



HIGHLIGHTS

- Spring-applied, air-released caliper brakes
- Models available with up to 36 kN braking force
- Easy-to-replace brake pads
- Torque adjusted to meet operating conditions
- Modularity allows for quick change out

Application Success Story



GMR-SD Caliper Brakes Limestone Quarry Dragline

PROBLEM

The operator of a limestone quarry in Florida needed to replace the braking systems on its massive dragline. After years of almost continual service, the original brakes had reached the end of their useful life. The dragline uses various numbers of brakes for the different drive systems that control the machine's hoist, drag, swing and walking motions.

Due to the area's high water table, the facility utilizes the wet mining technique. Instead of fighting a continuous (and costly) battle to keep the quarry pit pumped dry, the dragline removes stone from the flooded pit by utilizing a special dredging bucket design that features large holes. As the massive bucket pulls up material from quarry depths of more than 60 ft., the holes allow water to quickly drain from the bucket. The dragline then swings to position the rock in stockpiles for a short time so it can dry completely before processing.

SOLUTION

Twiflex worked closely with its distributor partner to provide all the required replacement brakes. To meet the machine's swing, hoist and drag performance demands, Twiflex delivered spring-applied, air-released GMR-SD caliper brakes. Brake discs, backplates and custom hubs were also supplied. All components were assembled into complete custom brake packages by the distributor for easy installation on each of the dragline's motor drives.

The GMR-SD modular brake design allows for quick change outs and the ability to use multiple units of varying sizes to meet specific installation requirements. Torque is adjusted in the field to meet operating conditions.

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