

INTERTURN INSULATION AND CONSOLIDATION OF ROTOR FIELD COILS OF HYDRO GENERATOR.

Operations to be done: Offsetting of coils, Interturn Insulation, Consolidation of coil with proper heating and cooling cycle, cleaning with grinder, painting and testing.

Material to be free issued:

- (i) Brazed uninsulated toroidal coil of rectangular shape.
- (ii) Nomex insulation paper
- (iii) Cyanoacrylate adhesive
- (iv) Red gel paint

SCOPE OF WORK:

- (i) Offsetting of coils to be done at pressure range 300 to 600 Ton (corresponding to 150 kg per sq cm)..
- (ii) Double layer Interturn Insulation of Nomex paper.
- (iii) Consolidation (i.e heating gradually at 160 +15/-0 deg C and cooling of coil both under pressure of 100 kg to 500 kg (corresponding to 30 kg per sq cm).
- (iv) Cleaning of coil i.e removal of extra Nomex paper and resin.
- (v) Painting with red gel.
- (vi) Testing including millivolt drop test, impedance measurement and High frequency induced voltage or equivalent test.
- (vii) Packing and dispatch.

Following document to be submitted by vendor for assessment of in house manufacturing set-up and testing set-up.

S. No.	Description of pre-qualification requirement	Vendor Response
		Supporting Documents required to accept compliance
1	Only manufacturers qualify, traders not permitted	Certificate of being Original manufacturer
2	The company should have following in house manufacturing set-up for manufacturing of Hydro/LIS Fabricated type Rotor coil: (i) 600 Ton Distributed pressing machine (ii) DC Current source (iii) Suitable Loading /Unloading arrangement (iv) Portable hand sander facility.	Following supporting document to be submitted: Photographs of facilities, Rating, make and year of installation.
3	The company should have in house following testing set-up/facilities for testing of Hydro/LIS Fabricated type Rotor coil: (i) High Frequency (2Khz) test/Equivalent test (ii) Millivolt drop test (iii) Impedance test (iv) Visual and dimensional test	Following supporting document to be submitted: Photographs of facilities, Rating, make, and year of installation Calibration certificate.

Note- BHEL team may visit at vendor works for assessment of in house manufacturing set-up and testing set-up.

SAMPLE FIELD COIL DESIGN

