



# Focusing on Online-therapy

# Dialysis System

# DBB-07





# Times are changing, we have the solution.

## DBB-07 Dialysis System

### The challenge

The demand of dialysis treatment methods should consider the growing number of patients and aging patients worldwide. Furthermore, the patients often suffer from several concomitant diseases. Considering this and the limited resources available to the health care, modern dialysis treatment methods have to be offered at a reasonable price.

The general situation in the European health care is subject to constant pressure to reduce expenses and this also affects you as a nephrologist and the dialysis treatments you are performing.

The DBB-07 dialysis system has the advantages of a maximised operating life and minimum maintenance and repair requirements.

The uniformed designed disposables for the entire DBB-series give you purchasing and logistical advantages.

All those benefits help you to reduce your treatment costs.

### Nikkiso's approach

The DBB-07 is the next step in our customer focused development program to fulfill your requirements for performing Online HDF in an economical way.

The proven hydraulic system of the DBB-05 dialysis system guarantees the reliability of the dialysis system and minimization of the follow-up costs. For the new DBB-07 dialysis system, the hydraulic system has been upgraded with an additional EF-02D dialysis fluid filter. Both integrated EF-02D dialysis fluid filters ensure a quality of dialysis fluid and substitution fluid complying with international standards\*.

The user interface, which is identical to the ones of DBB-05 and DBB-06, ensures a quick and easy learning of the system, less need for training, and a seamless integration into an existing NIKKISO machine fleet.

The reliability of our machines is enhanced through our network of selected co-operation partners which guarantee comprehensive service and excellent support. Therefore, your machine fleet works reliably and under your costs controlling.



### Advantages of the DBB-07

- High dialysis standard with Online HDF
- Easy to use and easy to learn
- Cost-effective
- Modularly extendable
- Uniformed designed disposables
- Easy to integrate into an existing NIKKISO machine fleet

# A flexible dialysis system to drive advanced treatments

## The modules of the DBB-07

Active blood pressure measurement



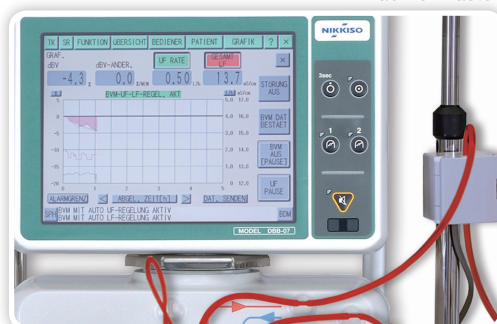
### Active blood pressure measurement

#### Safety ensured by continuous measurement

If desired, continuous blood pressure measurement (BPM) can be carried out during the treatment.

On the screen, you can follow the blood pressure course chronologically. An automatic deactivation of the UF rate also occurs when the selected pressure limits are reached.

Haemo-Master



### Haemo-Master with download tool

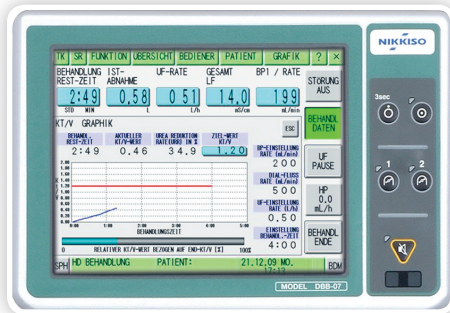
#### Fewer complications during treatment

Unforeseen complications during the dialysis session occur in up to 30% of all treatments. Roughly half of all episodes are caused by hypotensions.

With Haemo-Master, the advanced blood volume measurement (BVM) option, the relative plasma volume is measured during the treatment and the UF rate and sodium concentration in the dialysis fluid are regulated as a feedback system. Thus, hypotensive episodes are either reduced or prevented altogether.



Display of the current Kt/V value



## Dialysis Dose Monitor

### Reaching treatment goals through Kt/V measurement

Kt/V is seen as a central quality parameter for the quantification of the delivered dialysis dose. In some countries Kt/V is used as a parameter for the evaluation of dialysis quality as well as for the reimbursement.

The main objective is to optimise the delivered dialysis dose and to enable you to create a complete documentation of the dialysis efficiency.

The optional Dialysis Dose Monitor (DDM) can help achieving your treatment goals.

External scale



## External scale for HDF/HF/AFBF with solution bags

### Be flexible for the right treatment

The external scale offers at the moment the most flexible system in the market. The DBB-07 with external scale can perform online treatments but also HDF, HF and AFBF treatments with solution bags.

The acetate-free biofiltration (AFBF) is a special kind of treatment without acetate and bicarbonate in the dialysate. The patient blood level of bicarbonate will be exactly controlled by the external scale.

This ensures an optimal correction of the metabolic acidosis. This therapy is accepted to be biocompatible.

## Network connection

### Be connected



Data and information from the treatment procedure are sent simply and conveniently to your office via the clinic network. Of course the DBB-07 offers various interfaces for the main software solutions on the market. NIKKISO is cooperating with a successful and experienced partner. Please contact your NIKKISO representative.



# DBB-07 Dialysis System

## Our flexibility is your efficiency

Choose what you need.

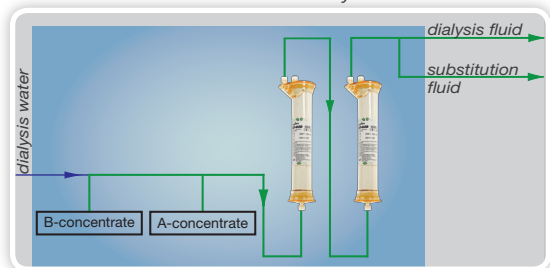
### Standard features

- Online HDF/HF in pre- and postdilution mode
- Disinfectable concentrate suction nozzles
- Clean coupling® for better hygiene (dialyzer connector)
- Double filter (cascade) for dialysis fluid and substitution fluid
- ISO-UF (sequential)
- Ultrafiltration (UF) profile
- Single-needle single pump (click-clack)
- Single-needle double pump
- Dialyzer inlet blood pressure monitoring (clotting prevention)
- Electric level adjustment via touch screen
- Serial data interface / connection for nurse call
- Holder for standard bicarbonate cartridges
- Integrated service mode for function analysis
- Clearly visible status display
- Eco-friendly concentrate-, water- and energy-saving mode
- Battery backup of extracorporeal circuit

### Options

- External scale -  
HDF/HF/AFBF (Acetate-Free Bio Filtration) with substitution fluid bags
- Haemo-Master (BV-UFC/COC) with download tool –  
Blood volume measurement with active regulation of the UF rate and conductivity in the dialysis fluid
- Blood pressure monitor (BPM) –  
continuous measurement with display of the blood pressure course on the monitor, automatic deactivation of the UF rate when the selected limits are reached
- Dialysis Dose Monitor (Kt/V)
- Central concentrate system for two concentrate connections (CCS)
- Dialysis fluid leakage sensor
- Network – integration of the dialysis system into the clinic network

Scheme: hydraulic system of DBB-07  
with two dialysis fluid filters EF-02D



# Technical information

## General information

<b>Dimensions</b>	1.460 x 390 x 480 (HxWxD in mm) basis: 490 x 750 (WxD in mm)
<b>Weight</b>	approx. 95 kg standard system (approx. 100 kg with optional extras)
<b>Power supply</b>	220/230/240 V AC, $\pm 10\%$ 50/60 Hz, $\pm 1$ Hz
<b>Back-up battery</b>	Ni-MH battery 24 V, 1.9 Ah
<b>Water supply</b>	Pressure : 1 to 7 bar at 0.8L/min Temperature: 5 - 30 °C
<b>Water discharge</b>	max. 0.8L/min Connection height: max. 50 cm
<b>Concentrate</b>	Central concentrate supply Inflow pressure 0 - 0.5 bar
<b>External connections</b>	Status display (External status monitor display) Alarm output (Staff call) Alarm input (for connection to an external device) Nurse call (for external pushbutton switch) Output (for external auxiliary equipment) RS-232C interface 1 (BVM data and service interface) RS-232C interface 2 (treatment data interface)

## Treatment modes

- Acetate dialysis
- Bicarbonate dialysis with powder or fluid bicarbonate concentrate
- Single-needle (double pump or single pump)
- ISO-UF program (sequential UF)
- Online haemo(dia)filtration
- Haemo(dia)filtration with scale
- Acetate-free biofiltration
- UF, sodium and bicarbonate profiles

## Blood circuit

<b>Arterial pressure</b>	Measurement range: -300 to 300 mmHg Measurement accuracy: $\pm 10$ mmHg
<b>Venous pressure</b>	Measurement range: -200 to 500 mmHg Measurement accuracy: $\pm 10$ mmHg
<b>Dialyzer inlet blood pressure</b>	Measurement range: -200 to 735 mmHg Measurement accuracy: $\pm 10$ mmHg
<b>Arterial blood pump</b>	Setting range: 40-600 mL/min Flow rate accuracy: $\pm 10\%$
<b>Heparin pump</b>	Setting range: 0.0 - 9.9 mL/h Feed rate accuracy: $\pm 5\%$ Bolus amount: 0.1 - 9.9 mL Syringe type: 30/20mL, 10mL (optional)
<b>Air detector</b>	Method: ultrasonic waves Sensitivity: 0.02 mL (air bubble) Blood flow rate: 250 mL/min; 0.0003 mL (microfoam: blood/air mixture) Blood flow rate: 250 mL/min
<b>Online HDF/HF Substitution fluid pump (pump 2)</b>	Setting range: 0.00; 0.10 to 18.00 L/h (Online HDF) 0.00; 0.10 to 30.00 L/h (Online HF)

## Dialysis fluid monitor

<b>Dialysis fluid</b>	Setting range: 300 to 700 mL/min Temperature: 34.0 to 40.0 °C
<b>Acetate dialysis</b>	Setting range: 12.5 to 15.5 mS/cm
<b>Bicarbonate dialysis</b>	Setting range: 2.30 to 3.99, 4.00 to 7.00 mS/cm
<b>Ultrafiltration</b>	Setting range: 0.00; 0.10 to 4.00 L/h Accuracy: $\pm 30$ mL/h (at dialysis fluid flow rate 300 to 500 mL/min) $\pm 0.1\%$ of the dialysis fluid flow rate (at dialysis fluid flow rate 501 to 700 mL/min)
<b>Blood leak detector</b>	Method: optical detector Sensitivity: 0.5 mL blood/1L dialysis fluid (blood: haematocrit 20 %; dialysate temperature: 37 °C) 0.35 mL blood/min (max. flow-through: 700 mL/min)

## Cleaning and disinfection

- Rinsing
- Sodium hypochlorite, acetic acid, peracetic acid
- Heat cleaning > 85 °C
- Citro-thermal disinfection > 85 °C



# Always close to you

## Competent partners

For all questions concerning dialysis and our products, please contact us or our local partner:

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#### Manufacturer

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#### Local partner

