

Continuously Variable Planetary Technology

Introducing a new class of highly adaptable, scalable continuously variable transmissions.



Revolutionary transmission technology to improve vehicle efficiency, performance, and productivity.





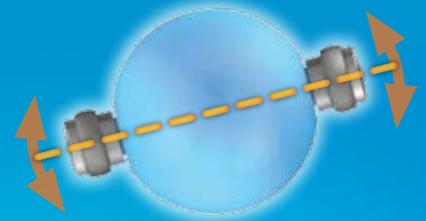
The Next Generation in Transmission Technology

VariGlide™ continuously variable planetary (CVP) technology is Dana's innovative new concept for the off-highway market, revolutionizing traditional transmissions. Featuring a unique planetary configuration in combination with conventional gearing, the VariGlide CVP concept is an optimal solution for OEMs to improve the productivity and efficiency of heavy machines including forklift trucks, teleboom handlers, and other compact construction vehicles.

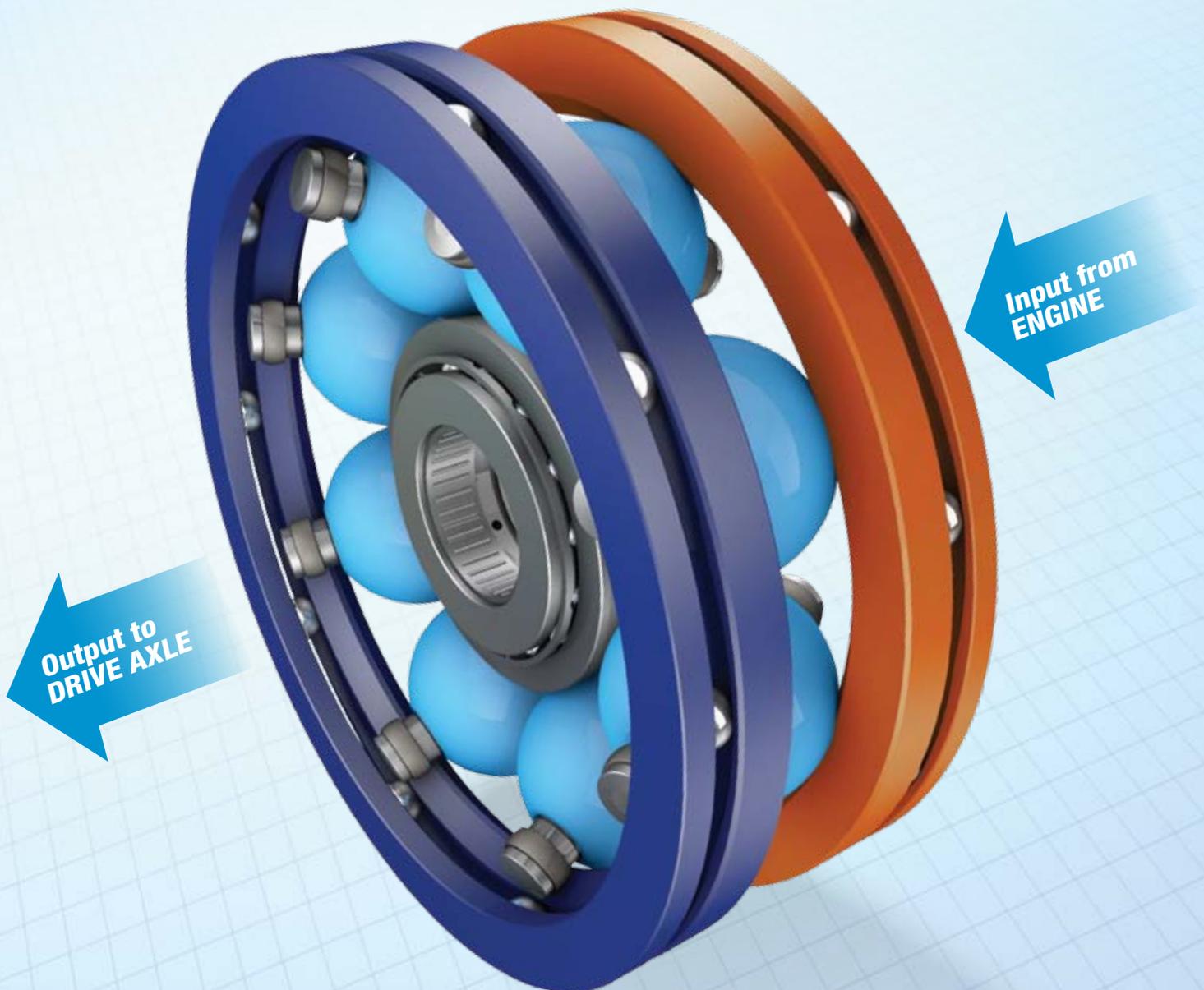
Inside the VariGlide™ CVP Technology



A special traction fluid fills the transmission case to transfer torque between the ball and disc without perceptible slipping by eliminating metal-to-metal contact.



As power enters the variator, the balls tilt on their axes, which changes contact diameters to vary transmission ratios.



VariGlide™ transmission technology is completely scalable for many packaging requirements.

Up To 20%

Increased Fuel Savings



VariGlide transmission technology is scalable to work with a variety of off-highway machines, such as certain tractors, backhoe loaders, teleboom handlers, and compact construction vehicles.



Powersplit Performance

The VariGlide variator replaces the torque converter and potentially the traditional gear and clutch mechanisms, depending on application, in a powershift transmission. With this technology, input power from the engine is split between mechanical gearing, traditional planetary gears, and the variator. This allows multiple powersplit configurations for a smooth, continuous speed progression through full reverse, forward, and powered neutral ranges.

Continuously Variable – Consistently Efficient

For vehicle duty cycles that traditionally require continuous variations in engine speed, VariGlide technology is an ideal alternative to typical powershift transmissions. This platform requires engines to operate across a wide speed range and causes longer running times at higher speeds, which places stress on the engine, consumes more fuel, and compromises productivity.

With VariGlide technology, the vehicle responds to the same operating demands but at a lower, more consistent engine speed for continuous efficiency. This effectively reduces engine wear, improves fuel economy by up to 20 percent, maximizes productivity, and lowers noise and vibration for smoother, quieter operation.

Absolute Flexibility

VariGlide transmission technology is completely scalable to fit any torque requirement, and its powerpath versatility allows it to meet strict packaging requirements – offering easy installation in conventional drivetrain systems.

VariGlide technology enhances off-highway vehicle performance by providing:

- Smoother precision inching and maneuvering
- Controlled deceleration and positioning
- Greater performance on sloped grades
- Reduced noise and vibration for enhanced driver comfort

Rigorous Product Testing

The VariGlide variator has been proven to perform under the most strenuous conditions through more than 70,000 completed hours of rigorous durability testing.



VariGlide™ transmission technology reduces engine stress, reduces fuel consumption, and increases productivity.



SPICER®

Drivetrain Systems

Axles
Driveshafts
Transmissions

VICTOR REINZ®

Sealing Products

Gaskets and Seals
Cylinder-Head Cover Modules
Thermal-Acoustic Protective Shielding

LONG®

Thermal Products

Transmission Oil Coolers
Engine Oil Coolers
Battery Coolers



About Dana Holding Corporation

Dana is an integral partner for virtually every major vehicle and engine manufacturer worldwide. We are a leading supplier of drivetrain, sealing, and thermal technologies to the global automotive, commercial-vehicle, and off-highway markets. Founded in 1904, we employ thousands of people across five continents.

About Dana Off-Highway Driveline Technologies

Dana Off-Highway Driveline Technologies includes research and development, manufacturing, and assembly operations in Belgium, Brazil, China, Hungary, India, Italy, Mexico, the United Kingdom, and the United States. We design, manufacture, assemble, and market Spicer® axles and transaxles, driveshafts and end-fittings, transmissions, torque converters, electronic controls, and brakes. We also provide genuine replacement parts and service.

Dana Off-Highway Driveline Technologies serves more than 1,000 vehicle assembly and manufacturing facilities in 30 countries. Construction, agriculture, forestry, underground mining, material handling, outdoor power, leisure/utility vehicles, and industrial equipment are just some of the markets that demand the quality found in Spicer products and genuine service parts.

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Application Policy

Capacity ratings, features, and specifications vary depending upon the model and type of service. Application approvals must be obtained from Dana; contact your representative for application approval. We reserve the right to change or modify our product specifications, configurations, or dimensions at any time without notice.