

<u>Specification for Electrospinning Unit</u>
<p><b>Spinning Arrangement</b></p> <ol style="list-style-type: none"> <li>1. Horizontal and vertical</li> <li>2. Co-Spinning</li> <li>3. Under solvent spinning</li> </ol>
<p><b>High Voltage power supply</b></p> <ol style="list-style-type: none"> <li>1. Input voltage: 230-240VAC+/- 50 Hz</li> <li>2. Output voltage: 0 to 30 kV or up to 40 KV</li> <li>3. Output current: 0 to 0.4mA or up to 0.5mA</li> <li>4. Voltage Regulation: 0.1 KVresolution</li> <li>5. In-Built Circuit Protection</li> </ol>
<p><b>Syringe pump: independent control dual channelwith</b></p> <ol style="list-style-type: none"> <li>1. speed and flow rate adjustable)</li> <li>2. Dual Syringe attachment</li> <li>3. Acceptable syringe volume:5 µl-20ml</li> <li>4. Flow rate resolution: 0.1</li> <li>5. Flow rate: 0.1 µl/min to 3ml/min or up to 10 ml/min</li> <li>6. Volume, Time and Flow control</li> </ol>
<p><b>Collector: Stationary collector/Plate</b> Collector: Length=220mm X Width=150mm</p> <ol style="list-style-type: none"> <li>1. Drum collector D =85 mm,L=165 mm,</li> <li>2. Disc Collector D=85 mm, L=10 mm</li> <li>3. Rod Collector: D =6 mm,L=100 mm, and D =4mm, L =100mm <b>(For blood vessel graft)</b></li> <li>4. Adjustable speed of rotating drum(100 to 5000 RPM)</li> <li>5. Fiber alignment</li> </ol>
<p><b>Spinneret</b></p> <ol style="list-style-type: none"> <li>1. Co-axial nozzle (Stainlesssteel arrangement with fixedneedle geometry)</li> <li>2. Multi-nozzle (4 changeable nozzle geometry)</li> <li>3. Single Nozzle</li> </ol>
<p><b>Control panel</b></p> <ol style="list-style-type: none"> <li>1. Emergency stop</li> <li>2. Main ON/OFF</li> <li>3. Exhaust speed regulator</li> </ol>
<p><b>Operational Control</b></p> <ol style="list-style-type: none"> <li>1. Dell laptop with Intel i5 core processor, SSD, 8GB RAM with original window and pre-installedsoftware required</li> <li>2. HP 1TB USB drivers</li> <li>3. HP1005 Printer</li> <li>4. License software to connect the machine with Laptop</li> </ol>
<p><b>Spinning chamber</b></p> <ol style="list-style-type: none"> <li>1. Digital Temperature and Humiditydisplay.</li> <li>2. Ambient temperature control up to 60 °C</li> <li>3. Exhaust fan with HEPA filter to remove the harmful chemical/vapors</li> <li>4. Illuminating Light: 10 W LED tube</li> <li>5. UV Light: 10 watts</li> <li>6. Computer control interface</li> <li>7. Glass window</li> <li>8. Inert gas purging facility</li> <li>9. Epoxy coated for electrical insulation</li> </ol>
<p><b>Accessories</b></p> <ol style="list-style-type: none"> <li>1. Standard syringes with needles (3ml,5ml and 20ml) 2 box each</li> <li>2. Spare Needle</li> <li>3. Glass Syringe with tube connector</li> <li>4. Standard spinning samples</li> <li>5. Allen Key set</li> <li>6. Screw driver set</li> <li>7. Insulation pad/Foot pad</li> <li>8. Teflon sheet to avoid the solutionspillage</li> <li>9. Chemical resistance tube (5mtrs) forvertical electrospinning</li> <li>10. Tube connectors</li> <li>11. UPS for power supply</li> </ol>

**Note: User list with contact details and model supplied to the user**

- **Warranty period: 3 years**