

Overview

Motortecnica is fully owned and managed by Nidec ASI (Formerly Ansaldo Sistemi Industriali), specialized in design, manufacturing, repair, servicing & maintenance of complete electric generators for Hydro Market and revamping/retrofitting activities on electric rotating machines.

Hydro Generators

Thanks to the high degree of competence, experience and quality of its products, Motortecnica can provide complete electric Hydro generators with different types of constructions and solutions to meet the customer requirements.

Power: from 0,9 up to 60 MVA
Voltage: from 3 up to 15 kV
Speed: from 100 up to 1500 rpm
Stator winding insulation technology: VPI & Resin Rich

Service Provider

In addition to the new electric machines, Motortecnica is able to supply single parts or components of generators like Rotor Poles and Stator Winding.

Rotor Poles

- Complete FEM calculation for rotor poles
- Production of poles and rotor coils of different sizes and different kind of fixing method (dovetails, hammerheads, bolts)
- Realization of round head coils in order to replace the copper part only for each replaced pole (applicable to old generators)

Stator Winding

- Possibility to design and manufacture both, diamond coils and roebel bars for stator windings developed in Resin Rich Technology;
- Ability to realize stator windings in VPI technology for stator with max external diameter of 2,5mt

Horizontal Alternator (35 MVA)



Service Capabilities

Production range & capabilities: stator windings, rotor poles & coils and brushless excitation systems

Stator coils:

- VPI up to 13,8kV
- Resin Rich up to 15kV
- Insulating class F or H
- Up to 3000 mm of length

Roebel Bars:

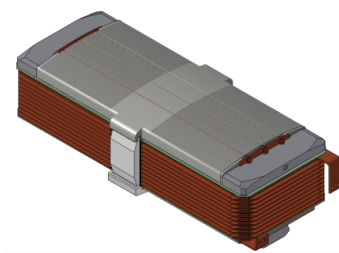
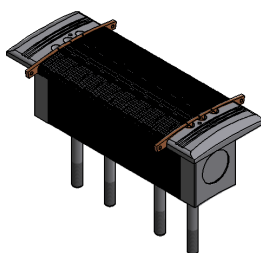
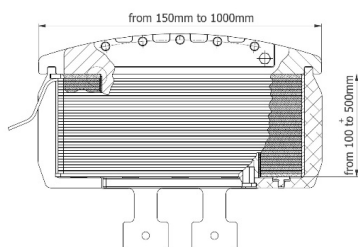
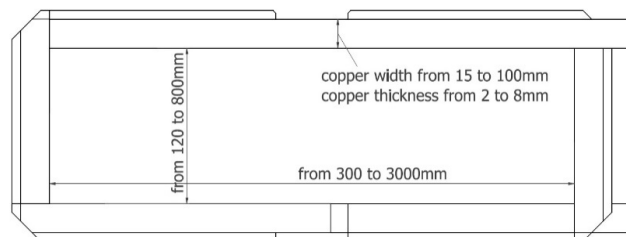
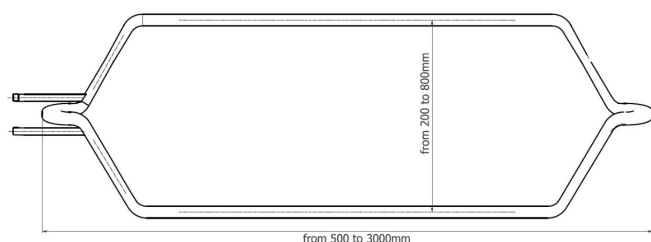
- Cut and skin
- Transposition
- Consolidation
- Forming
- Insulation
- Up to 15kV (discontinuous Resin rich technology)
- Up to 3300 mm of straight part

Complete poles:

- Laminated core
- Damper Cage

Rotor coils:

- Up to 8 ton
- 3000mm x 800mm
- Interturn insulation



references up to 300MVA (rotor coils) & references up to 180MVA (stator bars)

Brushless exciters:

- Design&manufacturing of brushless exciters for any kind of generator
- Capability to install brushless on existing generators that have old exciting system (static & dynamo) without impact on other components

On site activities

- Dismantling / diagnostics / cleaning / reassembling / test
- Power upgrade through re-engineering of main items (stator / rotor)
- Stator / rotor windings replacement
- Repair activities in short time (earth and phase to phase fault repairing, substitution of damaged components, stator winding bypass)
- Power -> references up to 300MVA

