1. Product information：

	Name of the goods	unit	Num	Note
1	Water production equipment for hemodialysis	Set	1	

2. Functional requirements

2.1 Control mode: fully automatic operation. PLC+HMI low-voltage automatic control intelligent control cabinet, the bidder's low-voltage complete set of intelligent control cabinet has a low-voltage control cabinet electrical safety certificate, and provides the certificate issued by the China Quality Certification Center.

2.2 The unique two-stage reverse osmosis coupling of the water treatment process, in order to avoid the secondary pollution of the reverse osmosis water in the intermediate link, the system adopts the first and second stage fully enclosed direct docking mode, without any intermediate water storage device, so that the operation of the equipment is safer and simpler.

2.3 Pretreatment reminder function: When the system is running, the pretreatment time error occurs, resulting in regeneration and flushing, the inlet valve will be automatically closed to prevent hard water and unfiltered water from entering the reverse osmosis system, improving dialysis safety.

2.4 Softener: The material is FRP. ▲The filter of the filter is filled with high-quality strong acid sodium ayangresin to achieve the purpose of water softening.

2.5 ▲ Activated carbon filter is filled with activated carbon with iodine adsorption value greater than 1000mg/L.

2.6 The dialysis water supply pipeline adopts SUS304 stainless steel large cycle + small cycle no dead cavity pipeline, and the on-site automatic track welding is adopted.

2.7 Working mode: multiple working modes, the first and second levels can be switched and used separatelyIt can be manually controlled, has fault indication and

on-site alarm function, and has a one-click forced water production function, which is convenient for sudden water demand, and there is no need to switch with one key. The system has the function of pressure, water and electricity protection. a. Automatic parameter setting. b. The time is accurate to the minute. c. Time setting includes power on time and shutdown time setting. d. Time calibration settings. The dynamic display of the process flow diagram makes the operation of each component more intuitive, making it easier to monitor and maintain.

2.8 Antibacterial function: The equipment is fully automatic operation, and the automatic on-stop time from Monday to Sunday can be set, and the system pipeline is automatically flushed in the standby state, which effectively inhibits the growth of bacteria.

2.9 Disinfection function: After the disinfection run, there is an audible prompt, the running time is displayed online, and the cleaning running time of the disinfectant is recorded, and the disinfection operation can be verified whether the disinfection operation is complete to ensure the safety of disinfection.

2.10 The reverse osmosis membrane is automatically flushed, the interval time is adjustable, and the machine is automatically rinsed with large flow when the machine is turned on and off, and the stagnant water is discharged, and the working condition is automatically detected during operation, and the flushing is carried out at any time. After deactivation, it has the function of automatic flushing of reverse osmosis membrane and pipeline to prevent the growth of bacteria in the system.

2.11 Intelligent security protection measures, password to enter the operation interface. There is an operating temperature/conductivity display and record, with long-term data to record the degree of use of high-pressure pumps, solenoid valves and other components for operation status analysis, and automatic saving.

2.12 Online monitoring of raw water and pure water quality, with pure water quality exceeding standard alarm function: with perfect waterless, pressure, power protection and a variety of safety self-locking functions.

2.13 Control screen: The size of the full-color touch screen is required to be ≥10", and the process and operating parameters are displayed in real time. Automatic accumulation of working hours and frequency of use of parts.

2.14 The appearance is neat and the layout is reasonable.

2.15 The reverse osmosis membrane shell without dead cavity is used to enable the reverse osmosis membrane to achieve full circulation during operation and avoid the growth of reverse osmosis membrane bacteria.

2.16 Self-test and solution of faults, a variety of emergency plans to ensure the operation of the equipment.

3. Technical parameter requirements

▲3.1.High-quality products, complete sets of equipment. The product should comply with YY 0793.1-2010 "Technical Requirements for Hemodialysis and Related Therapeutic Water Treatment Equipment Part 1: Requirements for Multi-bed Dialysis";

3.2▲The water quality of the produced water meets the standards of the water standard for hemodialysis and related treatment (YY0572-2015); endotoxin < 0.03EU/ml, colony count < 10CFU/ml, and a copy of the water quality test report issued by a third-party authoritative institution is provided

3.3▲The product should comply with YY 9706-2021 "Medical Electrical Equipment - Part 1-2: General Safety Standards and Parallel Standards: Electromagnetic Compatibility Requirements and Tests"

3.4 Dissolved salt removal rate: ≥99%.