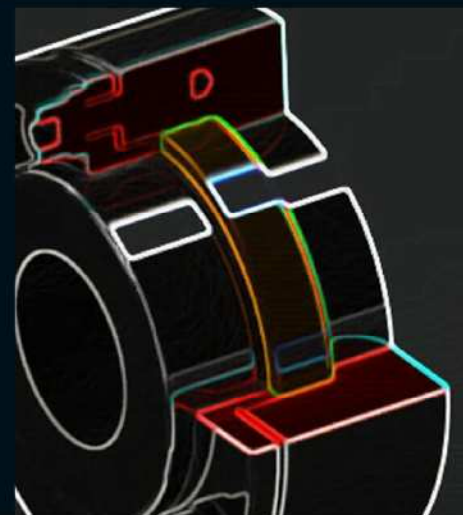
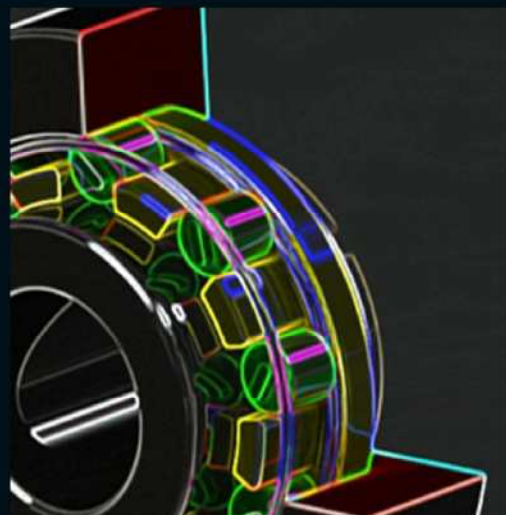
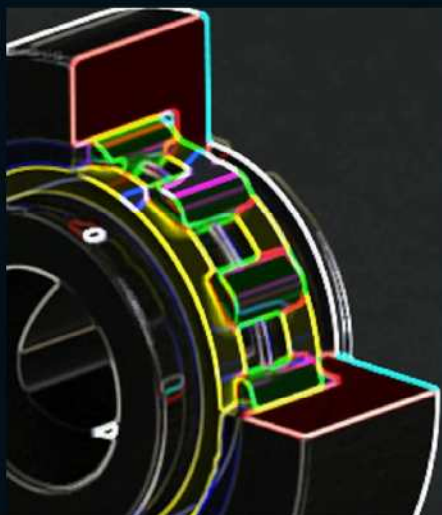


Torque Limiter Clutch

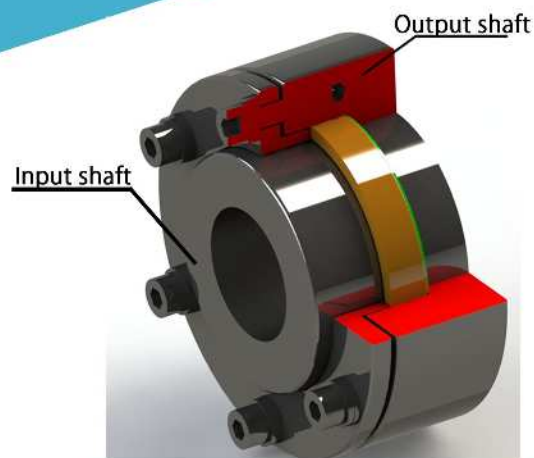
Design of
the future



Product Lineup

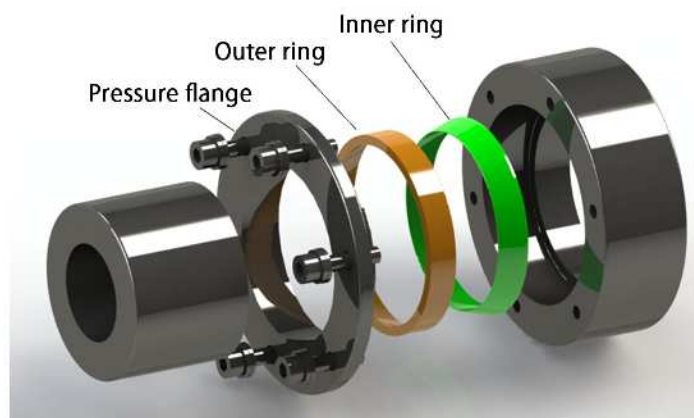
Tsubaki is developing three torque limiter clutch types to meet customer needs.

Tapering type



Product Structure

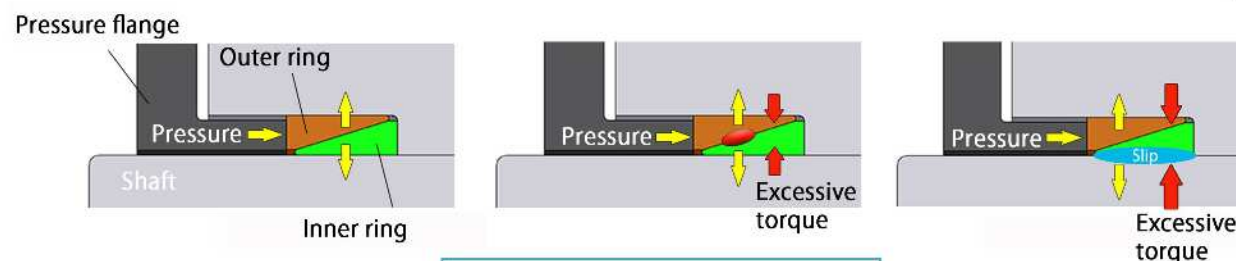
Designed for compactness and durability.



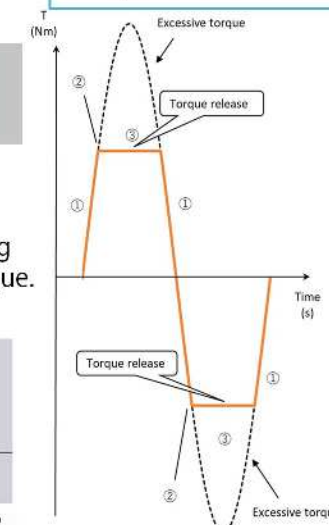
Torque Limit Mechanism

When torque exceeds the set torque, slip occurs on the inner ring side, limiting torque transmission between the inner and outer rings.

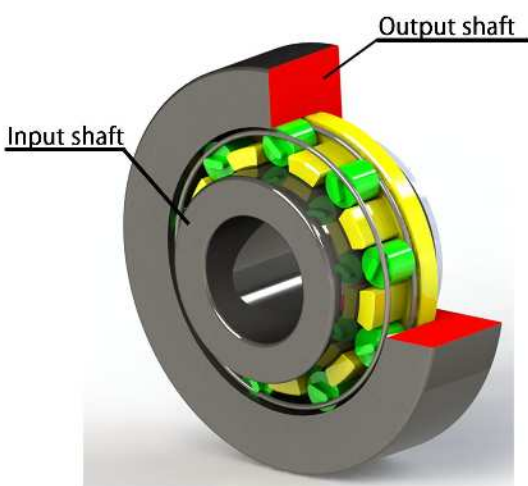
- 1. Torque transmission**
During normal torque generation, torque is transmitted between the inner and outer rings.
- 2. Excessive torque input**
When excessive torque is input, a strong force is applied between the outer and inner rings.
- 3. Torque release**
When the force exceeds a certain level, the inner ring and shaft slide to release torque.



Torque transmission

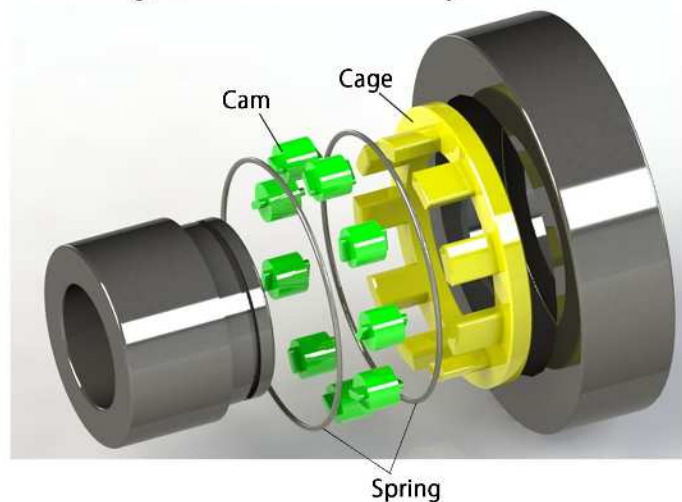


Rollover Cam type



Product Structure

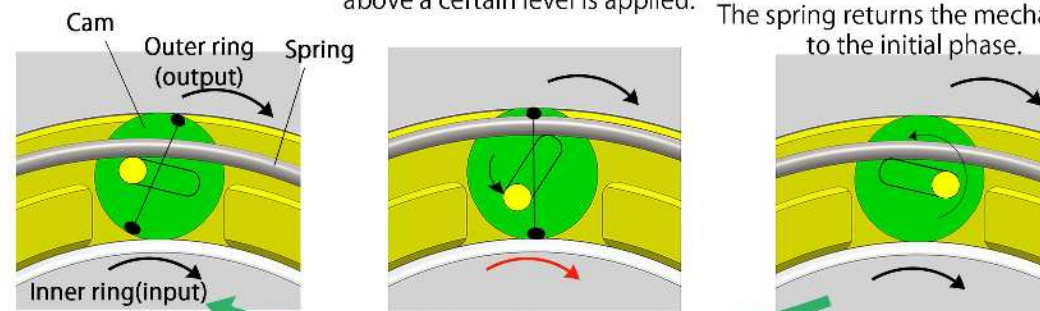
Equipped with a one-way function!
Designed for durability.



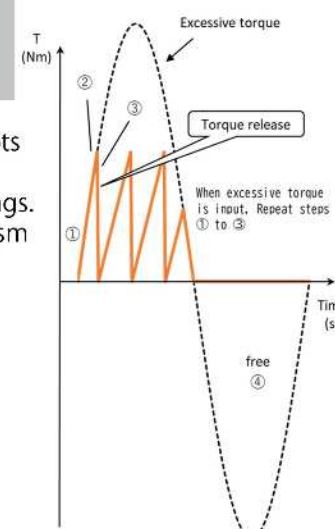
Torque Limit Mechanism

When torque exceeds the set torque, the cam rolls over and shuts off torque transmission between the inner and outer rings.

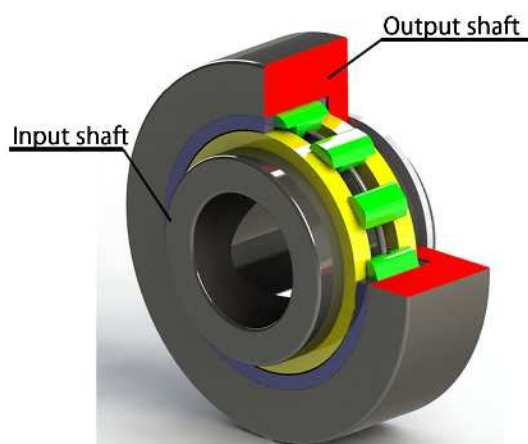
- 1. Torque transmission**
Force is input from the inner ring and turns the outer ring via a cam.
- 2. Excessive torque input**
The cam rotates counterclockwise. Rollover occurs when torque above a certain level is applied.
- 3. Torque release**
The cam rolls over and interrupts the transmission of torque between the inner and outer rings. The spring returns the mechanism to the initial phase.



Torque transmission

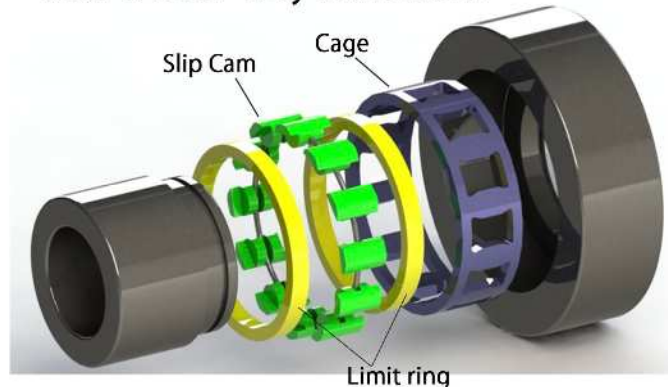


Slip Cam type



Product Structure

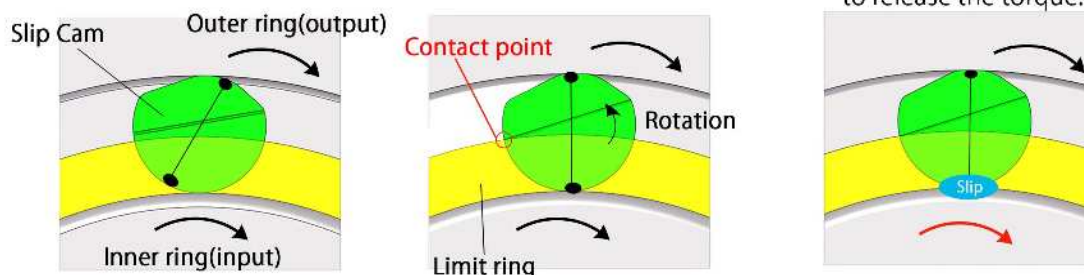
High-torque model, equipped with a one-way function!



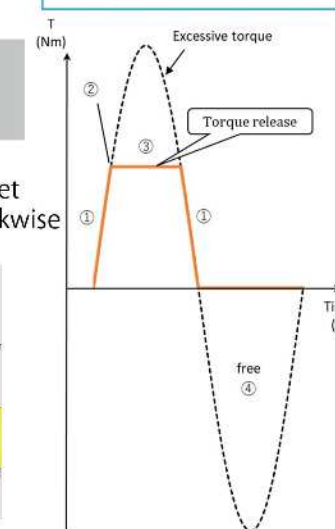
Torque Limit Mechanism

When the torque exceeds the set torque, the inner ring side that stops the cam rotation slips due to the limit ring, thereby limiting torque transmission between the inner and outer rings.

- 1. Torque transmission**
Force is input from the inner ring and turns the outer ring via a cam.
- 2. Excessive torque input**
The cam rotates counterclockwise and contacts the limit ring.
- 3. Torque release**
When torque exceeds the set torque, the inner ring slips clockwise to release the torque.



Torque transmission



Torque Limiter Clutch

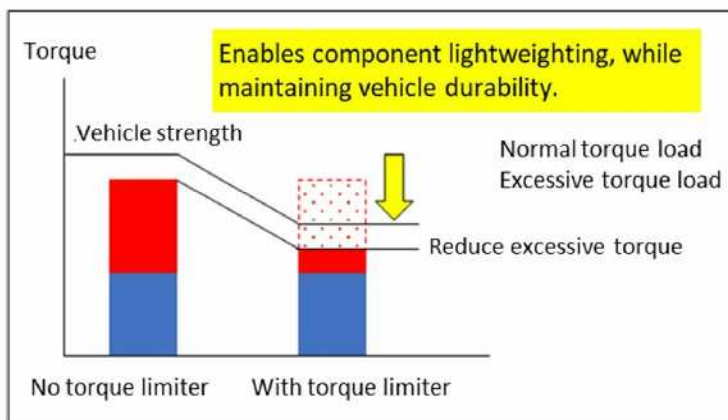
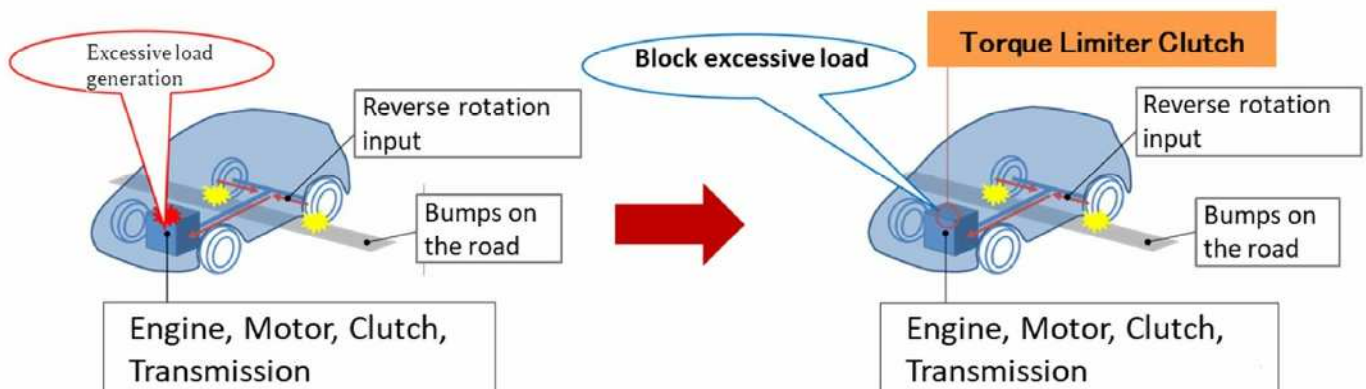
● What is a torque limiter clutch?

The torque limiter clutch is a device that protects mechanical equipment by preventing the transmission of excessive torque when overloaded.

● Future Applications

e-Axle Drive Unit

Limits the impact load from tires when driving on rough roads, etc., and contribute to the miniaturization of each component and the unit as a whole.



• **Small shaft diameter**
• **Reduction of gear width**
etc. are possible!

Other potential applications include electric sunroof/sunshade/retractable hardtop/e-bike overload protection and Limited Slip Differential replacement. If there are any applications our products may fill, please feel free to contact us.

● Contribution to customers

Contributing to miniaturization, cost reduction, and energy saving of customers' products