

Supported by the advanced technologies of Toray, Type: TR-8000 offers comfortable dialysis treatment to patients and easy operation to medical staff.



Type: TR-8000 standard



Type: TR-8000 with On-Line HDF and Bicarbonate Cartridge Holder Options

## Technical data

<b>Monitor section</b>	
Display temperature indicator:	0.0 to 99.9 °C
Dialysate flow meter:	300 to 800 mL/min
Venous pressure indicator:	-200 to +400 mmHg
Arterial pressure indicator:	-400 to +500 mmHg
Dialysate pressure indicator:	-400 to +400 mmHg
UF rate indicator:	0.00 to 5.00 L/h
UF goal-setting device:	0.00 to 40.00 L
Syringe pump flow-rate indicator:	0.0 to 9.9 mL/h
<b>Safety design</b>	
Status lamp (4 colors)	
Self-test of hydraulic line	
TMP monitor/ TMP alarm	
Compliance with IEC60601-1, IEC60601-2-16 requirements	
<b>Options</b>	
Automatic Blood Pressure Monitor	
Bicarbonate Cartridge Holder	
On-Line HDF	
On-Line HDF and Substitution shortage sensor	
Data communications	
Endotoxin Retentive Filter Leak Test Function	
Kt/V Indication	
Blood Volume Monitor	
<b>Accessories</b>	
Priming funnel	
Holder for ETRF	
ETRF cover	
Handle	
Concentrate tray	
Disinfectant bottles	
Disinfectant bracket	
Concentrate centralized piping bracket	
Holder for BVM	
Nurse call cable	
Baskets for blood pressure monitor cuff	

## Specifications

Power supply:	110-120 / 220-240 V 50/60 Hz
Max. power consumption:	1.5 kVA
Dimensions (W x H x D):	322 x 1,378x375 mm main body only
Weight:	Max. 85 kg
Pressure of supplied water:	0.1 to 0.3 Mpa
Flow rate of supplied water:	800 mL/min or greater
Temperature of supplied water:	5 to 30 °C
Quality of supplied water:	equivalent to or better than ISO13959 Guidance
Range of dialysate temperature regulation:	33 to 40 °C
Range of dialysate flow rate regulation:	300 to 700 mL/min
Range of UF rate regulation:	0.00 to 5.00 L/h
Range of dialysate conductivity regulation:	Acetate dialysate and Bicarbonate dialysate: 13.0 to 16.0 mS/cm in 1-9 steps (in increments of 0.3 mS/cm)
Substitution pump rate setting range:	0.0 to 18.0 L/h (On-Line HDF option)
Substitution goal amount setting range:	0.01 to 99.99 L (On-Line HDF option)
Range of blood flow rate regulation:	Inner Diameter 8.0 mm 0, 30 to 600 mL/min Inner Diameter 6.5 mm 0, 20 to 400 mL/min
Range of syringe flow regulation:	0.0 to 9.9 mL/h (with rapid function)
Available syringe size:	10 mL/ 20 mL/ 30 mL
Air bubble detector:	Ultrasonic detection system
Sensitivity	Greater than 0.020 mL Greater than 0.3 µL (Continuous air bubbles)
(Under conditions of blood flow rate 200 mL/min)	
Blood leak detector:	Photoelectric detection system
Sensitivity	Greater than 300 ppm (Ht. 32 % ±2 %, 37 °C condition)
Disinfection:	Hot water disinfection or chemicals

**TORAY**

## Single Patient Dialysis Machine

*Offer a Reliable and Safety Treatment by Japanese Technology*



Type: TR-8000

**TORAY**

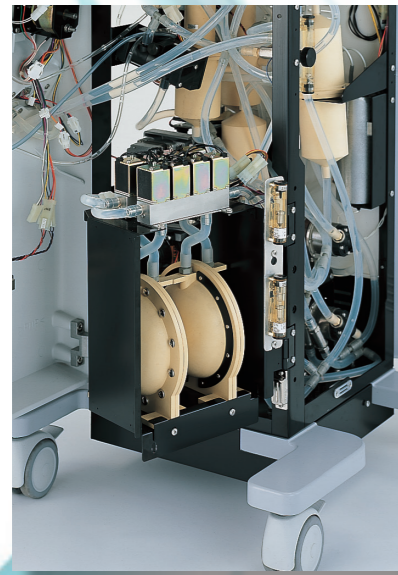
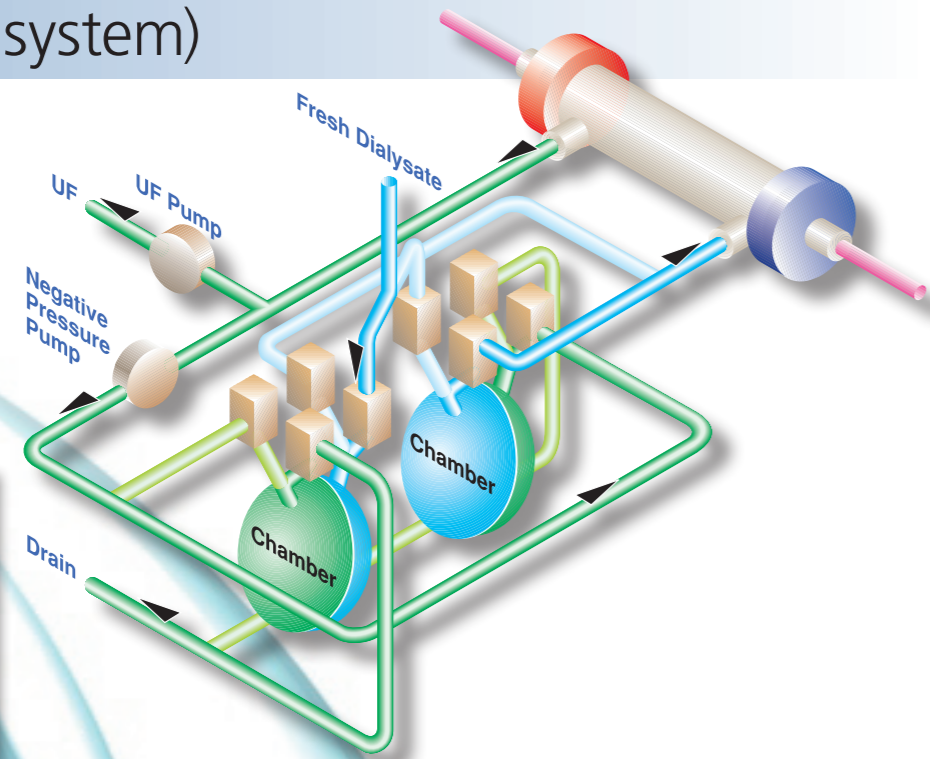
Exporter/Manufacturer:

Toray Medical Co., Ltd.

4-1, Nihonbashi-Honcho 2-chome, Chuo-ku, Tokyo 103-0023, JAPAN  
Tel: +81-3-6262-3830

Printed in Japan 2010 (G2)

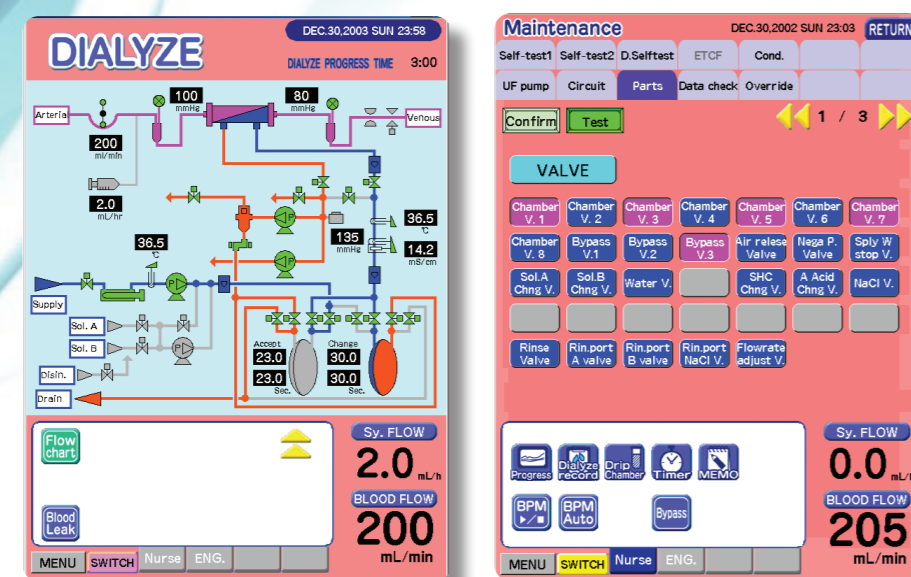
## TORAY's Reliable and Safety Volumetric UF Control (Closed circuit system)



The UF control of the TR-8000 is supported by a "Closed circuit system" to ensure the accurate removal of excessive fluid. Originally invented and developed by Toray, this system has been accepted worldwide as the reliable technology for UF control.

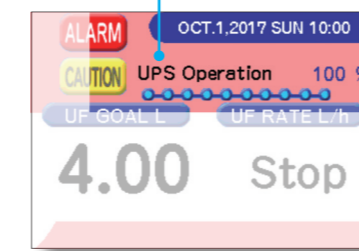
The primary characteristic of each chamber has a silicone membrane to separate fresh and used dialysate. These two chambers alternately prepare fresh dialysate and discharge the used one, continuously keeping the dialysate circuit closed. As the pre-determined quantity of UF will be drawn from such closed circuit, the targeted removal of excessive fluid is accomplished.

## Easy Maintenance Mode



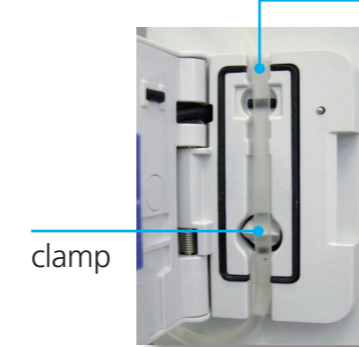
**Maintenance Window**  
Operation of each component and indication value is displayed on maintenance window.

## Simple and Clean Treatment based on advanced technology



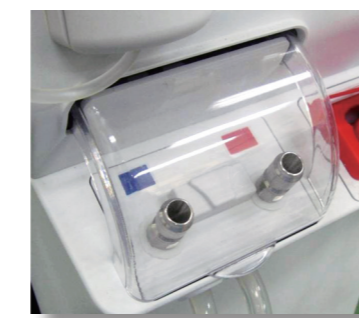
### UPS (Uninterruptible Power System)

The backup power supply allows automatically the operation of blood pump, syringe pump, LCD touch panel, clamp of blood tubing line, displaying alarm message, alarm sound and status lamp at time of power failure.



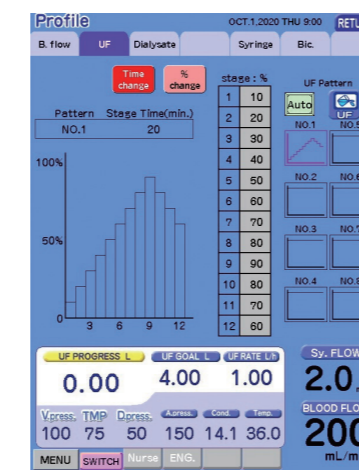
### Air bubble detector

The detector is integrated with venous clamp. In order to avoid misfitting of blood tube.



### Bypass nozzle cover

The cover is designed for dialyzer coupler nozzle to prevent contamination.



### Various profile (chart)

The various profiles, such as UF, Dialysate, Bicarbonate, Blood flow rate and Syringe can be programmed.

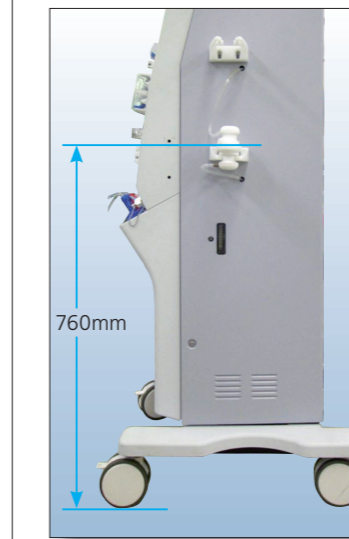


### Caster base cover

Non-painted plastic cover is equipped to improve chemical resistance.



## Useful function for comfortable dialysis treatment



### Bicarbonate Cartridge Holder

Bicarbonate concentrated solution is supplied by using NaHCO<sub>3</sub> powder in a cartridge type container. Position of the holder is 760 mm from the caster to set bicarbonate cartridge easily.



### Drip chamber level

Drip chamber fluid level adjustment of arteriovenous drip chamber can be adjusted conveniently by screen operation.



### BVM (Blood Volume Monitor)

During hemodialysis, this monitor is capable of continuous noninvasive monitoring percent changes in blood volume ( $\Delta BV$ ), the graph of  $\Delta BV$  is indicated to know the event of decreased  $\Delta BV$  or abnormal changes in  $\Delta BV$ .



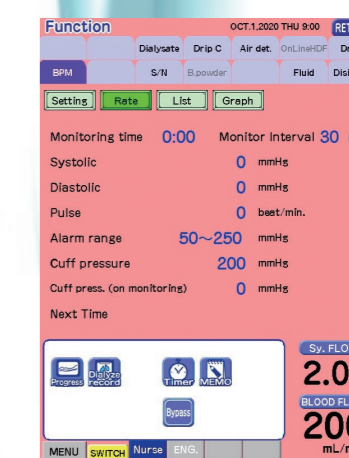
### On-Line HDF

On-Line HDF treatment is performed by putting an additional substitution pump, and making the purifier dialysate through 2 pcs of ETRF (Endotoxin Retentive Filter) connected in series.



### Kt/V indication

Kt/V indicated on the display.



### Automatic Blood Pressure Monitor

Blood pressure is measured automatically, and the monitor indication screen summarizes and displays the latest blood pressure measurement result.