



Industry:
Mining

Application:
Ball and SAG mills

Problem/Requirement:
Uneven torque loads and potential jamming of ring gears can result in damaged drive trains and enclosed gear drives

Solution:
Falk V-Class Enclosed Gear Drive and Autogard 820 Series Torque Limiter

Result:
Efficient and durable mill drive with minimal running costs and downtime in the event of a jam or sudden stoppages

Rexnord Autogard Torque Limiter and Falk V-Class Gear Drive Protect Equipment and Reduce Downtime

Ball and SAG mills

Ball and Semi-Autogenous Grinding (SAG) mills are used in mining to crush the material into smaller more manageable sizes and to separate certain minerals. Ball mills crush by primarily using balls in a long-angled rotating cylinder, while SAG mills use both balls and the material itself for the process.

Reliable power transmission is critical in this application for the daily requirement of driving the mill. The power transmission system must also be protected from the inevitable jams and uneven torque loads.

The Falk V-Class™ Gear Drive is the standard in gear drives from Rexnord. The Falk V-Class Gear Drive delivers reliability, keeps maintenance costs down, maximizes uptime and utilizes the latest technology. With its cooler operating temperature, optimal power and advanced technology, the Falk V-Class Gear Drive outperforms and outlasts the competition.



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The Autogard 820 Series Torque Limiter has been designed to meet the emerging need for overload protection on very high-torque drives in heavy industry applications. The torque limiter is designed using a modular principle that enables the trip torque capacity to be set to virtually any value. Individual torque limiting elements are mounted around the periphery of the torque limiter. The torque capacity is then dependent upon the radius at which the modules are located and the number used. Each module is set to give repeatable and reliable disengagement in the event of an overload.



Falk V-Class Gear Drive



Autogard 820 Series Torque Limiter



Ring gear

Flexible coupling and torque limiter
Enclosed gear drive

Flexible coupling and torque limiter