

# MUZAHMIAH white cement production line revamping and capacity upgrade

## Saudi White Cement Co – Saudi Arabia



1,000 tpd capacity

In order to increase its production capacity from 700 to 1,000 tpd, Saudi White Cement Company (SWCC) has awarded Fives FCB with a turnkey contract to upgrade its existing white cement line on Muzahmiyah site, near Riyadh.

This project demonstrates Fives' expertise in white cement process and revamping project management.

# Scope of work

- EPC contract to upgrade existing white cement line, including:
  - Basic and detailed design
  - Mechanical and electrical equipment manufacture & on-site delivery:
    - Mechanical equipment: 2,170 t
    - Electrical/automation equipment: 181 t
    - Steel structures: 572 t
    - Concrete structures: 6,000 m<sup>3</sup>
  - Civil works
  - Erection and commissioning
  - Technical assistance to start-up



Technical features		
Contract date	October 2010	
Kiln shutdown	April to June 2012	
Plant restart	June 2012	
Plant capacity	1,000 tpd	
Fuel	Oil	
Crushing plant	New 200 tph impact crusher for gypsum and kaolin	
Raw meal grinding	Increased capacity from <b>60 to 80 tph</b>	400 kW <b>FCB B-mill</b> finishing ball mill in parallel with the existing one High efficiency <b>FCB TSV™ Classifier</b>
Burning line	Upgrading from <b>700 to 1,000 tpd clinker</b>	Fives' mixed reactor precalciner to replace the existing one Additional heat exchanger at the preheater outlet 2 x high efficiency <b>FCB cyclones</b> to replace the 2 existing top cyclones Kiln and cooler tyres with new floating shims of Fives design to replace welded shims Ventilated nose ring technology to replace downstream seal New <b>FCB By-pass system</b> New clinker cooler gas treatment Modification of existing main bag filter to increase capacity (raising size and length of bags)
Cement grinding	Increase from <b>40 to 60 tph</b>	New 1,150 kW <b>FCB B-mill</b> finishing ball mill in parallel with the existing one High efficiency <b>FCB TSV™ Classifier</b>
Cement storage silo	New 10,000 t silo	

> 1,000 tpd | Upgraded plant production

Reliable operation allowing the upgraded plant to run in steady conditions with a significant increase of the final product quality



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