



VOITH

Torque-limiting for Increased Control in Turbo Machinery. SafeSet and SmartSet Couplings





1 GE LM 6000 Gas Turbine
2 Siemens Compressor

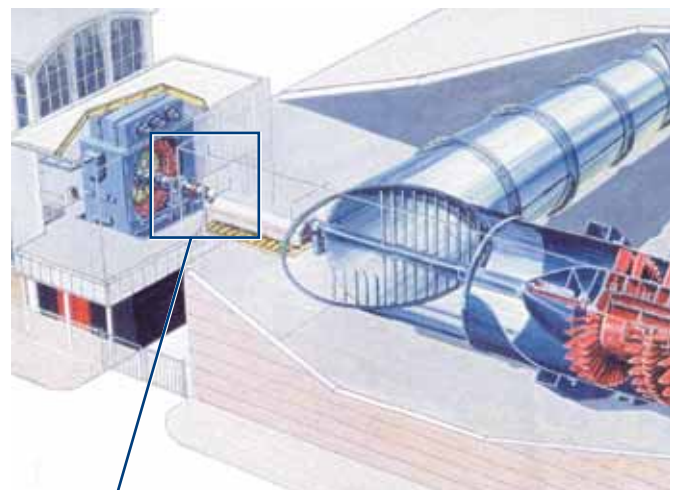
Protect the Turbine and Compressor to Enhance Production

Gas power generation can be unpredictable. Excessive overloading can damage vital parts of the driveline. Installing torque-limiting couplings gives protection and control over the whole gas turbine.

Short circuiting and torsional vibrations are common problems for the turbine and compressor. In wind turbines, excessive torque peaks can occur during testing and development, which is carried out continuously. SafeSet couplings protect the test rigs, especially for large-capacity wind turbines.

Installing a SafeSet into the driveline:

- Absorbs torsional vibrations in the compressor
- Disconnects inertia from the gas turbine
- Protects the driveline and minimizes downtime by providing a reliable release torque



SafeSet SR-PF 850 in Wind Tunnel 100 MW

Gas Turbines

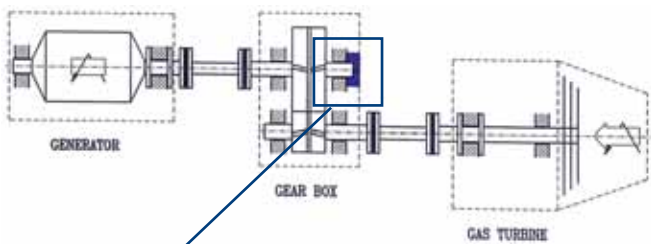
Control overloads and optimize performance

Gas turbines can suffer from short circuiting, electrical faults, momentary voltage drops and malsynchronization. Serious demands are put on the gears and turbine, when short circuit reversal torques come from the generator. These conditions can cause torque overloads of up to ten times that of the load required, which are damaging to the turbine.

SafeSet torque-limiting couplings in a gas turbine:

- Protect the driveline and turbine against overload and failure
- Control the torque and absorb shock loading
- Prevent from damage caused by inertia
- Increase uptime

GE LM 6000



SafeSet



SafeSet integrated into a gearbox

Compressors

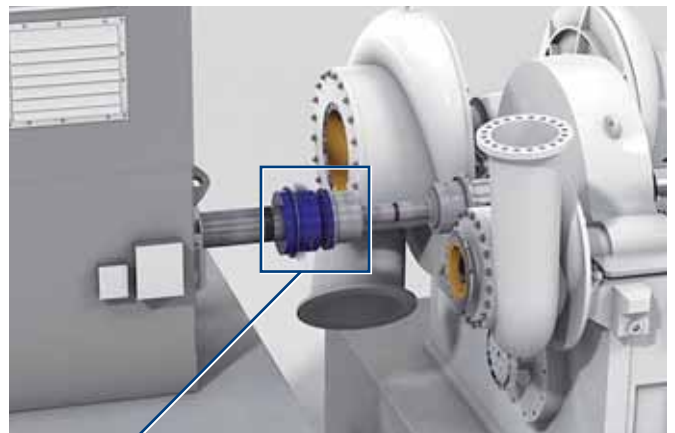
Maximize the output of your compressor drive

Excessive torque peaks during start-up and the resulting torsional vibration can put serious demand on the compressor drive motors. Installing torque-limiting Voith SmartSet slip and release couplings avoids these overload situations, protecting and lengthening the life-span of the driveline.

SmartSet process-enhancing couplings in a compressor drive:

- Protect the driveline and motors against overload and failure
- Limit the system's transient torque to a set level
- Provide an adjustable, accurate and constant set torque limit

Air Liquid 8000 HP Compressor



SmartSet



SmartSet retrofit in a 8000 HP Compressor



SOCIEDAD INDUSTRIAL DE TRANSMISIONES S.A.

Pº Ubarburu, 67 - 20014 San Sebastián

Tfno. 943 457200 | Fax 943 463356

www.sitsa.es

atencioncliente@sitsa.es

09_02_09

Voith Turbo SafeSet AB
Rönningevägen 8
82434 Hudiksvall, Sweden
Tel. +46 650 540150
Fax +46 650 540165
sales.safeset@voith.com
www.voith.com

VOITH
Engineered Reliability