

Patients come in a range of sizes.  
Now your oxygenator does, too.



# Prescriptive Oxygenation™



Now featuring illustrations demonstrating how to achieve  
Prescriptive Oxygenation using Terumo's unique products,  
packaging, and holder solutions.

**CAPIOX®** Family of Oxygenators





Prescriptive Oxygenation™ is Terumo's unique approach to helping you meet each patient's oxygenation and blood management needs more precisely, with the freedom to choose the right size CAPIOX oxygenator.

Patients of different sizes have different oxygenation and blood management needs – therefore no one size oxygenator fits all patients. In fact, research shows that smaller patients face increased mortality rates and may have less favorable outcomes after cardiac surgery due to greater incidence of transfusion.<sup>1,2</sup> Terumo's unique Prescriptive Oxygenation approach is part of the solution for every patient population.

As a perfusionist, assessing patients' oxygenation needs is a choice you make every day. Now, you can choose the right oxygenator for every patient, of any size. Only Terumo offers a full line of proven low prime volume oxygenator solutions.



Designed for neonates and infants.



## CAPIOX® FX05 or RX05 OXYGENATORS

The CAPIOX FX05 and RX05 oxygenators offer low prime volume and high performance so you don't have to choose one over the other for your smallest patients. Your most delicate patients deserve the smallest prime volume attainable, and Terumo makes it possible.

### FX05 SPECIFICATIONS:

**Prime Volume 43 mL, Maximum Flow 1.5 L/min.  
Integrated Arterial Filter Surface Area 130 cm<sup>2</sup>**

### RX05 SPECIFICATIONS:

**Prime Volume 43 mL, Maximum Flow 1.5 L/min.**

### CAPIOX® AF02 ARTERIAL LINE FILTER SPECIFICATIONS:

**Prime Volume 40 mL, Surface Area 185 cm<sup>2</sup>, Maximum Flow 2.5 L/min.**



Designed for all adults.



## CAPIOX® FX25 or RX25 OXYGENATORS

The unique design of the CAPIOX FX25 and RX25 oxygenators allow for reduced prime volume with the right fit for adults with a higher metabolic demand. You'll appreciate that a full size oxygenator doesn't have to be high prime volume.

### FX25 SPECIFICATIONS:

**Prime Volume 260 mL, Maximum Flow 7.0 L/min.  
Integrated Arterial Filter Surface Area 600 cm<sup>2</sup>**

### RX25 SPECIFICATIONS:

**Prime Volume 250 mL, Maximum Flow 7.0 L/min.**

### TERUMO® AL6X ARTERIAL LINE FILTER SPECIFICATIONS:

**Prime Volume 100 mL, Surface Area 550 cm<sup>2</sup>, Maximum Flow 8.0 L/min.**



Designed for small and mid-sized adults.

Studies show that controlling hemodilution through lower prime volume circuits can result in fewer blood transfusions.<sup>1,2,3</sup>

The right size oxygenator can make a difference toward better patient outcomes.



CAPIOX®  
FX15 or RX15  
OXYGENATORS

With the CAPIOX FX15 and RX15 oxygenators, you can significantly lower prime volume for a group of patients that tend to have a higher rate of blood transfusions. Now your smaller patients can have surgery with an oxygenator that best fits their unique metabolic needs, which may help minimize the need for a blood transfusion. Available in two reservoir sizes.

**FX15R30 SPECIFICATIONS:**

**Prime Volume 144 mL, Maximum Flow 4.0 L/min.  
Integrated Arterial Filter Surface Area 360 cm<sup>2</sup>**

**FX15R40 SPECIFICATIONS:**

**Prime Volume 144 mL, Maximum Flow 5.0 L/min.  
Integrated Arterial Filter Surface Area 360 cm<sup>2</sup>**

**RX15R40 SPECIFICATIONS:**

**Prime Volume 135 mL, Maximum Flow 4.0 L/min.**

**RX15R30 SPECIFICATIONS:**

**Prime Volume 135 mL, Maximum Flow 5.0 L/min.**

**TERUMO® AL6X ARTERIAL LINE FILTER SPECIFICATIONS:**

**Prime Volume 100 mL, Surface Area 550 cm<sup>2</sup>, Maximum Flow 8.0 L/min.**

## The CAPIOX FX15 and RX15 Oxygenators address the needs of a large segment of the patient population.

Based on their body surface area, a significant number of patients would benefit from a smaller or mid-sized oxygenator designed to better match their actual metabolic needs while decreasing hemodilution and other risks associated with cardiopulmonary bypass.

Studies show that controlling hemodilution through lower prime circuits can result in fewer blood transfusions.<sup>1,2,3</sup> The right size oxygenator can make a difference towards minimizing the need for transfusions.

To learn more about Prescriptive Oxygenation and the full range of CAPIOX products, visit:  
[www.terumo-cvs.com/prescriptive](http://www.terumo-cvs.com/prescriptive)

**Citations:**

- 1 Shann et al, An evidence-based review of the practice of cardiopulmonary bypass in adults: A focus on neurologic injury, glycemic control, hemodilution, and the inflammatory response; *Journal of Thoracic and Cardiovascular Surgery*, 2006;132:283-290.
- 2 Ferraris et al, 2011 Update to The Society of Thoracic Surgeons and the Society of Cardiovascular Anesthesiologists Blood Conservation Clinical Practice Guidelines; *Annals Thoracic Surgery*, 2011;91:944-982.
- 3 Preston et al, Clinical Gaseous Microemboli Assessment of an Oxygenator with Integral Arterial Filter in the Pediatric Population, *Journal of ExtraCorporeal Technology*, 2009; 41:226-230.

Terumo Cardiovascular Systems offers oxygenators, Cardiovascular Procedure Kits, brackets and packaging solutions to make choosing the right size oxygenator quick and convenient.

01



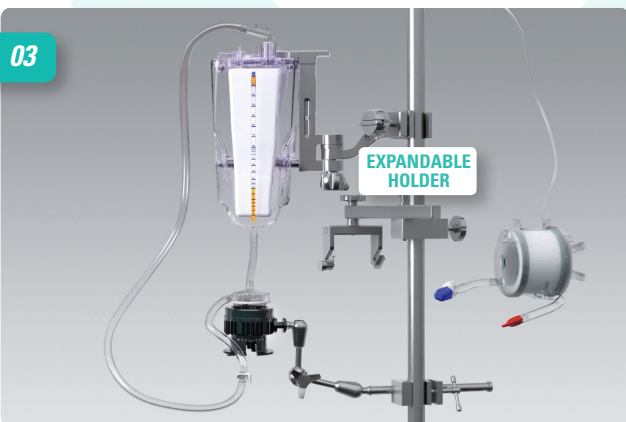
Choose the Prescriptive Oxygenation kit which includes a pre-connected Cardiovascular Procedure Kit with reservoir and quick disconnect connectors in one package, and an oxygenator in another package.

02



Set up the majority of the Cardiovascular Procedure Kit on the unique bracket system and prime it before you know the patient's size.

03



Select an oxygenator that best meets the patient's unique metabolic needs from a wide range of CAPIOX oxygenator choices.

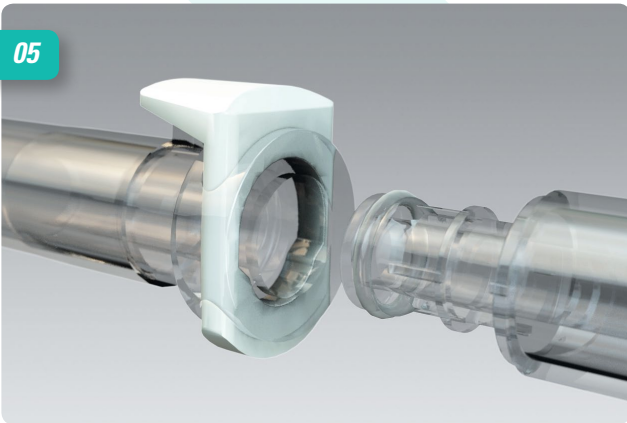
The unique expandable oxygenator holder adjusts to hold either the small adult or large adult oxygenator.

04



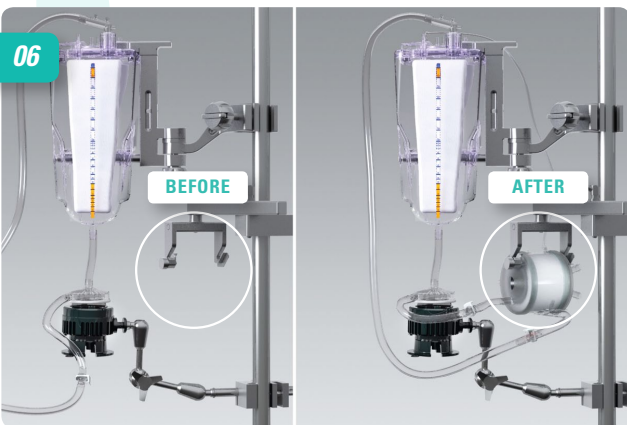
Easily add an oxygenator to the circuit with strategically placed quick disconnect connectors which are designed to ensure you make the right connection.

05



Separate the connectors by pressing the white tab. Secure the connection by inserting the male connector into the female connector. The quick disconnect connectors are designed to withstand pressure up to 30 PSI (1550 mmHg).

06



Prescriptive Oxygenation is easy when you choose CAPIOX oxygenators, the quick disconnect connectors and Terumo's unique packaging and holder solutions.

For more information about  
Prescriptive Oxygenation, ask your  
Terumo Cardiovascular Systems  
Sales Representative.

#### Holder Ordering Information

DESCRIPTION	CATALOG NO.	UNITS/CASE
Holder for oxygenator, expandable	XX*CXH15	1
Holder for hardshell reservoir, long arm	XX*CXH18R	1
Holder for hardshell reservoir, short arm	XX*XH032	1



## Specifications

### Oxygenator

Material	Housing	Polycarbonate
	Fibers	Microporous polypropylene
	Heat exchanger	Stainless steel

Oxygenator	FX05   RX05	FX15   RX15	FX25   RX25
Fiber bundle surface area	Approx. 0.5 m <sup>2</sup>	Approx. 1.5 m <sup>2</sup>	Approx. 2.5 m <sup>2</sup>
Heat exchanger surface area	Approx. 0.035 m <sup>2</sup>	Approx. 0.14 m <sup>2</sup>	Approx. 0.2 m <sup>2</sup>
Blood flow range	0.1 – 1.5 L/min	0.5 – 5.0 L/min, 0.5 – 4.0 L/min (with R30)	0.5 – 7.0 L/min
Reference blood flow (AAMI std.)	2.5 L/min	7.0 L/min	n.a.
Priming volume (static)	43 mL   43 mL	144 mL   135 mL	260 mL   250 mL
Blood inlet port (from pump)	1/4" (6.4 mm)	3/8" (9.5 mm)	
Blood outlet port	1/4" (6.4 mm)	3/8" (9.5 mm)	
Cardioplegia port	–	1/4" (6.4 mm)	
Luer port (for recirc. or blood cardioplegia)	One luer lock on blood outlet port	n.a.	
Gas inlet port	1/4" (6.4 mm)		
Gas outlet port	5/16" (7.9 mm)	1/4" (6.4 mm)	
Water ports	1/2" (12.7 mm) Hansen quick-connect fittings		
Maximum pressure Blood inlet	1000 mmHg (133 kPa)		
Maximum pressure Water inlet	2 kgf/cm <sup>2</sup> (196 kPa) (28.5 psi)		

### FX Arterial Filter

Filter material	Polyester screen type		
Pore size	32 µm		
Blood contact surface area	130 cm <sup>2</sup>	360 cm <sup>2</sup>	600 cm <sup>2</sup>

### Terumo AL6X Arterial Filter

Filter material	Lockwoven polyester		
Pore size	40 µm		
Surface area	550 cm <sup>2</sup>		
Blood flow range	0.1 – 2.5 L/min.		

### Hardshell Reservoir

Material	Housing	Polycarbonate
	Venous filter	Polyester screen type, Pore size 47 µm
	Cardiotomy filter	Polyester depth type
	Defoamer	Polyurethane foam

Hardshell reservoir	FX05   RX05	FX15   RX15 with R30	with R40	FX25   RX25
<b>Blood flow range</b>				
Venous flow	0.1 – 1.5 L/min	0.5 – 4.0 L/min	0.5 – 5.0 L/min	0.5 – 7.0 L/min
Cardiotomy inlet	Max. 1.5 L/min	Max. 4.0 L/min	Max. 5.0 L/min	Max. 5.0 L/min
Combined flow	Max. 1.5 L/min	Max. 4.0 L/min	Max. 5.0 L/min	Max. 7.0 L/min
Blood storage capacity	1000 mL	3000 mL	4000 mL	4000 mL
Min. operating volume	15 mL	70 mL	200 mL	200 mL
Venous blood inlet port	1/4" (6.4 mm) rotatable	3/8" (9.5 mm) rotatable	1/2" (12.7 mm) rotatable	1/2" (12.7 mm) rotatable
Blood outlet port (to pump)	1/4" (6.4 mm)	3/8" (9.5 mm)		
Suction ports	Five 3/16" – 1/4" (4.8 mm – 6.4 mm) rotatable	Six 1/4" (6.4 mm)		
Vertical port (to CR filter)	n.a.	3/8" (9.5 mm)		
Quick prime port	1/4" (6.4 mm)			
Vent port	1/4" (6.4 mm)			
Auxiliary port	1/4" – 3/8" (6.4 mm – 9.5 mm)			
Luer ports	Three filtered luer locks to cardiotomy filter, one non-filtered luer lock, two luer locks on venous inlet			
Maximum sustainable negative pressure in reservoir	-150 mmHg (-20.0 kPa)			

### CAPIOX AF02 Arterial Filter

Filter material	Polyester screen type		
Pore size	32 µm		
Surface area	185 cm <sup>2</sup>		
Blood flow range	0.1 – 8.0 L/min.		

## Ordering Information

DESCRIPTION	CATALOG NO.	UNITS/CASE
<b>CAPIOX FX05 Oxygenator</b>		
Oxygenator with integrated arterial filter <sup>1</sup> .....	CX*FX05W	4
Oxygenator with integrated arterial filter <sup>1</sup> .....	CX*FX05E	4
Oxygenator with integrated arterial filter/hardshell reservoir <sup>2</sup> .....	CX*FX05RW	4
Oxygenator with integrated arterial filter/hardshell reservoir <sup>2</sup> .....	CX*FX05RE	4
<b>CAPIOX FX15 Oxygenator</b>		
Oxygenator with integrated arterial filter <sup>3</sup> .....	CX*FX15W	4
Oxygenator with integrated arterial filter <sup>3</sup> .....	CX*FX15E	4
Oxygenator with integrated arterial filter/hardshell reservoir <sup>4</sup> .....	CX*FX15RW30	2
Oxygenator with integrated arterial filter/hardshell reservoir <sup>4</sup> .....	CX*FX15RE30	2
Oxygenator with integrated arterial filter/hardshell reservoir.....	CX*FX15RW40	2
Oxygenator with integrated arterial filter/hardshell reservoir.....	CX*FX15RE40	2
<b>CAPIOX FX25 Oxygenator</b>		
Oxygenator with integrated arterial filter.....	CX*FX25W	4
Oxygenator with integrated arterial filter.....	CX*FX25E	4
Oxygenator with integrated arterial filter/hardshell reservoir.....	CX*FX25RW	2
Oxygenator with integrated arterial filter/hardshell reservoir.....	CX*FX25RE	2

DESCRIPTION	CATALOG NO.	UNITS/CASE
<b>CAPIOX RX05 Oxygenator</b>		
Oxygenator <sup>1</sup> .....	CX*RX05W	4
Oxygenator <sup>1</sup> .....	CX*RX05E	4
Oxygenator with hardshell reservoir <sup>2</sup> .....	CX*RX05RW	4
Oxygenator with hardshell reservoir <sup>2</sup> .....	CX*RX05RE	4
<b>CAPIOX RX15 Oxygenator</b>		
Oxygenator <sup>3</sup> .....	CX*RX15W	4
Oxygenator <sup>3</sup> .....	CX*RX15E	4
Oxygenator with hardshell reservoir <sup>4</sup> .....	CX*RX15RW30	4
Oxygenator with hardshell reservoir <sup>4</sup> .....	CX*RX15RE30	4
Oxygenator with hardshell reservoir.....	CX*RX15RW40	4
Oxygenator with hardshell reservoir.....	CX*RX15RE40	4
<b>CAPIOX RX25 Oxygenator</b>		
Oxygenator.....	CX*RX25W	4
Oxygenator.....	CX*RX25E	4
Oxygenator with hardshell reservoir.....	CX*RX25RW	4
Oxygenator with hardshell reservoir.....	CX*RX25RE	4

1 Contains 2 adapters 3/16" – 1/4" and a recirculation line  
 2 Contains 4 adapters 3/16" – 1/4", 1 adapter 1/4" – 3/8" and a recirculation line  
 3 Contains 2 adapters 1/4" – 3/8"  
 4 Contains 4 adapters 1/4" – 3/8"



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