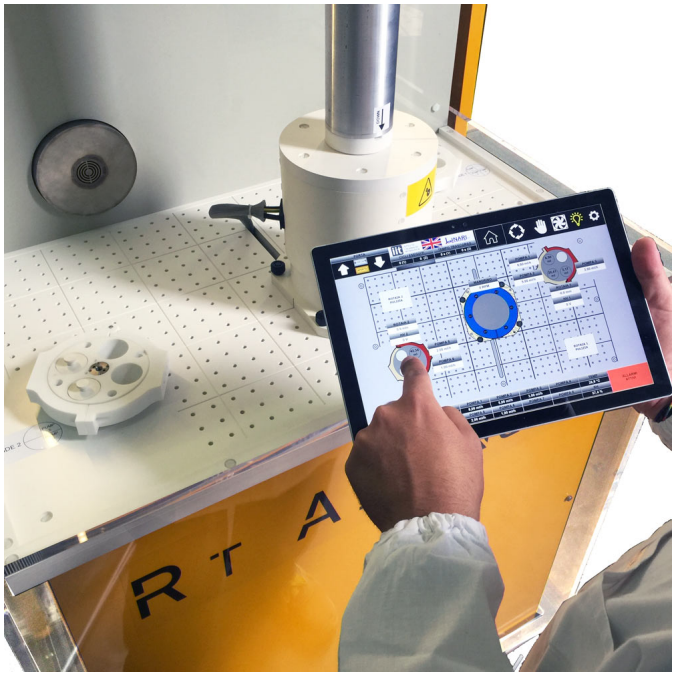
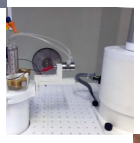
RT Advanced





The best electrospinning machine for nanofibers industrial production and advanced research. Exclusive vertical setup to cut noise and lab space with short setting time.

Rating: Not Rated Yet
Price

Salesprice with discount

64480,00 €

On Order

Ask a question about this product

ManufacturerLinari Engineering srl

Description

RT ADVANCED

RT Advanced is designed for high tech companies and research centers that need to produce high quality, reproducible nanomaterials for experimental and industrial purposes.

With RT Advanced is possible to electrospin any type of synthetic and natural polymer or ceramic material, starting from solutions at room temperature using the high precision 60 kV high voltage generator.

Environmental control of temperature and humidity
RT - 50 °C, 20% - 70% RH

Mobile interface with Micorsoft Surface Pro tablet PC

No solution loss inside pipe with unique "sliding pump" technology

High productivity with self cleaning system for long unmanned operation

The user can create deposits of nanofibers with chaotic or perfectly oriented structure by simply changing the operative settings. The nanofibers are characterized by high reproducibility over time, with the possibility of depositing up to eight different materials at the same time following a well defined recepie defined in a simple and intuitive mobile interface.

Unique advantages of RT ADVANCED

- Unique: what makes the RT Advanced unique is its original structure composed of one or more vertical axis rotating chucks along which the syringes and their needles move
- Replacement of the collectors: simple and fast replacement of the collectors, even if they are large, thanks to the single lower self-centering chuck
- No waste: the loading of the syringes is done without wasting solution due to the absence of flexible tubes which connect them to the needles
- Silence: the vertical movement of the needles along the collector reduces the size of the machine and eliminates vibrations during operation, even at high speed
- Second high voltage generator: the collector is insulated from the ground so that it can be connected to a second high voltage generator up to a potential of +/- 60 kV
- High quality components: all the materials used have been carefully selected to avoid interference on the electric field between collector and needles for maximum control of the nanofiber deposition, avoiding waste and improving the morphology of the substrate
- Reliability: the use of Omron Electronics industrial components for the control electronics guarantees the maximum reliability of the system also under heavy use conditions
- Safety: opening of the spinning chamber is blocked when high voltage is present; automatic interruption of production in case of blackout or malfunction; active control to eliminate sparks and high voltage discharges

Technical features:

Flat or cylindrical collectors with diameters up to 250 mm and maximum

60 kV high voltage generator with 1 mA continuos output.

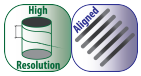
Control of environmental parameters of chamber: temperature

length up to 550 mm. **and humidity.**

- Easy installation, no vibration, considerable accessibility
- High level of performance and integration with a size under 1 m^2
- Access and visibility on three sides of the electrospinning chamber
- WiFi controller with a 12.3" Microsoft Surface Pro 4 Tablet-PC
- Built-in high voltage 60 kV generator
- Up to 8 pumps for independent syringes (up to 50 cc)
- Translating syringes and needles to avoid wasting solution and make the setup easier RT Advanced
- Multi-needle or coaxial needle system
- Easy to replace flat or drum collectors, between 1 to 250 mm in diameter, maximum length 500 mm
- Vertical axis of rotation of the collectors up to 5000 rpm for the creation of tubular structures with aligned fibers
- Vertical axis of a continuous belt for the creation of flat substrates with length up to dozens of meters
- Automatic cleaning of the needles with timed jets of compressed gas
- Control of internal temperature and humidity, flushing with inert gases
- Built-in suction system

Applications:

- Tissue Engineering
- Drug delivery
- Renewable energy
- Catalyst
- Inorganic material
- Filtration
- Acoustic barrier
- Optics



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