

# Umm Bab Line no.5

QNCC – Qatar



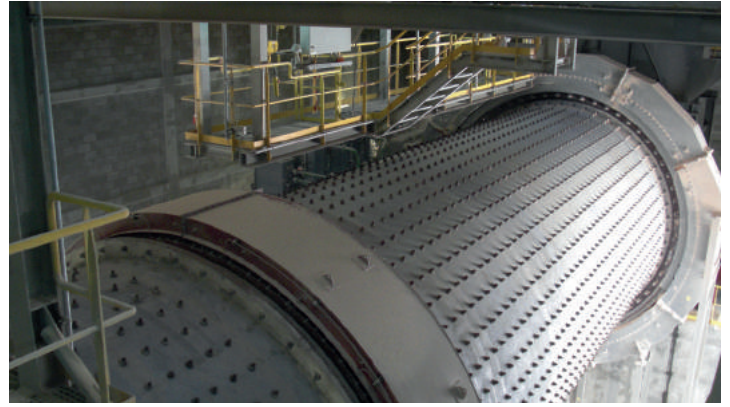
5,000 tpd capacity

To cover the huge cement demand sustained by various infrastructure projects planned in the State of Qatar, among which the 2022 World Cup, Qatar National Cement Co. has awarded Fives FCB with the implementation on a turnkey basis of its 5<sup>th</sup> production line of a 5,000 tons/day clinker capacity.

This contract follows the successful implementation by Fives of lines nos. 2, 3 and 4 in the Umm Bab cement plant in Qatar.

# Scope of work

- Full turnkey (EPC) contract for the supply of the complete production line, from the raw material preparation to the cement dispatch, including:
  - Supply of Fives proprietary process equipment
  - Integration of all other non-process equipment
  - Civil design, civil works, erection, commissioning



Technical features	
Contract date	April 2014
Plant capacity	5,000 tpd of clinker
Fuel	Natural gas
Raw material preparation	1,000 tph double impact rotor crusher for limestone, clay or shale Gamma ray analyzer Limestone storage: 2 x 30,000 t Shale and clay storage: 2 x 10,000 t
Raw meal grinding	440 tph FCB B-mill – Dia. 5.6 m x L 21.2 m – 6,600 kW FCB TSV™ Classifier 7500 BF
Burning line	5,000 tpd 5-stage single string FCB Preheater with low pressure drop cyclones FCB Zero-NOx Preca Dia. 5.2 m fitted with Pillard PRECAFLAM™ burner 3 piers FCB rotary Kiln Dia. 4.8 m x L 76 m Pillard NOVAFLAM® burner for rotary kiln Fives TGT® UP Filter – 479,100 Nm³/h at 112°C – 11,230 m² for kiln Fives TGT® UP Filter – 178,000 Nm³/h at 230°C – 6,435 m² for alkali by-pass Clinker grate cooler – Active area 112 m² Electrostatic precipitator for cooler dedusting Pillard ROTAFLAM® burner as auxiliary burner Pillard HeatGen Systems™ (hot gas generator system)
Clinker storage silo	40,000t
Cement grinding	2 x 115 tph 2 x FCB B-mills – Dia. 4.6 m x L 14 m – 4,200 kW 2 x Fives SONAIR™ Filters – 44,100 Nm³/h at 105°C – 975 m² 2 x FCB TSV™ Classifiers 4000 HF 2 x Fives SONAIR™ Filters – 127,500 Nm³/h at 75°C – 2,600 m²
Cement storage silos	2 x 20,000t
Cement packing and dispatch	4 truck bulk loading systems – Capacity 250/300 tph each 1 big bag loading station – Capacity 30 tph

780 kcal/kg | Thermal consumption @15% alkali by-pass

16,000 tpd | Total FCB Kilns capacity at Umm Bab plant

Up to 9% | Raw mix moisture at ball mill feed

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