Thompson Couplings Uses Autodesk Inventor to Create Innovative New Coupling

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Digital Prototyping Key to Overcoming Challenge That Engineers Have Faced for 400 Years

SAN RAFAEL, Calif., July 23 /PRNewswire-FirstCall/ -- Autodesk, Inc. (Nasdaq: ADSK) announced that Thompson Couplings Limited (Thompson), an Australian manufacturer, has used Autodesk Inventor software to develop an innovative new type of coupling that addresses a long-standing engineering challenge. The company's design reduces engineering problems associated with traditional couplings-such as loss of power, vibration, increased wear, and machine damage -- giving it the potential to benefit a wide range of applications, from truck transmissions to helicopter rotary blades.

A coupling connects two shafts at their ends for the purpose of transmitting power. Since the mid 1600s, engineers have attempted to build a coupling capable of transmitting power from one shaft to another at constant velocity without any load-bearing sliding surfaces. The Thompson coupling is the first to accomplish this goal.

As the foundation for Digital Prototyping, products in the Inventor line enabled Thompson to digitally visualize, simulate and analyze coupling design data before anything was actually built, streamlining the product development process and significantly reducing time to market.

"We are thrilled at the speed with which Autodesk Inventor allowed us to develop the Thompson coupling for customers within the automotive, aviation and industrial machinery markets," said David Farrell, director of engineering at Thompson. "As we commercialize the product and enter full production, Inventor will continue to play an important role in designing and testing the product."

Increasing Innovation While Decreasing Time to Market

It is unlikely that Thompson's innovation would have been possible without the advantages of Digital Prototyping. A digital prototype is a simulation of a product that integrates conceptual, engineering and mechanical design data in a single digital model.

By using 3D digital models, Thompson was easily able to perform various tests and analyses, including load calculations. Digital Prototyping enabled the company to iterate on the design until engineers achieved the proper product dimensions and properties-all without the time and costs associated with creating and modifying physical prototypes.

Thompson estimates that by using Inventor software, it was able to accomplish its design goals two to three times faster than if engineers had relied solely on 2D means. In addition, Thompson was able to reduce production of physical prototypes by 40 percent.

"Thompson is doing more than just coming up with innovative ideas-it is turning those innovations into reality in less time, and with lower costs," said Robert "Buzz" Kross, senior vice president of Autodesk Manufacturing Solutions. "Thompson was able to improve upon a mechanical device that has been largely unchanged for more than 400 years. That's the power of Digital Prototyping."

About Thompson Couplings Limited

Thompson Couplings Limited is based in Orange NSW, Australia, and holds patents in the United States, Russia, China, South Africa, Singapore and New Zealand, with patents pending in a broad range of countries. For additional information about Thompson Couplings Limited, visit http://www.thompsoncouplings.com.

About Autodesk

Autodesk, Inc., is the world leader in 2D and 3D design software for the manufacturing, construction, and media and entertainment markets. Since its introduction of AutoCAD software in 1982, Autodesk has developed the broadest portfolio of state-of-the-art Digital Prototyping solutions to help customers experience their ideas before they are built. Fortune 1000 companies rely on Autodesk for the tools to visualize, simulate and analyze real-world performance early in the design process to save time and money, enhance quality and foster innovation. For additional information about Autodesk, visit http://www.autodesk.com.

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