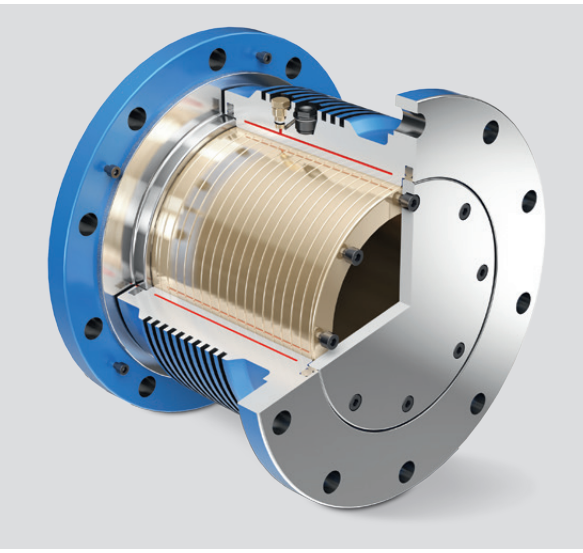
SlipSet.
Controlled Slip.



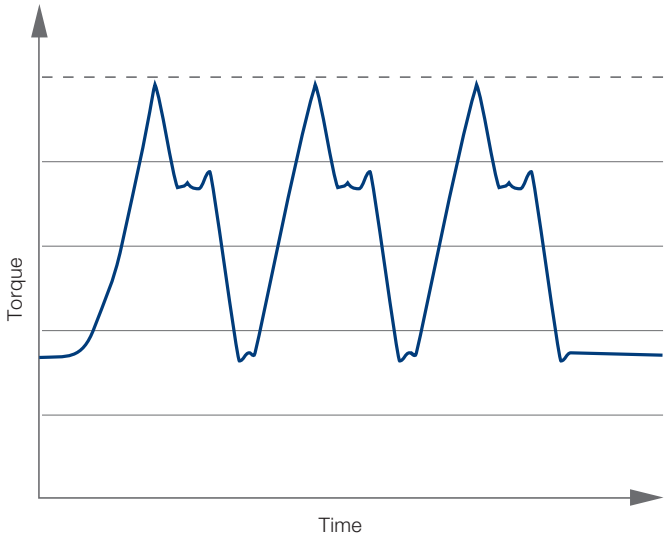
SlipSet ensures continuous production and is designed to slip in the event of an overload situation. By acting as a absorber in drives with frequent torque peaks, the SlipSet prevent time consuming downtime due to repair work. SlipSet is based on the same technolgy as the Voith Safe-Set coupling, but with the ability to instantly slip instead of release.

Operation

In the event of an torque overload, the SlipSet will instantly slip and limit the torque to the preset level, protecting the driveline. If the blockage is temporary, for example due to inertia effects, the SlipSet slips until the torque peak has passed and the driveline doesn't have to be stopped.

If the blockage persists, the SlipSet slips until the energy from the inertia in the driveline is absorbed and then the operator can stop the drive safely. Once the blockage is cleared, the operation can be started without any need for resetting.

SlipSet



Design features:

- Torque release between 1 and 20 000 kNm
- Adjustable torque settings from 50 to 100 % of max torque setting
- No resetting after a release
- Immediate slip in the event of a torque overload

Benefits

+ Ensures continuous production due to torque limitation without disengagement
+ Minimized installation cost thanks to compact design
+ Less maintenance cost due to instant overload protection that protects your driveline from premature wear

SlipSet in fixed speed motors with fluid coupling

The fluid coupling and SlipSet complement each other in torque protection of a driveline. The fluid coupling provides soft start, load sharing and also works as a torque limiter. It is located before the gearbox since it needs high speed to function efficiently.

The SlipSet is located on the low speed side, to provide overload protection, especially overloads due to inertia of the driveline. Since the magnitude of the shock load torque depends on deceleration time and the kinetic energy in the driveline, even moderate motor and gearbox inertia can cause high torques in very abrupt blockages. In such extreme cases the SlipSet will remove those torque peaks until the fluid coupling can begin to slip.

Compare this with the suspension in your car; SlipSet is the shock absorber and the fluid coupling is the spring.

SlipSet in variable and two speed motor drives

The motor overload protection only protects the motor from overheating, not against shock loading caused by inertia. In such cases a SlipSet is used to remove all shock loads that can damage the chain. The SlipSet works as a motor and gearbox brake until the drive system can react to the situation. The SlipSet is located between the gearbox and the machine for optimal protection. For optimal performance the SlipSet can be equipped with the Voith CMS system to monitor the slipping behavior of the SlipSet.

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