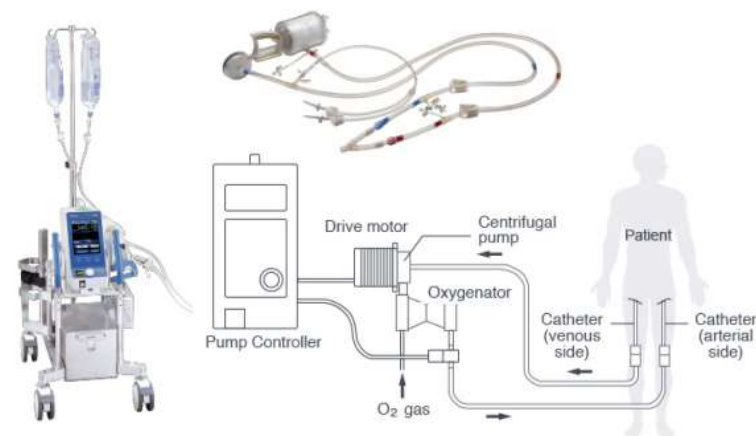
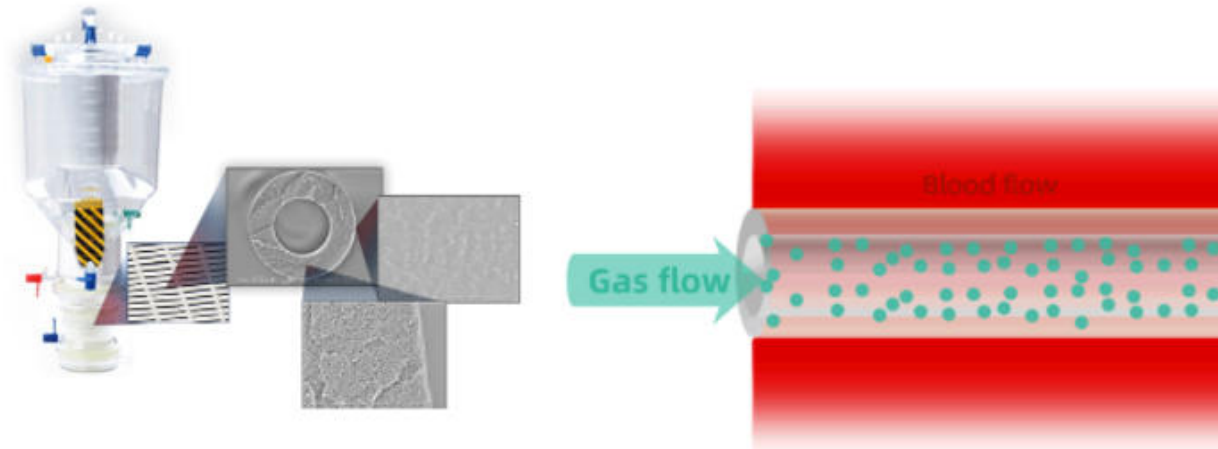


Hollow Fiber Membrane

Membrane oxygenator is one kind of micropore hollow fiber oxygenator, which is applied for extracorporeal circulation in extra-cardiac surgery or therapy to oxygenate the blood and remove carbon dioxide. Membrane oxygenator is a medical device to replace the lung in cardiac arrest. It is also a medical device for treating acute respiratory diseases and waiting for lung transplantation.



has developed hollow fiber membrane that is also called gas exchange membrane, which is an very important raw material in membrane oxygenator. The gas exchange capillary works as the medium of gas and blood exchange. The gas and blood on both sides of the capillary can reach the oxygen and carbon dioxide exchange by diffusion.

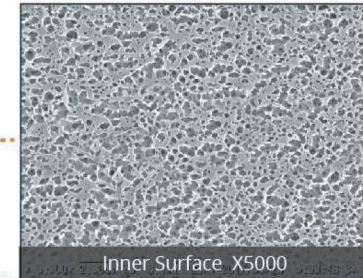
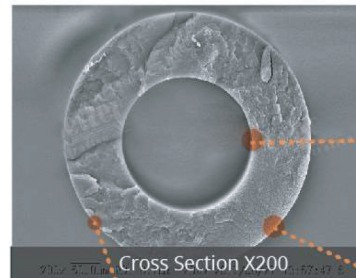


Polymethylpentene Gas Diffusion Capillary Structure And Characteristics

The hollow fiber membrane manufactured with TIPS technology from Cobetter is with asymmetric structure.

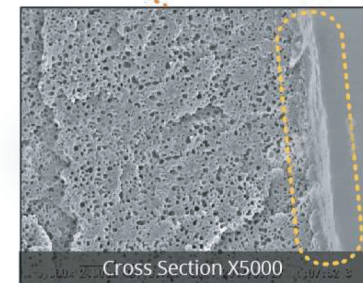
Inner Surface

Asymmetric ultrathin cortical structure, larger pore size, excellent gas permeability.



Outer Surface

Dense cortical structure: small pore size, excellent ability of preventing blood transmission, avoid blood infiltration and blockage, improve the effective lifetime.



* PMP Membrane Micro-structure Diagram

Product Line Classification

Application	Effective Duration	Membrane Material	Membrane Technology	Part No.	Specification	Configuration
CPB (cardopulmonary bypass)	Short Time Style: 6H	Polypropylene	TIPS (Thermally Induced Phase Separation)	PPB67 380/280	ID 280 * Wall 50 µm	
				PPB628 300/200	ID 200 * Wall 50 µm	
		Polypropylene	Dry stretching	Developing *	ID 240 * Wall 30 µm	
				Developing *	ID 150 * Wall 30 µm	
ECMO (Extracorporeal Membrane Oxygenation)						- Single-thread spools - Single layer mats - Cross-wound mats
ECCO2R (Extracorporeal Carbon Dioxide Removal)	Long Time Style: >24H	Polymethylpentene	TIPS (Thermally Induced Phase Separation)	PMX20 380/200	ID 200 * Wall 90 µm	Max.mat width is 200mm
ELS (Extracorporeal Life Support)						

Note * : The heat exchange capillary that is used for heat exchange will be launched soon.

Hollow Fiber Membrane Hollow Fiber Membrane

Model	PMX20 380/200	PPB67 380/280	PPB628 300/200
Materials	PMP	PP	PP
Wall Thickness	90±10 um	50±10 um	50±10 um
Outer Diameter	380±30 um	380±30 um	300±20 um
Inner Diameter	200 um	280 um	200 um
Porosity (%)	50	55	55
Tensile Strength (cN)	≥ 90	≥ 100	≥ 100
Elongation at Break	≥ 100	≥ 400	≥ 400
N ² Flux (cm ² · min · bar)	0.2 - 10	45-105	45-105