Austin, Texas, USA and holds rights to over 800 patents and patent applications worldwide. For more information, visit www.fallbrooktech.com.

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Attachment

Additional Information on NuVinci® Technology

The planetary configuration provides the CVP inherent advantages over other traction CVTs described in the textbook.

- Designs incorporating *NuVinci* technology can potentially improve efficiency without sacrificing performance and vice-versa.
- Unlike toroidal CVTs, the *NuVinci* CVP distributes the transmitted torque over several spheres in an inherently stable configuration, thus lowering total clamping force required and significantly improving durability, control stability, and torque density.

This not only provides enhanced traction characteristics when looking at the entire variator, but it also provides design robustness and reliability required by the transportation and mechanical industries at an affordable cost and uncompromising package size – separating it from the rest of the class of traction CVTs.

- The *NuVinci* CVP reduces energy consumption through its continuous speed changing characteristics, allowing the power input prime mover (such as a gasoline engine or electric motor) to operate in its most efficient speed range.
- Overall, the *NuVinci* CVP's mechanical and manufacturing characteristics improve performance and reliability while reducing costs over conventional CVTs and stepped transmissions. As a result, it can potentially replace the planetary gear transmission in most mechanical devices.
- For videos and other information, please see www.fallbrooktech.com/nuvinci-technology.