



The efficient solution

Dialysis System DBB-05





Innovations for Human

Your needs are our motivation

Your needs, as well as a sense of responsibility towards our clients are central to our work.

With our innovative products, we are committed to providing the best possible treatment and therefore quality of life for people with kidney diseases.

We scrutinize all our daily operations for the benefit of our customers, in order to preserve proven techniques and to constantly develop areas where there is scope for improvement.

Safety and expertise

NIKKISO Europe, a subsidiary of NIKKISO Co. Ltd. Japan, has been offering expert and efficient services in the German and European markets for dialysis machines and equipment for over ten years. You'll find a reliable partner in NIKKISO, and one that can offer you the highest possible standards in safety.

Care.

ALYSI

Benefit from our extensive network

NIKKISO Europe's network of reliable co-operation partners means that we as system providers are able to offer you all possible services relating to the latest dialysis treatments. From water preparation and independent preparation of dialysis concentrates, to dialysis machines and supply materials. We even provide a wide variety of services: All this from the one company. As our customer, you'll benefit from any work being carried out by specialists in the relevant fields, and will be provided with a comprehensive service, all from NIKKISO Europe.



Times are changing We have the solution

DBB-05 Dialysis system

Expenses

The general expenses situation in health-care is subject to a constant pressure to reduce outgoings. The shortage in available resources also concerns nephrology and dialysis treatments.

The DBB-05 dialysis machine has the advantages of a maximised operating life and minimum maintenance and repair requirements.

The use of conventional disposables ensure logical operation steps and short preparation times.

All these advantages help you to keep on top of treatment costs.

Intuitive operating

Efforts to reduce material costs are not the only consideration; time is also a major factor.

With intuitive usage, a touch screen monitor provides a simple and quick interface between the operator and the various functions of the DBB-05.

The DBB-05 has been developed by operators, for operators and fits in perfectly with daily dialysis routines.

Intuitive operating via touch screen



Comfortable treatment

Dialysis patients spend a considerable amount of time in dialysis. For this reason we have taken patients' needs into consideration in the development of the DBB-05 dialysis system.

Reduced operating noise, avoiding unnecessary alarms, reduced preparation times and an individual patient monitor displaying the most important information are all just some of the reasons why dialysis patients appreciate the DBB-05.

Patient monitor





Durability

Up until only a few years ago, operating lifespans for dialysis machines were still seven to eight years. Demands are much higher today. NIKKISO's decades of experience in developing and manufacturing complex hydraulic systems for a broad range of industry sectors including aeronautics, was all channelled into the hydraulic system in the DBB-05.

We only produce components and functional units that guarantee a maximum operational lifespan, in line with the current standards in technology.

A modern dialysis system

The best treatment

The modules of the DBB-05

Active blood pressure measurement



Active blood pressure measurement

Safety ensured by continual measurement

If desired, continual blood pressure measurement can be carried out during the treatment. As well as a graphic display on the screen with a chronologic arrangement, an automatic deactivation of the UF rate also occurs when the programmed limit range is reached.

Network connection

Connect your clinic

Readings from the treatment procedure are sent simply and conveniently to your office via the clinic network. Software analyses the results and provides you with instructive, clearly presented information for further treatment.

And of course the DBB-05 offers various interfaces for the main software systems on the market.



Haemo-Master



Quality of therapy

Knowing what to expect

As well as the discussions concerning types of therapy and expenses, a further major consideration is the quality of treatment, based on the Kt/V value for urea removal.

With this in mind, it is good to know which results can be reached by the dialysis treatment in progress. The integrated calculation of Kt/V values gives the expected result, taking the parameters of the treatment and the material used into consideration.

Online therapy

Cost reduction and reduced personnel requirements

Since its introduction there has been much discussion concerning the extra costs for online therapy.

Dialysis systems that were mainly developed with online therapy in mind result in greater expenses for haemodialysis treatment.

The hydraulics system of the DBB-05 allows a comparatively inexpensive haemodialysis in line with the latest technological developments and is only adapted as an online system on requirement.

Haemo-Master

Fewer complications during treatment

Unforeseen complications during the dialysis session occur in approximately 30% of all treatments. Roughly half of all episodes are caused by hypotensions. With the Haemo-Master 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.



As little as possible As much as necessary

You now have the choice

Resource-saving appliance management

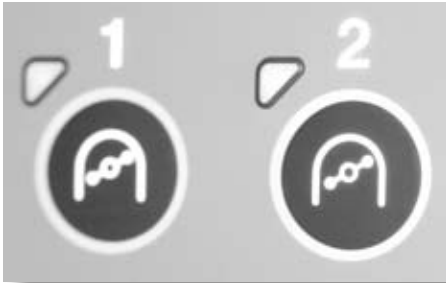
- Automatic flow reduction in standby periods
- Maximum possible reduction of dead spaces in the hydraulics cycle (total volume only 1.4 litres)
- Optimised energy use as standard via integrated heat exchangers between in- and out-flow
- Appropriately sized user display with selectable screensaver and movement notification

Standard features

- Single needle with double or single pump
- Filter inlet pressure monitoring
- CCS for up to two connections at the same time
- Online Kt/V calculation
- Filter setting for extra pure dialysis fluid
- Electric level adjustment in the extracorporeal chambers
- Serial data interface
- Connection to nurse call
- Holder for standard bicarbonate cartridges
- Integrated service programme for function analysis
- Clearly visible status display

Optional features

- Haemo-Master blood-volume regulation with active regulation of UF rate and sodium concentration in the dialysis fluid
- Active blood-pressure – constant measurements with a display of the serial data curve in the monitor, automatic deactivation of the UF rate in the limit area
- Online HDF – automatic regulation of the substitute rate for the following therapy types: HDF pre- and post dilution and HF pre- and post dilution
- AFB treatment – acetate-free biofiltration for an optimum acidosis correction
- Network card – integration of the dialysis machine into the clinic network



Technical information

General information

Dimensions	1.460 x 390 x 480 (HxWxD in mm) Base: 490 x 750 (WxD in mm)
Weight	85 kg standard system (approx. 110 kg with optional extras)
Energy supply	230 V AC, ± 10 %, 50/60 Hz
Current	16 A
Power input	Dialysis: max. 5 A At a water temperature of 5 °C, a dialysis fluid temperature of 37 °C and a dialysate flow rate of 500 ml/min Heat disinfection: max. 9 A Temperature of the circulating hot water: 90 °C at departure from heating element; Flow rate of the circulating hot water: 800 ml/min
Connected wattage	1.5 kW/h
Water supply	Pressure : 1 to 7 bars at 0.8l/min Temperature: 5 - 30 °C
Water discharge	max. 0.8l/min Connection height: max. 50 cm
Concentrate	Central concentrate supply Inflow pressure 0 - 0.5 bars
External connections	Status display (alarm output) Nurse call contact output Alarm input Serial data interface RS 232 RS232C interface (patients) Network

Types of therapy

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

Blood circuit

Arterial pressure	Measurement range: -300 to 300 mmHg Measurement accuracy: ± 10 mmHg
Venous pressure	Measurement range: -200 to 500 mmHg Measurement accuracy: ± 10 mmHg
Dialyser inlet blood-pressure	Measurement range: -200 to 735 mmHg Measurement accuracy: ± 10 mmHg
Arterial blood pump	Blood flow rate: 40-600 ml/min Flow rate accuracy: ± 10 %
Heparin pump	Feed rate: 0.0 - 9.9 ml/h Feed rate accuracy: ± 5 % Bolus amount: 0.1 - 9.9 ml Injection volume: 30/20/10 ml
Air detector	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;

Dialysis monitor

Dialysis fluid	Setting range: 300 to 800 ml/min Temperature: 34.0 to 40.0 °C
Acetate dialysis	Setting range: 12.5 to 15.5 mS/cm
Bicarbonate dialysis	Setting range: 2.3 to 7.0 mS/cm
Ultra filtration	Setting range: 0.00; 0.10 to 4.00* l/h Accuracy: ± 30 ml/h
Blood leak detector	Method: optical detector Sensitivity: 0.5 ml* blood/1l Dialysate (Blood: haematocrit 20 %; Dialysis temperature: 37 °C) 0.40 ml blood/min (max. flow-through: 800 ml/min)

Cleaning and disinfection

- Rinsing
- Chemical disinfection
- Heat cleaning > 85 °C
- Citro-thermal disinfection > 85 °C

Production & Development Quality & Progress

Hanover, our business location in Europe

Made in Germany

NIKKISO DBB-05 Dialysis System

With NIKKISO Europe GmbH's new production facility in Hanover, NIKKISO, the leading producer of dialysis machines in Japan, is purposefully expanding its capacities and market presence in Europe.

The facility has been producing dialysis machines for the European market since mid 2008.

The production facility will soon be expanded with the establishment of a research and development centre.

This puts us in a position to respond to your requirements in a flexible, prompt and high-quality way – as is expected from the 'Made in Germany' tradition.

NIKKISO Europe Systems Production facility in Hanover-Langenhagen



Local service, global coverage

For further information please contact our local partner.

- sales subsidiary (Hamburg, Germany)
- production facility (Hanover, Germany)
- local partner





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