



## RMC Selby avoids the jams with Fairford Electronics Soft Starters

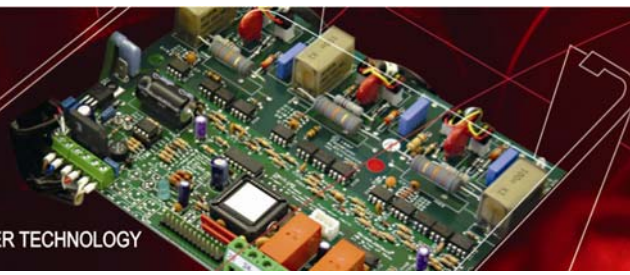


**The ability of modern electronic starters to provide greater operating reliability, improved protection and easier maintenance in even the most arduous of applications has been proven by Fairford Electronics with the recent application of a QFE soft starter to a hot stone elevator at RMC's Selby quarry in Yorkshire.**

Central to the operations of the Selby quarry is a coating plant, one of 49 operated by RMC in the UK devoted to supplying asphalt and tarmacadam for road building. The present focus on refurbishing the UK's road network means that the plant is becoming increasingly busy, sometimes being called upon to operate twenty four hours a day seven days a week.

In common with all quarrying operations, the production procedures at Selby are hard on machinery. They involve feeding aggregate in various sizes through a drier to get rid of dust, then discharging it onto a elevator which feeds a screen that separates the aggregate into a single size prior to weighing and mixing in the coating plant. The resulting product is then discharged directly in lorries for despatch.

At the heart of this process is a hot stone elevator, which, until recently, was powered by an 18.5kW motor driving through a fluid coupling. The latter was required as a safety measure in case the conveyor jammed at any time. In this event, fusible plugs in the coupling would fail, stopping the elevator immediately without damage.



Although this system worked well, replacing the plugs and maintaining the fluid couplings, generally, was becoming ever more difficult and time consuming for RMC maintenance personnel. The alternative of replacing the coupling with a new one was considered but was ruled out as far too expensive.

Faced with a growing maintenance problem, Colin Vaughan, the Manager at the Selby site decided he needed an alternative.

A phone call to his local BSL branch office resulted in a visit from an engineer from Fairford Electronics, one of BSL distribution partners and the UK's leading manufacturers of electronic soft starters. The engineer convinced Colin Vaughan that a QFE soft starter from Fairford's range would do the same job as the fluid coupling, but more efficiently and at half the cost.

### **Electronic Shear Pin**

In addition to starting the elevator smoothly without shocks, the QFE controller provides an electronic shear pin capability. This enables the soft starter to cater for situations where loads are likely to jam suddenly, such as on the hot rock elevator. The QFE's 'Electronic Shear Pin' facility eliminates the requirement for the intricate fusible plugs as used in the fluid coupling. It detects immediately the speed and extent in the rise of motor torque arising from an elevator jam and will then decide of a course of actions ranging from instantaneous shutdown to monitoring for recurrences if the blockage is released rapidly.

Since the QFE unit was installed just over a year ago the maintenance staff at Selby have had no problems whatsoever, prompting Colin Vaughan to comment that: "he would recommend the QFE solution to anybody. "You can't get better than to fit something and forget about it," he said." We have two more fluid couplings on site and will convert these to soft starters over time. In economic terms, the Fairford units cost half that of a fluid coupling and win hands down in terms of maintenance costs."