

Hollow Fiber Membrane Spinning Machine

For Hemodialysis Membranes and Gas Separation Membrane Manufacturing



Gas separation membrane



Gas filter separator

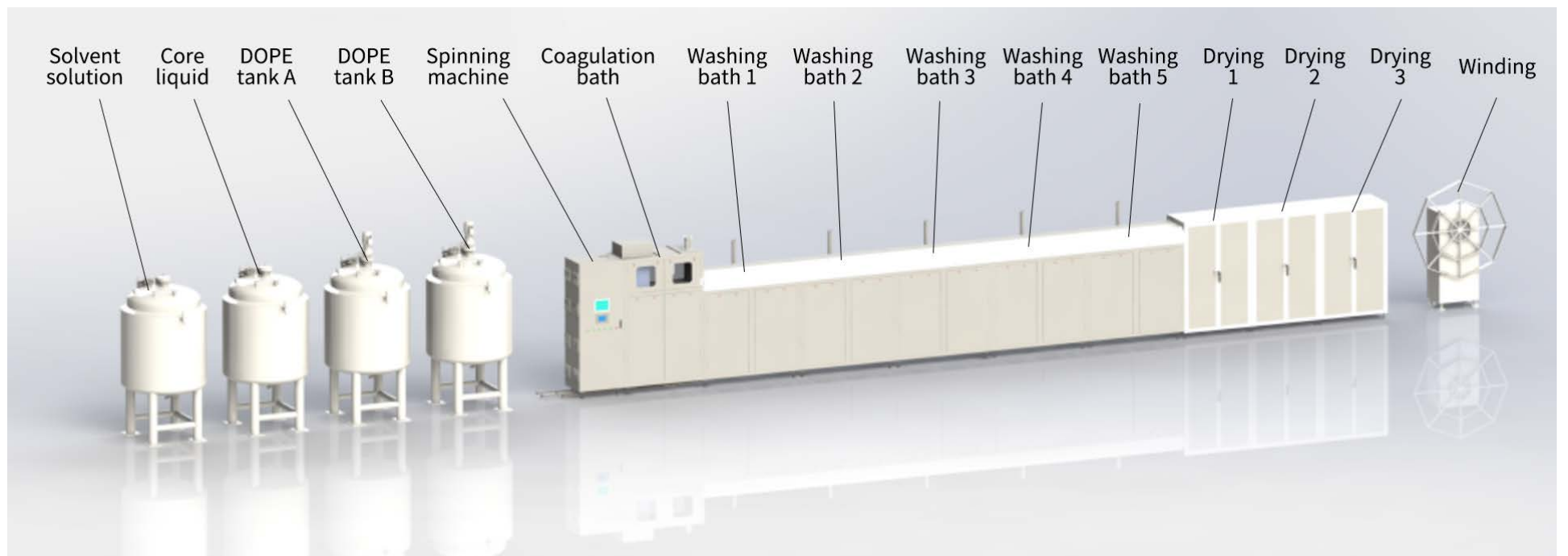


Hemodialysis membrane

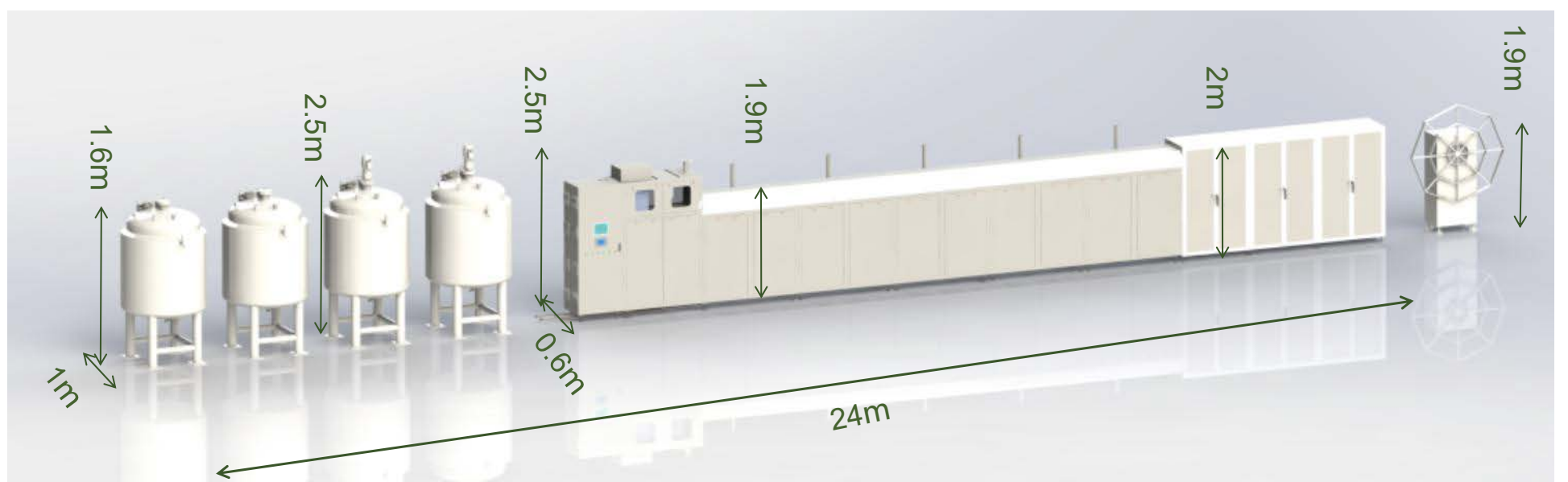


Hemodialyzer


Hollow Fiber Spinning Machine – Workstations



Hollow Fiber Spinning Machine – Dimension



Specification

| | |
|---|--|
|  | <p>Materials Area</p> <p>Solvent solution tank:</p> <ol style="list-style-type: none"> 1. Volume 200 Liter 2. For spinnerets washing <p>Core liquid:</p> <ol style="list-style-type: none"> 1. Volume 200 Liter 2. Continuously forming the hollow core <p>DOPE tank A/B:</p> <p>One tank for spinning, one tank in preparation, Exchangeable without stop the line.</p> |
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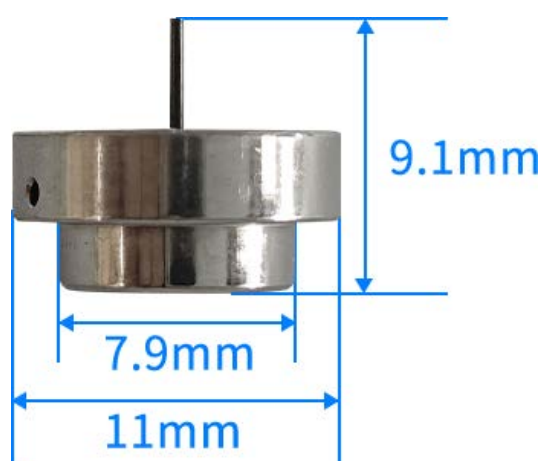
Spinning machine

1. HMI screen
2. All spinning setting
3. Easy to control temperature, relative humidity, spinning speed, etc.



Coagulation bath

1. Heating cycle function
2. Temperature range 0-100°C
3. Air-gap distance: 200-500mm
4. Real-time DMAC concentration monitoring
5. Smart auto adjust overflow in washing bath, according to the DMAC concentration
6. Relative humidity: 0 - 100%



Spinneret

1. Head size: 11*9.1mm
2. Needle size: ID 200um, OD 400um
3. Material: 304 stainless steel 9.1mm
4. Shape: round
5. Application: Hemodialysis membrane
Gas separation membrane



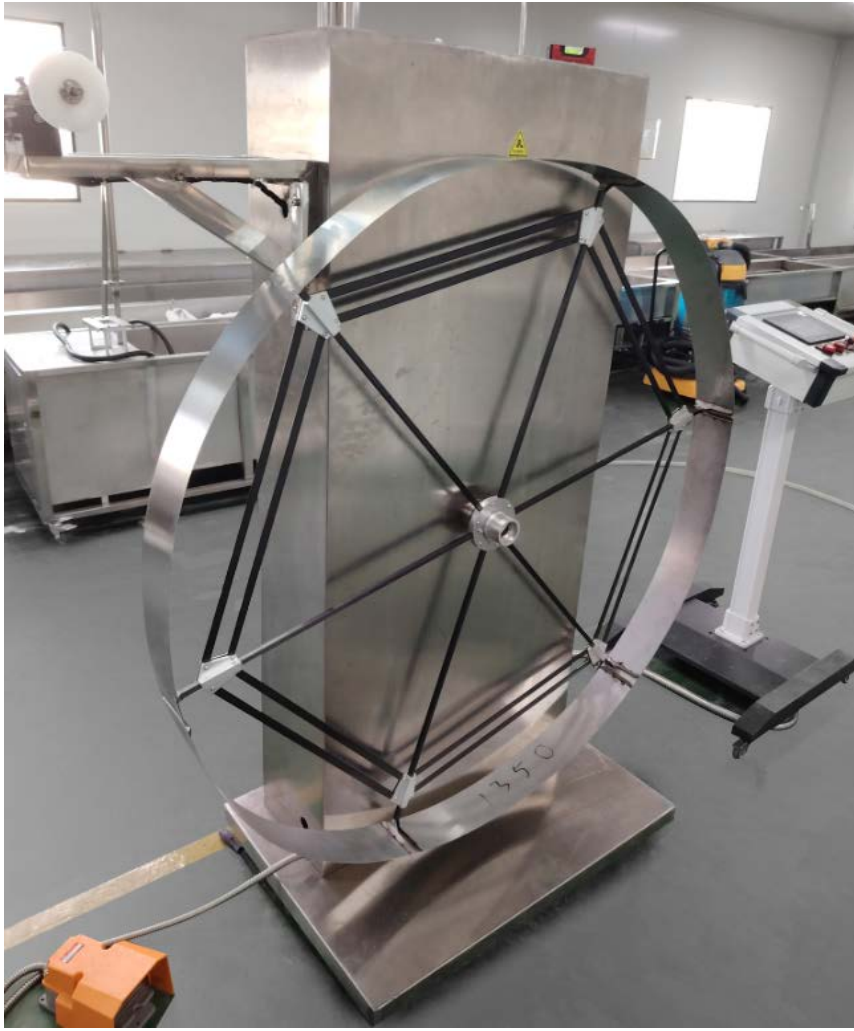
Washing bath

1. Heating cycle and auxiliary heating function
2. Temperature range 0-100°C
3. Each washing bath has same temperature



Drying bath

1. Temperature range 0-100°C
2. Anti-static function



Winding system

1. Speed adjustable
2. 6 or 8 spoke wheel design

Installation cases



Installation requirement

- 1) Ambient temperature: 18~28°C;
- 2) Ambient relative humidity: 45~65%;
- 3) Washing liquid: reverse osmosis water, water consumption 100-200L/H;
- 4) Drainage interface;
- 5) Exhaust interface;
- 6) Altitude <1000 meters, if exceeded, please inform in advance;
- 7) Compressed gas: compressed air 6kgf (or nitrogen);
- 8) Ground wire;
- 9) Ground requirements: The foundation is porcelain leveling or terrazzo floor, flatness $\pm 5\text{mm}/\text{m}^2$, load capacity $200\text{kg}/\text{m}^2$

Parameters

Spinnerets: 32-head

Spinning speed: 25 m/min

Capacity: Annual output can reach 100,000 bundles

Power: 120KW

Operators: Only 1-2 operators are required

Equipment material: Made of high-quality SUS304 stainless steel, it has excellent corrosion resistance and wear resistance, ensuring long-term stable operation of the equipment and extending its service life.

Waste gas treatment

During the drying process, a large amount of waste gas will be generated. In order to ensure that these waste gases will not cause harm to the environment and human health, customers must treat them. To ensure that the final waste gas emissions meet national and local environmental emission standards and reduce pollution to the atmospheric environment.

Wastewater treatment

During the washing process, 100-200L/H of wastewater will be generated. In order to ensure that these wastewater will not cause harm to the environment, customers must treat them. To ensure that the final wastewater emissions meet national and local environmental emission standards and reduce pollution to the environment.

Maintenance

Regular cleaning

The water tank and drying box need to be cleaned thoroughly regularly to prevent blockage and contamination caused by the accumulation of impurities. It is recommended to perform a comprehensive cleaning at least once a month, using special cleaning agents and tools to ensure that there is no residue inside. At the same time, disinfection should be carried out after cleaning to prevent bacterial growth and ensure the hygiene and safety of the production environment.

Equipment inspection

Regularly check the operating status of the equipment, including but not limited to key parts such as power supply, control system, transmission components, etc. It is recommended to perform a routine inspection once a week and a comprehensive maintenance once a month. During the inspection, the equipment operating data, such as temperature, pressure, speed, etc., should be recorded so that abnormalities can be discovered in time and adjusted or repaired. Ensure that the equipment is always in the best operating state, ensure smooth production, and avoid production interruptions or product quality problems caused by equipment failure.

In addition, it is recommended to establish an equipment maintenance file to record in detail: time, content, problems found and treatment measures of each cleaning and inspection, so as to track the equipment status and maintenance history, and provide a reference for future maintenance work.