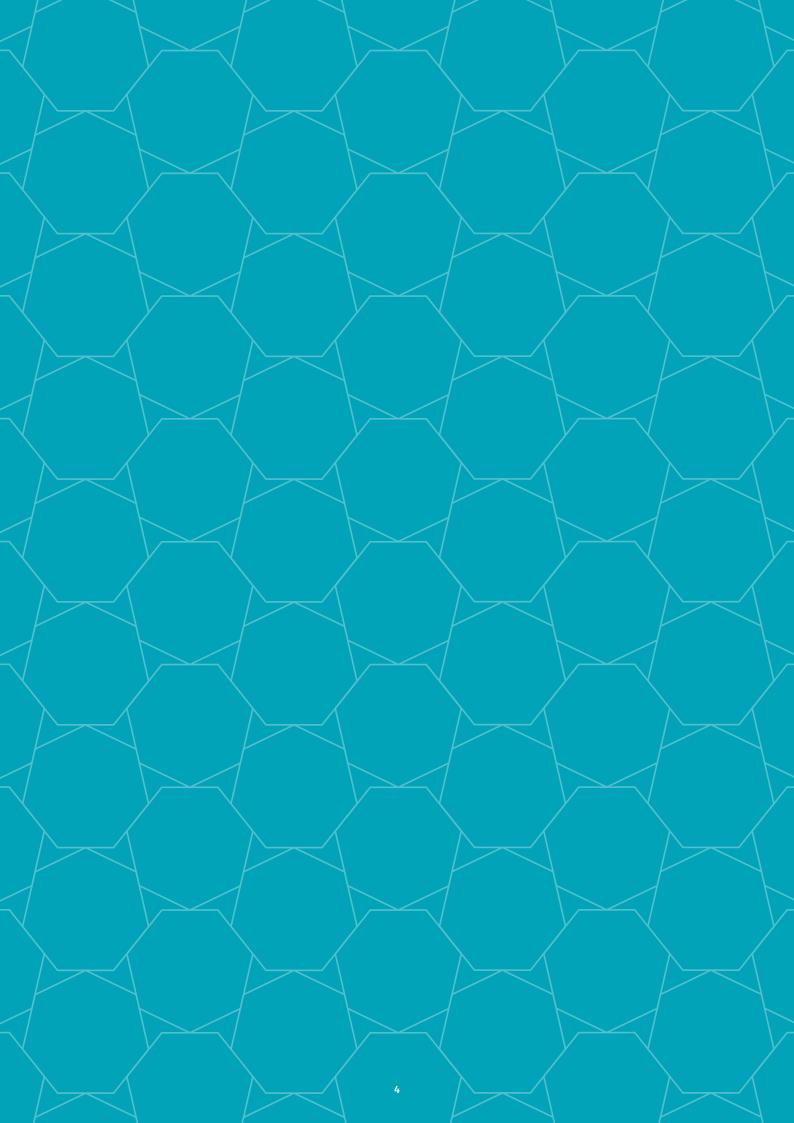


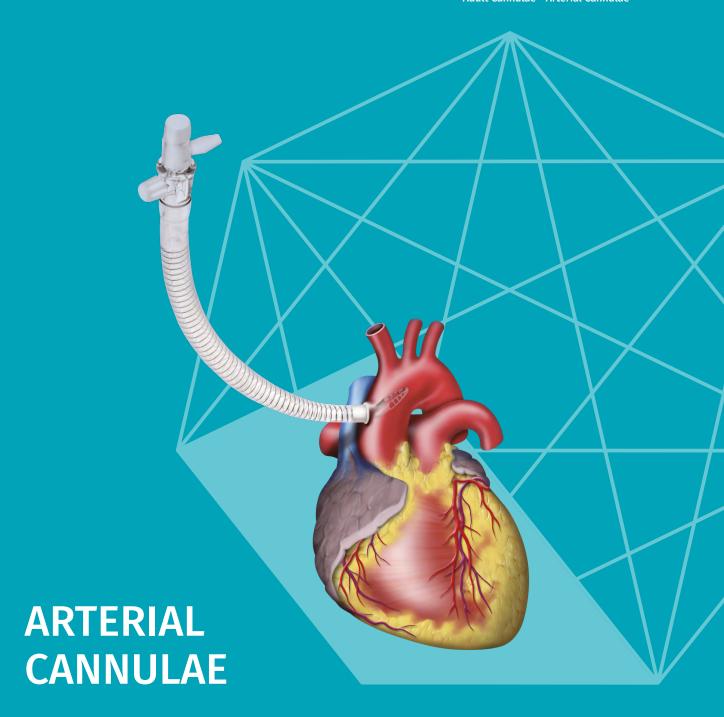
Table of contents

Our cannulation solutions offer a broad range of design configurations to accommodate unique technique preferences and meet insertion and drainage needs. We have the access tools necessary to improve ease of use, maximize field of view and provide optimal blood flow to ensure proper care. Whether your cannulation needs are for pediatric patients or adults, we have the solution.

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LivaNova Adult Arterial Cannulae are intended for adult arterial direct cannulation and are available in different configurations: curved, straight or dispersive, they are designed in clear and transparent PVC which maintains elasticity during hypothermia. An index marker on the distal end of the cannula tip facilitates orientation. The tip is available with suture flange and suture collar, for better cannula fixation. Depending on country registration, an optional phospholipid coating may be available.

Note on ordering: coated products have a "B" before their reference code.

For more information, please contact your local sales representative.

Connectors

Different connector options are offered: straight connectors with or without luer as well as porous vent plugs.



A version



C version



Porous vent plug



B version



Connector without luer vent



Connector with luer vent

Optiflow Arterial Cannulae

LivaNova Optiflow Arterial Cannulae are designed with a three-dimensional basket tip for better flow dispersion and improved hemodynamics. This unique feature provides a native-like blood flow and avoids the 'jet stream', thus reducing the risk of plaque dislodgement.¹

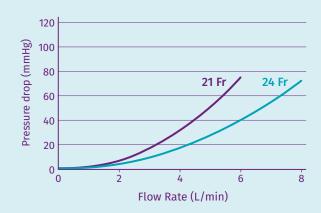
Available in 21 and 24 Fr with and without wire-reinforced tubings and optional luer lock for venting. Depending on country registration, an optional phospholipid coating may be available.

Note on ordering: coated products have a "B" before their reference code.

For more information, please contact your local sales representative.

Optiflow Arterial Cannulae

Curved Tip, Wire-reinforced Tubing

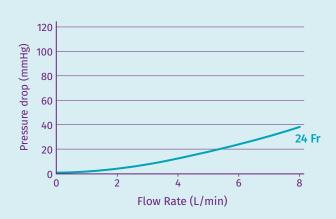




Cannula Tip Size	Connector without Luer Vent		Connector with Luer Vent Up	Connector Size	Effective Length (cm)	Quantity per box	Available Coated
21 Fr/ 7 mm	-	A282-70B	A282-70A	3/8"	24	10	Depends on Country Registration
24 Fr/ 8 mm	A282-80C	-	-	3/8"	25	10	Depends on Country Registration

Optiflow Arterial Cannulae

Straight Tip, Wire-reinforced Tubing





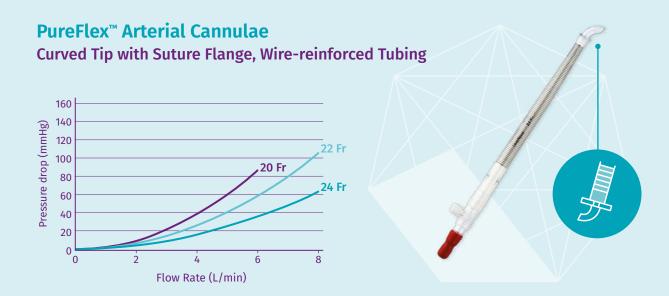
Cannula	Connector	Connector	Effective	Quantity	Available Coated
Tip Size	without Luer Vent	Size	Length (cm)	per box	
24 Fr/ 8 mm	A292-80C	3/8"	25	10	Depends on Country Registration

Pureflex Arterial Cannulae

LivaNova Pureflex Arterial Cannulae allow for high flow rate and low resistance, as well as easy handling during insertion. They are available with reinforced tubing. Depending on country registration, an optional phospholipid coating may be available.

Note on ordering: coated products have a "B" before their reference code.

For more information, please contact your local sales representative.



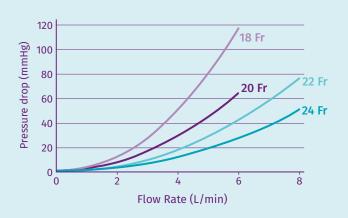
Cannula Tip Size	Porous Vent Plug	Connector with Luer Vent	Connector Size	Effective Length (cm)	Quantity per box	Available Coated
20 Fr/6.5 mm	RA20-2BP	RA20-2BB	3/8"	21.6	10	No
22 Fr/ 7.3 mm	RA22-2BP	RA22-2BB	3/8"	21.6	10	No
24 Fr/8.0 mm	RA24-2BP	RA24-2BB	3/8"	21.6	10	No

PureFlexTM Arterial Cannulae Curved Tip with Suture Collar, Wire-reinforced Tubing 160 140 120 100 80 20 Fr 24 Fr Flow Rate (L/min)

Cannula Tip Size	Porous Vent Plug	Connector without Luer Vent	Connector with Luer Vent	Connector Size	Effective Length (cm)	Quantity per box	Available Coated
18 Fr/6.0 mm	RA18-1BP	RA18-1BC	RA18-1BB	3/8"	21.6	10	No
20 Fr/6.5 mm	RA20-1BP	-	RA20-1BB	3/8"	21.6	10	No
22 Fr/ 7.3 mm	-	-	RA22-1BB	3/8"	21.6	10	No
24 Fr/8.0 mm	-	-	RA24-1BB	3/8"	21.6	10	No

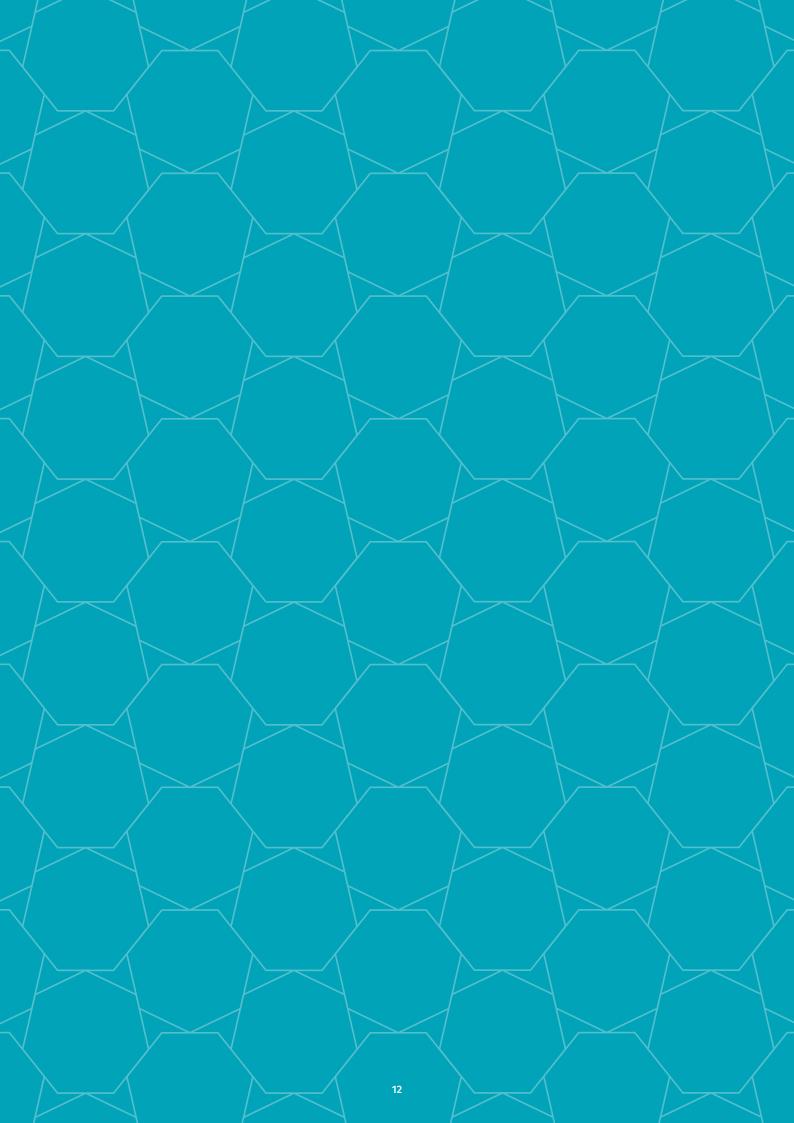
PureFlex™ Arterial Cannulae

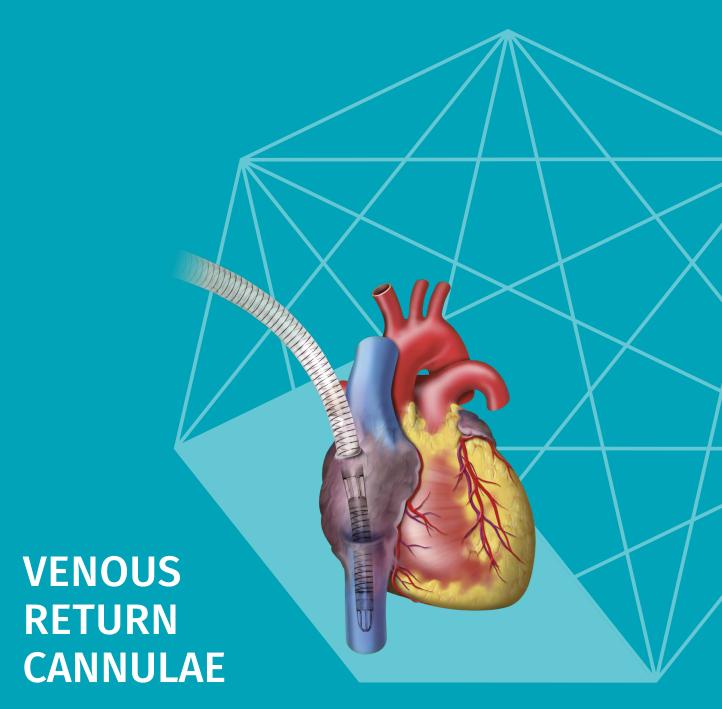
Straight Tip with Suture Collar, Wire-reinforced Tubing





Cannula Tip Size	Connector without Luer Vent	Connector with Luer Vent	Connector Size	Effective Length (cm)	Quantity per box	Available Coated
18 Fr/6.0 mm	-	RA18-1SB	3/8"	21.6	10	No
20 Fr/6.5 mm	-	RA20-1SB	3/8"	21.6	10	No
22 Fr/ 7.3 mm	RA22-1SC	RA22-1SB	3/8"	21.6	10	No
24 Fr/8.0 mm	-	RA24-1SB	3/8"	21.6	10	No





LivaNova Adult Venous Return Cannulae are intended for adult venous direct cannulation and are available with different tip configurations: triple stage, dual stage, single stage, swirled grooved tips. Cannulae are available with or without pre-attached connector. Depending on country registration, an optional phospholipid coating may be available.

Note on ordering: coated products have a "B" before their reference code.

For more information, please contact your local sales representative

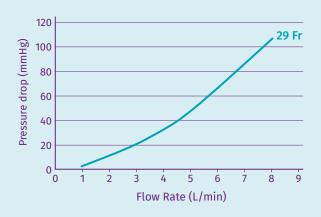
Optiflow Venous Return Cannulae

LivaNova Optiflow Venous Return Cannula is designed for atrial caval cannulation, with gravity or vacuum-assisted venous drainage. A one-piece swirled and grooved tip with multiple holes improves drainage regardless of heart position. Depending on country registration, an optional phospholipid coating may be available.

Note on ordering: coated products have a "B" before their reference code.

For more information, please contact your local sales representative.

Optiflow Venous Return Cannulae





Cannula	Without	Connector	Effective	Quantity	Available Coated
Size	Connector	Size	Length (cm)	per box	
29 Fr	V182-29	3/8"	39	10	Depends on Country Registration

Triple Stage Venous Return Cannulae

The Triple Stage Venous Cannulae feature an open lighthouse tip for atraumatic insertion and three points of drainage for improved hemodynamics. It is available with wire-reinforced tubing and with or without connector.

Triple Stage Venous Return Cannulae Wire-reinforced Tubing





Cannula Size	Without Connector	With Connector	Connector Size	Effective Length (cm)	Quantity per box	Available Coated
29/29/29 Fr	RTS-11029	RTS-11129	3/8"	41	10	No
29/37/37 Fr	RTS-13029	RTS-13129	1/2"	41	10	No

Dual Stage Venous Return Cannulae

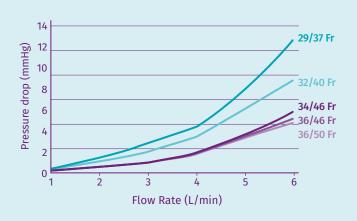
LivaNova Dual Stage Venous Return Cannulae are designed for venous drainage of the right atrium and vena cava with a single cannula. They are available with wire-reinforced tubing, one piece construction with lighthouse tip or with a flexible basket drainage point. Depending on country registration, an optional phospholipid coating may be available.

Note on ordering: coated products have a "B" before their reference code.

For more information, please contact your local sales representative.

Dual Stage Venous Return Cannulae

Wire-reinforced Tubing

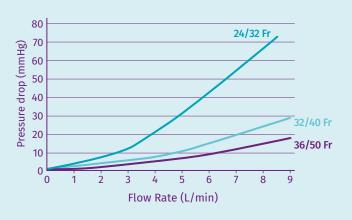


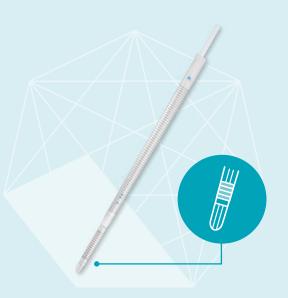


Cannula Size	With Connector	Without Connector	Connector Size/ Acceptance	Effective Length (cm)	Quantity per box	Available Coated
29/37 Fr	RDS-61137	RDS-61037	1/2"	41	10	No
32/40 Fr	RDS-61140	RDS-61040	1/2"	41	10	No
34/46 Fr	RDS-61134	RDS-61034	1/2"	41	10	No
36/46 Fr	RDS-61146	RDS-61046	1/2"	41	10	No
36/50 Fr	RDS-61150	-	1/2"	41	10	No

Dual Stage Venous Return Cannulae

Proximal and Distal, Wire-reinforced Tubing without Connector

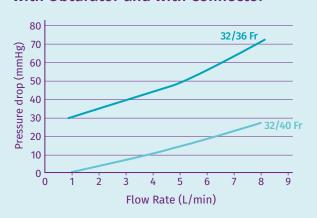


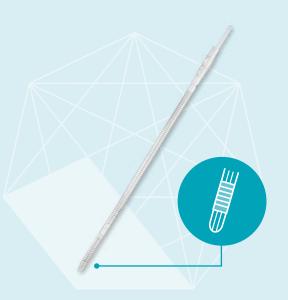


Cannula Size	Catalogue Number	Connector Acceptance	Effective Length (cm)	Quantity per box	Available Coated
24/32 Fr	V112-32	3/8"	44	10	Depends on Country Registration
32/40 Fr	V112-40	1/2"	41	10	Depends on Country Registration
36/50 Fr	V112-50	1/2"	41	10	Depends on Country Registration

Dual Stage Venous Return Cannulae

Proximal and Distal, Wire-reinforced Tubing with Obturator and with Connector





Cannula Size	Catalogue Number	Connector Acceptance	Effective Length (cm)	Quantity per box	Available Coated
32/36 Fr	V900-284	1/2"	47	10	Depends on Country Registration
32/40 Fr	V900-99	1/2"	41	10	Depends on Country Registration

Single Stage Venous Return Cannulae

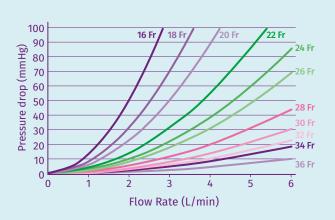
LivaNova Single Stage Venous Return Cannulae are provided with straight and right angled tip, with reinforced tubing. The wire-reinforced tubing mitigates the risk of kinking due to twisting during the procedure. Depending on country registration, an optional phospholipid coating may be available.

Note on ordering: coated products have a "B" before their reference code.

For more information, please contact your local sales representative.

Single Stage Venous Return Cannulae

Straight Lighthouse Tip, Wire-reinforced Tubing





Cannula Size	Catalogue Number	Connector Acceptance	Effective Length (cm)	Quantity per box	Available Coated
16 Fr	RV-40016	1/4"	30.5	10	No
18 Fr	RV-40018	1/4"-3/8"	36	10	No
20 Fr	RV-40020	1/4"-3/8"	36	10	No
22 Fr	RV-40022	1/4"-3/8"	36	10	No
24 Fr	RV-40024	1/4"-3/8"	36	10	No
26 Fr	RV-40026	3/8"	41	10	No
28 Fr	RV-40028	3/8"	41	10	No
30 Fr	RV-40030	3/8"	41	10	No
32 Fr	RV-40032	3/8"	41	10	No
34 Fr	RV-40034	3/8"	41	10	No
36 Fr	RV-40036	1/2"	41	10	No
36 Fr	RV-40536	3/8"	41	10	No

Single Stage Venous Return Cannulae

Straight Bullet Tip, Wire-reinforced Tubing

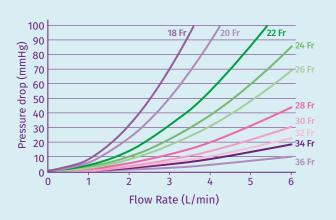




Cannula Size	Catalogue Number	Connector Acceptance	Effective Length (cm)	Quantity per box	Available Coated
24 Fr	V122-24	3/8"	38	10	Depends on Country Registration
28 Fr	V122-28	3/8"	38	10	Depends on Country Registration
32 Fr	V122-32	3/8"	38	10	Depends on Country Registration
34 Fr	V122-34	3/8"	39	10	Depends on Country Registration
36 Fr	V122-36	3/8"	39	10	Depends on Country Registration

Single Stage Venous Return Cannulae

Right Angle Lighthouse Tip, Wire-reinforced Tubing

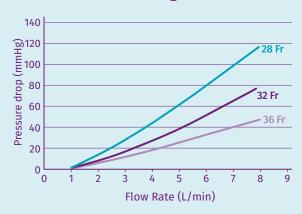




Cannula Size	Catalogue Number	Connector Acceptance	Tip Length (cm)	Quantity per box	Available Coated
18 Fr	RV-41018	1/4"-3/8"	3	10	No
20 Fr	RV-41020	1/4"-3/8"	3.5	10	No
22 Fr	RV-41022	1/4"-3/8"	3.5	10	No
24 Fr	RV-41024	1/4"-3/8"	4	10	No
26 Fr	RV-41026	3/8"	4	10	No
28 Fr	RV-41028	3/8"	4	10	No
30 Fr	RV-41030	3/8"	5.5	10	No
32 Fr	RV-41032	3/8"	5.5	10	No
34 Fr	RV-41034	3/8"	5.5	10	No
36 Fr	RV-41036	1/2"	6	10	No

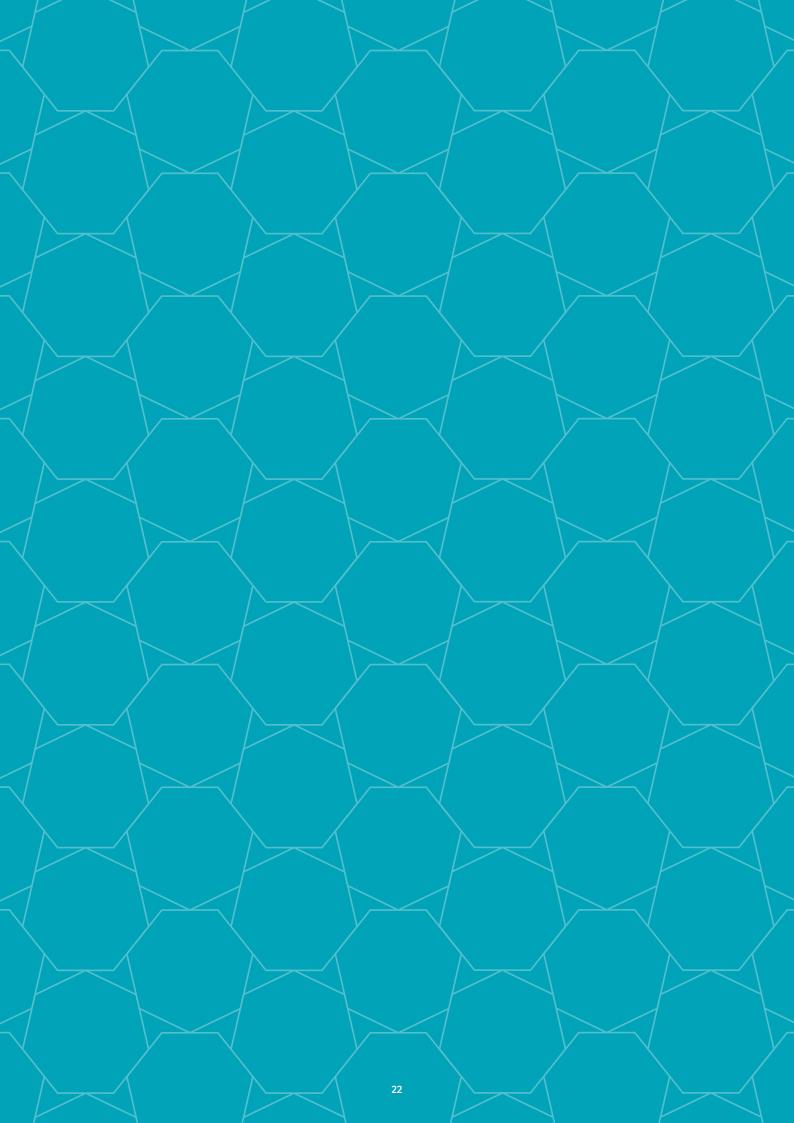
Single Stage Venous Return Cannulae

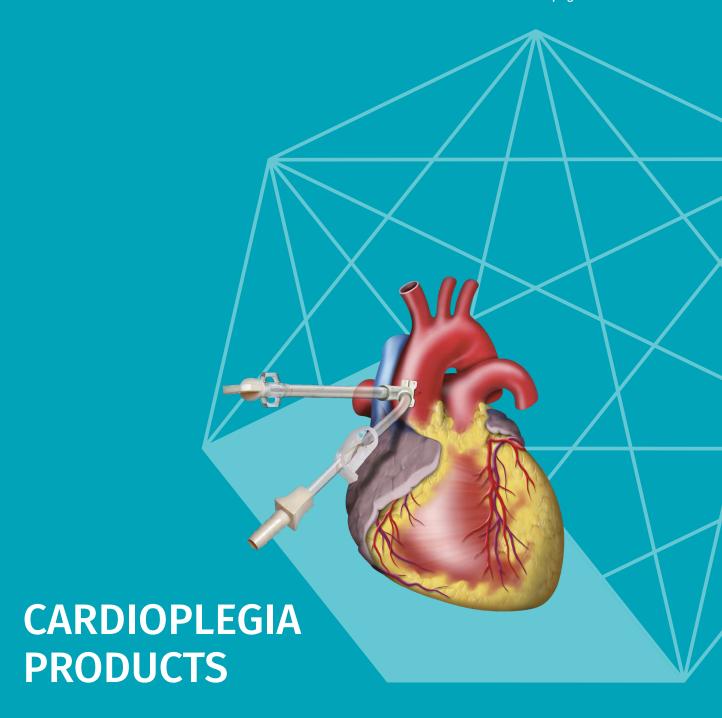
Right Angle Bullet Tip with Suture Ring, Wire-reinforced Tubing





Cannula Size	Catalogue Number	Connector Acceptance	Angled Tip Length (cm)	Quantity per box	Available Coated
28 Fr	V900-01	3/8"	1.15	10	Depends on Country Registration
32 Fr	V152-32	3/8"	8.5	10	Depends on Country Registration
36 Fr	V152-36	3/8"	8.6	10	Depends on Country Registration





LivaNova Adult Cardioplegia Cannulae are designed for cardioplegia delivery and myocardial protection during extra corporeal circulation in adult patients and are available in a wide range of configurations suitable for both antegrade and retrograde techniques. Depending on country registration, an optional phospholipid coating may be available.

Note on ordering: coated products have a "B" before their reference code.

For more information, please contact your local sales representative.

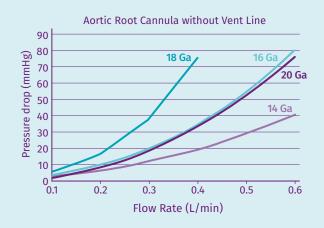
Antegrade Cardioplegia Aortic Root Cannulae

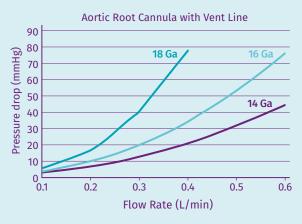
LivaNova Antegrade Cardioplegia Aortic Root Cannulae are designed for rapid and secure cardioplegia perfusion of the coronary arteries. Aortic Root Cannula are available also with vent line to ensure cardioplegia delivery while venting the heart. Depending on country registration, an optional phospholipid coating may be available.

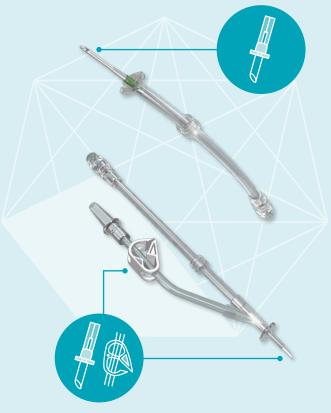
Note on ordering: coated products have a "B" before their reference code. For more information, please contact your local sales representative.

Aortic Root Cannulae

with & without Vent Line







Cannula Tip Size	Insertion Needle	Without Line Vent	With Line Vent	Effective Length (cm)	Quantity per box	Available Coated
12 Ga (9 Fr)	14 Ga - Green	AR-11012	AR-11112	15	10	No
14 Ga (7 Fr)	16 Ga- White	AR-11014	AR-11114	15	10	No
16 Ga (5 Fr)	18 Ga - Pink	AR-11016	AR-11116	15	10	No
18 Ga (4 Fr)	20 Ga - Gold	AR-11018	-	13	10	No

Aortic Root Cannulae





Cannula Tip Outer Diameter	Insertion Needle	Without Line Vent	With Line Vent	Effective Length (cm)	Quantity per box	Available Coated
3.1 mm	17 Ga	R501-15	R502-15	13	10	Depends on Country Registration
3.7 mm	14 Ga	R501-20	R502-20	13	10	Depends on Country Registration
4.0 mm	12 Ga	R501-26	R502-26	13	10	Depends on Country Registration

Antegrade Cardioplegia Coronary Ostia Cannulae

LivaNova Antegrade Cardioplegia Coronary Ostia Perfusion Cannulae are intended for cardioplegia delivery into the coronary ostia. The unique 3D tip is angled at 45° or 90° to easily reach the right and left ostia and ensures homogeneous perfusion of the cardioplegia solution in the coronary path.

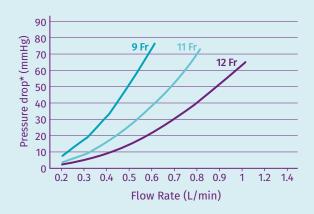
The metal handle facilitates stable positioning for proper placement. Depending on country registration, an optional phospholipid coating may be available.

Note on ordering: coated products have a "B" before their reference code.

For more information, please contact your local sales representative.

Coronary Ostia Perfusion Cannulae

with Conical Tip, Stainless Steel Shaft and Female Luer Lock Connector

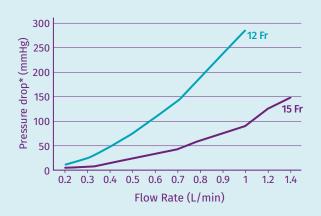


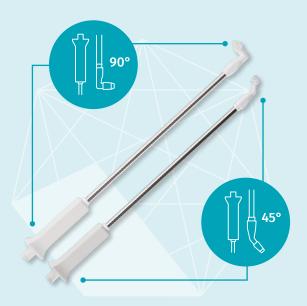


Cannula Tip Size	45° Tip	90° Tip	Connection Size	Quantity per box	Available Coated
9 Fr	P618-30	P616-30	Female luer lock	10	Depends on Country Registration
11 Fr	P618-35	P616-35	Female luer lock	10	Depends on Country Registration
12 Fr	P618-40	P616-40	Female luer lock	10	Depends on Country Registration

Coronary Ostia Perfusion Cannulae

with 3D Tip, Stainless Steel Shaft and Female Luer Lock Connector

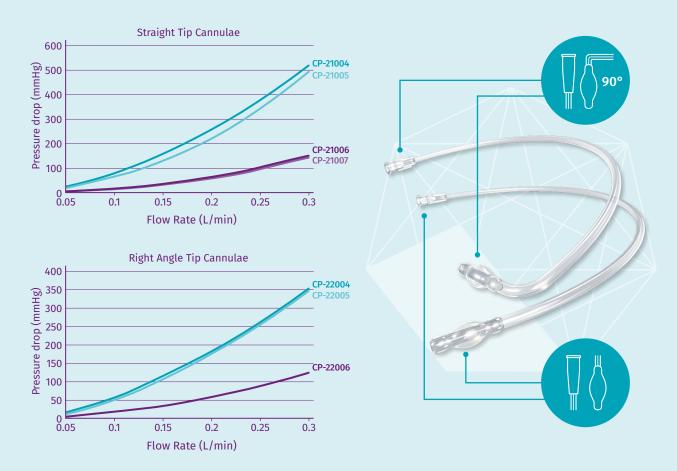




Cannula Tip Size	45° Tip	90° Tip	Connection Size	Quantity per box	Available Coated
12 Fr	-	P612-40	Female luer lock	10	Depends on Country Registration
15 Fr	P614-50	-	Female luer lock	10	Depends on Country Registration

Coronary Ostia Perfusion Cannulae

with Balloon Tip, Plastic Tubing and Female Luer Lock Connector



Balloon Size	Distal Cannulae Tip Size	Straight Tip	Right Angle Tip	Quantity per box	Available Coated
4.0 mm	2.1 mm	CP-21004	CP-22004	10	No
5.0 mm	2.1 mm	CP-21005	CP-22005	10	No
6.0 mm	3.0 mm	CP-21006	CP-22006	10	No
7.0 mm	3.0 mm	CP-21007	-	10	No

Retrograde Cardioplegia Cannulae

LivaNova Cardioplegia Retrograde Cannulae are designed for cardioplegia delivery into the coronary sinus. They are available with a manually-inflating balloon.

CIRCINUS™ Retrograde Cardioplegia Cannulae

with Manually-Inflating Silicone Balloon



Solid Malleable / Guide Wire Stylet



Solid Malleable / Guide Wire Stylet with Low Profile Handle



Solid Malleable / Guide Wire Stylet with Handle



Cannula Tip Size	Guidewire Stylet w/o Handle	Solid Malleable Stylet with Low Profile Handle	Solid Malleable Stylet with Handle	Effective Length (cm)	Quantity per box	Available Coated
15 Fr	RCM-14115	RCM-14815	RCM-14315	30.5	10	No

Antegrade/Retrograde Cardioplegia Perfusion Adapters

LivaNova Antegrade/Retrograde Perfusion Adapters are designed for selective delivery of either antegrade or retrograde cardioplegia in conjunction with LivaNova Antegrade and Retrograde Cardioplegia Cannulae. They are available with or without pressure monitoring line.



Antegrade/Retrograde Cardioplegia Perfusion Adapter

Catalogue Number	Description	Length
CA-80010	Antegrade/Retrograde Cardioplegia Perfusion Adapter with color coded tubing and with stopcock base plate with self adhesive tape	22 in / 55.9 cm

Each adapter is individually packaged in a peel pack with 10 sterile adapters per box.



Antegrade/Retrograde Cardioplegia Perfusion Adapter with Pressure Monitoring Line

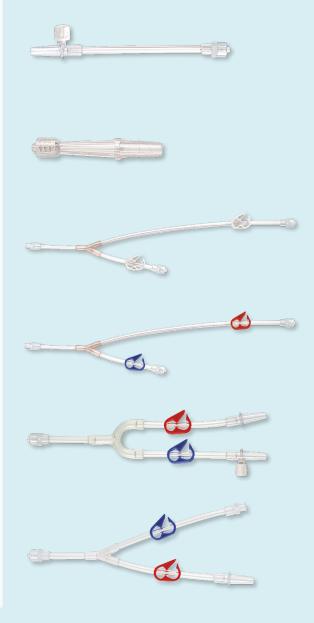
Catalogue Number	Description	Length
CA-81010	Antegrade/Retrograde Cardioplegia Perfusion Adapter with 84 inches (213 cm) pressure monitoring line, color coded tubing, and stopcock base plate with self adhesive tape	22 in / 55.9 cm

Each adapter is individually packaged in a peel pack with 10 sterile adapters per box.

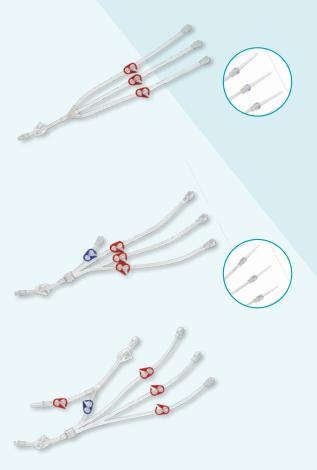
Cardioplegia Adapters

LivaNova Cardioplegia Adapters are designed for use in conjunction with LivaNova Antegrade Cardioplegia Aortic Root and Vessel Cannulae for delivery of cardioplegia solution and for heart venting.

Description	Catalogue Number	Length	
Straight Adapter	CA-10010	5.5 in / 14 cm	
Perfusion Adapter – 1/4 in	CA-10030	2.75 in / 7 cm	
Perfusion "Y" Adapter	CA-20010	14 in / 35.6 cm	
Perfusion "Y" Adapter with color coded clamps, with soft tubing	CA-20070	14 in / 35.6 cm	
Recirculation "Y" Adapter	CA-20020	8.5 in / 22 cm	
Venting "Y" Adapter	CA-20030	8 in / 20 cm	

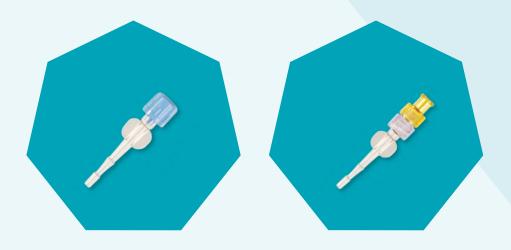


Description	Catalogue Number	Length	
Multiple Perfusion Adapter, Triplicate	CA-30010	15 in / 38.1 cm	
Multiple Perfusion Adapter, Triplicate with Vessel Cannulae, Cat. No. VC-11000	CA-31010	16.5 in / 41.9 cm	
Multiple Perfusion Adapter	CA-40010	15 in / 38.1 cm	
Multiple Perfusion Adapter with Vessel Cannulae Cat. No. VC-11000	CA-40030	16.5 in / 41.9 cm	
Multiple Perfusion Adapter with Vent Line	CA-40020	15 in / 38.1 cm	

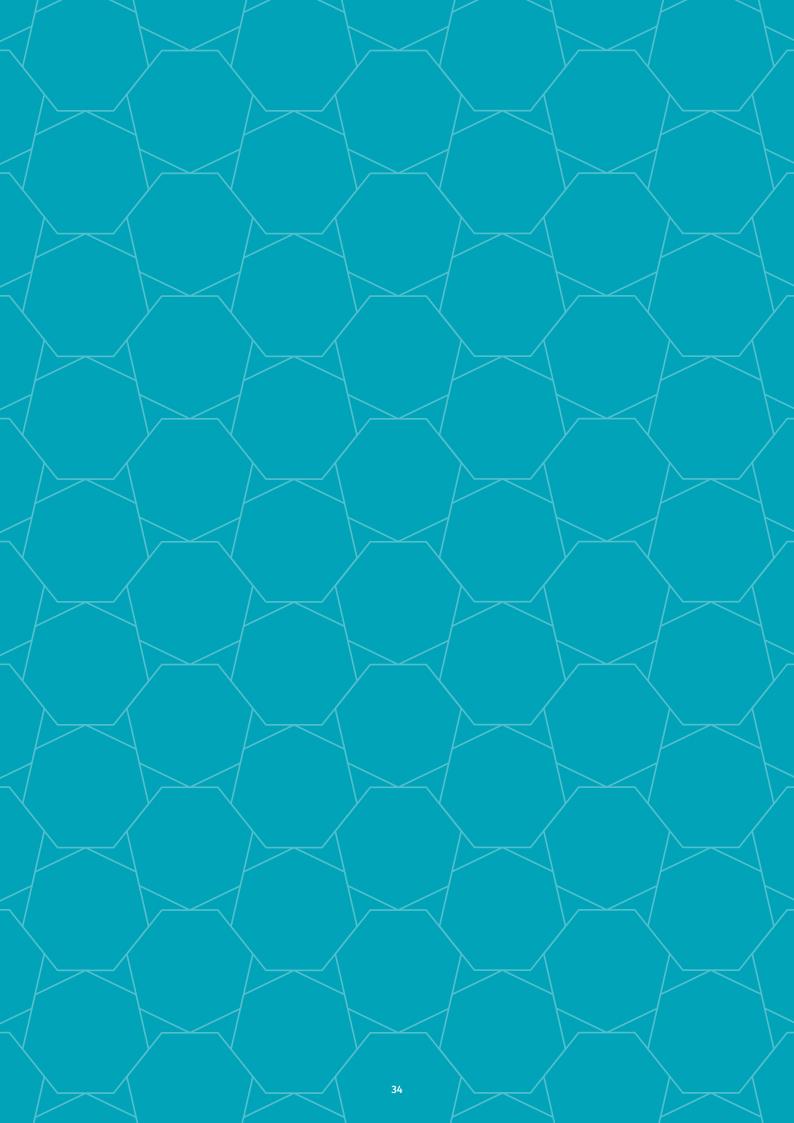


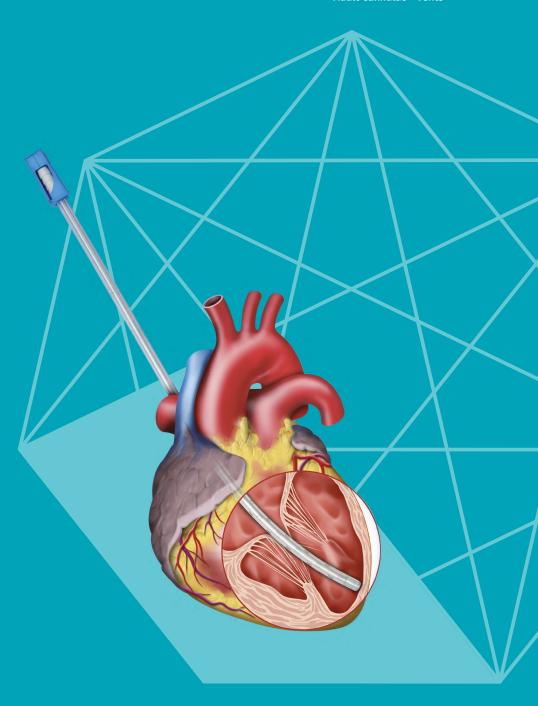
Vessel Cannulae

LivaNova Vessel Cannulae are designed for antegrade selective vein graft. They are made of a soft PVC tube, with a soft and flexible distal tip, designed to perfuse vessels from 3.0 to 3.6 mm in diameter. They are available in blunt tip configuration, with or without an integral one-way-check silicone valve.



Catalogue Number	Effective Length (cm)	With/without valve Quantity per box		Available Coated	
VC-11100	4.1	Without valve	30	No	
VC-11110	5.8	With valve	30	No	





VENTS

LivaNova Adult Vents decompress the left side of the heart during on-pump cardiac surgery procedures in adult patients, and are available in a variety of configurations, either in PVC or Silicone.

LivaNova PVC Vents are available in straight, pre-bent or malleable tubing. Depending on the model, some vents are available with a removable guidewire or a malleable stylet with a two-position latching mechanism.

LivaNova Silicone Vents are made of biocompatible, soft silicone tubing. Depending on country registration, an optional phospholipid coating may be available.

Note on ordering: coated products have a "B" before their reference code.

For more information, please contact your local sales representative.

Ventricular Vent Catheters

Malleable Open Blunt Tip, with Internal Stylet





Connector

Tip

Cannula	Catalogue	Tip Perforation	Connection	Effective	Quantity	Available
Size	Number	(cm)	Size	Length (cm)	per box	Coated
18 Fr	VT-46118	3.2	1/4"	38.1	10	No

Ventricular Vent Catheters

PVC Open Blunt Tip, with removeable Stylet with Two Positions Latching Device



Connector



Tip

Cannula Size	Catalogue Number	Tip Perforation (cm)	Connection Size	Effective Length (cm)	Quantity per box	Available Coated
12 Fr	VT-31212	2.5	1/4"	27.2	10	No
18 Fr	VT-53218	5.5	1/4"	36.0	10	No
18 Fr	VT-63218	10.8	1/4"	36.0	10	No

Ventricular Vent Catheters

PVC Open Blunt Tip, without Stylet





9; 86-14900 h III II

Connector

Tip

Cannula	Catalogue	Tip Perforation	Connection	Effective	Quantity	Available
Size	Number	(cm)	Size	Length (cm)	per box	Coated
16 Fr	VT-92116	2.5	1/4"	43.0	10	No

Ventricular Vent Catheters

PVC Straight, Bullet Tip, with Guidewire Stylet





100			***************************************

Cannula Size	Straight with Guidewire Stylet	Tip Perforation (cm)	Connection Size	Effective Length (cm)	Quantity per box	Available Coated
10 Fr	VT-84410	2	1/4"	31.8	10	No
13 Fr	VT-84413	3.8	1/4"	31.8	10	No

Ventricular Vent Catheters

Catalogue Number

VT-83116

PVC Bullet Tip, without Stylet

Cannula

Size

16 Fr







Tip Perforation

(cm)

5.5

Connector

Quantity per box Effective Length (cm) Available Coated No 10

Connection

Size

1/4"

38.0

Ventricular Vent Catheters

PVC Bullet Tip, without Stylet with venting luer lock





Connector

- 11

Cannula Size	Catalogue Number	Tip Perforation (cm)	Connection Size	Effective Length (cm)	Quantity per box	Available Coated
16 Fr	VT-89616	5.5	1/4"	38.0	10	No
20 Fr	VT-89620	7.0	1/4"	38.0	10	No

Ventricular Vent Catheters

PVC Bullet Tip, with Guidewire Stylet







Connector

Tip

Cannula Size	Catalogue Number	Tip Perforation (cm)	Connection Size	Effective Length (cm)	Quantity per box	Available Coated
16 Fr	VT-89416	5.5	1/4"	38.0	10	No
18 Fr	VT-89418	7.0	1/4"	38.0	10	No
20 Fr	VT-89420	7.0	1/4"	38.0	10	No

Ventricular Vent Catheters

Silicon Bullet Tip, with Guidewire Stylet

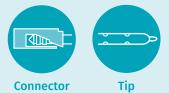


Cannula Size	Catalogue Number	Tip Perforation (cm)	Connection Size	Effective Length (cm)	Quantity per box	Available Coated
16 Fr	VT-57316	7.0	1/4"	38.0	10	No
20 Fr	VT-57320	7.0	1/4"	38.0	10	No

Ventricular Pre-bent Left Atrium Catheters

PVC Bullet Tip, with Stylet





Cannula	Catalogue	Tip Perforation	Connection	Effective	Quantity	Available Coated
Size	Number	(cm)	Size	Length (cm)	per box	
19 Fr	W420-62	11.5	1/4"	30	10	Depends on Country Registration

Ventricular Pre-bent Left Ventricle Catheters

PVC Bullet Tip, with Stylet

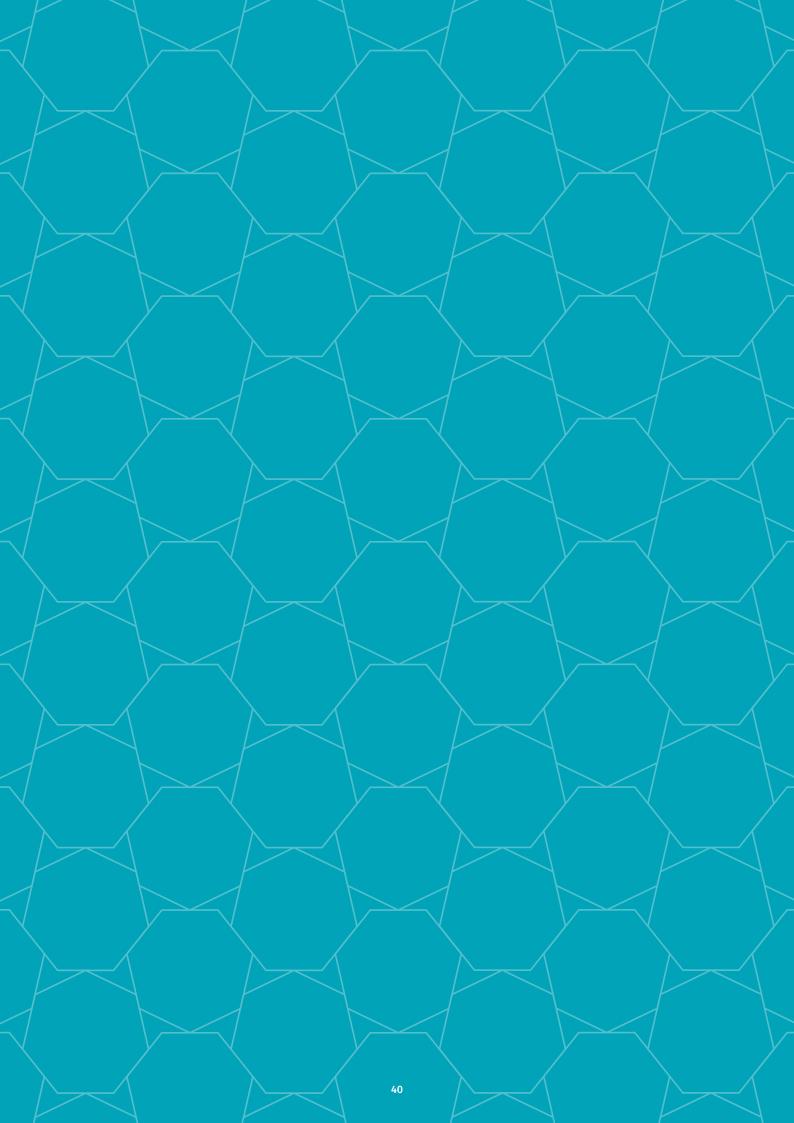


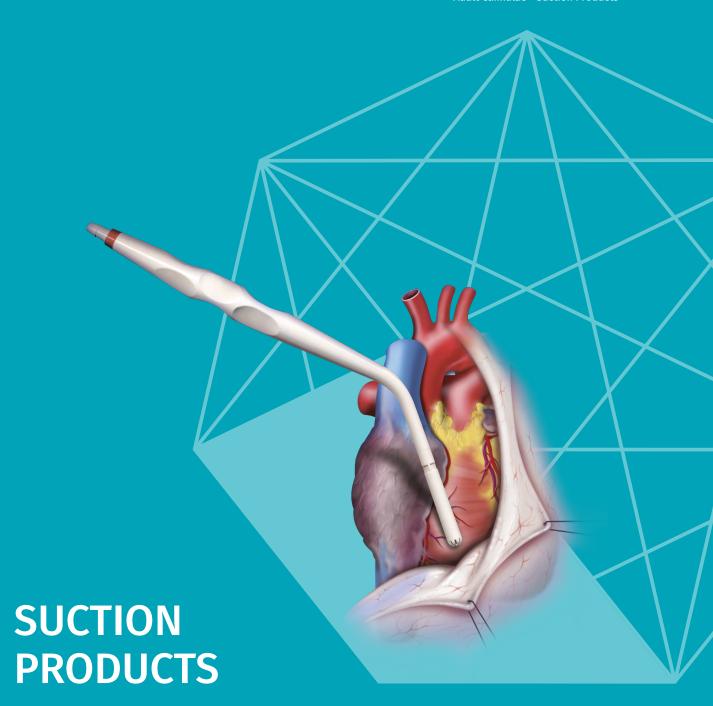
Cannula	Catalogue	Tip Perforation	Connection	Effective	Quantity	Available Coated
Size	Number	(cm)	Size	Length (cm)	per box	
19 Fr	W410-62	7.5	1/4"	30	10	Depends on Country Registration

Aortic Root Aspirating Needle



Model	Catalogue	Needle	Effective	Needle	Quantity	Available
	Number	Length (mm)	Length (cm)	Size	per box	Coated
Standard	AX-30321	14	5.1	16 Ga	20	No





LivaNova Adult Suction Products ensure better visualization of the surgical field and include suction wands with rigid, flexible and low profile tips, as well as a variety of intra-cardiac sumps and suckers.

Suction Wands

LivaNova Rigid- and Flex-Tip Suction Wands are designed to remove excess fluid from the surgical field. They are made of metal suction tubes with plastic handles.

The Low Profile Suction Wand has a malleable low-profile metal suction tube with a plastic handle, pre-attached tubing and clamp, and terminates with a slip-on 1/4" connector. Depending on country registration, an optional phospholipid coating may be available.

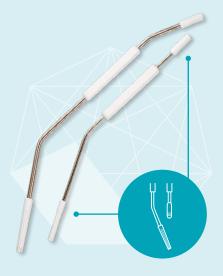
Note on ordering: coated products have a "B" before their reference code.

For more information, please contact your local sales representative.

Rigid Fluted Tip Suction Wand

with Metal Shaft and Plastic Handle

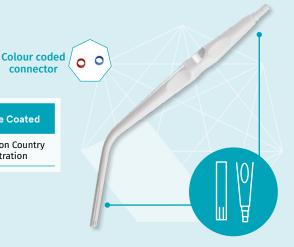
Cannula Tip Size	Catalogue Number	Slip Connector	Quantity per box	Available Coated
12.8 Fr	SU-10101	1/4"	10	No
21.7 Fr	SU-12202	1/4"	10	No



Rigid Fluted Tip Suction Wand

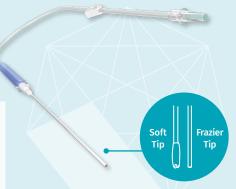
with Plastic Handle

Cannula	Catalogue	Barbed	Quantity	Available Coated
Tip Size	Number	Connector	per box	
21 Fr	S351-70	1/4"	10	Depends on Country Registration



Low Profile Suction Wand

Model	Catalogue Number	Slip Connector	Quantity per box	Available Coated
Frazier Tip	SU-26702	1/4"	10	No
Soft Tip	SU-22702	1/4"	10	No



Sumps

LivaNova Suckers and Sumps are designed to remove excess fluid from the surgical field. They are available with flexible or malleable tubing.

ATRA Sump offers a unique, atraumatic, weighted tip, designed with safety in mind.

Flexible and Malleable Sucker

with Fluted Tip







Connector

Tip

Cannula	Flexible	Malleable	Connection	Effective	Quantity	Available
Tip Size	Tubing	Tubing	Size	Length (cm)	per box	Coated
21.7 Fr	SU-12402	SU-12502	1/4"	36.8	10	No

Flexible and Malleable Sump

with Wire-wound Tip







Connector

Tip

Model	Catalogue Number	Connection Size	Effective Length (cm)	Quantity per box	Available Coated
Flexible Tubing	SU-20601	1/8"	36.8	10	No
Flexible Tubing	SU-20602	1/4"	38	10	No
Malleable Tubing	SU-20802	1/4"	41.9	10	No

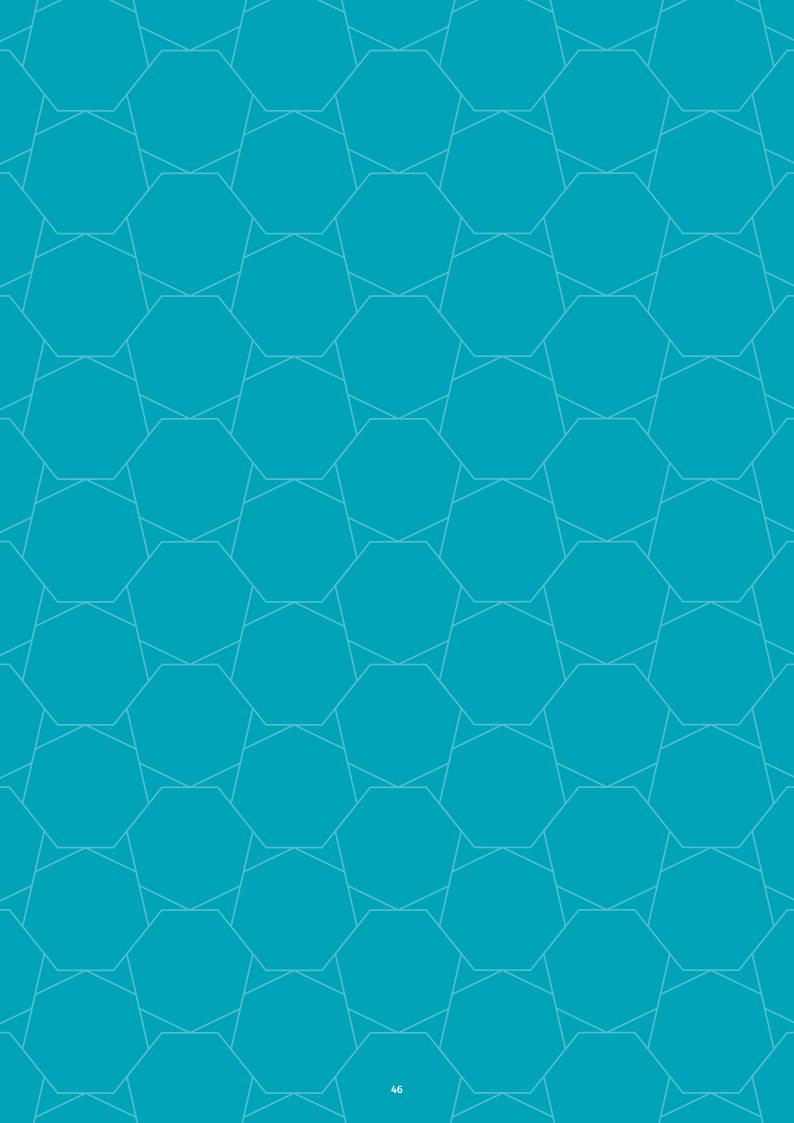
$\pmb{\mathsf{ATRASump}^{\scriptscriptstyle\mathsf{TM}}}$





Connector

Model	Catalogue Number	Connection Size	Effective Length (cm)	Quantity per box	Available Coated
Flexible Tubing	SU-29602	1/4"	38	10	No





LivaNova Adult Beating Heart Products ensure better visualization of the surgical anastomosis in combination with efficient tissue humidification. They are available in two main configurations.

Blower/Mister

LivaNova Blower/Mister, with a plastic malleable wand, is available with easy-grip plastic handle. The malleable plastic wand provides flexibility to position the Blower/Mister in the surgical field. The pre-assembled administration set facilitates rapid and effortless set-up.

Blower/Mister

with Handle

Connecting Tubing Length 120 in / 300 cm



Model	Catalogue Number	Malleable Shaft Length	
With Handle	MT-11210	5.5 in / 14 cm	

Each Mister is individually packaged in a double peel pack with 5 sterile Blowers/Misters per box.

Blower/Mister II

LivaNova Blower/Mister II is available with an easy-grip plastic handle, and a malleable metal wand, which provide greater flexibility to position the Blower/Mister II in the surgical field. The pre-assembled administration set facilitates rapid and effortless set-up.

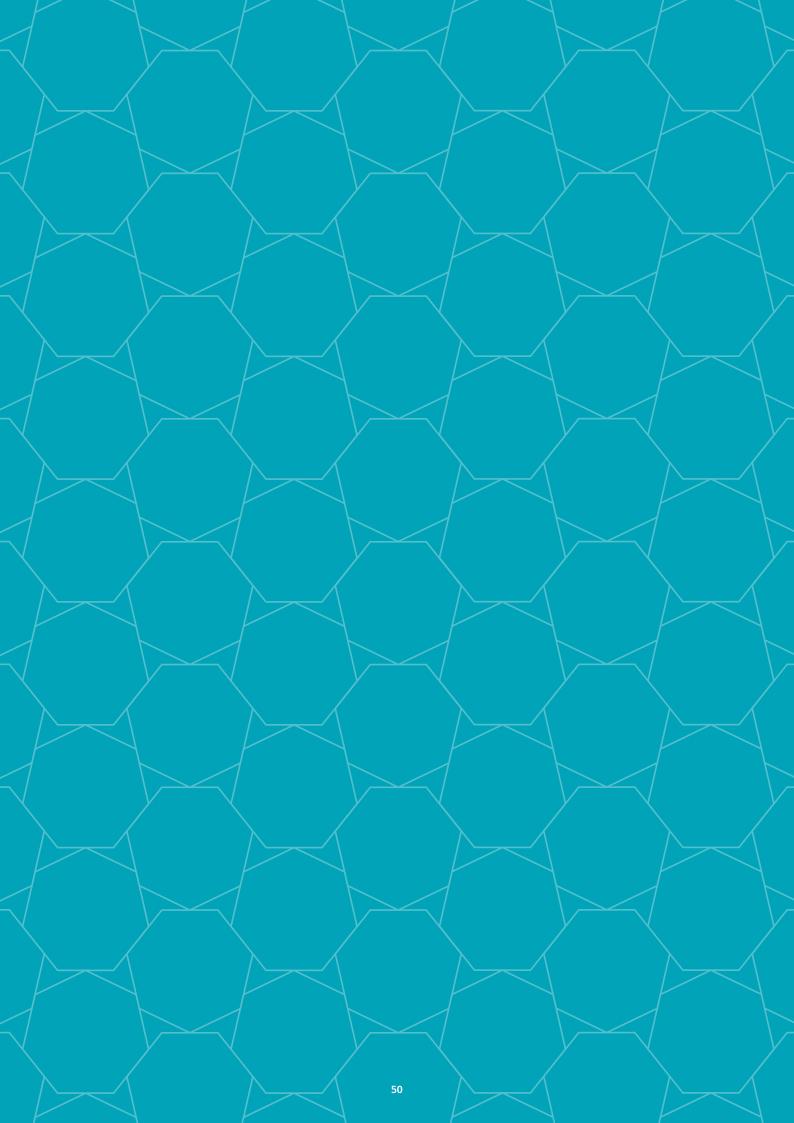
Blower/Mister II

Connecting Tubing Length 120 in / 300 cm



Catalogue Number	Malleable Shaft Length
MT-22210	6 in / 15.2 cm

 ${\it Each Mister is individually packaged in a double peel pack with 5 sterile blowers/misters per box.}$





LivaNova Accessories include porous vent plugs, vented connector caps, rapid prime sets, tubing organizers, tourniquets and pressure monitor lines.

Accessories

Porous Vent Plugs

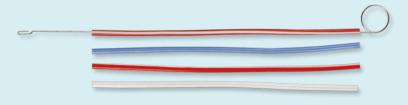


Catalogue Number	Size	
AX-10100	1/4 in	
AX-10120	3/8 in	

Each vent plug is individually packaged in a peel pack with 20 sterile vent plugs per box.

Cannulation Tourniquet Sets

All Tubes with X-ray Detectable Stripe

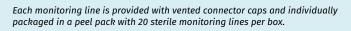


Catalogue Number	Description	Tube Length
TS-10130	One snare, six tubes: Two blue, one red and three clear tubes	5 in / 12.5 cm
TS-10262	Two snares, eight tubes: One red, two blue and five clear	5 in / 12.5 cm
TS-10010	One snare, two tubes: One red, one blue	7 in / 17.5 cm
TS-10066	One snare, three tubes: Three clear	7 in / 17.5 cm
TS-10020	One snare, five tubes: One blue, one red and three clear	7 in / 17.5 cm
TS-10061	Two snares, eight tubes: Two blue, two red and four clear	7 in / 17.5 cm
TS-10050	Two snares, eight tubes: Two blue, four red and two clear	7 in / 17.5 cm
TS-10040	One snare, five tubes: Five red	7 in / 17.5 cm

Each set is individually packaged in a peel pack with 20 sterile sets per box.

Pressure Monitoring Lines

Catalogue Number	Luers	Effective Length (cm)	
AB1521	Male/Male	30	
AB1504	Male/Female	185	





Rapid Prime Sets

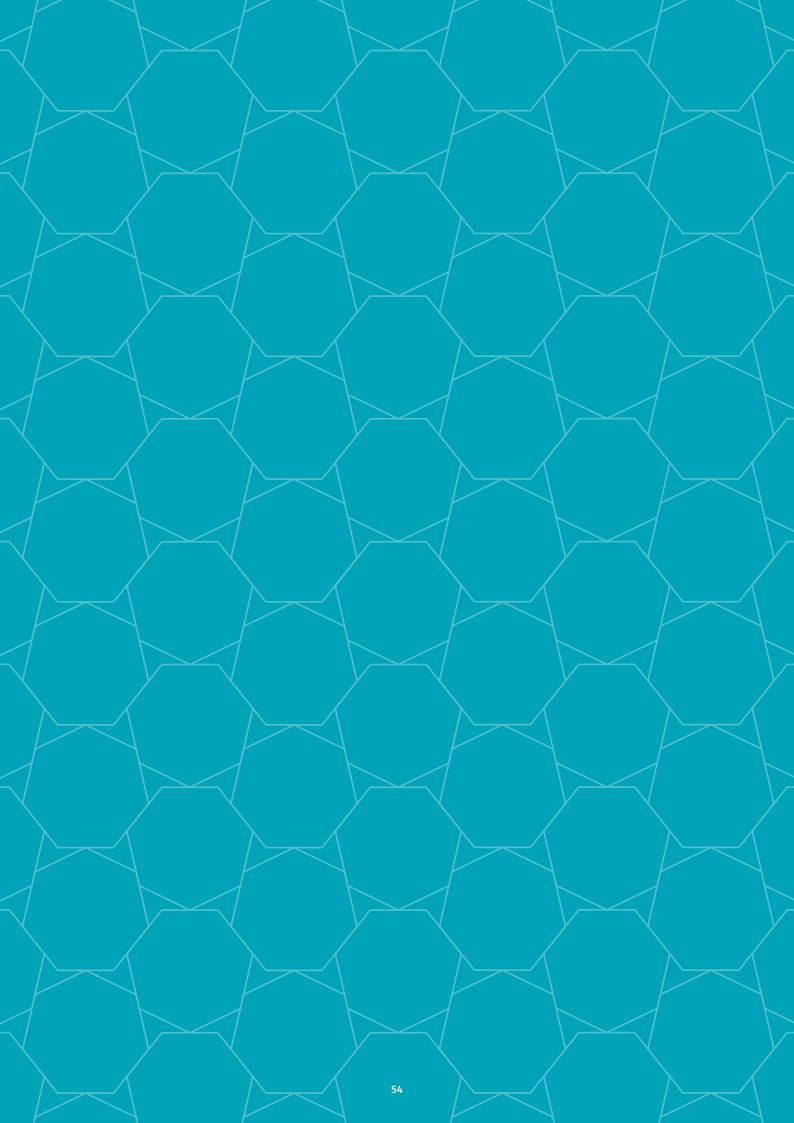
Catalogue Number	Description	Total Length
AB1534	Rapid Prime Set with rotating male luer adapter	40 cm
AB1533	Rapid Prime Set without rotating male luer adapter	35 cm



Tubing Organizer

Catalogue Number	Description	Available Tubing Slots	
C21120	Perfusion Tubing Organizer	For 10 Tubes: 1 ea 3/16, 6 ea 1/4, 2 ea 3/8, 1 ea 1/2	

Each organizer is individually packaged.





LivaNova Adult Minimally Invasive Cardiac Surgery Cannulae are specifically designed to meet diverse minimally invasive and femoral approaches in adult patients where ease of insertion, better surgical view and good hemodynamics are paramount for improving patient outcomes.

Bi-FlowFemoral Arterial Cannulae

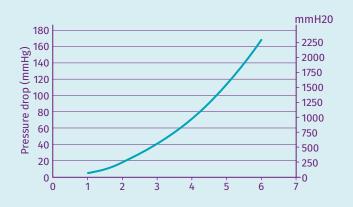
LivaNova Bi-Flow Femoral Arterial Cannula is the only bidirectional arterial cannula in the market designed to prevent leg ischemia in all procedures requiring femoral cannulation, such as long term procedures, minimally invasive cardiac surgery, re-do cardiac surgery and other complex cardiac surgery procedures.²

Perfusing the leg is a clinical need since inadequate limb perfusion can lead to limb ischemia that can increase morbidity, mortality and hospital stay.³

Bi-Flow is unique in the market, provides simultaneous systemic and distal perfusion to the leg thanks to its patented design that incorporates a unique elbow and downstream perfusion channel.

The cannula is easy to insert and remove and allows for safe, easy and reproducible procedures.²

Bi-Flow Femoral Arterial Cannula





Reference	Outer	Outer	Effective	Connection	Quantity	Available Coated
Number	Diameter (Fr)	Diameter (mm)	Length (cm)	Size	per box	
203-019	19 Fr	6.33	26.7	3/8"	5	No

Kit includes:

- Dilators (12, 19 Fr),
- Needle 18 Ga,
- Scalpel,
- Syringe 5 ml,

- Guidewire (100 cm, 0.035"),
- · Cannula Introducer,
- Suture ring

^{2.} Marasco et al. Innovations (Phila). 2018 Mar/Apr;13(2):97-103

^{3.} Bonicolini et al. Limb ischemia in peripheral veno-arterial extracorporeal membrane oxygenation: a narrative review of incidence, prevention, monitoring, and treatment. Critical Care (2019) 23:266

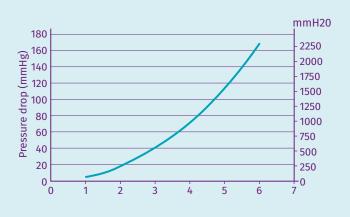
Bi-Flow ECMO Femoral Arterial Cannula

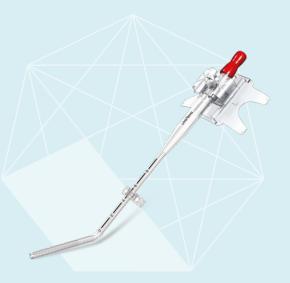
LivaNova Bi-Flow ECMO Femoral Arterial Cannula is the ECMO version of the Bi-Flow cannula, it is Phisio PC coated with no DEHP PVC to improve biocompatibility and it is validated up to 29 days.

The Phisio coating improves the blood compatibility of the device by reducing platelet adhesion on the coated surfaces.^{4,5}

Bi-Flow ECMO and its fixation device are easy to use. The unique fixation device is designed to ensure that Bi-Flow ECMO remains correctly positioned for the duration of the procedure.

Bi-Flow ECMO Femoral Arterial Cannula





Reference	Outer	Outer	Effective	Connection	Quantity	Available Coated
Number	Diameter (Fr)	Diameter (mm)	Length (cm)	Size	per box	
303-019	19 Fr	6.33	26.7	3/8"	5	Yes

Kit includes:

- Dilators (12, 19 Fr),
- Needle 18 Ga,
- Scalpel,
- Syringe 5 ml,

- Guidewire (100 cm, 0.035"),
- Cannula Introducer,
- Suture ring
- Fixation Device

^{4.} De Somer F, Van Belleghem Y, Caes F, Francois K, Van Overbeke H, Arnout J et al. Tissue factor as the main activator of the coagulation system during cardiopulmonary bypass. J Thorac Cardiovasc Surg 2002;123:951–8

^{5.} N Sohn, J Marcoux,T Mycyk, J Krahn and QH Meng1 The impact of different biocompatible coated cardiopulmonary bypass circuits on inflammatory response and oxidative stress.

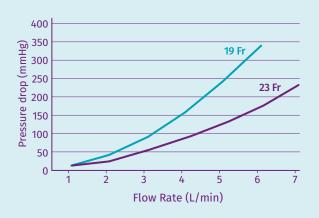
Easy Flow Arterial Cannulae

LivaNova Easy Flow Arterial Cannulae are designed for safe and reproducible direct aortic cannulation, with a malleable stylet able to help cannula introduction through lateral thoracotomy.

The configuration of the dispersion tip reduces shear stress on the aortic wall and risks of aortic plaque dislodgment. Progressive cannula stiffness, while pushing the introducer, facilitates remote insertion.

Available in the femoral configuration with a dedicated kit for Seldinger insertion.

Easy Flow Arterial Cannula





Reference Number	Outer Diameter (Fr)	Outer Diameter (mm)	Effective Length (cm)	TIP	Connection Size	Quantity per box	Available Coated
103-200	19 Fr	6.3	40.75	Dispersion Flow	3/8" barbed connector	5	No
103-300	23 Fr	7.7	40.75	Dispersion Flow	3/8" barbed connector	5	No

Easy Flow DUO Femoral Arterial Cannulae

The EasyFlow DUO is a femoral arterial cannula featuring a dispersion tip for a more gentle flow in the femoral artery. The obturator allows bloodless insertion in the arterial vessel. Available in the femoral configuration with a dedicated kit for Seldinger insertion.

Easy Flow DUO Arterial Femoral Cannula





Reference Number	Outer Diameter (Fr)	Outer Diameter (mm)	Effective Length (cm)	Tip	Connection Size	Seldinger Kit	Quantity per box	Available Coated
103-210	19 Fr	6.3	40.75	Dispersion Flow	3/8"	yes	5	No
103-310	23 Fr	7.7	40.75	Dispersion Flow	3/8"	yes	5	No

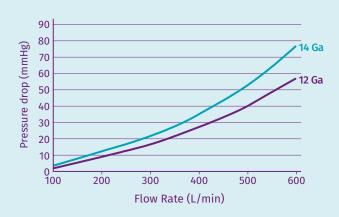
Kit includes:

- 18 gauge needle
- Scalpel blade
- 0.035 x 100 cm guidewire
- Dilators: 12 Fr. and 20 Fr.

Aortic Root Long Needle

LivaNova Aortic Root Long Needle is specifically designed for minimally invasive cardiac surgery in lateral thoracotomy, particularly mitral valve procedures. It is longer than a conventional aortic root (35 cm), allowing it to be positioned in lateral thoracotomy.

Aortic Root Long Needle





Cannula Tip Outer Diameter	Insertion Needle	Catalogue Number	Effective Length (cm)	Quantity per box	Available Coated
12 Ga (9 Fr)	14 Ga - Green	AR-17012	31.8	10	No
14 Ga (7 Fr)	16 Ga - White	AR-17014	31.8	10	No

RAP

Femoral Venous Cannulae

LivaNova RAP Femoral Venous Cannulae are designed for improved venous drainage, with a dual stage tip which drains from superior and inferior vena cava. Available in two sizes, 22/22 Fr and 23/25 Fr, with full-flow drainage capability. A high-quality soft introducer features a smooth transition of the cannula to improve insertion and reduce vascular damage.

RAP Femoral Venous Cannulae





Reference Number	Outer Diameter (Fr)	Outer Diameter (mm)	Effective Length (cm)	Connection Size	Quantity per box	Available Coated
200-100	22 Fr. Distal / 22 Fr. Proximal	7.3 / 7.3	68.7	3/8" and 1/2"	5	No
200-150	23 Fr. Distal / 25 Fr. Proximal	7.7 / 8.3	72.5	3/8" and 1/2"	5	No

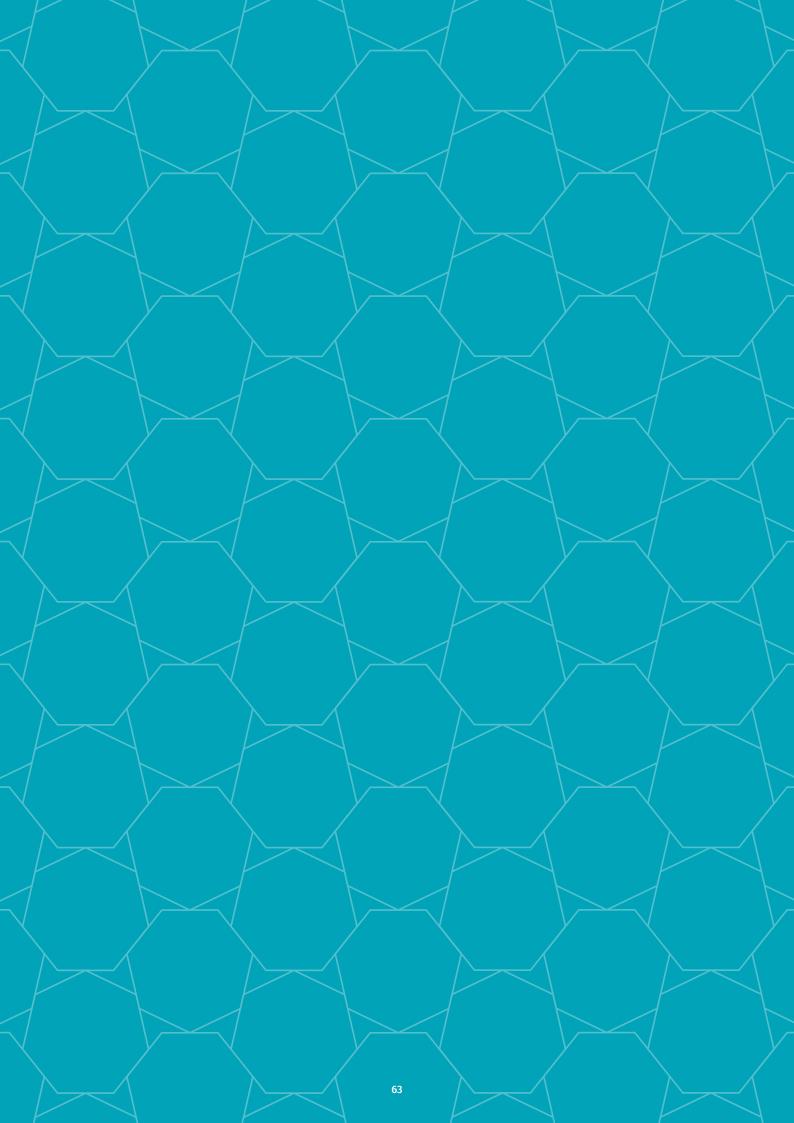
Vascular Dilator Kit

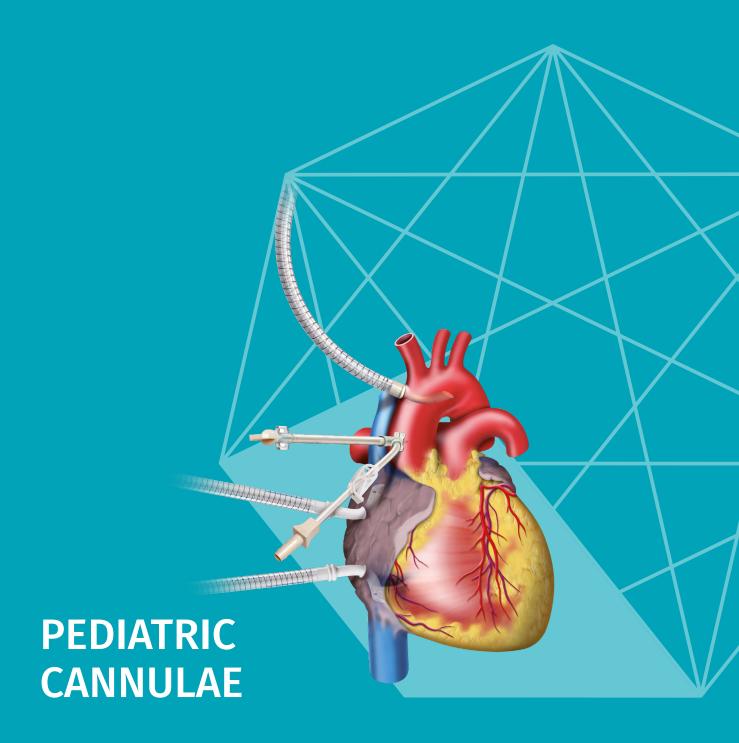
LivaNova Vascular Dilator Kit for percutaneous cannulation technique, includes an 18 Gauge needle, a 0.035 x 180 cm guidewire, a scalpel blade and 8, 12, 16, 20 and 24 Fr dilators.



Vascular Dilator Kit

Catalogue Number	Dilator's Diameter (Fr)	Scalpel	Guidewire	Needle	Quantity per box
200-120	8, 12, 16, 20, 24 Fr	Yes	0.035" x 180 cm	18 Ga	1





LivaNova Pediatric Cannulae portfolio comprehend aortic, venous and cardioplegia cannulae, as well as vents, suctions wands and sumps, designed to treat children and small adults.

Depending on country registration, an optional phospholipid surface treatment may be available.

Note on ordering: coated products have a "B" before their reference code. Please, contact your local sales representative.

Pediatric Arterial Cannulae

LivaNova Pediatric Arterial Cannulae are designed for direct cannulation of pediatric patients and are available with curved tips and with wire-reinforced tubing. Tubings are designed in clear and transparent PVC which maintains elasticity during hypothermia and optimize flow characteristics.

LivaNova 135° Curved Tip Arterial Cannulae allow for a high flow rate and low resistance, as well as easy handling during insertion. They are available with wire reinforced tubing.

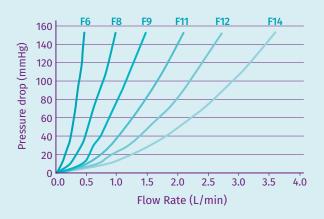
Depending on country registration, an optional phospholipid coating may be available.

Note on ordering: coated products have a "B" before their reference code.

Please, contact your local sales representative.

135 Curved Tip

135° Curved Tip with Suture Collar, Wire-reinforced Tubing, No Connector.

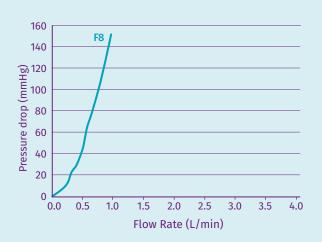




Cannula Tip Size	Reference Number	Connection Acceptance	Effective Length (cm)	Quantity per box	Available Coated
6 Fr/2.0 mm	A272-20N	3/16" - 1/4"	22	10	Depends on Country Registration
8 Fr/2.6 mm	A272-26N	3/16" - 1/4"	22	10	Depends on Country Registration
9 Fr/3.0 mm	A272-30N	3/16" - 1/4"	22	10	Depends on Country Registration
11 Fr/3.5 mm	A272-35N	3/16" - 1/4"	22	10	Depends on Country Registration
12 Fr/3.8 mm	A272-40N	3/16" - 1/4"	22	10	Depends on Country Registration
14 Fr/4.5 mm	A272-45N	3/16" - 1/4"	22	10	Depends on Country Registration

135 Curved Tip

135° Curved Tip with Suture Collar and Suture Ring, Wire-reinforced Tubing, No Connector.





Cannula	Reference	Connection	Effective	Quantity	Available Coated
Tip Size	Number	Acceptance	Length (cm)	per box	
8 Fr/2.6 mm	A900-98	3/16" - 1/4"	22	10	Depends on Country Registration

Pediatric Venous Return Cannulae

LivaNova Pediatric Venous Return Cannulae are designed for venous direct cannulation of pediatric patients and are available with a single stage tip design. Tubings are designed in clear and transparent PVC which maintains elasticity during hypothermia and optimize flow characteristics. They feature a straight or 90° angle tip which ensures optimal venous drainage.

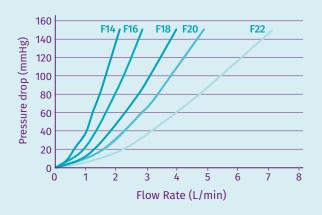
Depending on country registration, an optional phospholipid coating may be available.

Note on ordering: coated products have a "B" before their reference code.

Please, contact your local sales representative.

Single Stage Bullet Tip

Single Stage, Straight Bullet Tip, Wire-reinforced Tubing.

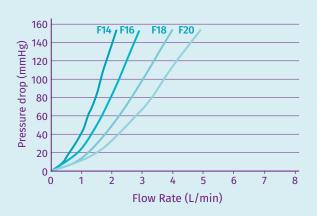




Cannula Tip Size	Reference Number	Connection Acceptance	Effective Length (cm)	Quantity per box	Available Coated
14 Fr	V122-14	1/4"	30	10	Depends on Country Registration
16 Fr	V122-16	1/4"	30	10	Depends on Country Registration
18 Fr	V122-18	1/4"	30	10	Depends on Country Registration
20 Fr	V122-20	1/4"	30	10	Depends on Country Registration
22 Fr	V122-22	1/4"	30	10	Depends on Country Registration

Single Stage 90 Tip

Single Stage, 90° Tip, with Suture Collar, Wire-reinforced Tubing.

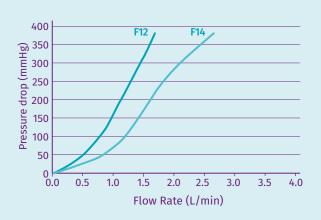




Cannula Tip Size	Reference Number	Connection Acceptance	Effective Length (cm)	Quantity per box	Available Coated
10 Fr	V132-10	3/16"-1/4"	25	10	Depends on Country Registration
12 Fr	V132-12	3/16"-1/4"	26	10	Depends on Country Registration
14 Fr	V132-14	1/4"	26	10	Depends on Country Registration
16 Fr	V132-16	1/4"	26	10	Depends on Country Registration
18 Fr	V132-18	1/4"	27	10	Depends on Country Registration
20 Fr	V132-20	1/4"	27	10	Depends on Country Registration

Single Stage 90 Tip

Single Stage, 90° Tip, without Suture Collar, Wire-reinforced Tubing.





Cannula Tip Size	Reference Number	Connection Acceptance	Effective Length (cm)	Quantity per box	Available Coated
12 Fr	V900-142	3/16"-1/4"	26	10	Depends on Country Registration
14 Fr	V900-143	3/16"-1/4"	26	10	Depends on Country Registration

Pediatric Suction Products

LivaNova Pediatric Suction Products comprehend Small size Suction Wands with fluted tip design and small tip suckers with ergonomic plastic grip or rigid tubing

Depending on country registration, an optional phospholipid coating may be available.

Note on ordering: coated products have a "B" before their reference code.

Please, contact your local sales representative.

Rigid Fluted Tip Suction Wand

with Plastic Handle



Cannula	Reference	Connection	Quantity	Available Coated
Tip Size	Number	Acceptance	per box	
15 Fr	S353-50	1/4"	10	Depends on Country Registration

Rigid Fluted Tip Suction Wand

with Metal Handle



Cannula	Reference	Connection	Quantity	Available Coated
Tip Size	Number	Acceptance	per box	
15 Fr	S361-50	1/4"	10	Depends on Country Registration

Codes Index

Code Page	Code Page	Code Page	Code Page
103-20058	CA-3101032	RA24-1SB11	SU-10101 42
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103-31059	CA-4003032	RCM-14115 29	SU-12502 44
200-10061	CA-8001030	RCM-1431529	SU-20601 44
200-12062	CA-8101030	RCM-1481529	SU-2060244
200-15061	CP-2100428	RDS-6103416	SU-2080244
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A272-35N65	CP-2200628	RDS-61140 16	TS-1004052
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A282-70A7	P612-4027	RTS-1102915	TS-1006652
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AR-11012 24	R501-2025	RV-4002618	V122-2067
AR-11014 24	R501-2625	RV-4002818	V122-2267
AR-11016 24	R502-1525	RV-4003018	V122-2419
AR-11018 24	R502-2025	RV-4003218	V122-2819
AR-11112 24	R502-2625	RV-4003418	V122-3219
AR-11114 24	RA18-1BB10	RV-4003618	V122-3419
AR-11116 24	RA18-1BC10	RV-4053618	V122-3619
AR-17012 60	RA18-1BP10	RV-4101820	V132-1068
AR-1701460	RA18-1SB11	RV-4102020	V132-1268
AX-1010052	RA20-1BB10	RV-4102220	V132-1468
AX-10120 52	RA20-1BP10	RV-4102420	V132-1668
AX-3032139	RA20-1SB11	RV-4102620	V132-1868
C2112053	RA20-2BB 9	RV-4102820	V132-2068
CA-1001031	RA20-2BP 9	RV-4103020	V152-3221
CA-1003031	RA22-1BB10	RV-4103220	V152-3621
CA-2001031	RA22-1SB11	RV-4103420	V182-2914
CA-2002031	RA22-1SC11	RV-4103620	V900-0121
CA-2003031	RA22-2BB 9	S351-7042	V900-14269
CA-2007031	RA22-2BP 9	S353-5070	V900-14369
CA-3001032	RA24-1BB10	S361-5070	V900-28417

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VC-11110	. 33
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VT-53218	. 36
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ARTERIAL CANNULAE

INDICATIONS FOR USE/INTENDED PURPOSE

The arterial cannulae are intended to be used as perfusion cannulae to return arterial blood from the extracorporeal circuit to the patient during cardiopulmonary bypass surgery for periods of up to six hours. The devices should be used by qualified and skilled personnel, able to follow the indications and instructions for use contained in the information provided by the manufacturer.

Please contact us through our website (www.sorinmanuals.com) to receive instructions for use containing full prescribing information including indications, contraindications, warnings, precautions and adverse events.

Legal Manufacturer:

Sorin Group Italia S.r.l. Via Statale 12 Nord, 86 41037 Mirandola (MO) ITALY

VENOUS CANNULAE

INDICATIONS FOR USE/INTENDED PURPOSE

The venous cannulae are intended to be used to cannulate the major venous vessels during cardiopulmonary bypass surgery for periods of up to six hours. The devices should be used by qualified and skilled personnel, able to follow the indications and instructions for use contained in the information provided by the manufacturer.

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Legal Manufacturer:

Sorin Group Italia S.r.l. Via Statale 12 Nord, 86 41037 Mirandola (MO) ITALY

CARDIOPLEGIA CANNULAE

INDICATIONS FOR USE/INTENDED PURPOSE

The Aortic root cannulae are intended to cannulate the aortic root for cardioplegic solution delivery into the coronary arteries and for venting of the heart during cardiopulmonary bypass surgery for periods up to six hours. The Aortic root cannulae with pressure line are intended to cannulate the aortic root for cardioplegic solution delivery into the coronary arteries, and for venting of the heart during cardiopulmonary bypass surgery for periods up to six hours. The pressure line allows pressure measurements in the aortic root.

The Coronary perfusion cannulae are intended to individually cannulate the coronary ostia and to selectively deliver cardioplegic solution during cardiopulmonary bypass surgery for periods up to six hours

The devices should be used by qualified and skilled personnel, able to follow the indications and instructions for use contained in the information provided by the manufacturer.

Please contact us through our website (www.sorinmanuals.com) to receive instructions for use containing full prescribing information including indications, contraindications, warnings, precautions and adverse events.

Legal Manufacturer:

Sorin Group Italia S.r.l. Via Statale 12 Nord, 86 41037 Mirandola (MO) ITALY

VENT CANNULAE

INDICATIONS FOR USE/INTENDED PURPOSE

The vent catheters are intended to be used to vent blood of the left heart atrium or the left ventricle during cardiopulmonary surgery for periods of up to six hours. The devices should be used by qualified and skilled personnel, able to follow the indications and instructions for use contained in the information provided by the manufacturer.

Please contact us through our website (www.sorinmanuals.com) to receive instructions for use containing full prescribing information including indications, contraindications, warnings, precautions and adverse events.

Legal Manufacturer:

Sorin Group Italia S.r.l. Via Statale 12 Nord, 86 41037 Mirandola (MO) ITALY

SUCTION PRODUCTS

INDICATIONS FOR USE/INTENDED PURPOSE

Suction Wands and Suction Sumps are intended to be used to remove fluids from the surgical field. All of these devices are intended to be used for 6 hours or less.

The devices should be used by qualified and skilled personnel, able to follow the indications and instructions for use contained in the information provided by the manufacturer.

Please contact us through our website (www.sorinmanuals.com) to receive instructions for use containing full prescribing information including indications, contraindications, warnings, precautions and adverse events.

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BI-FLOW

INDICATIONS FOR USE/INTENDED PURPOSE

BI-FLOW is a single-use STERILE device intended as a femoral perfusion cannula to return arterial blood from the extracorporeal circuit to the patient's systemic circulation and lower limb during cardiopulmonary bypass surgery for periods up to 6 hours.

BI-FLOW ECMO is a single-use STERILE device intended as a femoral perfusion cannula to return arterial blood from the extracorporeal circuit to the patient's systemic circulation and lower limb during extracorporeal life support for periods up to 29 days. The devices should be used by qualified and skilled personnel, able to follow the indications and instructions for use contained in the information provided by the manufacturer.

Please contact us through our website (www.sorinmanuals.com) to receive instructions for use containing full prescribing information including indications, contraindications, warnings, precautions and adverse events.

Legal Manufacturer:

Sorin Group Italia S.r.l. Via Statale 12 Nord, 86 41037 Mirandola (MO) ITALY

EASYFLOW AORTIC CANNULA

INDICATIONS FOR USE/INTENDED PURPOSE

The EasyFlow™ Aortic Cannula is intended for use in the perfusion of the aorta during cardiovascular surgery procedures requiring extracorporeal cardiopulmonary bypass for up to 6 hours.

GENERAL WARNINGS:

This device is only intended to be used by professionally trained personnel. Proper surgical procedures and techniques are necessarily the responsibility of the medical professional. These instructions are furnished for informational purposes only. Each surgeon must evaluate the appropriate use of this device, case by case, based on medical training, experience, and the type of surgical procedure employed.

- For single use and for single patient use only. During use, the device is in contact with human blood, body fluids, liquids or
 gases for the purpose of eventual infusion, administration or introduction into the body and due to its specific design, it
 cannot be fully cleaned and disinfected at the end of use. Therefore, reuse on other patients might cause crosscontamination, infection and sepsis. In addition, reuse increases the probability of product failure (integrity, functionality
 and clinical effectiveness).
- · Do not use this device if package is damaged or opened.
- · Never use a device if it is beyond its expiration date.
- · Do not use this device if it shows signs of damage, e.g., crimps, kinks, or crushed areas.
- This cannula is for short term use only (<6 hours).
- Do not cut or alter the cannula in any way. Cutting the cannula could release particulate matter which may be thrombogenic or embolic and may render the device unusable.
- · Removal should always be done under visualization.
- Handle with care after use as the product may be contaminated with blood and/or body fluids. Dispose of in accordance with applicable regulations in the country of use.
- DO NOT REUSE. DO NOT RESTERILIZE.
- If used on children, pregnant or nursing women, be aware that this device contains di (2-ethylhexyl) phthalate (DEHP) and/ or di-n-hexyl phthalate (DnHP) which are presently classified in the European Union as toxic to reproduction. The amount of phthalate which might be released from the device does not raise specific concerns about the residual risks.

For professional use. Please contact us through our website (www.sorinmanuals.com) to receive instructions for use containing full prescribing information including indications, contraindications, warnings, precautions and adverse events. Consult your labeling.

EASYFLOW DUO AORTIC CANNULA

INDICATIONS FOR USE/INTENDED PURPOSE

The EasyFlow Duo Cannula with guidewire is intended for use with cardiopulmonary bypass as an arterial return or venous drainage cannula for up to 6 hours.

GENERAL WARNINGS:

This device is only intended to be used by professionally trained personnel. Proper surgical procedures and techniques are necessarily the responsibility of the medical professional. These instructions are furnished for informational purposes only. Each surgeon must evaluate the appropriate use of this device, case by case, based on medical training, experience, and the type of surgical procedure employed.

- For single use and for single patient use only. During use, the device is in contact with human blood, body fluids, liquids or gases for the purpose of eventual infusion, administration or introduction into the body and due to its specific design, it cannot be fully cleaned and disinfected at the end of use. Therefore, reuse on other patients might cause cross-contamination, infection and sepsis. In addition, reuse increases the probability of product failure (integrity, functionality and clinical effectiveness).
- · Do not use this device if package is damaged or opened.
- · Never use a device if it is beyond its expiration date.
- · Do not use this device if it shows signs of damage, e.g., crimps, kinks, or crushed areas.
- This cannula is for short term use only (<6 hours).
- Do not cut or alter the cannula in any way. Cutting the cannula could release particulate matter which may be thrombogenic or embolic and may render the device unusable.
- · Removal should always be done under visualization.
- Handle with care after use as the product may be contaminated with blood and/or body fluids. Dispose of in accordance
 with applicable regulations in the country of use.
- DO NOT REUSE. DO NOT RESTERILIZE.
- If used on children, pregnant or nursing women, be aware that this device contains di(2-ethylhexyl) phthalate (DEHP) and/ or di-n-hexyl phthalate (DnHP) which are presently classified in the European Union as toxic to reproduction. The amount of phthalate which might be released from the device does not raise specific concerns about the residual risks

For professional use. Please contact us through our website (www.sorinmanuals.com) to receive instructions for use containing full prescribing information including indications, contraindications, warnings, precautions and adverse events. Consult your labeling.

RAP VENOUS CANNULA

INDICATIONS FOR USE/INTENDED PURPOSE

The Remote Access Perfusion Femoral Venous Cannula is intended for use as a venous drainage cannula during cardiopulmonary bypass for up to 6 hours.

GENERAL WARNINGS:

- This device is only intended to be used by professionally trained personnel. Proper surgical procedures and techniques are
 necessarily the responsibility of the medical professional. These instructions are furnished for informational purposes
 only. Each surgeon must evaluate the appropriate use of this device, case by case, based on medical training, experience,
 and the type of surgical procedure employed.
- For single use and for single patient use only. During use, the device is in contact with human blood, body fluids, liquids or gases for the purpose of eventual infusion, administration or introduction into the body and due to its specific design, it cannot be fully cleaned and disinfected at the end of use. Therefore, reuse on other patients might cause cross-contamination, infection and sepsis. In addition, reuse increases the probability of product failure (integrity, functionality and clinical effectiveness).
- If used on children, pregnant or nursing women, be aware that this device contains di (2-ethylhexyl) phthalate (DEHP) and/ or di-n-hexyl phthalate (DnHP) which are presently classified in the European Union as toxic to reproduction. The amount of phthalate which might be released from the device does not raise specific concerns about the residual risks.
- Do not use this device if package is damaged or opened.
- · Never use a device if it is beyond its expiration date.
- Do not use this device if it shows signs of damage, e.g., crimps, kinks, or crushed areas.
- This cannula is for short term use only (<6 hours).
- Do not cut or alter the cannula in any way. Cutting the cannula could release particulate matter which may be thrombogenic or embolic and may render the device unusable.
- · Ensure that the vessel used is of adequate diameter to allow sufficient insertion of the cannula.
- Removal should always be done under visualization.
- Handle with care after use as the product may be contaminated with blood and/or body fluids.
 Dispose of in accordance with applicable regulations in the country of use.
- DO NOT REUSE. DO NOT RESTERILIZE.

For professional use. Please contact us through our website (www.sorinmanuals.com) to receive instructions for use containing full prescribing information including indications, contraindications, warnings, precautions and adverse events. Consult your labeling.

VASCULAR DILATORS KIT

INDICATIONS FOR USE/INTENDED PURPOSE

The Vascular Dilator Kit is intended for use in surgical procedures to aid in vascular insertion of a catheter or cannula.

CONTRAINDICATIONS:

The guidewire is contraindicated for use in the coronary or cerebral vasculature.

GENERAL WARNINGS:

- This device is only intended to be used by professionally trained personnel. Proper surgical procedures and techniques are
 necessarily the responsibility of the medical professional. These instructions are furnished for informational purposes
 only. Each surgeon must evaluate the appropriate use of this device, case by case, based on medical training, experience,
 and the type of surgical procedure employed.
- For single use and for single patient use only. During use, the device is in contact with human blood, body fluids, liquids or gases for the purpose of eventual infusion, administration or introduction into the body and due to its specific design, it cannot be fully cleaned and disinfected at the end of use. Therefore, reuse on other patients might cause crosscontamination, infection and sepsis. In addition, reuse increases the probability of product failure (integrity, functionality and clinical effectiveness).
- Do not use this device if package is damaged or opened.
- · Never use a device if it is beyond its expiration date.
- · Do not use this device if it shows signs of damage, e.g., crimps, kinks, or crushed areas.
- Handle with care after use as the product may be contaminated with blood and/or body fluids. Dispose of in accordance
 with applicable regulations in the country of use.
- DO NOT REUSE. DO NOT RESTERILIZE.

For professional use. Please contact us through our website (www.sorinmanuals.com) to receive instructions for use containing full prescribing information including indications, contraindications, warnings, precautions and adverse events. Consult your labeling.

PEDIATRIC CANNULAE

INDICATIONS FOR USE/INTENDED PURPOSE

The Pediatric cannulae are intended to be used in both the venous and the arterial line of the extracorportal circuit during cardiopulmonary surgery for periods of up to six hours.

All of the cannulae should be used in combination with medical devices listed in section I (Medical devices for use with the Pediatric Cannulae).

The devices should be used by qualified and skilled personnel, able to follow the indications and instructions for use contained in the information provided by the manufacturer.

Please contact us through our website (www.sorinmanuals.com) to receive instructions for use containing full prescribing information including indications, contraindications, warnings, precautions and adverse events.

Legal Manufacturer:

Sorin Group Italia S.r.l. Via Statale 12 Nord, 86 41037 Mirandola (MO) ITALY

Manufactured by:

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Please always refer to the Instructions For Use (IFU) manual provided with each product for detailed information, warnings, precautions and possible adverse side effects.

Not all products available in all countries, please consult local label.

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