



# Stator Systems

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## Roll dip impregnation machines



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The “Roll Dip” impregnation method, known in the US market as “Roll Through”, is suitable for both rotor and stator winding.

The components are positioned & fixed horizontally on auto-centring chucks. These chucks allow the components to rotate constantly on the central axis and they carry them through the different phases of the process (preheating, impregnation, gelation, polymerization and cooling).Â Depending on the component size and on the process requirements, the rotation speed”which plays a major role for a good resin penetration “is electronically controlled through the whole process, paying special attention to the roll dip and gelation areas.

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In the Roll Dip impregnation station, the system is equipped with one or more thermostatic cups containing resin and/or varnish to be used in the process; the resin is constantly flowing and overflowing to-from the cups through specific pumps. When the component is presents in the Roll Dip impregnation station , the cups automatically rises on the rotating stator/rotor and it can be partially dipped up to the specific level .

The combination & control of all parameters (times, rotation speed and dipping level) ensures optimum resin penetration inside the component slots (where Stator section showing resin the windings are located) and heads. penetration

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The component constantly rotates, during both the Roll Dip and the gelation phase, so the liquid product (resin) applied penetrates evenly and fully in the component windings (slots and heads), getting high levels of solids content after polymerization. Such impregnation method ensures high bond-strength levels on the winding and is particularly suggested and used for all products where thermodynamic stresses are relevant and strong in their service .

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Detail of a rotating stator in the Roll Dip impregnation area

