



# CVX-50

(1410 Capacity)

## Product Description

The CVX-50 is a 1410 capacity CV joint that operates with true constant velocity at angles up to 50 degrees. Drive Shafts featuring CVX-50 joints are suitable for a large variety of extreme duty applications. Drivelines incorporating the advanced CVX-50 deliver extended durability in high-speed, high-torque, and high-angle application.

## Applications

CORNAY® CVX-50 joint is adaptable to a wide variety of on-highway and off-highway drive shaft applications. The joints are particularly suited to specialty vehicle 4x4, military and light commercial vehicle applications that require high angle functionality at high speeds operation and low vibration characteristics both on and off the road.

## Performance Advantages

The bootless CVX-50 Joint overcomes the inherent limitations of traditional Cardan and CV joint products. The CVX-50 is durable at nearly twice the operating angles of competitive products. The sealed for life and maintenance free (optional) CVX-50 joint operates at true constant velocity at all joint angles. The features of this advanced CV joint enable durability, minimal vibration and long-life while operating at high-speeds and high-torque at angles up to 50 degrees.

Swing Diameter in. (mm)	Operating Torque Ft-Lb (Nm)	Ultimate Torque Ft-Lb (Nm)	Operating Speed RPM	Maximum Speed RPM	Operating Angle Range
5.00 (127)	350 (475)	2,700 (3,660)	2,200	4,500	5 - 50°

Features	Benefits
• 1410 capacity	• Extended durability at angles above 12°
• Constant velocity at all angles	• Smooth driveshaft operation
• Up to 50° operating angle	• Powertrain design flexibility
• Internal connecting yoke	• Reduced driveline package size
• Ring design	• Reduced vibration
• Sealed needle roller bearings	• Better heat exchange
• Optional lubrication channel	• Longer bearing life
• Bootless design	• Longer product life
	• Smooth driveshaft operation
	• Longer bearing life
	• Maintenance-free



## The CORNAY® CVX-50 provides major performance improvements in areas where traditional universal and constant velocity joints commonly experience weaknesses.

### Advantages of the CORNAY® CVX-50:

- **IMPROVED PERFORMANCE** - Because they were designed specifically for high-speed, high-torque, high-angle applications, CORNAY® CV JOINTS are able to outperform conventional joints when operated at angles over 12 degrees.
- **UNIQUE PATENTED CENTERING DEVICE** - Recent developments, including a newly patented centering device, enables the CVX-50 to perform at constant velocity at all joint operating angles from 5 to 50 degrees. Traditional double cardan joints are designed to achieve constant velocity within a small range, typically 8 to 10 degrees.
- **REDUCED VIBRATION** - Vibration is decreased significantly due to the concentrated mass of the connecting member, the balance of the concentric design and the characteristics of the internal support mechanism.
- **INCREASED DURABILITY** - Longevity and reliability are dramatically increased due to the unique ring-type bearing housing that provides superior heat transfer, thus allowing bearings to run cooler at high angles. A sealed internal support mechanism enables constant velocity at all joint angles and prolongs the life of the joint components.
- **BROADER APPLICATIONS** - Due to its unique physical performance characteristics, the CORNAY® CVX-50 can stretch the capabilities of nearly any transportation and industrial power transmission system. It is capable of providing system cost savings and reduces engineering design compromises associated with the limitations of traditional products.

*Mass inertia-related vibrations are substantially reduced due to the concentrated mass of the connecting member.*

*Constant velocity and prolonged life are achieved through the unique sealed internal support mechanism.*

*The unique ring provides significant improvements in heat reduction, power transfer and rigidity.*

*Adaptable to many vehicle flange configurations.*

