E-Fiber Accessories

Modular electrospinning/electrospraying platform

EFA130/ EFA140/ EFA145 Environmental Control Systems

Environmental parameters play an important role during the electrospinning process. For example, changes in temperature and humidity influence solution viscosity, or solvent evaporation rate, thus affecting fiber morphology and in some cases even the good outcome of the process.

Therefore, the control of environmental conditions improves result reliability and electrospinning process repeatability. E-Fiber equipment can be equipped and **upgraded with different accessories for temperature and humidity control**, to extend and best fit user requirements and applications.

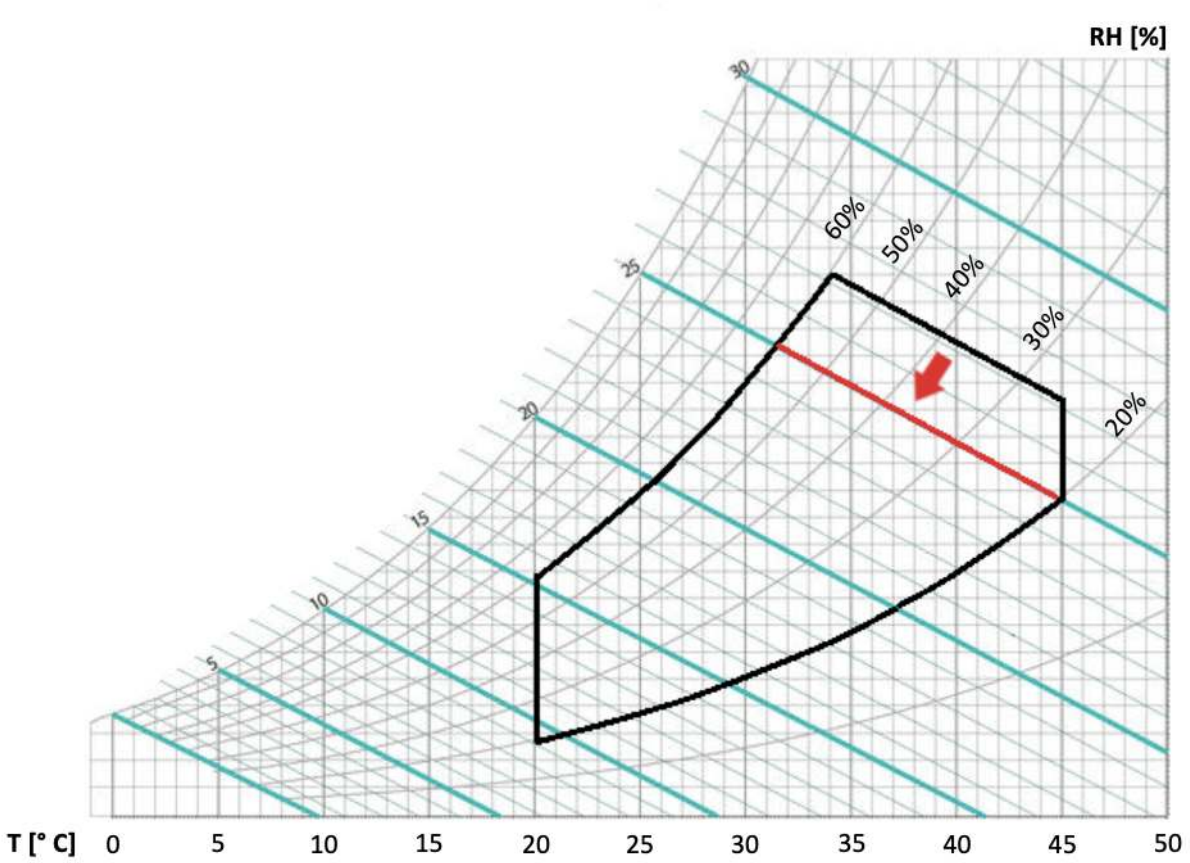
Climate Control Unit | EFA130

SKE Climate Control Unit allows full control of the environmental parameters inside the working area, providing excellent accuracy of output temperature and humidity. It is completely automated and GUI-integrated, so the environmental parameters can be controlled via the touch screen.

Setting Range: 20-35 °C – 20/60% RH
Working range: 18-25 °C – 40/80% RH

Maximum Relative Humidity at 20°C is 60%. Minimum Relative Humidity at 35°C is 20%. Please see the graph below for the working area region: The area decreases from black to red line when environmental humidity decreases from 55% to 40%.

Compatible with all E-Fiber versions with climate control unit predisposition.



TECHNICAL DATA

Enclosure Material	Stainless steel
Weight	Approx. 100 kgs
Dimensions	1550 x 800 x 300 mm (W x L x H)
Air volume effective	180 m^3/h
Heating capacity	3.0 kW
De-humidification capacity	2.0 kW
Humidification capacity (max)	1.7 kg/h
Mains connection	220/240 VAC ~ 50 Hz

Heater | EFA140

This Heating Control Unit allows control of the temperature inside the working area, providing excellent accuracy of output temperature value. It is equipped with its own control panel, and eventually can be integrated in your E-Fiber also at a later time.

Heating of electrospinning area up to 40 °C.

TECHNICAL DATA

Weight	10.5 kgs
Dimensions	325 x 260 x 332 mm (L x W x H)
Heating capacity	3.3 kW
Air volume effective	130 m^3/h
Temperature increase	40 °C
Mains connection	220-240 V ~ 50 Hz
Nominal current consumption	15 A

Humidity reduction system | EFA145

This de-humidification system allows control of the relative humidity inside the working area, providing excellent accuracy of output humidity value. It is equipped with its own control panel, and eventually can be integrated in your E-Fiber also at a later time.

Relative humidity of electrospinning area down to 25%.

TECHNICAL DATA

Weight	17 kgs
Dimensions	350 x 350 x 405 mm (L x W x H)
De-humidification capacity	1.2 kg/h
Dry air volume effective	350 m^3/h
Working temperature range	-15 / +35 °C
Mains connection	220-240 V ~ 50 Hz
Nominal current consumption	7 A

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