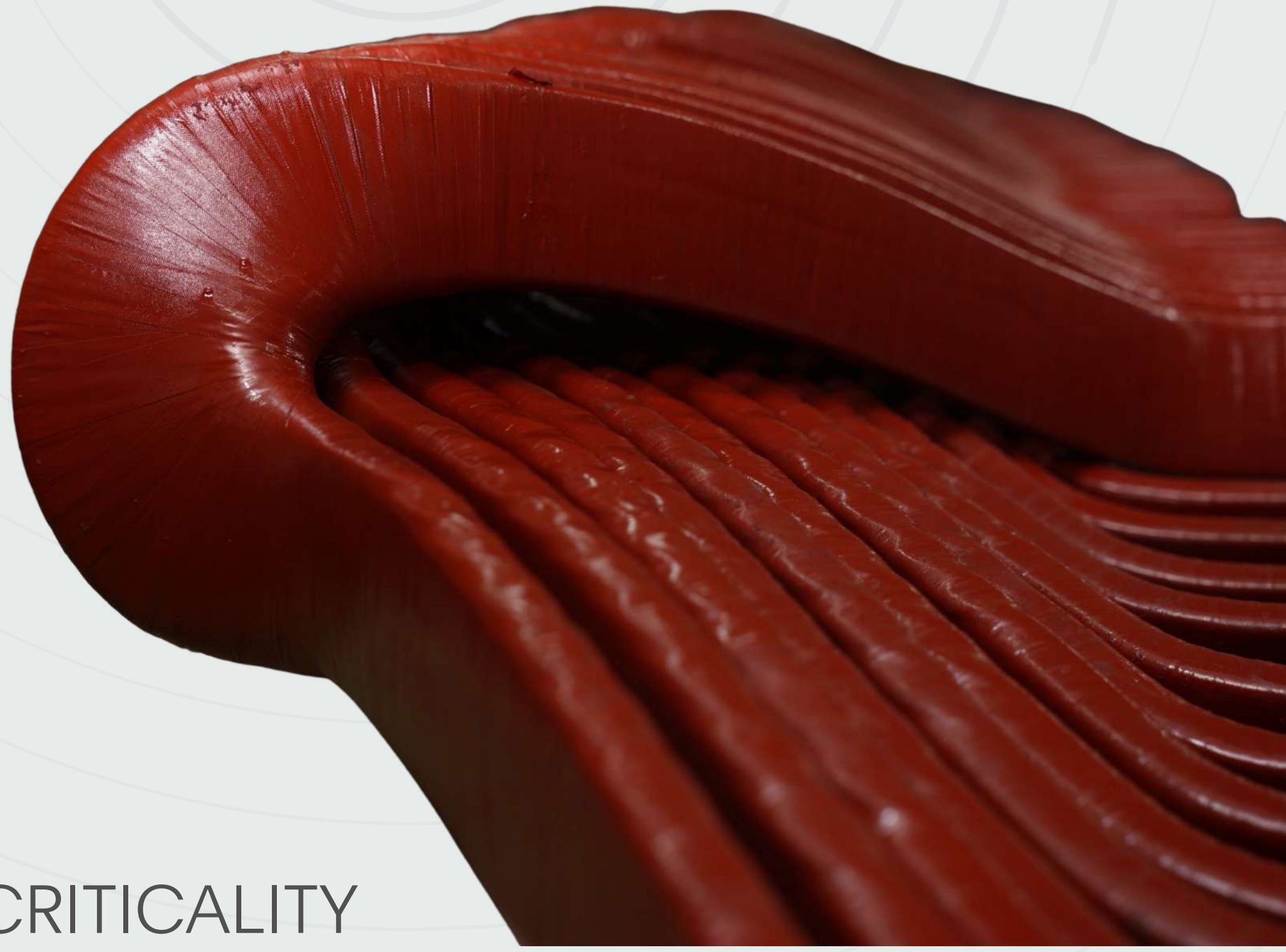
SCOPE OF WORK

For the Sabarigiri 60MW project, our scope involved comprehensive stator rehabilitation and coil manufacturing using advanced reverse engineering techniques.

- Designed diamond coils using reverse engineering techniques for optimal system compatibility
- Manufactured 180 fully cured VPI coils along with 20 spare coils to ensure reliability
- Performed core revarnishing and restacking to restore structural integrity and magnetic performance
- Completed stator rewinding using newly manufactured coils
- Carried out all critical electrical connections
- Conducted final testing to certify operational readiness and ensure long-term durability

BASIC INFORMATION ABOUT COIL & MACHINE

COUNTRY	MAKE	KW	VOLTS	AMPS	HZ	POLES	RPM	INS.CL
INDIA	ALLIS - CHALMERS	60000	11000	3207.5	50	12	500	F

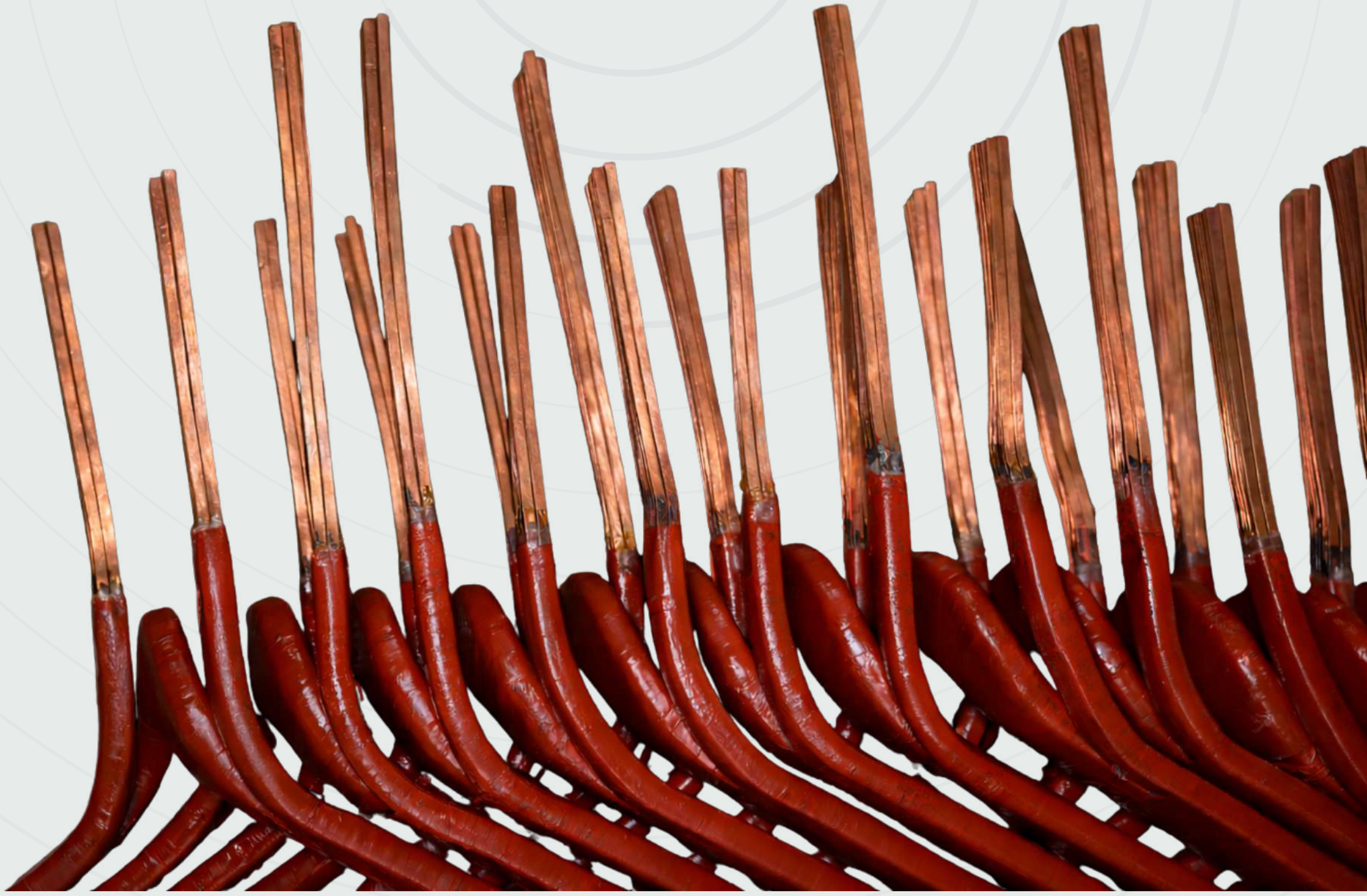


PROCESS CRITICALITY

- Each turn consists of 18 parallel wires
- Roebelling is provided on the NCE side of the OH section top side
- Turn insulation is applied for each turn
- The Core slot is skewed by 52 mm
- Despite being large, the span and slot positions were maintained accurately in accordance with the customer’s requirements
- The weight of the single coil is 41 Kgs

FINAL TESTING ON INDIVIDUAL COIL

- Dimensional checking
- Inter element insulation test at 220 V AC
- Coil resistance measurement
- IR value at 5000 V before and after HV DC test
- AC HV test at 33 kV for 1 min
- Surge comparison test at 15 kV
- Tan delta at rated voltage
- Partial discharge test for 100% of the coils at the phase voltage



PROCESS HIGHLIGHTS

- Complete design and fabrication of all tools and equipment were carried out in-house
- The tools and equipment were designed and fabricated with 100% dimensional accuracy to ensure precise fitment of fully cured VPI coils within the stator core

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