

# Science is changing and so are your requirements

For many years, Gambro has focused its efforts on development of continuous renal replacement therapies and other extra-corporeal blood purification therapies. With the Prisma® System, we set the standard through innovation and made CRRT accessible for all intensive care units, by combining Ease of Use, Safety and Flexibility. Science is changing and so are your requirements. Now, we are proud to introduce to you our newest innovation in the treatment of critically-ill patients: the Prismaflex® system.

# Discover flexibility

Flexibility is key when you want to prescribe the right therapy for each and every patient.

With the Prismaflex system, we have enhanced your prescription flexibility by offering a platform with increased therapy options and features.

In addition, all the ease of use and safety features of the initial Prisma system have been carried forward, with improved ergonomics, handling of alarms and retrieval of patient and treatment data.

As scientific research and evidence-based medicine in the filed of blood purification continue to evolve, having access to technology that can keep up with these trends becomes increasingly important. The Prismaflex system was designed with this evolution in mind. The Prismaflex system is a progressive platform that incorporates the latest technology, enabling you to explore new horizons in critical care therapy.

The Prismaflex system is full-featured and built for the therapeutic innovations of today with the ability to take advantage of tomorrow breakthroughs.



## **SCUF**

Slow Continuous Ultrafiltration

### **CVVH**

Continuous Veno-Venous Hemofiltration

## **CVVHD**

Continuous Veno-Venous Hemodialysis

### **CVVHDF**

Continuous Veno-Venous Hemodiafiltration

### TPE

Therapeutic Plasma Exchange





# **EASE OF USE**

Improved user interface based on the Prisma experience with easy-to-understand graphics



# **FLEXIBILITY**

Five pumps to give you multiple therapeutic combinations



# **SAFETY**

Discharger ring to minimize ECG interference

# Born from your experience and our expertise

#### **EASE-OF-USE**

- The Prismaflex system user interface is designed to be highly user-friendly. It combines vivid colours and clear graphics on a large 12 inch touch screen.
- The Prismaflex system touch screen guides you through the machines' functionalities using written and graphical instructions.
- 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
- The Prismaflex System will automatically load all pump segments and the circuit will be automatically primed quickly and completely.
- 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.

### **SAFETY**

- The Prismaflex safety system is proactive, offering many helpful features, such as automatic bar code identification of the set and customized default safe values.
- 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
- An inegrated discharger ring reduces ECG interference caused by roller pumps.
- A unique air management, including a deaeration chamber, with automatic blood level adjustment, keeps the extracorporeal volume very low.

## **FLEXIBILITY**

- Five pumps give you multiple therapeutic combinations.
   A newer pre-blood pump allows infusion of a supplemental solution for hemodilution or anticoagulation of the extracorporeal circuit.
- In addition to a new, fifth infusion pump, Prismaflex comes with two integrated pinch valves for the management of pre- and postsolution infusion.
- 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.





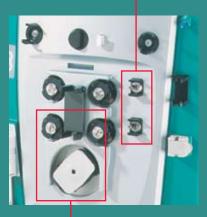
Two integral pinch valves for the management of pre- and post-solution infusion



Bar code reader with automatic recognition of the set



Multiple IT ports to connect Prismaflex to your ICU central monitoring system



The pre blood pump flow will be automatically adjusted in case of blood flow alterations during treatment (to keep a constant PBP/Blood ratio)

# One single set for enhanced prescription flexibility

- Each and every patient, pediatric or adult, can benefit from a dedicated set adapted to the prescription needs
- Every set configuration can be used to perform all CRRT therapies (SCUF, CVVH, CVVHD, CVVHDF) in pre- and/or post- dilution modes through pinch valve management. In addition, CVVH can be performed in simultaneous pre- and post-dilution modes
- Different size of tubing allow to adapt the extracorporeal blood volume to patient's profile
- All lines of Prismaflex sets are pre-connected and color-coded to avoid contamination and improper use
- The set will be automatically loaded, primed and recognized by the machine through the bar code reader

Prismaflex disposable sets					
Model	Type of membrane	Filter Surface area	Application	Part number	Units/carton
Prismaflex M60 set	AN69	0.6 m <sup>2</sup>	CRRT above 11 kg	106696	4
Prismaflex M100 set	AN69	0.9 m²	CRRT incl. High Flow above 30 kg	106697	4
Prismaflex M150 set	AN69	1.5 m²	CRRT incl. High Flow above 30 kg	109990	4
Prismaflex ST60 set	AN69 ST	0.6 m <sup>2</sup>	CRRT above 11 kg	107643	4
Prismaflex ST100 set	AN69 ST	1.0 m <sup>2</sup>	CRRT incl. High Flow above 30 kg	107636	4
Prismaflex ST150 set	AN69 ST	1.5 m²	CRRT incl. High Flow above 30 kg	107640	4
Prismaflex HF1000 set	PAES	1.1 m²	CRRT incl. High Flow above 30 kg	107140	4
Prismaflex HF1400 set	PAES	1.4 m²	CRRT incl. High Flow above 30 kg	107142	4
Prismaflex TPE 1000 set	Polypropylene	0.15 m <sup>2</sup>	TPE above 9 Kg	107143	4
Prismaflex TPE 2000 set	Polypropylene	0.35 m <sup>2</sup>	TPE - adults	107144	4

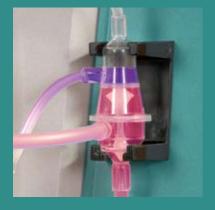




Quick and easy set-up

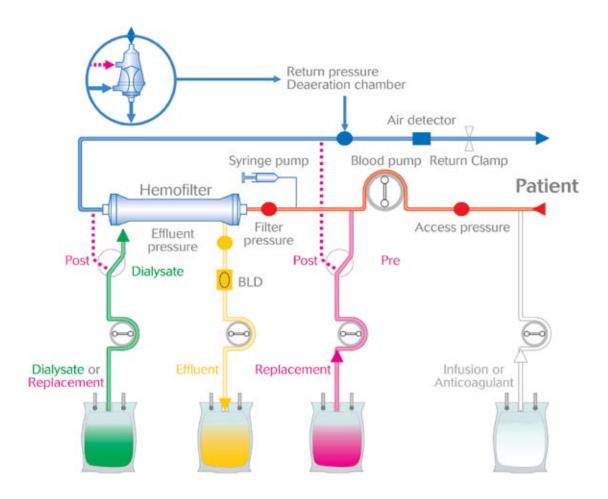


Pre blood infusion to allow full circuit hemodilution



Uniquely designed deaeration chamber with low volume

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# ∴ One Global Framework

The Prismaflex system is an important addition to our global framework, supporting you in providing high quality and effective blood purification programs. Our network will continue to help you implement new technology with the same dedication and experience as it has for the past 20 years.

- 24/7/365 clinical and technical support
- Physician and nurse education
- Dedicated Research and Development

# 

## Physical dimensions

- Height: 162 cm
- Main unit: Width: 49 cm; Depth: 30 cm
- Floor space: 63 x 60 cm
- Weight: approx. 76 ±0.5 kg without bags

### **Electrical data**

- Supply 100-240 Vac, 50/60 Hz
- Power 500-600 W

# Flow rate ranges

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

### Fluid control

- Number of scales: 4
- Measuring principle: gravimetric
- Scales range: 0 to 11 kg

## Heparin pump

Syringe volume range: 10,20,30 and 50cc with luer lock.
Approved syringes:
10cc: BD Plastipak, Terumo
20cc: ICO Gamma Plus/Monosteril,
BD Plastipak, Terumo, PIC LL
30cc: BD Plastipak, Terumo, ICO
Gamma Plus/Monosteril, PIC LL,

50cc: B Braun Omnifix, Terumo

- Delivery accuracy: ±0.6 ml/h in the range 0 to +600 mmHg
- Continuous delivery rate range:
- 0 or 0.1 to 5 ml/h for 10 cc syringes
- 0 or 0.5 to 5 ml/h for 20 cc syringes
- 0 or 0.5 to 10 ml/h for 30 cc syringes
- 0 or 2 to 20 ml/h for 50 cc syringes Increment: 0.1 ml/hr
- 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 Increment: 0.1 ml/h

# Pressure monitoring range

- Accuracy ±10 % of reading or ±8 mmHg
- Access line pressure: -250 to +300 mmHg
- Return line pressure: -50 to +350 mmHg
- Pre filter pressure: -50 to +450 mmHg
- Effluent line pressure: -350 to +400 mmHg

# Safety systems

- Ultrasonic air detector Detects single air bubble > 20 µl
- Blood leak detector Leak ≥0.35 ml/min at 25% Hot at highest effluent flow rate
- Bar code reader Allows traceability & set parameters setting
- Anti electrostatic device to avoid ECG interferences

### **Features**

- Screen 12". Color TFT-LCD
- Memory of events Store all events up to 90 hours
- Service menu via touch screen
- Clamps system
   Allows to select pre/post dilution ratio
- Additional filter holder
   Will allow therapies using sequential/parallel filtrations
- User Interface with graphical treatment parameters
   Continuous TMP and filter pressure drop monitoring
- Blood warmer to maintain patient temperature.

# **External Connections**

- RS 232 serial port
- RJ 45 Ethernet port
- PCMCIA Slot

Gambro Lundia AB
Branding & Market Communication
Box 10101
SE-220 10 Lund
Sweden
Tel. +46 46 16 90 00
www.gambro.com

