

# Reinforced Dual Lumen Catheters

OriGen reinforced dual lumen catheters are indicated for use as a single cannula for both venous drainage and re-infusion of blood via the internal jugular vein during extracorporeal life support procedures.



The OriGen reinforced dual lumen catheter will be available in the following sizes: 13F, 16F, 19F, 23F, 28F and 32F

Each catheter is made of wire-reinforced PEBA<sup>X</sup>® and is supplied with a blunt introducer. This new catheter is an improvement from the previous design, and these new features include:

- A softer polymer material, called PEBA<sup>X</sup>®, to improve recovery from kinking.
- Wire-reinforcing along the body of the cannula to increase the resistance to collapse and kinking.
- A new tip and reinfusion port design to reduce recirculation.

The OriGen reinforced dual lumen catheter is ideally suited for the simultaneous drainage and re-infusion of blood through the internal jugular vein during ECMO procedures. This new catheter design has the right combination of flexibility, bend radius, collapse resistance and recovery from kinking to be ideal for ECMO with centrifugal pumps.



**Introducer:** Each reinforced dual lumen catheter is supplied with a blunt introducer to aid in catheter placement via cutdown. If cutdown is not desired, a separate percutaneous introducer kit is available with all the necessary guidewires and introducers.

**Recirculation:** The drainage and re-infusion ports have been placed to reduce recirculation. Computer flow simulation and animal studies have been performed to support this.

**Tip diameter:** The reinforced dual lumen catheter has a consistent diameter over the length of the body, but there is some extra reinforcement at the hub.

**Lumen size:** The inserted tip is divided internally so that the drainage lumen has a cross-section area roughly twice that of the return lumen.

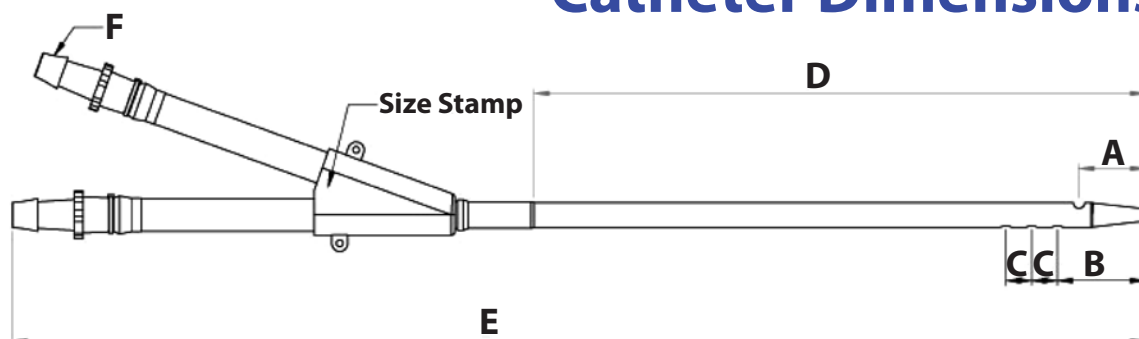
Separated return,  
drain lumens



**Material:** The reinforced dual lumen catheter is PEBA<sup>X</sup>® except for the polyurethane and polycarbonate connector tubes. The tip section is radiopaque.

**Priming:** The reinfusion lumen is supplied with a self-sealing vent plug to vent air and then seal during insertion, without having to clamp the catheter, to help de-air the catheter.

# Catheter Dimensions



Order Code	Size	Catheter Outer diameter			(A)Tip to Reinfusion		(B)Tip to First Return		(C)Return hole spacing	
		Fr.	mm	in	mm	in	mm	in	mm	in
V V 13F	13F	13	4.47	0.167	18.0	0.65	21.8	0.86	5.1	0.20
		(D)Insertable length		(E)Overall length		(F)Connector size		Priming volume, mls		
		mm	in	mm	in			Art.	Venous	
		83	3.3	221	8.7	1/4 in		2.0	2.4	

Order Code	Size	Catheter Outer diameter			(A)Tip to Reinfusion		(B)Tip to First Return		(C)Return hole spacing	
		Fr.	mm	in	mm	in	mm	in	mm	in
V V 16F	16F	16	5.33	0.210	17.0	0.60	22.1	0.80	6.1	0.24
		(D)Insertable length		(E)Overall length		(F)Connector size		Priming volume, mls		
		mm	in	mm	in			Art.	Venous	
		97	3.8	257	10.1	1/4 in		4.6	5.4	

Order Code	Size	Catheter Outer diameter			(A)Tip to Reinfusion		(B)Tip to First Return		(C)Return hole spacing	
		Fr.	mm	in	mm	in	mm	in	mm	in
V V 19F	19F	19	6.43	0.253	19.6	0.69	22.9	0.82	7.1	0.28
		(D)Insertable length		(E)Overall length		(F)Connector size		Priming volume, mls		
		mm	in	mm	in			Art.	Venous	
		137	5.4	295	11.6	1/4 in		5.6	6.9	

Order Code	Size	Catheter Outer diameter			(A)Tip to Reinfusion		(B)Tip to First Return		(C)Return hole spacing	
		Fr.	mm	in	mm	in	mm	in	mm	in
V V 23F	23F	23	7.57	0.298	20.3	0.80	27.4	1.08	8.1	0.32
		(D)Insertable length		(E)Overall length		(F)Connector size		Priming volume, mls		
		mm	in	mm	in			Art.	Venous	
		187	7.4	373	14.7	3/8 in		12.5	15.1	

Order Code	Size	Catheter Outer diameter			(A)Tip to Reinfusion		(B)Tip to First Return		(C)Return hole spacing	
		Fr.	mm	in	mm	in	mm	in	mm	in
V V 28F	28F	28	9.35	0.368	24.9	0.98	33.0	1.30	9.7	0.38
		(D)Insertable length		(E)Overall length		(F)Connector size		Priming volume, mls		
		mm	in	mm	in			Art.	Venous	
		231	9.1	432	17.0	3/8 in		19.3	23.5	

Order Code	Size	Catheter Outer diameter			(A)Tip to Reinfusion		(B)Tip to First Return		(C)Return hole spacing	
		Fr.	mm	in	mm	in	mm	in	mm	in
V V 32F	32F	32	10.64	0.419	27.9	1.10	35.1	1.38	11.2	0.44
		(D)Insertable length		(E)Overall length		(F)Connector size		Priming volume, mls		
		mm	in	mm	in			Art.	Venous	
		251	9.9	493	19.4	3/8 in		22.6	30.0	

Reference use only, tolerances apply

## Product Code

Product Code	Tip Diameter (F)
VV13F	13F
VV16F	16F
VV19F	19F
VV23F	23F
VV28F	28F
VV32F	32F

CAUTION: US Federal law restricts the sale and use of these devices by or on the order of a physician. Supplied sterile. For single use only. Read Instructions for Use before clinical use.

For percutaneous placement, all necessary guidewires, sharps and introducers are available packaged together. (Product Code: PCT for catheters 13F through 32F)

Pebax is a registered trademark of Arkema.

# OriGen

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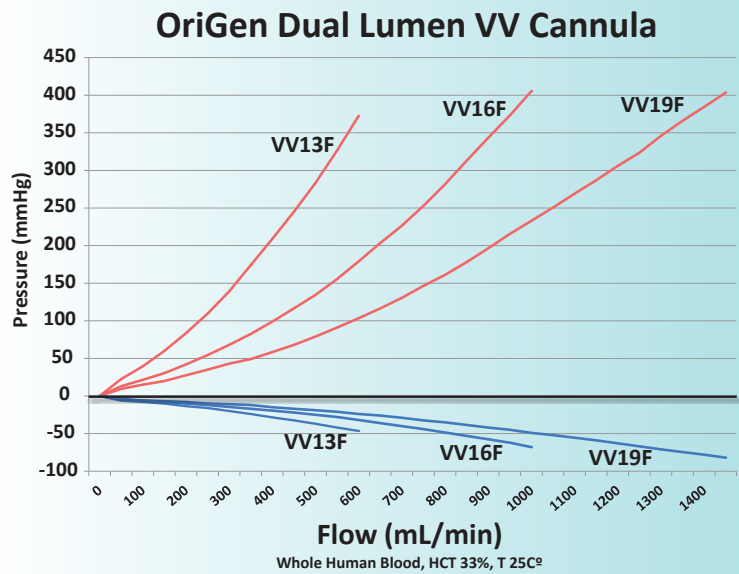
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## Flow Characteristics (VV13F - VV19F)



## Flow Characteristics (VV23F - VV32F)

