

COMMODITY DESCRIPTION

H.S.K.No.	Item No.	Description	Q'ty/Unit
		Automated Renal Replacement Therapy Unit	1 Sys

A. Features

1. Screen 10"~12", Color TFT-LCD
2. Memory of events store all events up to 90 hours
3. Service menu via touch screen
4. Clamps system Allows to select pre/post dilution ratio
5. Additional filter holder will allow therapies using sequential/ parallel filtrations
6. User Interface with graphical treatment parameters continuous TMP and filter pressure drop monitoring
7. Blood warmer to maintain patient temperature

B. Specification

1. Ease of use
 - 1) This system user interface is designed to be highly user-friendly. It combines vivid colors and clear graphics on a large 10~12 inch touch screen.
 - 2) This system touch screen guides you through the machines' functionalities using written and graphical instructions.
 - 3) The step-by-step instructions on the screen make set installation very easy, as each step is accompanied by an illustration with color codes that match the color-coding of the hemofilter set
 - 4) This System will automatically load all pump segments and the circuit will be automatically primed quickly and completely
 - 5) Four high precision scales have been ergonomically designed to facilitate bag handling

The independent infusion scales allow the use of different fluid compositions.
Sudden bag movements are filtered by the software to avoid nuisance alarms.

2. Flexibility

- 1) Five pumps have multiple therapeutic combinations.
A newer pre-blood pump allows infusion of a supplemental solution for hemodilution or anticoagulation of the extracorporeal circuit.
- 2) In addition to a new, fifth infusion pump, Prismaflex comes with two integrated pinch valves for the management of pre- and postsolution infusion.
- 3) Now, it is possible to change the pre- and post-infusion mixing points during a treatment, using the same set. Therapeutic flexibility is greatly improved while operator interventions are reduced.

3. Safety

- 1) This safety system is proactive, offering many helpful features, such as automatic bar code identification of the set and customized default safe values
- 2) Fewer manual interventions are required since the smart alarm system is more responsive, with the ability to analyze- and in some case- selfcorrect problems without compromising safety
- 3) An integrated discharger ring reduces ECG interference caused by roller pumps.
- 4) A unique air management, including a deaeration chamber, with automatic blood level adjustment, keeps the extracorporeal volume

4. Flow rate ranges

- 1) Blood 10 to 450 ml/min
Increment: 10 ml/min (Accuracy: ± 10 % of user-set rate)
- 2) Replacement solution 0 to 8000 ml/h*
Increment: 50 ml/h (Accuracy: ± 30 ml/h)
- 3) Dialysate 0 to 8000 ml/h*
Increment: 50 ml/h (Accuracy: ± 30 ml/h)
- 4) Pre blood pump solution/ anticoagulant 0 to 8000 ml/h*
Increment: 10 ml/h (Accuracy: ± 30 ml/h)
- 5) Patient fluid removal 0 to 2000ml/h*
Accuracy: ± 30 ml/h, ± 70 ml/3h, ± 300 ml/24h
- 6) Effluent removal 0 to 10.000 ml/h
* Repl. + Dial. + PBP + Fluid Re.< 10,000 ml/h.

5. Fluid control

- 1) Number of scales: 4
- 2) Measuring principle: gravimetric
- 3) Scales range: 0 to 11 kg

6. Heparin pump

- 1) Syringe volume range: 10,20,30 and 50cc with luer lock.
- 2) Approved syringes:
 - (1) 10cc: BD Plastipak, Terumo
 - (2) 20cc: ICO Gamma Plus/Monosteril, BD Plastipak, Terumo, PIC LL
 - (3) 30cc: BD Plastipak, Terumo, ICO Gamma Plus/Monosteril, PIC LL, Penta
 - (4) 50cc: B Braun Omnifix, Terumo
- 3) Delivery accuracy: ± 0.6 ml/h in the range 0 to +600 mmHg
- 4) Continuous delivery rate range:
 - (1) 0 or 0.1 to 5 ml/h for 10 cc syringes
 - (2) 0 or 0.5 to 5 ml/h for 20 cc syringes
 - (3) 0 or 0.5 to 10 ml/h for 30 cc syringes
 - (4) 0 or 2 to 20 ml/h for 50 cc syringes
- 5) Increment: 0.1 ml/hr
 - (1) Bolus volume range:
 - 0.5 to 5 ml for 10 cc and 20 cc syringes
 - 1 to 5 ml for 30 cc syringes
 - 2 to 9.9 ml for 50cc syringes

7. Pressure monitoring range

- 1) Accuracy $\pm 10\%$ of reading or ± 8 mmHg
 - (1) Access line pressure: -250 to +300 mmHg
 - (2) Return line pressure: -50 to +350 mmHg
 - (3) Pre filter pressure: -50 to +450mmHg
 - (4) Effluent line pressure: -350 to +400 mmHg

8. Safety systems

- 1) Ultrasonic air detector Detects single air bubble $> 20\ \mu\text{l}$
- 2) Blood leak detector Leak $\geq 0.35\ \text{ml/min}$ at 25% Hct at highest effluent flow rate
- 3) Bar code reader Allows traceability & set parameters setting
- 4) Anti electrostatic device to avoid ECG interferences

9. Blood warmer

- 1) Effective
 - (1) Warming returning bloodstream directly increases efficacy
 - (2) No need for additional extension line with (blood) priming volume
 - (3) Detects connected devices automatically
- 2) Flexible
 - (1) Adjust heating temperature from 33°C to 43°C in 0.5°C increments
 - (2) Switch between different languages
 - (3) Change sleeves for different applications (e.g. tubing diameters)
- 3) Safe
 - (1) Multiple heat sensors prevent over temperature in the blood circuit
 - (2) Clear user guidance with intuitive interface
 - (3) Integrated self-test

C. Consisting of

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|---------------------------------|---------|
| 1. Basic unit | 1system |
| 2. Blood warmer | 1EA |
| 3. Operation and Service Manual | 1EA |

D. Remark

Warranty : 3 years