DRIVE TRAIN PRODUCTS CVT SYSTEMS WITH ENGINE BRAKING AND BELT PROTECTION TECHNOLOGY



HILLIARD'S CONTINUOUSLY VARIABLE TRANSMISSION

The Hilliard Corporation has designed a CVT system that is more advanced than any other belt drive system currently available on the market. The Hilliard clutch system utilizes a tight belt which allows for seamless engine braking and belt protection at start up and during overload situations, to extend belt life. The Hilliard Continuously Variable Transmission system is designed to fit a wide variety of clutch envelopes so no expensive modifications are required for new vehicles or on replacements for vehicles currently in the field.

ENGINE BRAKING

The patented Hilliard CVT system incorporates a one-way overrunning clutch into the system to allow consistent, seamless and reliable engine braking to fully utilize the compression of the engine. The system provides engine braking from high speed all the way down to and including idle.







HILLIARD'S BELT PROTECTION

The patented Hilliard CVT system provides constant belt grip, even at idle which protects the belt from scrubbing during start–up. Our unique belt protection design allows the torque limiting mechanism to slip and absorb all of the energy instead of damaging the belt. This provides for a much longer belt life. Severe applications have seen belt life increase from 200hrs to over 1000hrs. The design of torque limiting mechanism allows the torque output of the system to increase to 150% of a standard CVT system.

TUNING

The Hilliard torque limiting mechanism is an independent system from the shift mechanism. The acceleration and engine brake performance of the clutch system can be tuned for any platform without affecting belt protection. The Hilliard clutch system is currently tuned for many platforms, including ATVs, UTVs, and side by sides.

