

**PROJECT:**  
**PRESTRESSING OF RADIAL GATE ANCHORS AT**  
**INDIRA SAGAR DAM**



**THE FREYSSINET PRESTRESSED CONCRETE COMPANY LTD.**

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## **PROJECT DETAILS**

- **Location Of Job:- Narmada Nagar, Khandwa ( Madhya Pradesh)**
- **Nature Of Job:- Prestressing Of Radial Gate Anchors**
- **Owner :-M/S Narmada Hydroelectric Development Corporation Limited**
- **Design Consultant For Hydromechanical Works :- M/S Technopromexport Ltd. ( Moscow, Russia)**
- **Sub Contractor :- M/S Gwallior Tanks & Vessels Ltd (Bhopal)**
- **Prestressing Sub Contractor:- The Freyssinet Prestressed Concrete Company Ltd.**
- **Execution Period – 18 Months – February 2004 to August 2005.**

## **TECHNICAL DETAILS**

- **Number of Piers: 19 Intermediate & 2 End Piers.**
- **Total Number of Trunion Girders: 20 Nos.**
- **Salima Steel Trunion Girder**
- **Total No of Cables per Pier: 16 Nos in Intermediate Pier & 12 Nos in End Pier.**
- **1000 Mw Electricity Generation.**
- **Total No of Gates: 20 No's.**
- **Size Of Gates: 20m X 18m**
- **Total No of Turbines: 08 Nos.**
- **Capacity of Electricity Generation per Turbine: 125 Mw.**
- **System Used: 27K15 Unbonded Tendons**
- **Sheathing Used: Mild Steel Sheathing (ID-125mm).**
- **27K15 Guides In Shaft For Anchoring At The Dead End On Downstream Side.**
- **Cast Steel Distribution Plates In Trunion Girder For Anchoring At The Live End On Downstream Side.**

## **SPECIAL FEATURES**

- **Unbonded Tendons were used for prestressing.**
- **K-700 Multipull Jack Used For Prestressing.**
- **Working Load In Each Cable at End Pier: 427 MT.**
- **Load In Each Cable at Intermediate Pier: 535 MT.**
- **Corrosion Protection Was Done By Greasing The Complete Tendons Using 'Freyssi' UT Special Grease after Prestressing of Cables.**
- **Grease Caps of 1000mm Length & Dia 300mm Were Used For Corrosion Protection of Strands Left Uncut For Future Prestressing.**