

DRIVES IMPROVE CEMENT QUALITY

The leading producer of cement in South Africa has improved the consistency and quality of its product thanks to variable speed motor drives from Control Techniques.

At the PPC Jupiter plant of the Pretoria Portland Cement Company Ltd, a crucial part of the production process involves the feeding and receiving of new and recycled cement to and from the Mills. The company's concern was



reducing downtime and a more accurate method of control for the mill elevators by replacing old drives with Control Techniques drives as PPC Jupiter are confident in the product and service.

It was clear that variable speed control of the four mill bucket elevators was the answer and so the company brought in Control Techniques Southern Africa to provide a control solution. An acceleration/deceleration of 10sec/100Hz start the lift then a stable speed of 45Hz until it reaches the offload

KEY BENEFITS

- IMPROVED QUALITY & CONSISTENCY
- SUPERIOR ENERGY EFFICIENCY
- ENHANCED PRECISION & CONTROL
- SIGNIFICANTLY CUT DOWNTIME & MAINTENANCE
- REDUCED MECHANICAL STRESS



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point. One of the features used on the drive is jogging at 10Hz minimum. The jogging feature is used mainly for maintenance purposes.

Control Techniques' scheme comprises four Unidrive SP (solutions platform) AC drives, two at 37kW, two at 55kW, each drive running in preset speed control. The panel, designed and built at the Gauteng Drive Centre, includes isolation and indication lights on the panel to show drive healthy, start/stop and alarm.

Since the installation, each of the bucket elevators delivers a precisely controlled level of each of the key ingredients, as the buckets stop at a preferred point with less tension to the mechanics, with a speed accuracy of 0.1Hz. Smooth acceleration and deceleration has considerably reduced mechanical stress on the motors and gearboxes, chain,

reducing downtime and maintenance.

The Unidrive SP AC drive range spans 0.75kW right up to 1.9MW. It is configurable into five operating modes – open and closed loop, vector, servo and regenerating modes – with connectivity to most industry standard networks and accepting most position feedback protocols.

PPC is the leading supplier of cement in South Africa, with eight manufacturing facilities and three mills in South Africa, Botswana and Zimbabwe. Operations encompass quarrying and crushing, blending and storage, raw milling and homogenisation, burning and cement milling. Their product range includes the supply of quality branded cement to the building and construction industries, concrete product manufacturers, hardware stores and DIY centres.



For further information please visit
www.controltechniques.com



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