



**Industry:**  
Construction

**Application:**  
TBM cutter head drives

**Problem/Requirement:**  
Reliable shock load protection for the cutter head and driving motors, while also providing easy and fast remote reset capabilities

**Solution:**  
Autogard 400 Series Reverse to Reset Torque Limiter

**Result:**  
Reduced downtime and protection for critical parts

**Other Applications on TBMs:**

- Slurry pumps
- Belt conveyors
- Screw conveyors
- Fans (ventilation)

## Rexnord Autogard Torque Limiters Protect Equipment and Reduce Downtime

### Tunnel boring machine

A tunnel boring machine (TBM) is a self-contained system used to excavate a circular cross section through a variety of soil and rock. A TBM consists of not only the cutting head, but also a complete system to remove soil and rock as well as place a reinforcing structure, and create a system of conveyors or rail cars to remove soil.

Inconsistent soil and rock will cause shock loads and jams in the cutter heads. Mounting an Autogard® Torque Limiter on each of the motors driving the cutter head protects the cutter head and the motors from damage.

The Autogard 400 Series Torque Limiter has been designed to meet the requirement for a free-wheeling automatic reset torque limiter to protect industrial drives from overload and to avoid downtime. The 400 Series can be reset by simply reversing the drive slowly. If one of the torque limiters trips, this is sensed by load monitors on the drive. A reset sequence is then started and in only a few minutes, the drive is re-engaged and boring can recommence.



Autogard Torque Limiter

