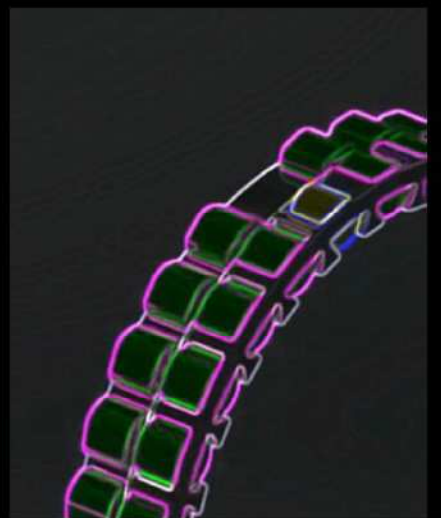
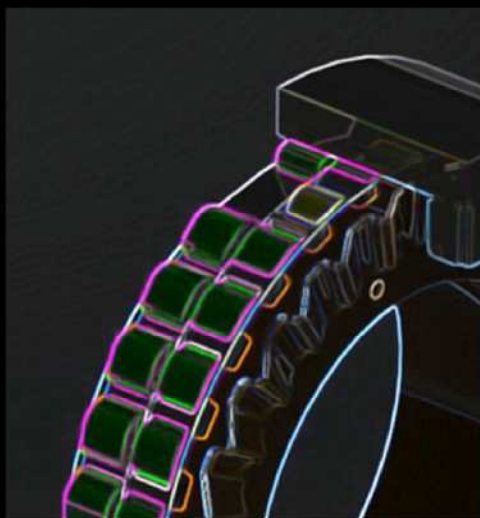


Disconnect Clutch

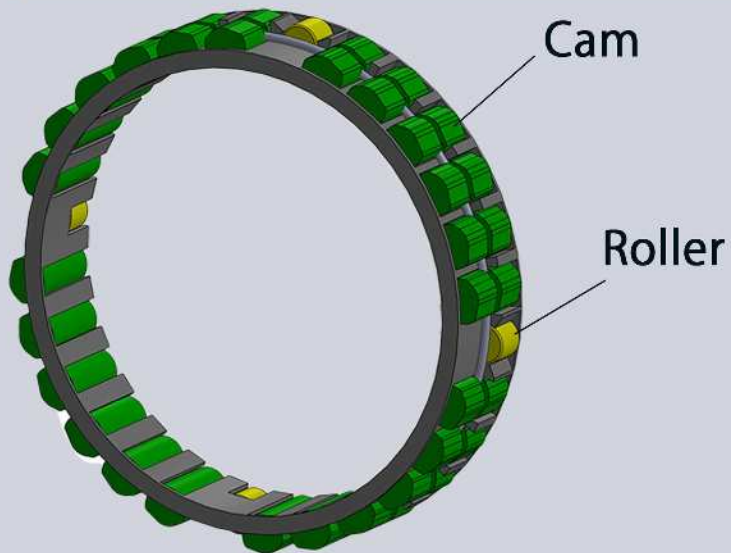


We have pushed our technology to the limits in shortening the response time for switching between 2WD and 4WD in e-Axles.

Cam Ratchet Selectable Clutch

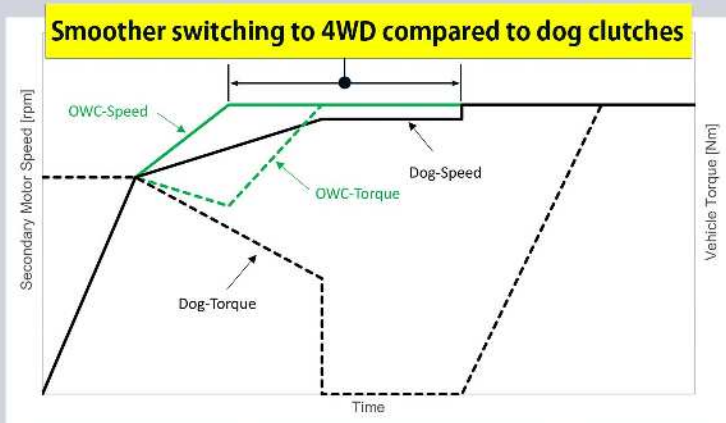
Ratchet function added to the cam and roller. Full disconnect functionality.

Selector switching between 2WD and 4WD in forward movement

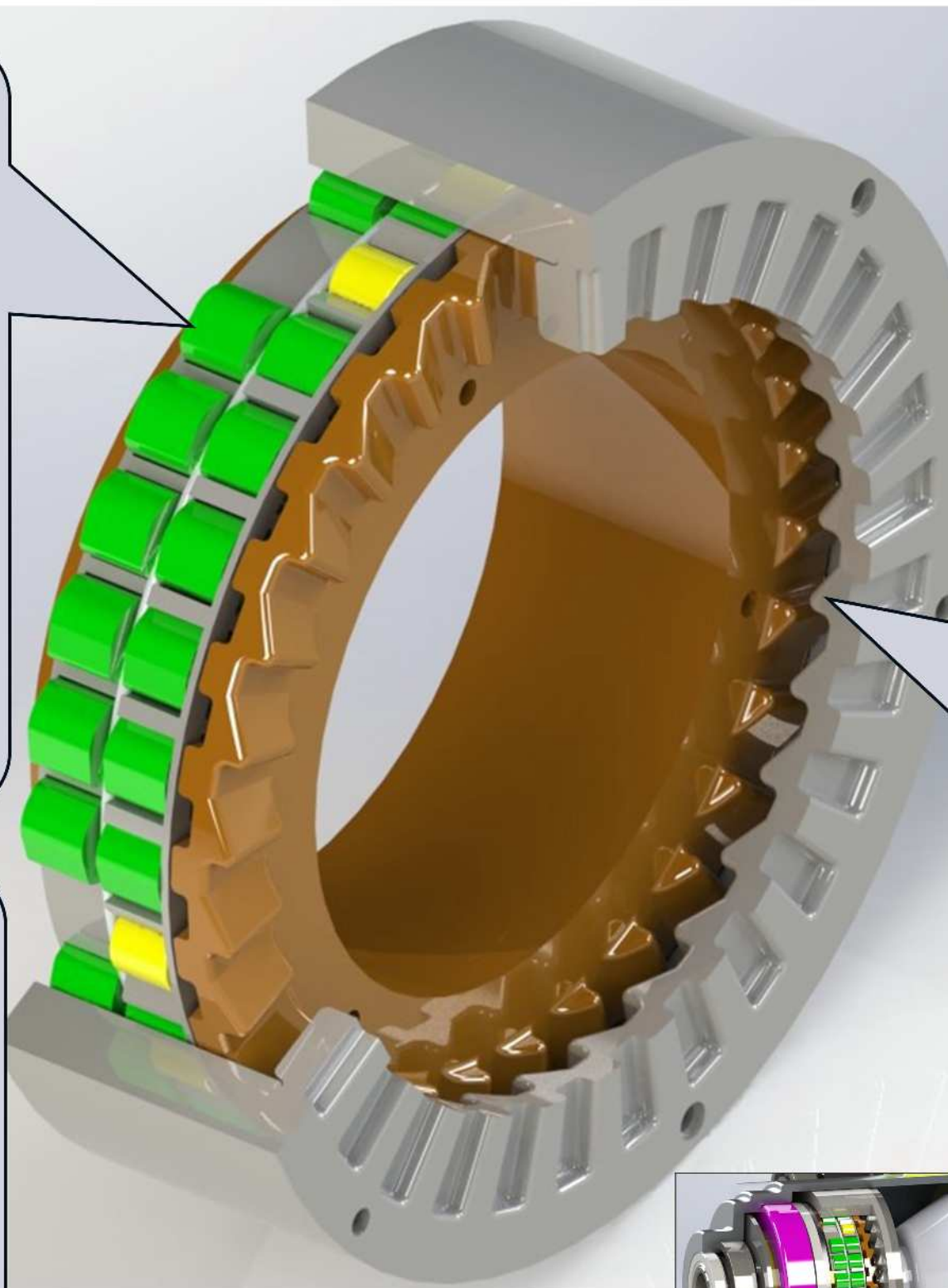


Built-in one-way clutch with rollers that maintain concentricity of the inner and outer rings and support radial loads. The clutch automatically engages when the motor speed catches up with the axle speed.

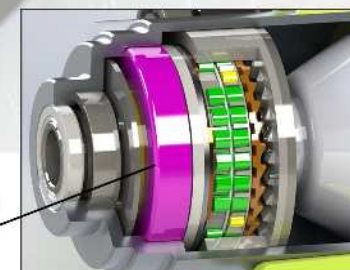
Fastest switching time (forward movement)



The cam is always on standby and engages immediately without actuator action.

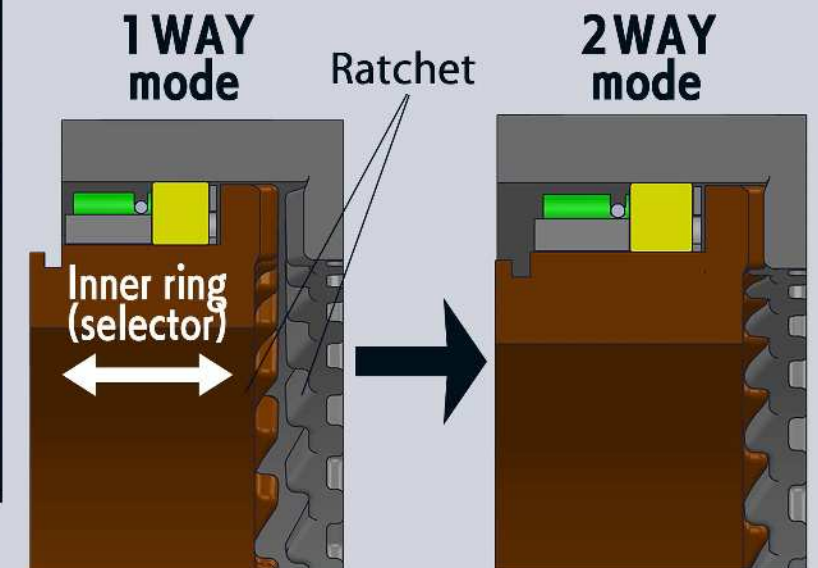


We can also propose a set with actuator!



Selector switching between 2WD and 4WD in reverse motion

Inner ring slides for ON-OFF switching
*A separately purchased actuator is required.



4WD can be implemented in reverse by connecting the ratchet section with the selector when moving rearward.

Regeneration in both forward and reverse movement

By connecting the ratchet section with the selector, reverse input from the wheels can be transmitted to the motor to achieve regeneration during both forward and reverse movement.

We offer an outstanding lineup of products to match a wide variety of disconnect applications. We offer our disconnect solutions as a set with actuators as well.

Automatic switching

Automatic ON-OFF when the rotation speed is matched without the need for a selector or an actuator.

Selector switching

Unique structure minimizes selector switching time.

Regeneration in both forward and reverse movement

Two-way locking mechanism enables regeneration.

Fastest switching time (forward movement)

No selector operation is required, thereby allowing the quickest possible changeover times.

Cam & Roller One-way Clutch



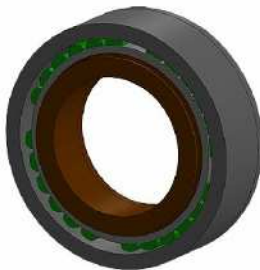
The lightest and most compact model for disconnecting during forward movement.

No selector nor actuator required

Automatic switching between 2WD and 4WD in forward movement

Fastest switching time (forward movement)

Cam Ratchet Selectable Clutch



Ratchet function added to the cam and roller. Full disconnect functionality.

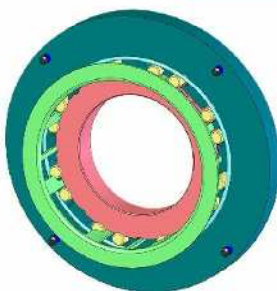
Automatic switching between 2WD and 4WD in forward movement

Selector switching between 2WD and 4WD in reverse motion

Regeneration in both forward and reverse movement

Fastest switching time (forward movement)

Roller Ratchet Selectable Clutch (ON-OFF Type)



ON-OFF function is equivalent to a dog clutch, plus the ability to switch during differential rotation.

Selector switching between 2WD and 4WD in forward movement

Selector switching between 2WD and 4WD in reverse motion

Regeneration in both forward and reverse movement

ON-OFF switching possible even during differential rotation