

Service Insights

Coupling Technologies | Power Generation | On site (MRO) | APAC

Application	Gas Turbine Gen-Set
Product	SafeSet Torque Limiting Coupling, Type SR-F 350
Country	India
Operator	National Independent Power Producer

Power plant runs only after the overhaul of a component

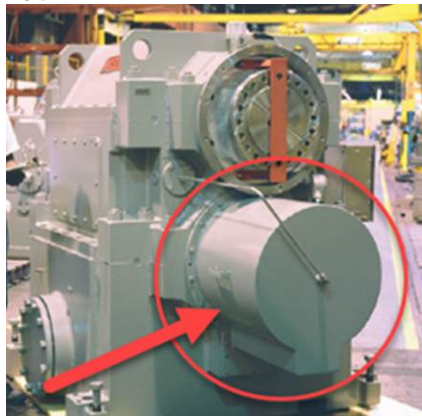
After more than two years of failed re-starts of a gas turbine train, Voith is able to solve the problem in five days that was caused by a grid short circuit that destroyed the safety component of a Voith SafeSet torque limiting coupling. Small components can have big impacts.

Viewpoint of the customer: For more than two years the Indian operator of a 165 MW combined-cycle power plant was facing problems with heavy vibrations in one of their gas turbines. Due to these vibrations it was not possible to operate the equipment. The operator and the gas turbine OEM tried all kinds of measures without solving the problem. After the hint of the gearbox manufacturer the power plant operator got in contact with Voith in Sweden. The Voith SafeSet coupling is integrated on the turbine driver side of the gearbox to protect the turbine from grid short circuits. The customer was not aware of this function.



Destroyed bearing of the coupling in IND

Order: After several discussions with the plant operator on how to solve the severe problems, a service order for a major coupling overhaul was placed to Voith.



Position of the SafeSet coupling under the cover

Insights: A two men Voith team went to the customer on site. After disassembly and inspection it was clear that the bearing holder of the safety coupling was damaged and in need for repair. The presumed cause of the defect was a re-start of the turbine without resetting the previously released SafeSet coupling, so it overheated and the bearing was destroyed. Furthermore, the product was not serviced for almost 10 years after the delivery to the gear OEM in 1995. The coupling was transported to a local machine shop for calibration of the friction surface. Back at the power plant the

coupling was refilled, reassembled and then mounted to the shaft.



Removal of the spline sleeve of the SafeSet coupling by using 2 hydraulic jacks

Technical Details: The testing result after reinstallation was a success and the customer was more than pleased – no more vibrations or disturbances in the gas turbine.

How we make the difference...

„Excellent. Thanks for all the assistance.“ Site Procurement Manager, IND.

More about this Voith-Product at:

www.voithturbo.com/safeset

More about the Voith Service at:

www.voith.com/turbo-industry-service

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