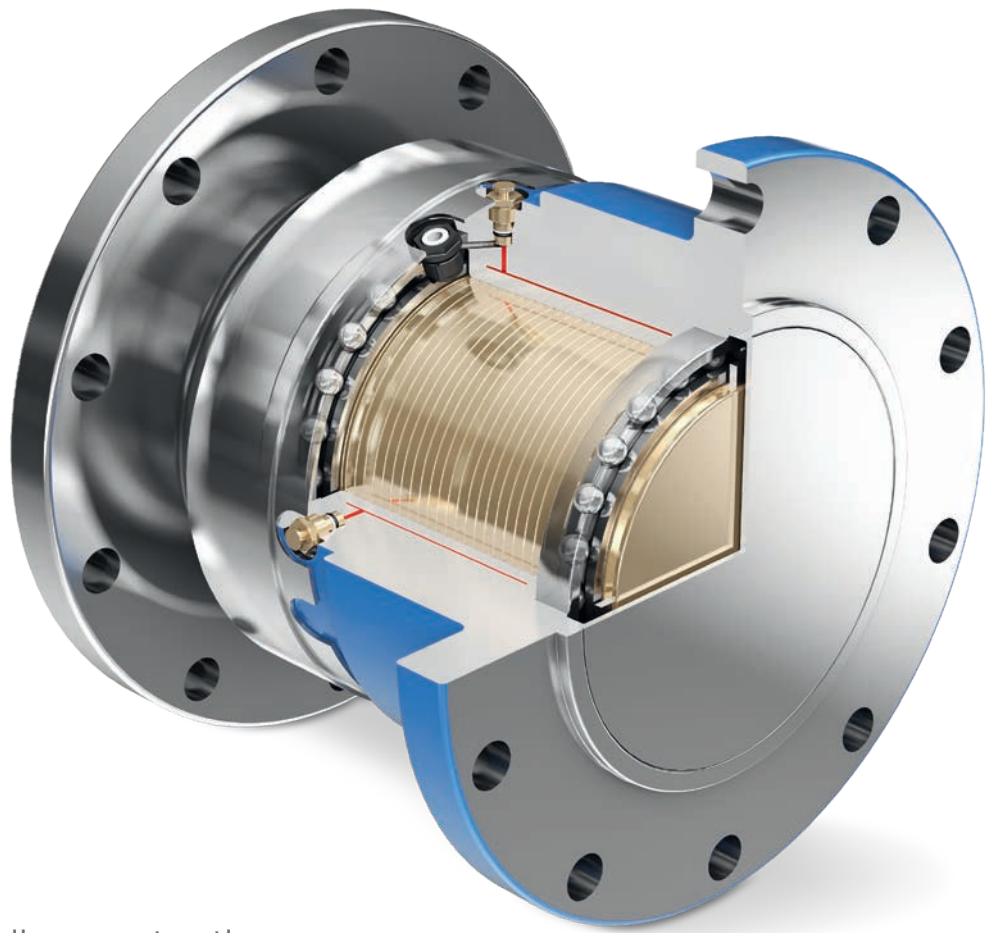


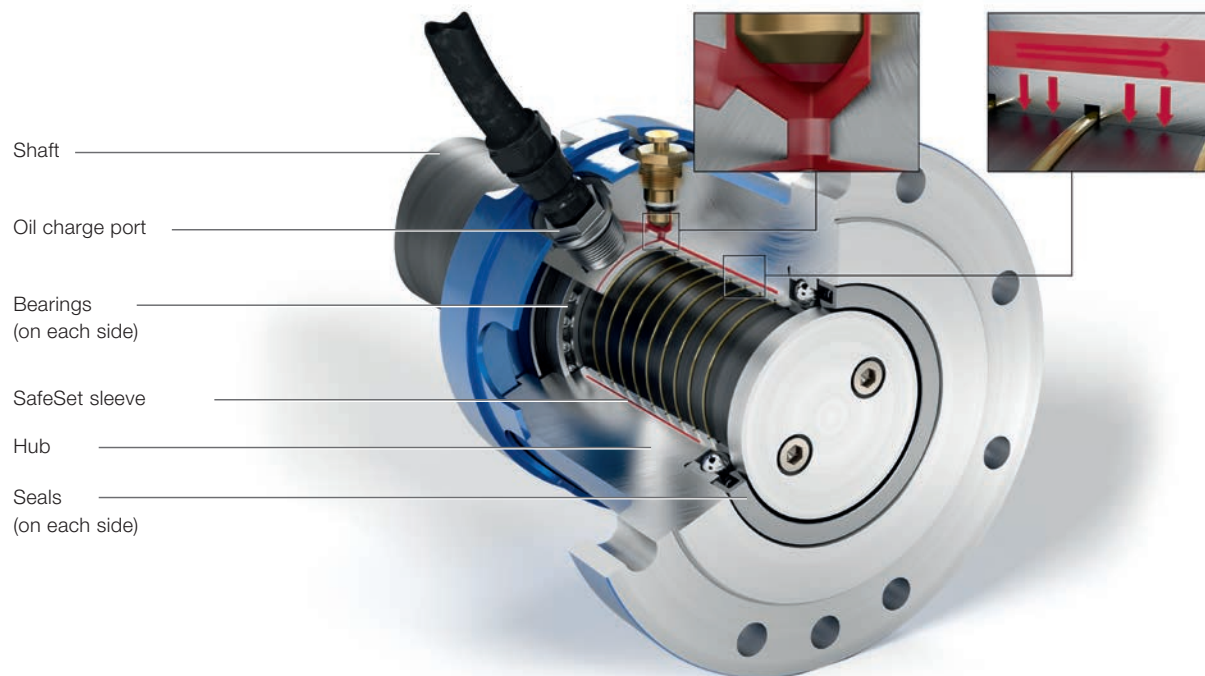
Torque limiting coupling SafeSet with instant release



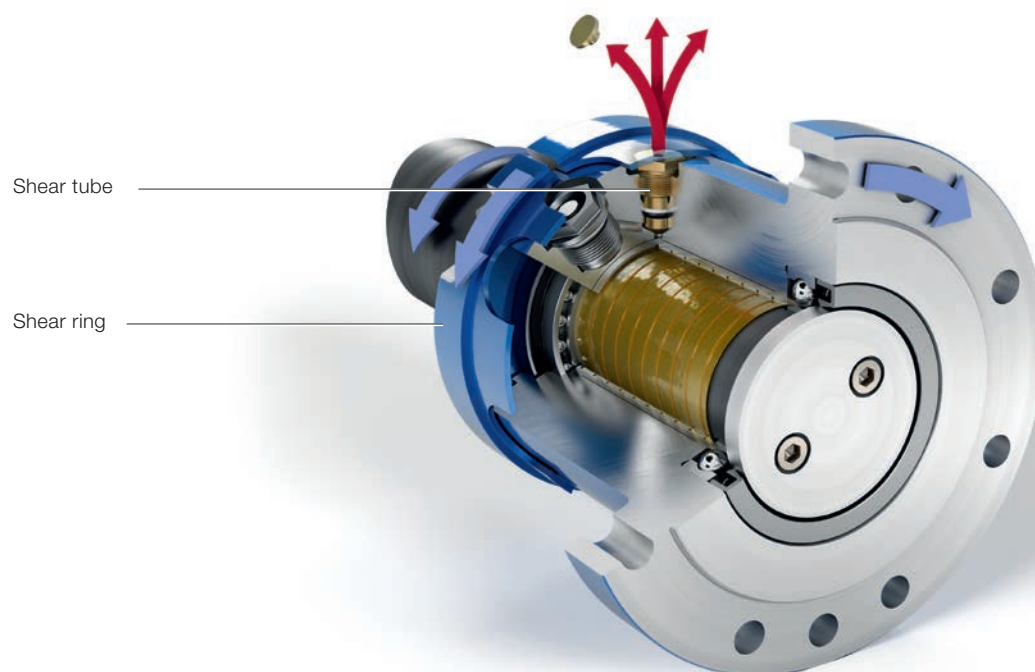
Benefits

- + Maximum driveline protection
- + Accurate and constant release
- + Adjustable release torque
- + Quick resetting for maximum uptime
- + Custom made to suit individual requirements

SafeSet being pressurized



SafeSet following a release



SafeSet torque limiting couplings prevent machine damage in high value rotating equipment. They work like a mechanical fuse in the driveline by protecting the system from costly breakdowns.

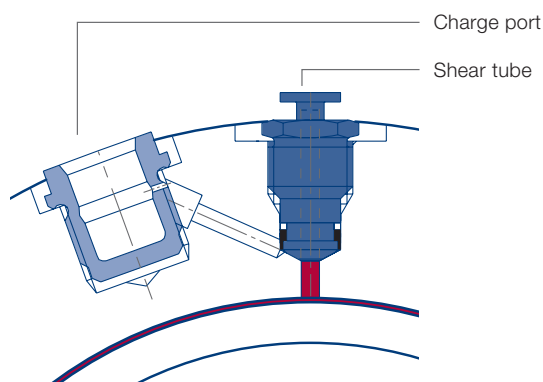
SafeSet only releases when the set torque is really exceeded. This allows your driveline to always operate at the maximum level, without risking damage from overload. The set release torque remains constant over time, regardless of the number of load cycles. SafeSet provides accurate protection throughout the life span of the driveline, and avoids unnecessary downtime and repairs.

Operation

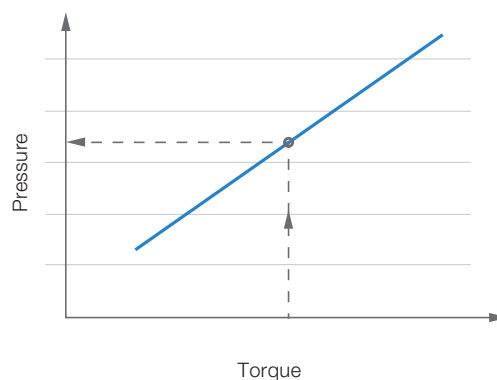
The SafeSet principle is simple: friction and adaptability. No material fatigue or wear ensures constant torque protection during operation. The SafeSet coupling includes a twin-walled hollow sleeve. Friction is generated upon expansion by pressurized hydraulic oil. The integrated shear tube holds pressure to ensure a constant but easy adaptable torque transmission. In an overload situation the SafeSet slips and the shear tube shears off. Oil pressure drops and the frictional surfaces separate. Then the SafeSet rotates on the bearings without transmitting any torque.

Torque capacity available between 1 kNm and 20 000 kNm.

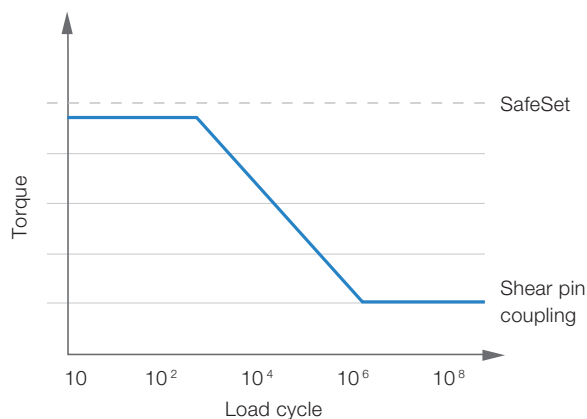
Shear tube illustration



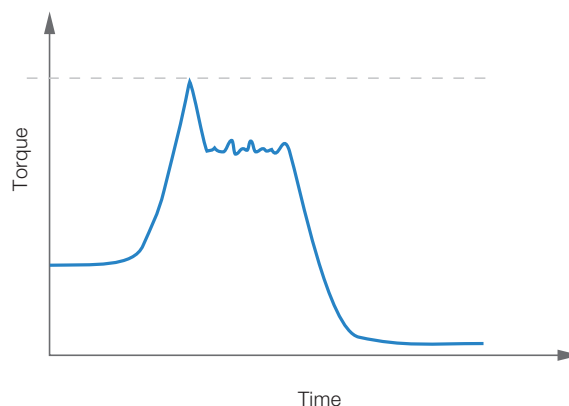
Calibration curve (Calibration diagram)



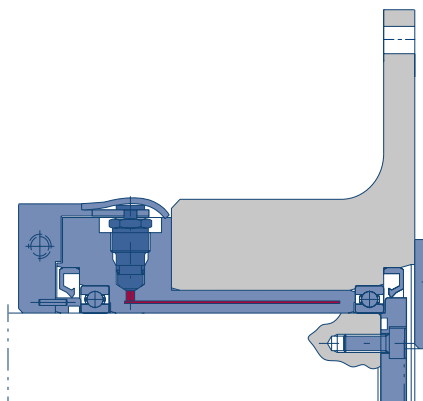
Fatigue curve (S-N curve)



Typical release curve



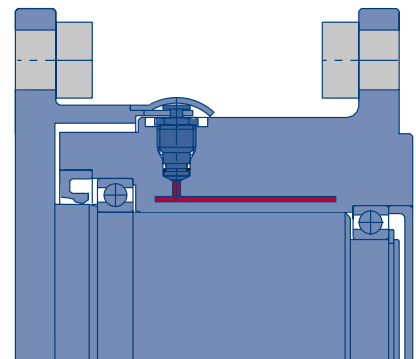
SafeSet ST



SafeSet for shaft to hub connection

- ST-B for plain shaft
- ST-KB for key-wayed shaft

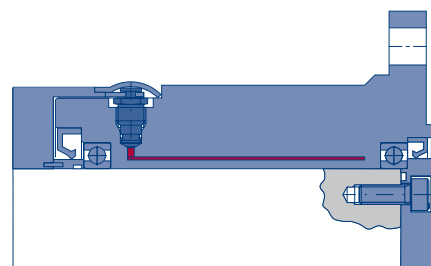
SafeSet SR-P



SafeSet for flange to flange connection

- SR-P for low/medium duty
- SR-PF for heavy duty

SafeSet SR-N



SafeSet for shaft to flange connection

- SR-N for low/medium duty
- SR-F for heavy duty

Coupling and function	Features	Benefits
SafeSet Torque limiting coupling with instant release	Accurate release torque	Increases production uptime Due to precise point of release that gives higher safety margins in the production level, higher out put of the driveline and less repair of drive equipment
	Compact and customized design	High utilization of investment Due to optimized driveline design – no need of changes in your existing driveline and can be positioned anywhere to maximize the driveline
	Instant torque limitation in overload situations	Protects your driveline from expensive standstill costs Due to minimized risk of overload and minimized delay time in production
	Adjustable release torque	Minimizes additional cost in the event of a upgrade of the driveline Due to adaptability to the existing driveline design and specific application requirements
	Back-lash free power transmission	Minimizes cost of repair Due to protection against wear on other parts in the driveline
	Set torque remains constant over time	Continuous production process Due to no unwanted releases and reduced repair time
	Quick and easy setting	Minimizes standstill and downtime

Voith Group
 St. Poeltener Str. 43
 89522 Heidenheim
 Germany

www.voith.com/safeset

Contact:
 Phone +46 650 540150
sales.safeset@voith.com



VOITH