Asahi Dialysis System
MDS-101

Slim & smart
High visibility and simplified procedures
Secured ultrafiltration system
Easy maintenance
Features of Asahi Dialysis System MDS-101

**Operation**

A 12 inch TFT touch panel display enhances easy operation and all fundamental procedures.

**Profile Function**

Eight pre-set UF rates and sodium concentrations in the dialysate profile patterns are available as standard. An additional eight profile patterns can be customized. This function provides staff with simplified operation to select specific treatment parameters.

**Alarms & Notice**

When an alarm occurs, an alarm window pops up on the screen showing the alarm number and description. At the same time, an audible alarm sounds and a status indicator illuminates.

**System Adjusting**

Text-based instructions and diagrams shown on the screen ensure ease of use for staffs when performing adjustment procedures.

**Event History**

History data including operation, alarms and status changes are stored in the system and displayed in chronological order for review.

**Accessibility**

Three panels - the front panel and both lateral panels - can be fully opened to aid staff by providing enhanced visibility and accessibility to interior parts for maintenance. The lateral panels are also removable.

**Slim & smart**

- High visibility and simplified procedures
- Secured Ultra-filtration system
- Easy maintenance

**Features of Asahi Dialysis System MDS-101**

- **Operation**
  - Synringe pump
  - Blood pump
  - Hot rinsing (Option)
  - Closed loop circuit + UF pump
  - Backup battery
  - Powder bicarbonate cartridge (Option)

- **Profile Function**
  - Eight pre-set UF rates and sodium concentrations
  - Additional eight profile patterns

- **Alarms & Notice**
  - Alarm functionality
  - Display of alarm number and description
  - Audible alarm
  - Status indicator

- **System Adjusting**
  - Text-based instructions and diagrams

- **Event History**
  - History data storage

- **Accessibility**
  - Three panels: front panel and both lateral panels
  - Enhanced visibility and accessibility
  - Removable lateral panels
## Technical data

### Dimension and Weight

- **Dimension:** 495W x 655D x 1636H (mm) (Excluding IV pole)
- **Weight:** Approximately 68kg (Without option), 80kg (With option)

### Power supply
- **Single phase AC 100-120/220-240V**
  - Available voltage is described on the machine identification plate.
- **Frequency:** 50/60 Hz
- **Electricity:** 1.3 to 2.1 kVA with a protective ground (3P type)
- **Blood Pump back-up battery**

### Water supply
- **Water pressure:** 69 to 300 kPa
- **Water flow rate:** more than 1100 mL/min
- **Water temperature:** 5 to 30 °C
- **Water type:** Treated water (RO water)

### Dialysate
- **Dialysate concentration:** 130 to 159 mmol/L
- **Bicarbonate concentration:** 20 to 40 mmol/L
- **Flow rate:** 200 to 900 mL/min (~ 800 mL/min: Option)
- **Temperature:** 34 to 40 °C

### Ultrafiltration
- **System:** Closed chamber system + Ultrafiltration pump
- **UF rate:** 0 to 5.00 L/h
- **UF profile:** 0 to 150 %
- **Accuracy:** ±30mL/h or ±1%, whichever is larger

### Blood Pump
- **Flow rate:** 0, 30 to 360 mL/min (ID6.4, OD9.6mm tube)
- **Flow rate:** 0, 30 to 360 mL/min (OD6.4, OD9.6mm tube)
- **Accuracy:** ±10mL/min or ±10%, whichever is larger

### Syringe Pump
- **Syringe size:** 10, 20 and 30 mL
- **Flow rate:** 0, 0.3 to 9.9 mL/h (0.1 mL step) with bolus function

### Monitoring Systems (with alarm settings)
- **Venous Pressure:** -100 to +400 mmHg
- **Arterial Pressure:** 0 to +400 mmHg (400 to + 400 mmHg: Option)
- **TMP:** -500 to +500 mmHg
- **Dialysate pressure:** 500 to +400 mmHg
- **Blood leak detector:** Optical sensor, 300 ppm (Hct 32%)
- **Air detector:** Ultrasonic, 1 μL and more at blood flow of 200mL/min

### Rinsing/Disinfection
- **Rinsing:** Water, hot water, acid alone or combined with them
- **Disinfection:** Chemical disinfection
  - Acid rinse: 30% acetic acid recommended
  - Disinfectant: 4 to 6% sodium hypochlorite recommended
  - Hot water: Heater outlet temperature setting range: 60 ~ 90°C

### Options
- **Arterial line air detector**
- **Blood pressure transducer**
- **Dialysate filter systems**
- **High flow of dialysate (600 ~ 800mL/min)**
- **Powder bicarbonate holder**
- **External output terminal**

Specifications are subject to change without notice.