TECHNICAL PROPOSAL

FOR M08-001 Near Field Direct Writing Electrospinning Equipment



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1. Technical Specifications

- 1.1 Product Name&Model: Near Field Direct Writing Electrospining Equipment M08-001
- 1.2 Equipment Parameters and Standard Configuration

M08-001 Standard Configuration Parameters								
No.	Item	Parameters and Configuration	Installation position	Qty.				
1	High Voltage Power Supply	-Output voltage DC: 0~-30KV, current<1mA input voltage AC220±10%	Built-in power supply	1 pcs				
2	Melt spinning nozzle	-Heating temp.:indoor temperature~300°C -Pneumatic feed, high precision pressure regulating valve ,air pressure can be adjusted to 0.1mpa	Installed on the Z axis module	1Set				
3	Z axis motion system	-Stroke:80mm,applied for height adjustment of nozzle with range of 0~80mm -Precision:5µm	Vertically installed at the top of inner chamber	1Set				
4	X-Y axis motion system	-X,Y axis effective stroke:200mmX200mm -Collection speed:0~300mm/s -Square wave track collection and custom track collection -Precision:≤2µm	Installed at the middle of printing chamber	1Set				
5	Collection platform	-Collected by conductive glass -Effective collecting area:100mmX100mm	Installed on motion platform	1Set				
6	Environmental control	Indoor temperature to 50°C	-	1Set				
7	Camera system	 High definition microcamera; Manual focus at 1080p resolution; The magnification is adjustable from 50X to 500X 	Installed at right side of motion platform	1Set				
8	Air source	-Free of oil and water -Maximum pressure:0.8Mpa -Maximum flow:40L/min	Built into the bottom of the device	1Set				



9	Control system	-PC human-computer control interface -Set control parameters (manual speed setting, automatic movement speed setting, height adjustment setting, return to zero and related control buttons) -Real-time parameter monitoring -Parameter record -Customized printing track setting	External PC control panel	1Set
10	Cables	-Power line:220V, triangle plug*2pcs -Communication cable, 64 pins*1pcs -Communication extension cable, 64 pins*1pcs	-	1Set

1.3 Consumables and Delivery Materials

Consumables and Delivery Materials						
No.	Materials	Specification	Qty.	Remarks		
1	Conductive glass	150mmX150mm	2pcs			
2	Needles	Masashi needle 30G	4pcs			
3	Stainless steel barrel	10CC,medical luer joints	2pcs			
4	Trial spinning material	PCL particles	20g			
5	Use and Maintenance Manual	A4	1 Set			
6	Product Qualification of Quality	A4	1 Set			
7	After-sales confirmation letter	A4	1Set			
8	Product qualification inspection list	A4	1Set			

2. After-sale Service

- 2.1 Generally, the whole machine free warranty period is one year since debugging and acceptance is over, lifetime paid maintenance, consumables excluded.
- 2.2 The equipment installation adjustment test is completed, and it cannot be shipped due to customer reasons, thus the warranty period is one year from the date of contract delivery, and provide lifetime maintenance paid service.
- 2.3 For overseas service like assembly, installation, debugging or training service, etc., if required and necessary, all the expenses would be absorbed by buyer.
- 2.4 If the users use the product incorrectly or refit the product, the unnatural damage isn't in the range of above free warranty, the users shall pay for the repair cost.

3. Environmental Requirements

- 3.1 Ambient temperature: 10 °C to 40 °C.
- 3.2 Relative humidity: 10%~60%.
- 3.3 Compressed air requirements (if any). Compressed air pressure: 0.5 ~ 0.7mpa; Compressed air outlet pipe diameter: 1 in.

Dew point to 40 °C, the solid particle size 0.1 µm or less.

Oil content≤0.01mg/m³.

- 3.4 Party A shall access the designated location as required by Party B.
- 3.5 Electricity demand

The power supply of all manufactured electrical and electronic equipment shall be provided with 50Hz (± 1), 220V/380 ($\pm 10\%$) three-phase AC voltage to ensure the first-stage grounding of power supply (three-phase five-wire system).

3.6 Foundation requirements (if any)

Compacted foundation ground, ensuring 1000Kg/m2, floor level difference ± 3mm.(concrete grade C30 or above is recommended).

- 3.7 Surrounding no strong vibration interference, no corrosive medium, no strong electromagnetic radiation.
- 3.8 Safety: comply with national equipment safety regulations.