

AQUAMAX® Filter



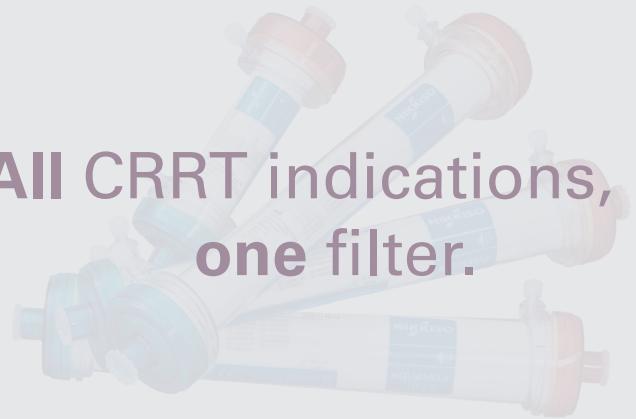
The AQUAMAX® range of polyethersulfone membranes are engineered to meet the needs of patients with clinical indications for CRRT¹:

- Acute Kidney Injury (AKI)
- Fluid overload
- Sepsis
- Post-operative surgical care²

Individualise your therapy, without changing the membrane.

- Optimised for convective and diffusive therapies (CVVH, CVVHD, CVVHDF)³
- High hydraulic permeability providing exemplary fluid removal (SCUF)⁴
- Remarkable clearance of small and medium sized molecules⁵
- Indicated for all forms of CRRT anticoagulation⁶
- Choice of four filters with varying membrane surface areas

All CRRT indications, one filter.



Target recovery.

AQUAMAX® Filter

Concentrations of IL-6 during ultrafiltration⁷

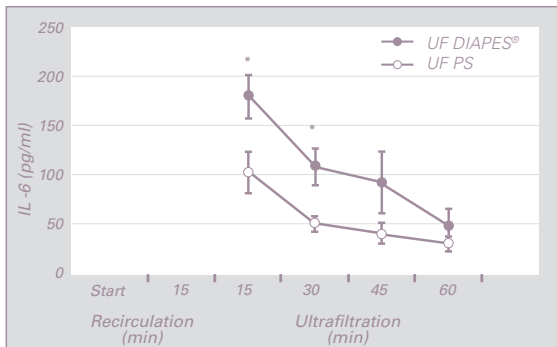


Figure 1 shows significant reduction in ultrafiltrate levels of IL-6 vs conventional polysulphone.

In vivo measured sieving coefficients⁸

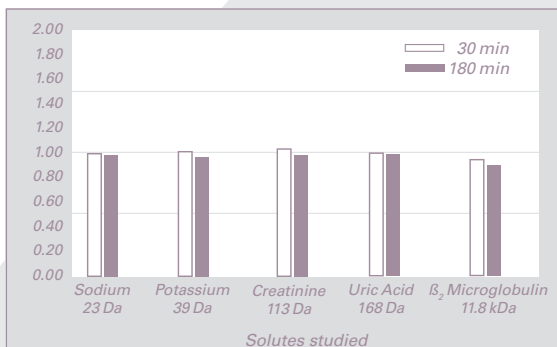


Figure 2 demonstrates the remarkable consistency of permeability in different sized molecules over time.

Colour coded end caps

Correct orientation and optimal blood flow⁶

Standard ISO and Luer-lock fittings

One standard connection, one standard AQUAMAX® for all CRRT modalities⁶

AQUAMAX® Polyethersulfone

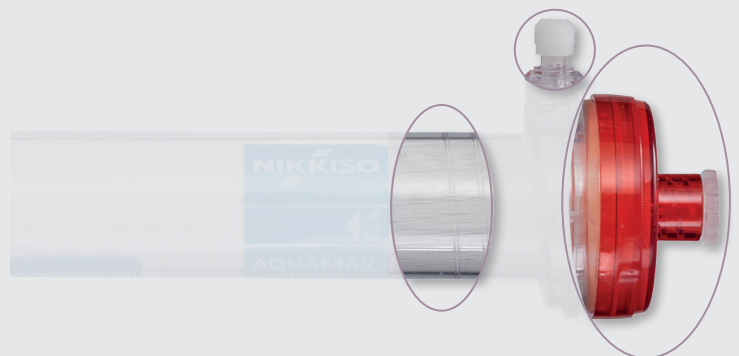
Membrane permeability allows middle molecules up to 66 kDa⁹ to be removed including selected cytokines/inflammatory mediators associated with sepsis⁷

Membrane

High hydraulic permeability with structural strength in each fibre, providing enhanced convective and diffusive properties³

Spacer yarns

Prevents clustering of capillaries and enables even distribution of dialysate maximising clearance¹⁰



AQUAMAX® is included in every AQUASET®*

*available in selected countries

| Characteristics ⁶ | AQUAMAX® HF03 | AQUAMAX® HF07 | AQUAMAX® HF12 | AQUAMAX® HF19 |
|---|---------------|---------------|---------------|---------------|
| Membrane surface area (m ²) | 0.3 | 0.7 | 1.2 | 1.9 |
| Priming volume (mL) | 32 | 49 | 73 | 109 |
| Pressure drop (mmHg) | <40 | <80 | <50 | <25 |

Membrane: High-flux Polyethersulfone | Thickness: 30 µm | Inner diameter: 200 µm | Sterilisation: Ethylene Oxide | Single use only

¹ Kidney Disease for Improving Global Outcomes KDIGO Clinical Practice Guideline for Acute Kidney Injury (2012) Chapter 5.1 Page 91 Table 17 Kidney International Supplements.

² Pickering JW, James MT, Palmer SC, Acute kidney injury and prognosis after cardiopulmonary bypass: a meta-analysis of cohort studies. Am J Kidney Dis. 2015; 65(2): 283-293.

³ Ballestri et al., Ultrastructural Features of Polyethersulfone Membranes. Discussion, Page 25, para 2, lines 5-9. In: Locatelli et al (eds).

Polyethersulfone: Membranes for Multiple Clinical Applications. 2003. Contributions to Nephrology 138, ISBN 3-8055-7485-1.Karger, Basel.

⁴ Ronco et al., Performance of DIAPES® Filters in CRRT. Conclusions, Page 151, para 2, lines 2-3. In: Locatelli et al (eds).

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⁵ Ronco et al., Performance of DIAPES® Filters in CRRT. Results, Page 149 para 1, lines 1-5, Fig 4 In: Locatelli et al (eds).

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⁶ AQUAMAX®, Instructions for use, 07-2015 IB0510133110-REV.00.

⁷ Schindler R, Elimination of Cytokines from Plasma by Ultrafiltration, Using Conventional Polysulfone or DIAPES membranes. Results, Page 39 Fig 1 (b) and para 2 lines 5-10. In: Locatelli et al (eds).

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⁸ Ronco et al., Performance of DIAPES® Filters in CRRT. Results, Page 149, Fig 4 and para 1, lines 1-3. In: Locatelli et al (eds).

Polyethersulfone: Membranes for Multiple Clinical Applications. 2003. Contributions to Nephrology 138, ISBN 3-8055-7485-1.Karger, Basel.

⁹ Samtleben, et al. Comparison of the new polyethersulfone high-flux membrane DIAPES® HF800 with conventional high-flux membranes during on-line haemodiafiltration.

Nephrology, Dialysis, Transplantation 2003 Nov;18(11):2382-2386.

¹⁰ Brandt T, Weise F, Physical and Chemical Characteristics of Different Polyethersulfone Membranes. Principles of Membrane Manufacturing, Page 6, lines 4 -7. In: Locatelli et al (eds).

Polyethersulfone: Membranes for Multiple Clinical Applications. 2003. Contributions to Nephrology 138, ISBN 3-8055-7485-1.Karger, Basel.

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