

Case Study

INDUSTRY

Mining - Coal

PROBLEM

The existing drive had been in service since 1952, it was struggling to meet current safety codes and the mine had no spare components. Further VA was indicating that the drive was nearing the end of its life. The customer needed an entire new drive, which could operate off the sites existing second resistance starter but also provide capacity for the potential of increasing tonnage in the future. Finally, the design need was such that the entire change could happen in a shutdown window of less than 48 hours to ensure no disruption to the site's required production output.

APPLICATION

Main Drift - Incline Conveyor

SOLUTION

BSC Engineering Services designed a complete drive system to be mounted on a torque arm and base plate. In order to fit the unit into the existing plant room the unit was tilted on a 15° angle and the base plate was shaped to clear the ground by a minimum of one inch in all directions. Due to the incline a forced cooling system had to be added to ensure thermal capacities of the unit were not exceeded. Anti run backs and a second disc brake was added to the system to match current inclined conveyor mining codes. Further BSC were able to use an existing surplus slip ring motor which meant that the current starter would not need to be altered.

BENEFIT

\$140k was saved by not having to alter electrics or purchase a new motor let alone the potential benefits of increasing the production output rate of the belt.

