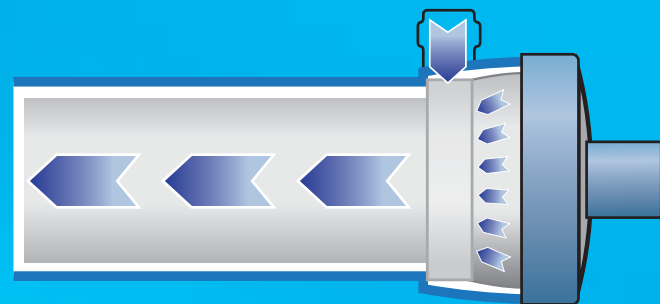
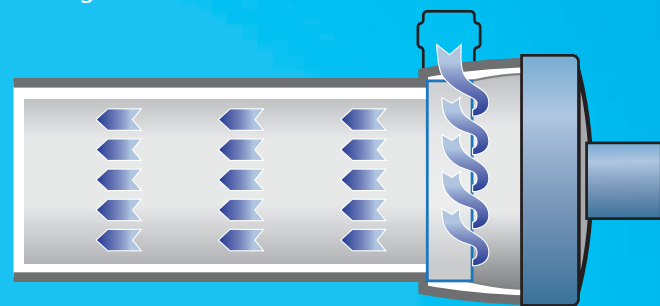


One of the remarkable features of RENAK® PS dialyzers is their high and sustained level of diffusive and convective clearance, which is made possible by the unique housing structure and membrane features.



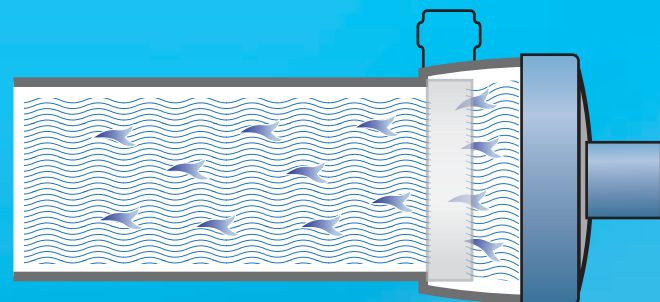
Short taper housing design

This design gains space and permits the bundle to expand on both ends. The greater space between the fibers improves dialysate distribution throughout the entire bundle.



Extended baffle board

Due to an extended baffle board, dialysate distributes to entire bundle.



Wave Fibers

The fibers are formed in a wave pattern that enhances penetration of dialysate into the center of the bundle through the space created between the fibers.



RENAK® PS Hollow Fiber Dialyzer for Hemodialysis



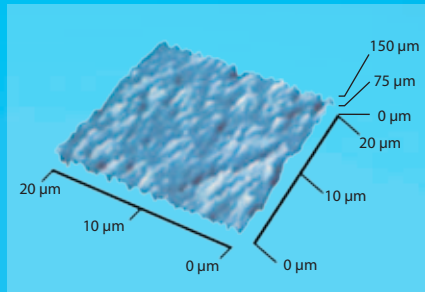
Kawasumi is proud to introduce the RENAK® PS polysulfone membrane dialyzer that sets new standards.



Polysulfone membrane features:

- Cutting-edge, modern synthetic membrane
- Excellent biocompatibility
- A sharp cut-off point as well as excellent clearance and performance

As a high flux dialyzer, RENAK® PS attains an excellent degree of β 2-Microglobulin (11,800) removal, and reduction of the associated risk of dialysis-related amyloidosis. The strict pore size management minimizes albumin loss.

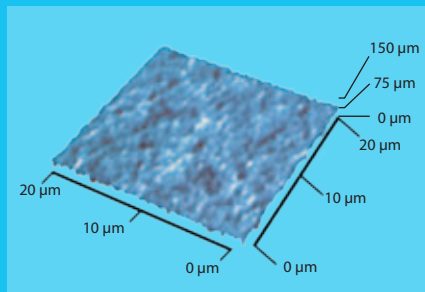


Hydrophilic gel layer on inner surface

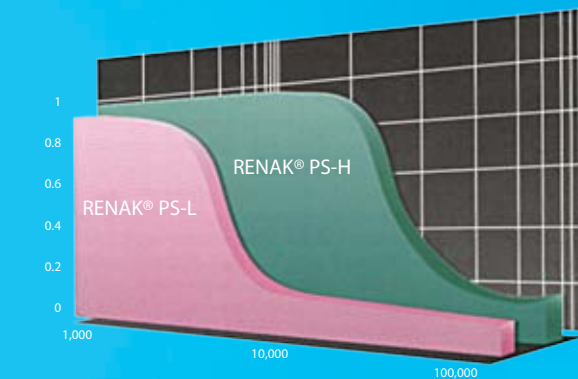
When in wet condition, a softer and thicker gel layer is formed on membrane surface.

We call it a Hydrophilic gel layer.

This unique hydrophilic gel layer will minimize platelet activation and reduce the anticoagulation requirements.



Conventional PS



RENAK® PS's excellent performance is presented by this sharp cut-off curve.

There are two categories in the RENAK® PS series: Low-flux and high-flux, the latter having a greater degree of permeability.

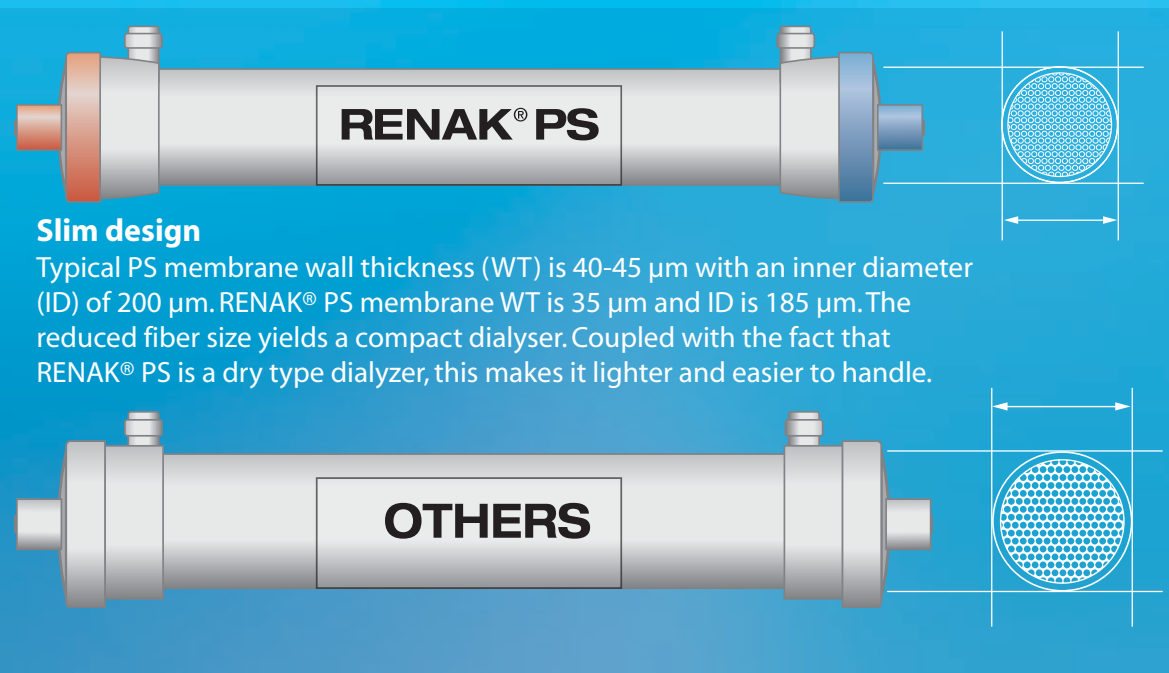
Either type can be chosen depending on the patient. This series also offers various sizes of dialyzers, with surface areas of 1.3m², 1.5m², 1.8m² and 2.1m²

Specifications

	Low Flux				High Flux			
	PS-1300 L	PS-1500 L	PS-1800 L	PS-2100 L	PS-1300 H	PS-1500 H	PS-1800 H	PS-2100 H
Membrane	Polysulfone				Polysulfone			
Effective Surface Area (m ²)	1.3	1.5	1.8	2.1	1.3	1.5	1.8	2.1
Dimensions (mm)	334x34	334x38	334x41	334x43	334x34	334x38	334x41	334x43
Priming Volume (mL)	75	88	100	119	75	88	100	119
Internal Diameter of Hollow Fiber (μm)	185				185			
Wall thickness of Hollow Fiber (μm)	35				35			
Sterilization (Dry type)	Gamma Irradiation				Gamma Irradiation			
Maximum TMP [kPa(mmHg)]	66 (500)				66 (500)			

Performance (in vitro)

	Low Flux						High Flux																		
	PS-1300 L		PS-1500 L		PS-1800 L		PS-2100 L		PS-1300 H		PS-1500 H		PS-1800 H		PS-2100 H										
QB (mL/min)	200	300	400	200	300	400	200	300	400	200	300	400	200	300	400	200	300	400							
Clearances* (mL/min)	Urea	193	256	297	195	262	308	197	270	321	198	277	333	197	272	322	199	283	341	198	280	335	200	293	362
	Creatinine	184	233	264	188	242	277	192	254	293	195	265	306	188	247	283	192	258	299	194	264	308	196	269	315
	Phosphate	153	183	198	159	192	212	168	205	229	175	215	243	186	241	274	192	256	296	195	265	309	198	279	332
	Vitamin B12	88	95	99	96	105	111	107	118	125	116	128	137	143	168	182	152	181	197	158	190	208	168	206	228
UFR* [mL/kPa/hr (mL/mmHg/hr)]	70 (9.3)		81 (10.9)		94 (12.5)		112 (14.9)		381 (50.8)		413 (55.1)		432 (57.6)		493 (65.7)										
SC*	β 2-MG	<0.01						<0.84																	
	Albumin	<0.002						<0.01																	
Test Conditions *ISO8637:2004	Clearances : Qd=500mL/min, Qf=0mL/min						Clearances : Qd=500mL/min, Qf=0mL/min																		
	UFR : Bovine Blood (Ht=32±2%, TP=60±5g/L), Qb=300mL/min						UFR : Bovine Blood (Ht=32±2%, TP=60±5g/L), Qb=200mL/min																		
	SC : Bovine Plasma (TP=60±5g/L), Qd=300mL/min, Qf=60mL/min						SC : Bovine Plasma (TP=60±5g/L), Qd=300mL/min, Qf=60mL/min																		



Slim design

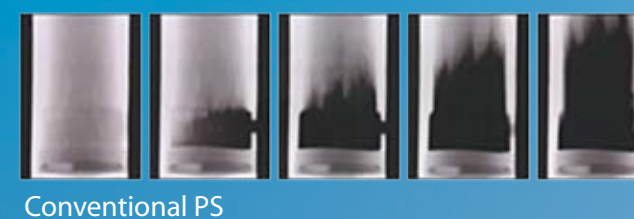
Typical PS membrane wall thickness (WT) is 40-45 μm with an inner diameter (ID) of 200 μm. RENAK® PS membrane WT is 35 μm and ID is 185 μm. The reduced fiber size yields a compact dialyzer. Coupled with the fact that RENAK® PS is a dry type dialyzer, this makes it lighter and easier to handle.

Comparison of dialysate distribution

RENAK® PS dialysate penetration IN



RENAK® PS dialysate penetration OUT



Conventional PS

Conventional PS