

INDIAN INSTITUTE OF TECHNOLOGY BOMBAY MATERIALS MANAGEMENT DIVISION Powai, Mumbai 400076.

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Detailed Technical Specifications for Needleless Electro-spinner:

I. Main Features

- 1. Needle-free electro-spinning system
- 2. Effective width of nano-fiber layer: 250 300 mm
- 3. Run time per batch: 40 100 min
- 4. Volume of solution per batch: 50ml
- 5. Substrate speed: 0-5000mm/min
- 6. Spinning voltage: 0-80kV
- 7. Meets all CE requirements
- 8. Safety door locks
- 9. Safety shut off switches
- 10. Integrated substrate unwind / rewind
- 11. Standalone equipment

II. Spinning unit

- 1. Total number of spinning electrodes: 1
- 2. Spinning electrode width: 350 mm
- 3. Stationary wire electrode system
- 4. Integrated unidirectional substrate unwind / rewind

III. Equipment variable

- 1. Spinning voltage: 0 80 kV
- 2. Substrate speed: 0 5000 mm/min
- 3. Spinning distance: 120 240 mm

IV. Accessories

- 1. Spinning carriage: 50 ml
- 2. Small volume spinning carriage: 10 ml
- 3. Provides cleaning container for carriages

V. peripherals

- 1. Humidity and temperature control (NS AC 150)
- 2. Industrial camera with adjustable stand

VI. Consumption

- 1. Power: up to 300 W (without peripherals)
- 2. Meets all Safety/regulation
- 3. Meets all CE requirements

VII. Dimensions

1. Height: 2053mm, Length: 1045mm, Width: 1295mm and Weight: 240 kg

VIII. Polymer filling

1. Operating mode: batch

2. Batch volume: 50 ml or 10 ml

IX. Site requirements

1. Operating staff required: 1 person

2. Production premises: 3 m x 3 m space required

- 3. Exhaust ventilation connection required
- 4. Appropriate treatment of waste air required
- 5. Extinguishing system connection required
- 6. External grounding required
- 7. Monitor and computer to be provided by the supplier.