

OPTIONAL

- ◆ Automatic loading/unloading
- ◆ Storing buffer for loading/unloading
- ◆ Thermal regenerator
- ◆ Post-Burner Unit
- ◆ Pieces Automatic Identification and Setting

TF ROLL DIP/RING

Rate: 140 statoris/ hour (max Ø140 mm)
250 rotors / hour (max Ø 70 mm)

Size: 10,5 x 2 x h 2,3 m

TF ROLL DIP/PERFORMANCE

Rate : 150 stators / hour (max Ø 140 mm)
100 stators / hour (max Ø 220 mm)
300 rotors / hour (max Ø 70 mm)
150 rotors / hour (max Ø 100 mm)

Size: 7,65 x 2 x h 3,2 m

TF ROLL DIP/HIGH PERFORMANCE

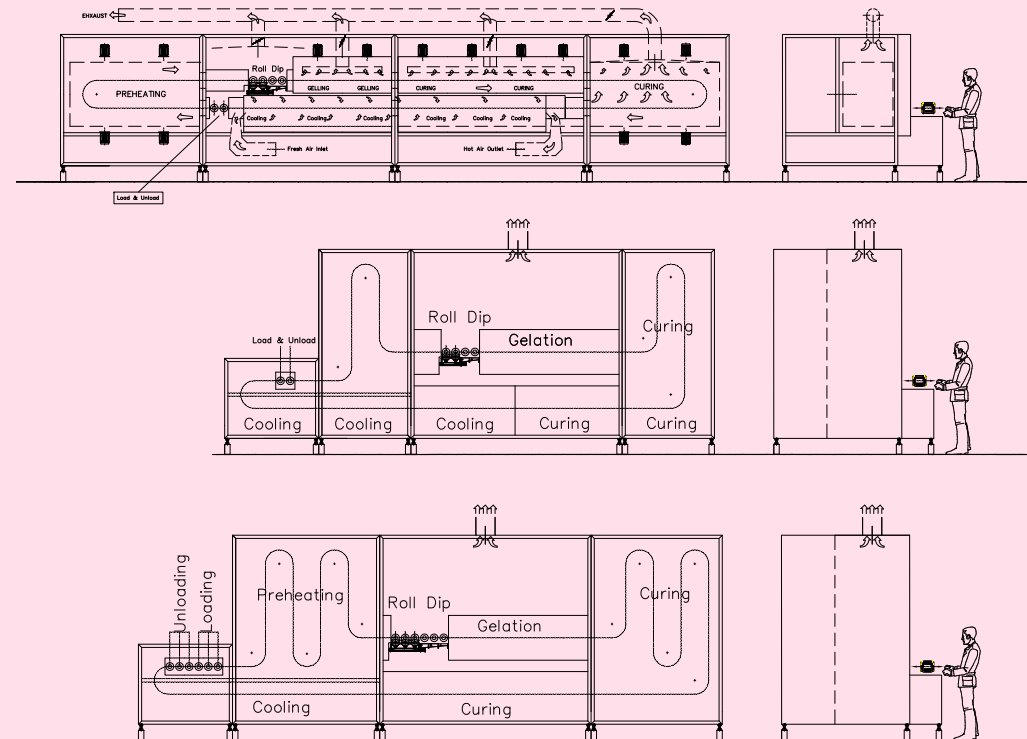
Rate: 200 stators / hour (max Ø 140 mm)
130 stators / hour (max Ø 220 mm)
350 rotors / hour (max Ø 70 mm)
180 rotors / hour (max Ø 100 mm)

Size: 9,3 x 2 x h 3,2 m

DATA SHEET LAYOUT TF ROLL DIP

IMPREGNATION LINES FOR ELECTRICAL WINDINGS

TF ROLL DIP



RING

PERFORMANCE

HIGH PERFORMANCE

TECNOFIRMA® IS A COMPANY OF THE TT-TECNOFIRMA TEAM GROUP, LEADER IN THE SURFACE TREATMENT FIELD..

TECNOLOGY & INNOVATION FOR OVER FIFTY YEARS

BESIDES STANDARD LINES, TECNOFIRMA IS SPECIALISED IN DEVELOPING CUSTOMIZED SOLUTIONS TO FULFIL SPECIFIC CUSTOMERS NEEDS.



HARMONY OF COLOURS, DEPTH OF TREATMENT

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WASHING & PAINTING MACHINES

THE ROLL DIP IMPREGNATION METHOD

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).

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.

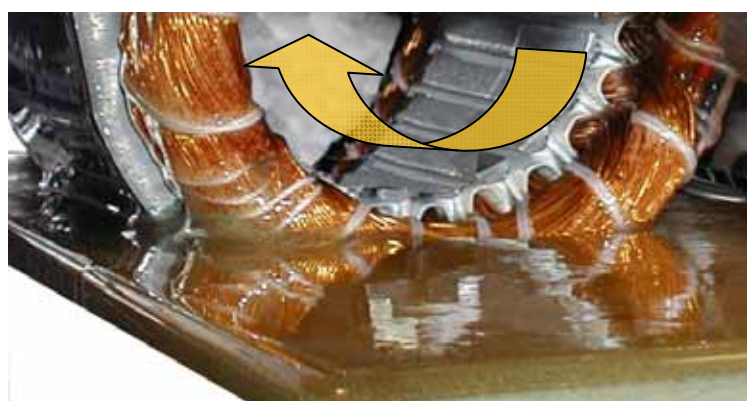
In the Roll Dip impregnation station, the system is equipped with one or more thermostatic cups containing resin and/or varnish to be used in the process; the resin is constantly flowing and overflowing to-from the cups through specific pumps. When the component is presents in the Roll Dip impregnation 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 the windings are located) and heads.

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.



Stator section showing resin penetration



Detail of a rotating stator in the Roll Dip impregnation area

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 .

IMPREGNATION

FIELDS

APPLICATION FIELDS

- ◆ Electrical motors (stators and rotors)
- ◆ Generators (stators and rotors)
- ◆ Bobbins
- ◆ Automotive (alternator and starter)



BENEFITS OF THE ROLL DIP METHOD

The technology used in Tecnofirma Roll Dip systems complies with the best quality, reliability and automation standards. These features result in several advantages by the Roll Dip impregnation method;

- ◆ High-quality of the impregnation
- ◆ Maximum resin filling on the winding slots
- ◆ Very high Bond-Strength standards
- ◆ Excellent resin penetration and covering between magnetic laminations
- ◆ Very short process times
- ◆ High system productivity
- ◆ Possibility to use resins with or without monomers

DESIGN

The *TF ROLL DIP* series is designed to combine user friendliness, flexibility and environmental friendly.

All components were chosen for their reliability and safety.

The heating systems are designed to ensure excellent process and energy saving performances.

All impregnation parameters are controlled by PLC. If different products undergo the impregnation process ("Random" production mode), you can set the following specific parameters for each single component;

- ◆ Component rotation speed
- ◆ Dipping time
- ◆ Dipping stroke

IMPREGNATION PRODUCTS

Tecnofirma® *TF ROLL DIP* systems are designed and realised in order to use Traditional polyester , No-Solvent Polyester , Epoxy and Epoxy-Phenolic Resins, and all other medium-high performance products suitable for this impregnation method.

The operator can easily change process data in order to comply with the product manufacturer's instructions.

DESIGN

PRODUCTS