

PROJECT:

PRESTRESSING WORK OF CLINKER STORAGE SILO
AMBUJA CEMENT, ROPAR, PUNJAB



THE FREYSSINET PRESTRESSED CONCRETE COMPANY LTD.

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PROJECT DETAILS

Name of the Project	Clinker Storage Silo at Ropar
Location (address)	Ropar, Punjab
Contractor	Gannon Dunkerley & Co.Ltd, Eros Apartment(7th Floor)56,Nehru Place, New Delhi – 110019
Owner	Gujrat Ambuja Cement Ltd. C.S.T.Road, Near Vidyanagari, Kalina, Santacruz (E), Mumbai 400 098
Main Consultant	BHAGAWATI DESIGNS PVT.LTD. Mumbai
Type of Silo	Clinker storage
Period of work	April 2003 to March 2004

TECHNICAL DETAILS

Capacity of Silo	Approx. 2,00,000 MT
Diameter of silo in 'm'	66.00
Thickness of wall in 'mm'	600 mm (Uniform)
Height of silo in 'm'	39.63
Prestressing system used	Freyssinet-12K13
Strand size in 'mm'	12.7
Sheathing type & size in mm	HDPE sheathing, 84mm ID
Nos. of buttresses used	8
Total quantity of HT strands in MT	252
Type of Cables	Bonded
Spacing of cables	170,190,220,260,320,400,700,500 from bottom to top
Stressing both ends/one end	Both end

SPECIAL FEATURES

Material used	12K13 anchorages, HDPE sheathing 84 mm ID, flexible
Equipment used	S-6 jack=4 nos., K-200 Jack 4 nos, EOHP pump=4 nos., J600 pump=1 no. Agitator J-7= 1no.
Post Threading / Pre Threading	Post-threading
Stressing & Elongation	As per drawing obtained
Grouting Mix w/c ratio Admixture	W/c Ratio 0.40 to 0.45
Pressure used for grouting	3-5 kg/cm²
Type of formwork	Slip forming