

DATA SHEET

Tow Preg - Lab Scale

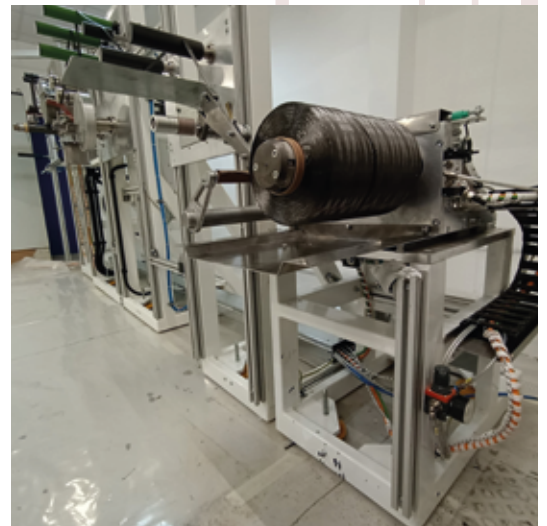
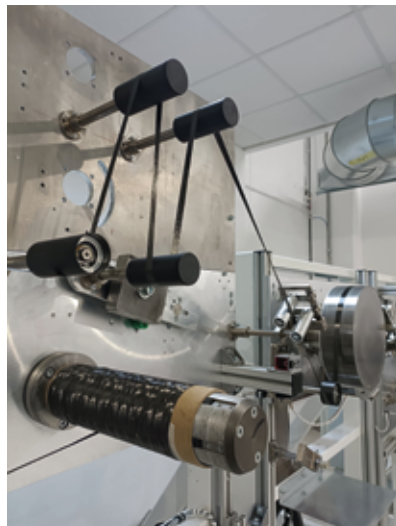
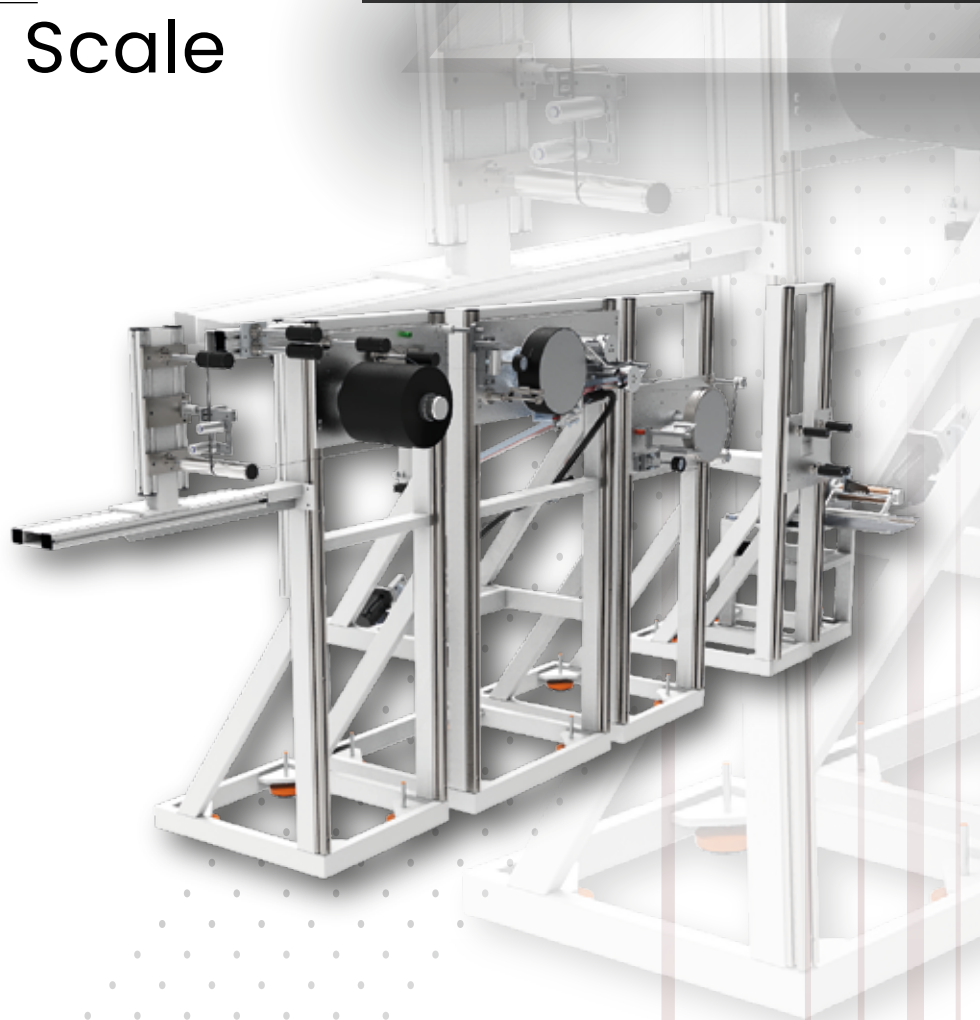
Model: ERMES

Product INFO

Lab Scale impregnation machine to produce high quality Tow Preg. ESEA's impregnation technology is able to guarantee a constant resin content with deviation less of $\pm 0,4\%$.

The high maximum process speed is estimated at around 200 m/min.

The machine is able to process different resins with different viscosities.



TECHNICAL DATA

LAB SCALE IMPREGNATION PROCESS SPECIFICATIONS

Modular configuration	Modular approach with the opportunity to increase the production rate of the machine until to 4 spools.
Frame	1 spool
High accuracy resin content	+/- 0,4%
Fiber yield	6 to 24K, more upon request
Maximum impregnation speed	200m/min (3,3 m/s)
Rewinding technology	Precision cross winding
Rewinding speed	2 to 20 m/min
Rewinding ratio	Electronic set-up
Traverse length	Max 250 mm
Package diameter	Max. 320 mm
Package weight	Up to 8 kg
Tube inside diameter	76.2 mm
Tube length	280 mm
Yarn tension	Electronic set-up
Separate tension control	
TowPreg Bandwidth	Manually set-up

MACHINE CONFIGURATION

Unwinding Unit	
Impregnation unit	
Dosing unit	
Spreading roller	
Chill roller	
Rewinding unit with air condition system	
Electrical cabinet	Insulation code IP56 and air condition system

COMPONENTS

PLC	Siemens
Motor axis	Servomotors Siemens
Pneumatic	Festo

MATERIALS

Thermoset Prepreg resin	Hotmelt resin 1K / Hotmelt resin 2K
Dry fiber	HT Carbon fibre / IM Carbon fibre

OPTIONS

IP Camera	Visual control cam during the operation
Profilometer	
On line resin content control	
Smart maintenance service (Augmented Reality)	