

YFLOW® ELECTROSPINNING EQUIPMENT

Yflow® S.D. offers a wide variety of Electrospinning Lab Equipment for the production of Core-Shell, hollow and plain nanofibers and nanoparticles. Every Lab Equipment supplied by Yflow® S.D. allows clean operation with both Yflow® Coaxial Electrospinning and Electro Spray Tech.

For those scientists and engineers who devote to develop "Process Design" of the Coaxial Electrospinning & Electro Spray Tech. with full control on processes, Yflow® S.D. also has the right device to satisfy their needs. Looking for having a place in this niche, Yflow® S.D. has released brand new Yflow® StartUp Electrospinning Equipment.



Yflow® StartUp Lab Device

YFLOW® STARTUP ELECTROSPINNING EQUIPMENT | FEATURES

- SS Epoxi-Coated Enclosure and Glass:** The unit has been designed to work in a laboratory and research environment, having an excellent flexibility, ease of use and minimum setup time and maintenance. The transparent door located at the front and both sides, allows the visualization of the process and an easy access to the cabinet. The only input required to operate the equipment is electricity. The machine has two operation modes: safe and normal. In safe mode, the high voltage will turn off at the time the door is opened, to ensure the security of the user. In normal mode, although the door is opened, voltages will be kept in operation. However, the user will be warned about the risk by a red beacon.
- Control Panel:** A touch screen allows the user to control all the features provided with the equipment. The software includes a user-friendly interface with the option of programming sleep-off mode (timer).

Yflow Sistemas & Desarrollos S.L.

Coaxial Electrospinning & Electro Spray Equipment | R&D Microencapsulation Services.
c/ Marie Curie, 4. Parque Tecnológico Andalucía. Málaga, Spain.

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- Y **HV Power Sources:** Supply up to 60.000 V of voltage drop from the nozzle to the collector. The device is equipped with two power supplies: one positive (up to +30 kV) and one negative polarity (down to -30 kV) (respectively) which reduces losses of material. The voltages are fully controlled from two knobs, which provide the user with a more accurate control of the process.
- Y **Pumping System:** Two syringe-pump based liquid infusion systems, for Yflow® Coaxial Electrospinning & Electro spray Tech., driven by stepper motors, allowing a high resolution control of the flow rate through the nozzle. Syringes from 0.5 μ L to 60 mL can be used. Then, the flow rate can be varied from 14 μ L/h to 3000 mL/h. Pumping systems is controlled from touch screen.
- Y **Flat Collector:** 200 mm x 200 mm SS plate.
- Y **Coaxial Nozzle:** To operate in simple and coaxial modes. The Coaxial Nozzle position (distance and angle from the collector) is completely adjustable. Different nozzle-setups are available:
 - COAXIAL I: 0,9/0,6 & 1,7/1,4 (AISI 304) (by default)
 - COAXIAL II: 0,9/0,6 & 1,7/1,4 (AISI 316)
 - COAXIAL III: 0,7/0,4 & 1,4/1,1 (AISI 304)
 - COAXIAL IV: 1.4/1.7 & 2.2/2.8 (AISI 304)



- Y **Taylor Cone Visualization System:** Consists of a CMOS USB Color Camera connected to a proper lens array that allows visualizing the Taylor Cone anchored at the tip of the nozzle on a computer (software included) that be connected to the equipment by a USB output (this computer not included). Due to the fact that an accurate control on the whole process is essential for the robust and reliable generation of nanofibers and particles, we consider this item indispensable.



- Y **Warranty & After Sale Service:** 2 year from the date of the acceptance of successful installation by the client. Yflow commits to reply in the 48 working hours following the reception of notice (by email, fax or phone) of requirement for repair or technical assistance from the user.

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YFLOW® STARTUP ELECTROSPINNING EQUIPMENT | GENERAL INFORMATION

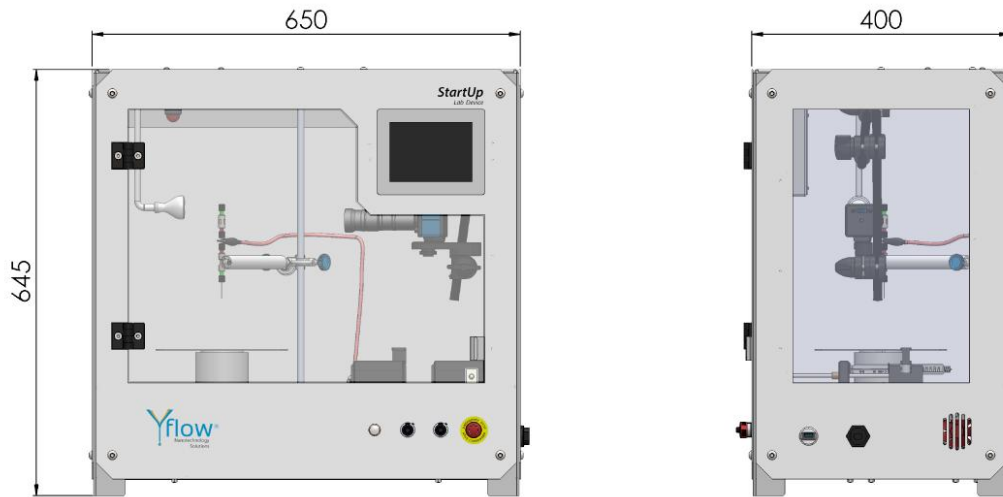
ENCLOSURE MATERIAL	Steel (Epoxi R. Coating) and Laminated Crystal
Dimensions (mm)	650 mm x 400 mm x 645mm
Power supply	210-230 V; 50-60 Hz
Power Consumption (max)	350 W; 1.5A
Operator interface	Touch Screen 5,7"
Warranty	2 Years
HIGH VOLTAGE	
Polarization	Double polarization
Voltage range	-30 KV to +30 KV
Maximum Power	15W
Adjustment of voltage	Knob potentiometers
SYRINGE PUMP	
Units	2
Syringe size	1 ml to 30 ml
Flow rate	14 µL/h to 3000 mL/h
INJECTOR	
Needles	1
Type	Coaxial
Diameter of outer needle (OD/ID)	1.7/1.4 mm
Diameter of inner needle (OD/ID)	0.9/0.6 mm
Material of needle	Stainless steel
Material of body	peek
Distance injector-collector	250 mm
Distance adjustment method	manual
COLLECTOR	
Type	flat
Material	Stainless Steel
Dimensions (mm)	200 x 200
TAYLOR CONE VISUALIZATION SYSTEM	
Camera	CMOS USB Color Camera (software included)
Focus	Manual
Position adjustment method	Manual
Illumination	LED
SAFE AND SECURITY	
Integrated extractor hood: Fume hood exhaust fan that allows an efficient ventilation of the cabinet.	
Emergency stop button	
Safe mode of work	
Red beacon to warn of risk	

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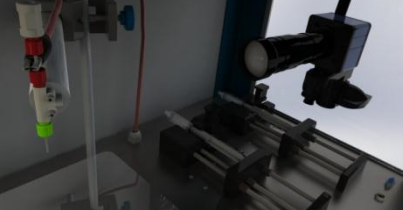
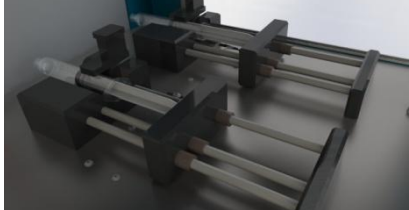



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YFLOW® STARTUP ELECTROSPINNING EQUIPMENT | EXTERNAL DIMENSIONS



YFLOW® STARTUP ELECTROSPINNING EQUIPMENT | PHOTO GALLERY

		
<p>Front View</p>	<p>Side View</p>	<p>HV Potentiometers</p>
		
<p>Inside View</p>	<p>Pumping System</p>	<p>Visualization System</p>
		
<p>Coaxial Injector</p>	<p>Touch Screen</p>	<p>Camera Connection</p>

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