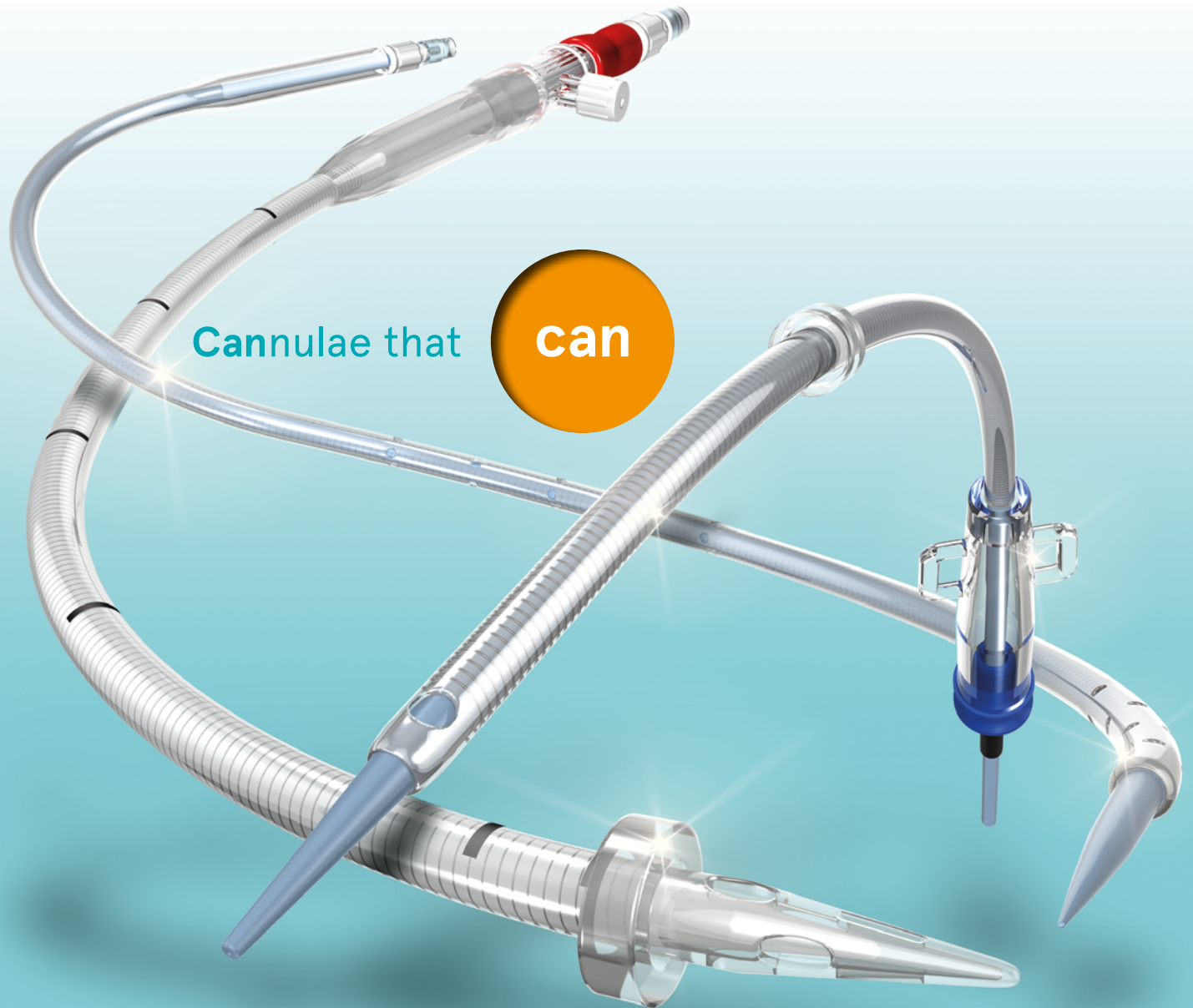


MICS & FEMORAL CANNULAE



High performance cannulae for direct and femoral cannulation, either in conventional or minimally invasive cardiac surgery



1. Pfeiffer et al. *Interactive Cardiovascular and Thoracic Surgery* 2015; 20:863-5

MICS and Femoral Cannulae

High performance cannulae specifically developed to meet diverse minimally invasive and femoral approaches where ease of insertion, clear surgical view and good hemodynamics are paramount for improving patient outcomes.

Easy and bloodless,
direct or
femoral, arterial
cannulation

High venous
drainage through
both direct and
femoral access

can

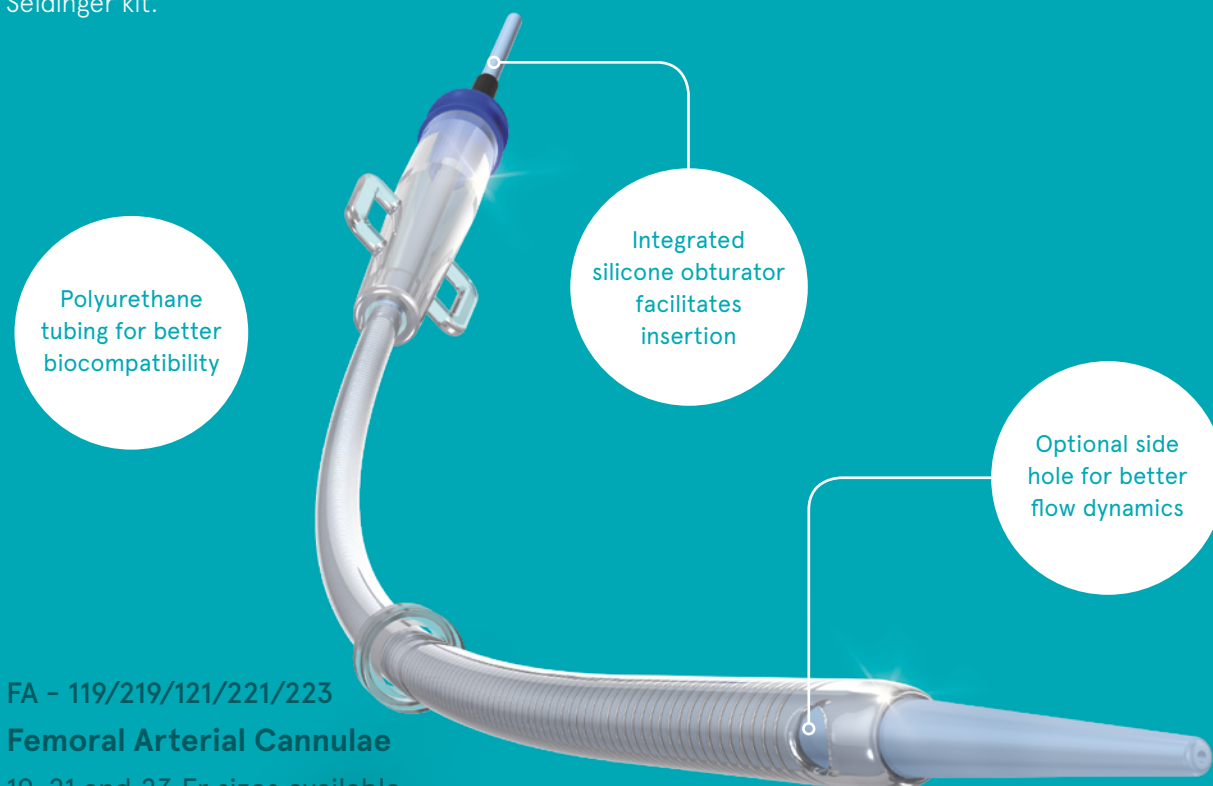
expand performance
standards

Comprehensive
portfolio to manage
cardioplegia,
venting and suction

Femoral Arterial Cannulae

The Femoral Arterial Cannulae feature a closely wound, thin walled, flat wire-reinforced polyurethane tubing with movable suture ring for secure fixation and optional side holes for lateral dispersion.

Tube wall thickness has been reduced to a minimum to obtain the highest flow with the smallest anatomical footprint. These cannulae can be inserted either surgically or percutaneously, with the use of the dedicated Seldinger kit.

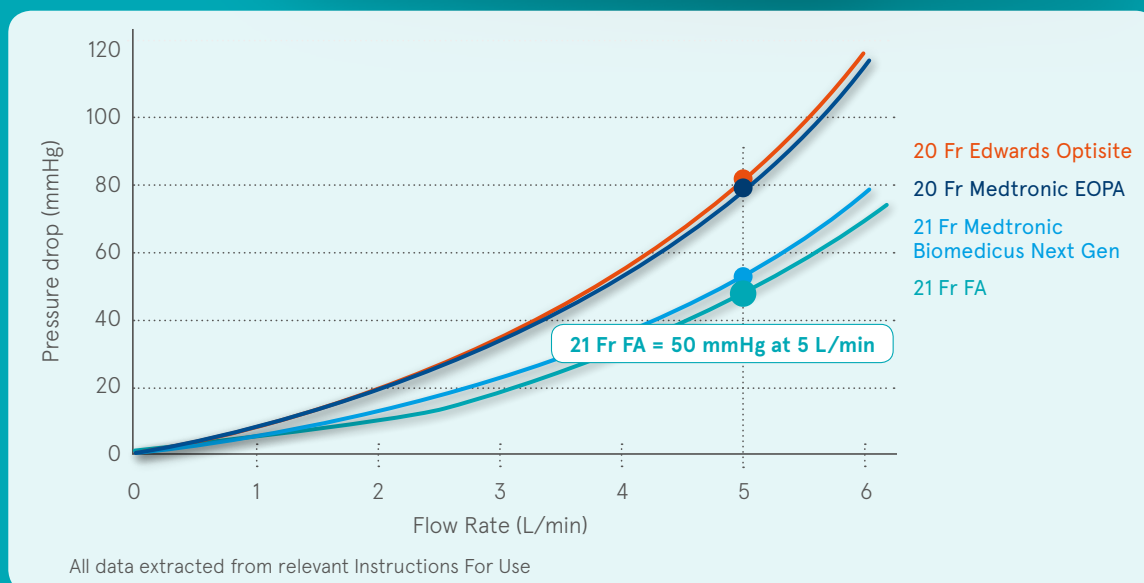


FA - 119/219/121/221/223

Femoral Arterial Cannulae

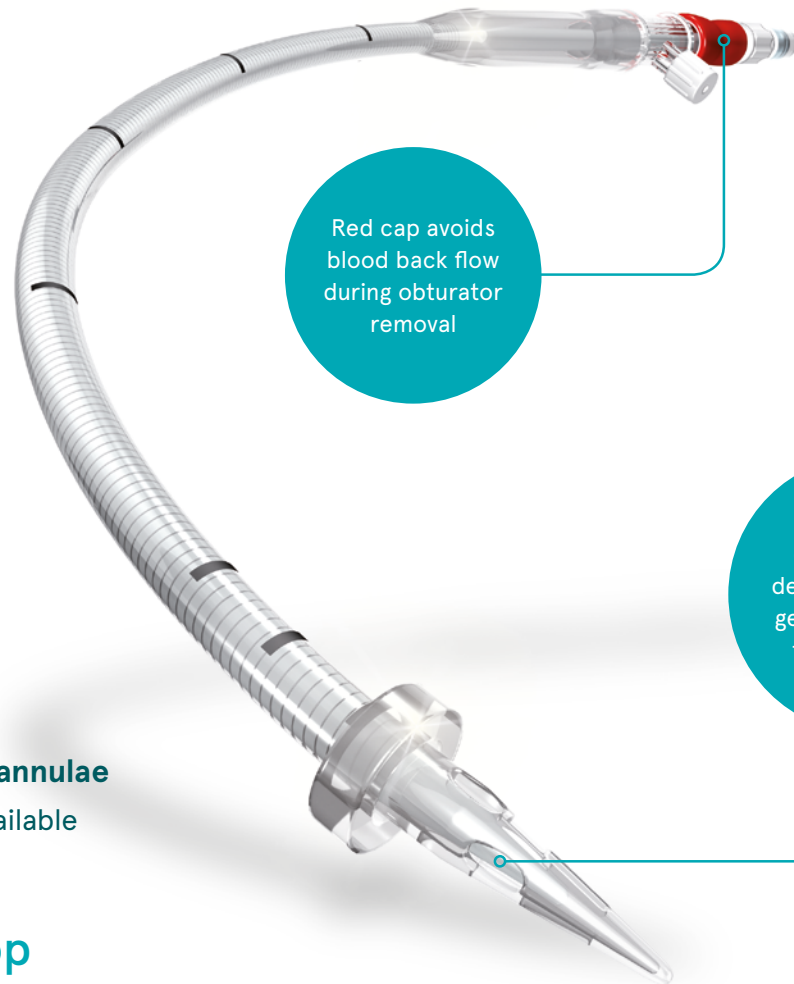
19, 21 and 23 Fr sizes available

Pressure Drop



EasyFlow DUO 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. EasyFlow DUO is provided with a dedicated Seldinger kit for percutaneous cannula insertion.



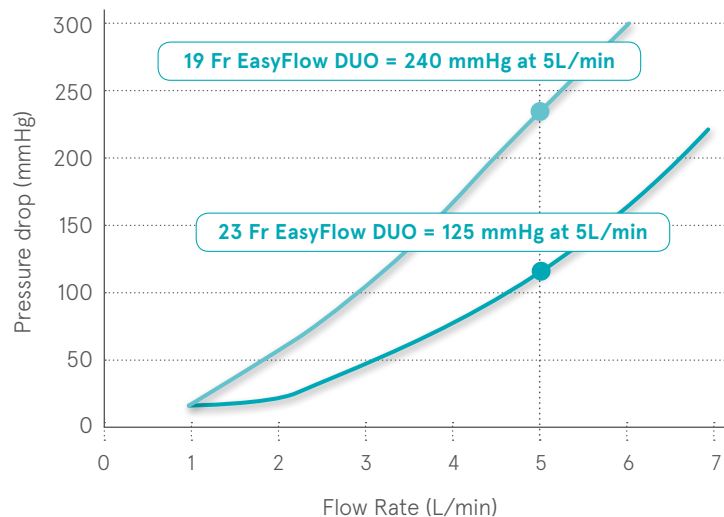
103-210/103-310

EasyFlow DUO

Femoral Arterial Cannulae

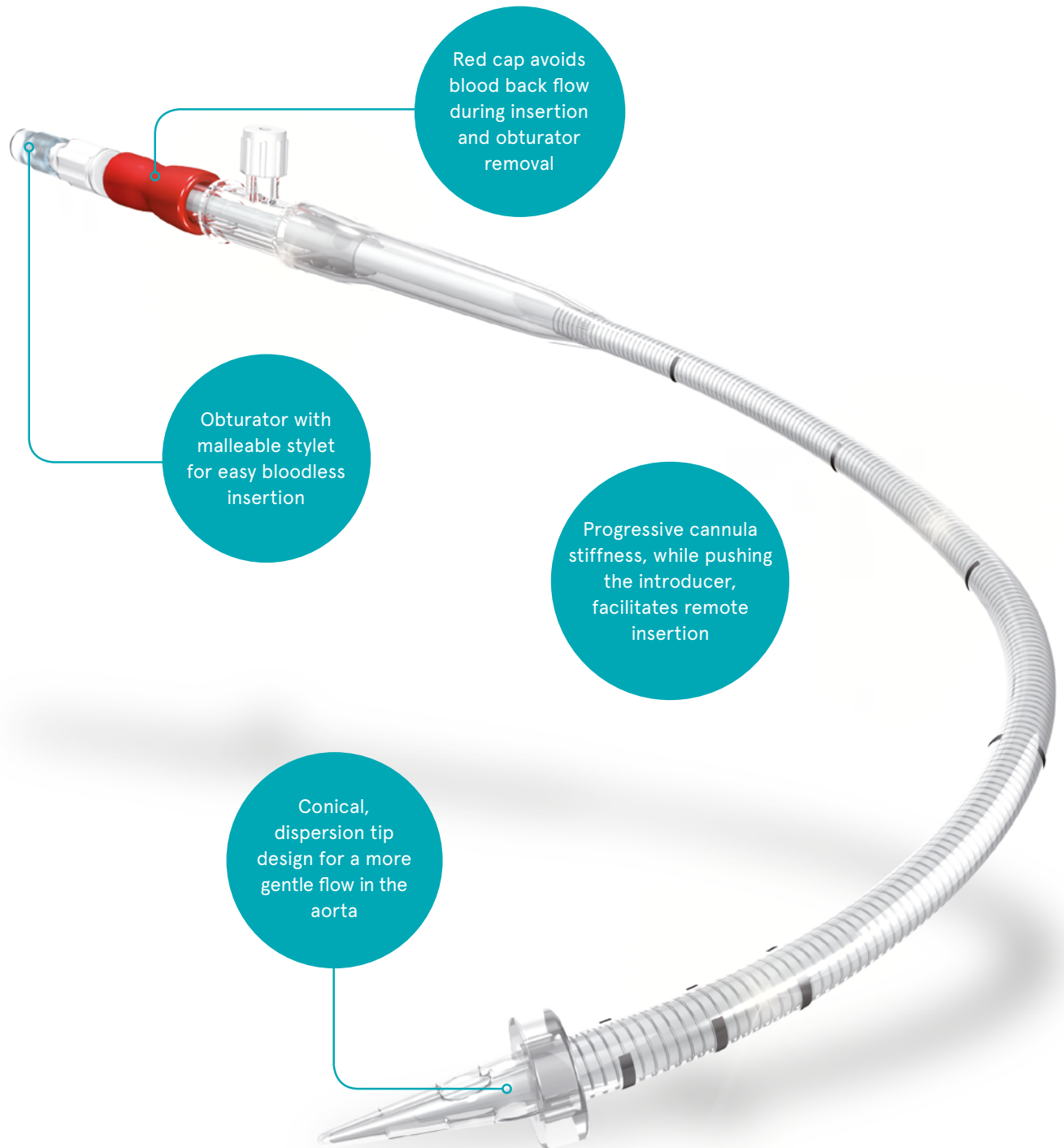
19 and 23 Fr sizes available

Pressure Drop



EasyFlow Cannulae

The EasyFlow Cannula is designed for safe, reproducible direct aortic cannulation and features a multiple outlet port tip for diffused flow dynamics and a malleable stylet to aid introduction via lateral thoracotomy.



103-200/103-300

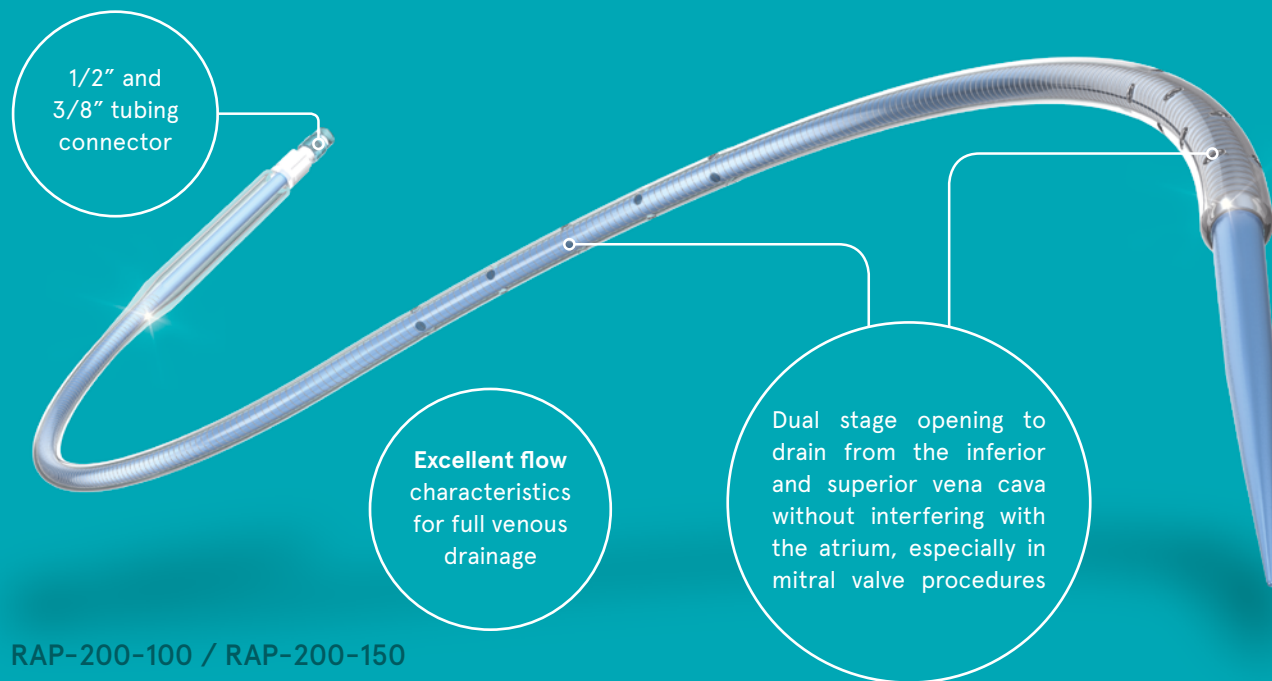
**EasyFlow
Arterial Cannulae**

19 and 23 Fr sizes available to cover all patients

RAP Cannulae

Dual stage venous femoral cannulae, designed to drain from superior and inferior vena cava, available in sizes 22/22 Fr and 23/25 Fr, with full flow drainage capability. A high quality soft introducer features a smooth transition to the cannula to improve insertion and reduce vascular damage.

Available for percutaneous insertion via Seldinger technique.

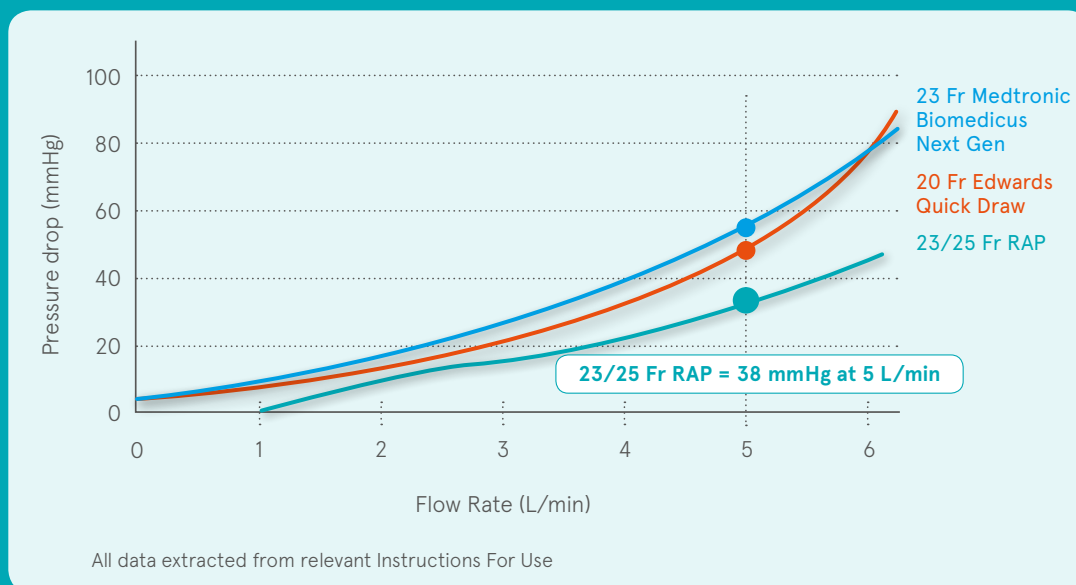


RAP-200-100 / RAP-200-150

Femoral Venous Cannulae

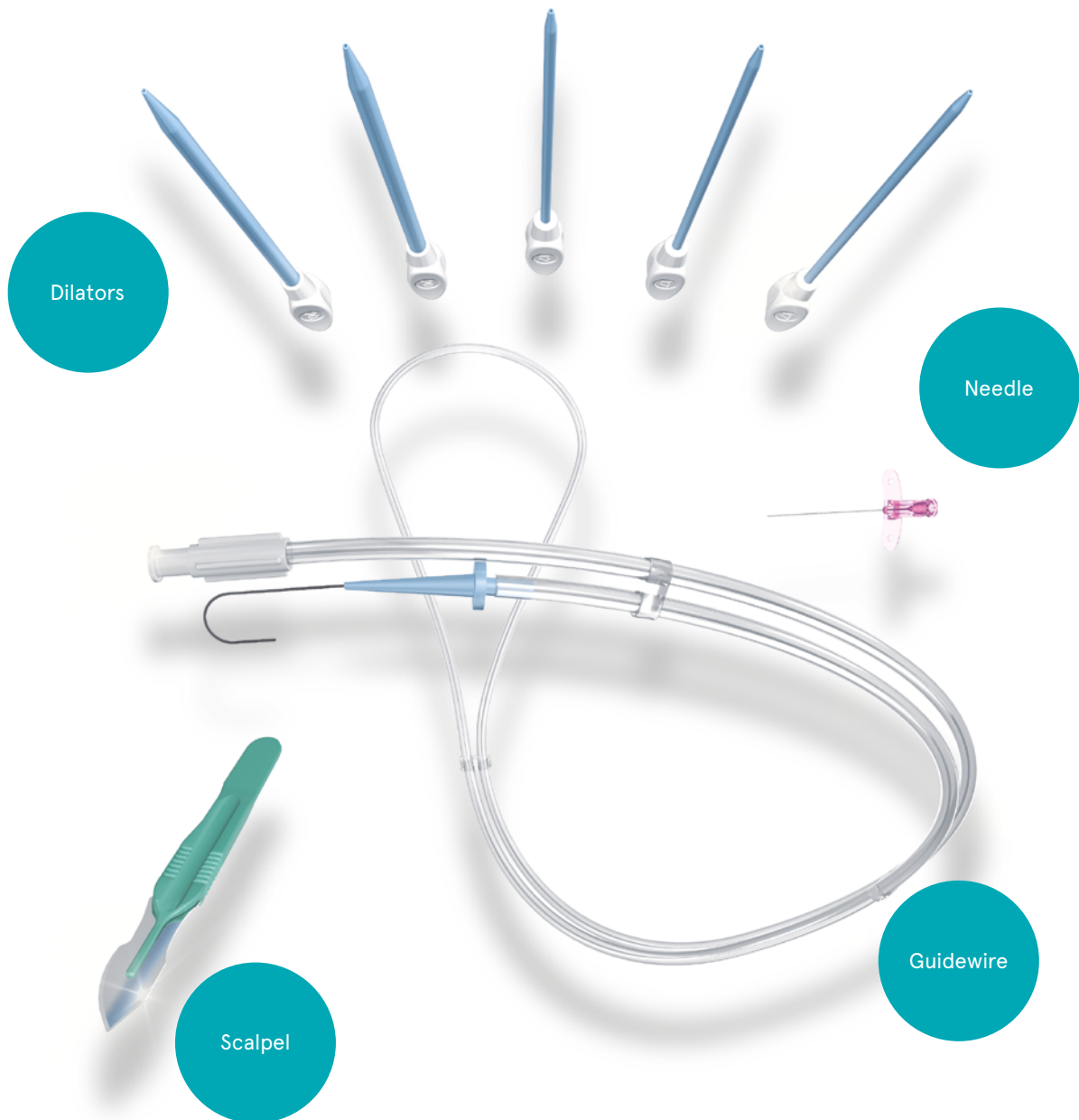
22/22 and 23/25 Fr sizes available

Pressure Drop



Vascular Dilator Kit

The dedicated Vascular Dilator Kit includes an 18 Gauge needle, a 0.035 x 180 cm guidewire, a blade scalpel as well as 8, 12, 16, 20 and 24 Fr dilators.



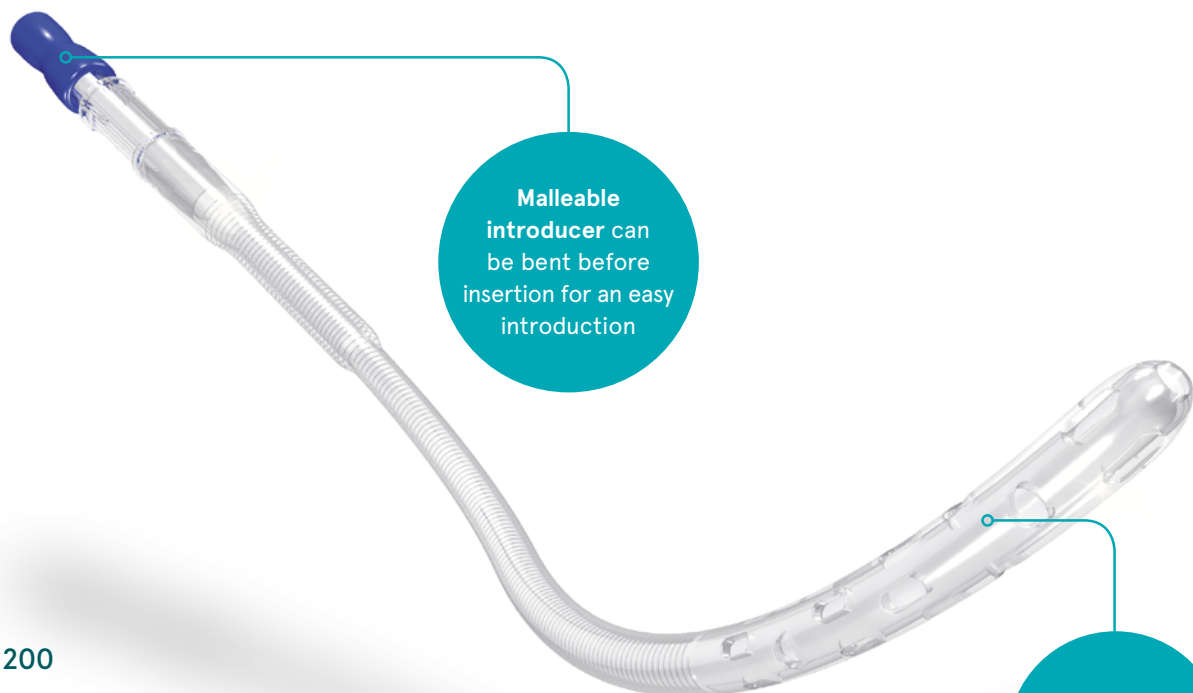
200-120

Vascular Dilator Kit

Includes 8, 12, 16, 20 and 24 Fr dilators

FlexFlow Venous Cannula

FlexFlow is a minimally invasive venous cannula with integrated obturator and malleable stylet designed for direct atrial cannulation. The 6 cm holed area and thin wire-reinforced tubing wall design provide high flow rates when using vacuum assisted venous drainage.

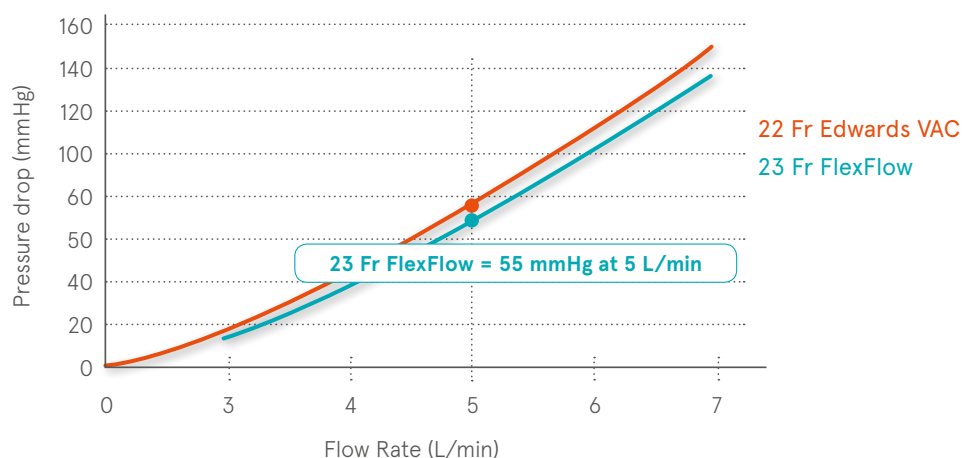


200-200

FlexFlow Venous Cannulae

23 Fr size available

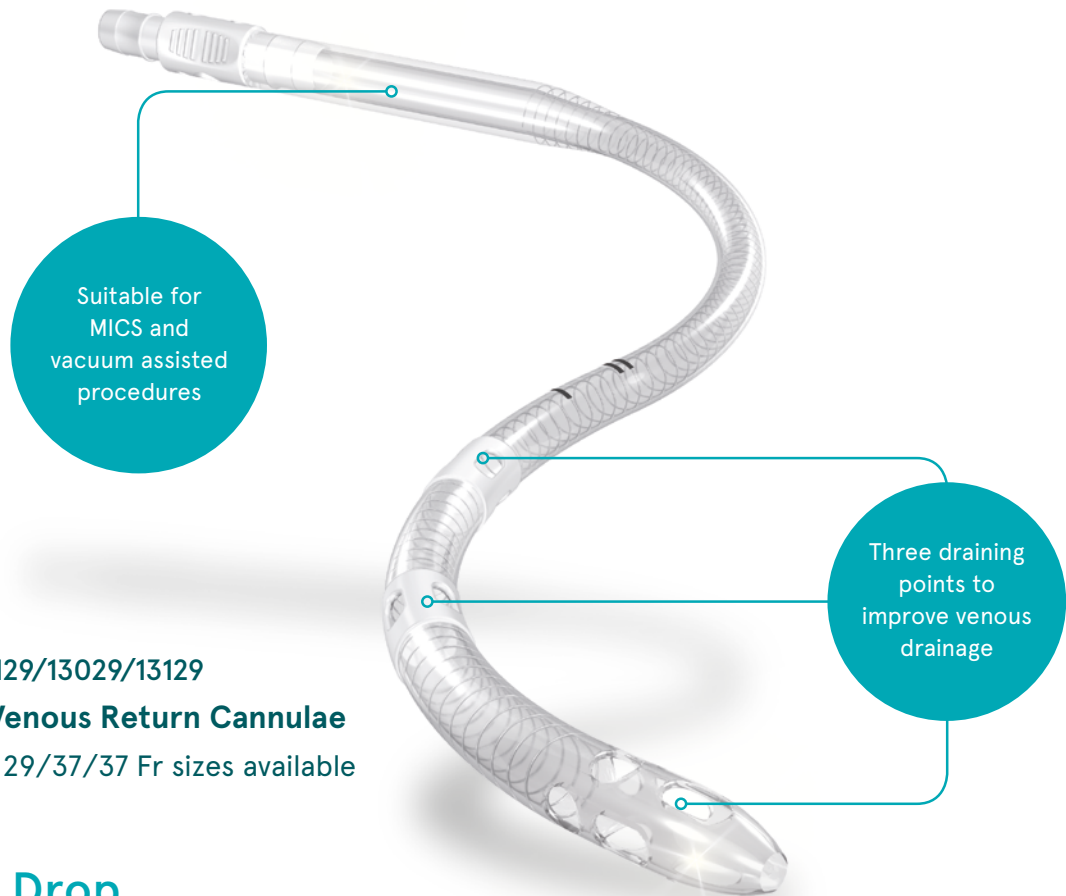
Pressure Drop



All data extracted from relevant Instructions For Use

Triple Stage Venous Cannulae

The Triple Stage Venous Cannulae feature an open lighthouse tip for atraumatic insertion and three points of drainage for improved hemodynamics. The small, compact design guarantees optimal surgical view particularly in minimally invasive procedures.

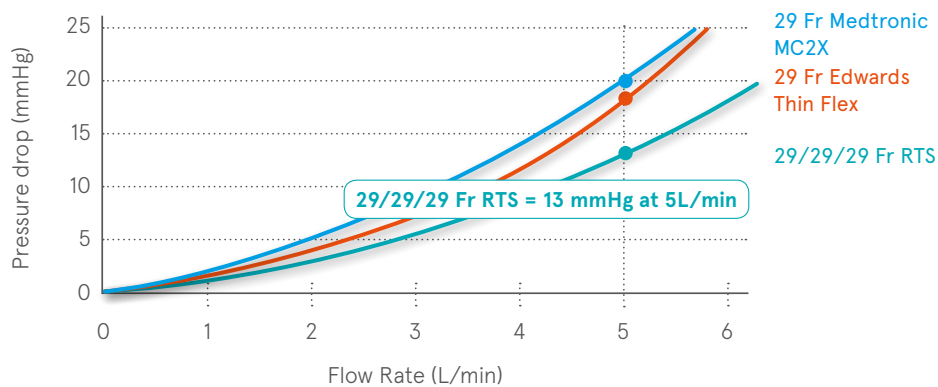


RTS - 11029/11129/13029/13129

Triple Stage Venous Return Cannulae

29/29/29 and 29/37/37 Fr sizes available

Pressure Drop



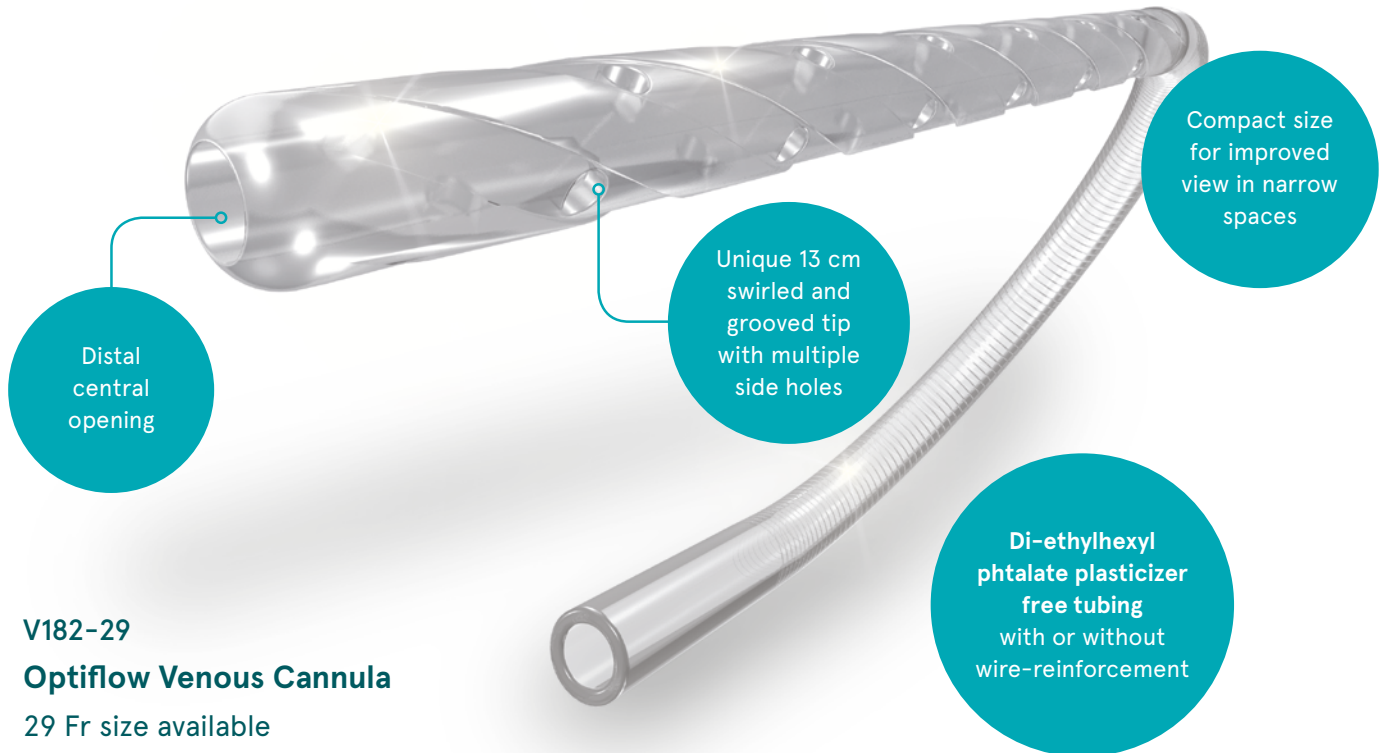
All data extracted from relevant Instructions For Use

Optiflow Venous Cannula

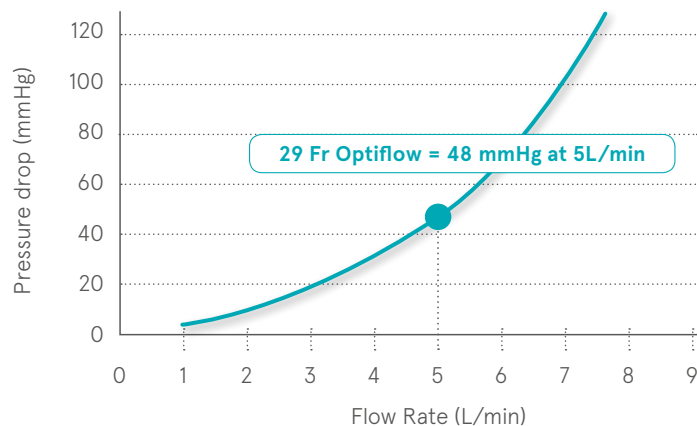
The Optiflow Venous cannula features a special swirled tip design with multiple side holes that facilitate active and physiological venous drainage regardless of the position of the heart.

This cannula is more compact than a standard cannula which makes it easier to insert and remove while improving the surgical view, especially in minimally invasive procedures.

The special tip can help reduce patient complications often associated with femoral venous cannulation, such as deep wounds and high bleeding.¹

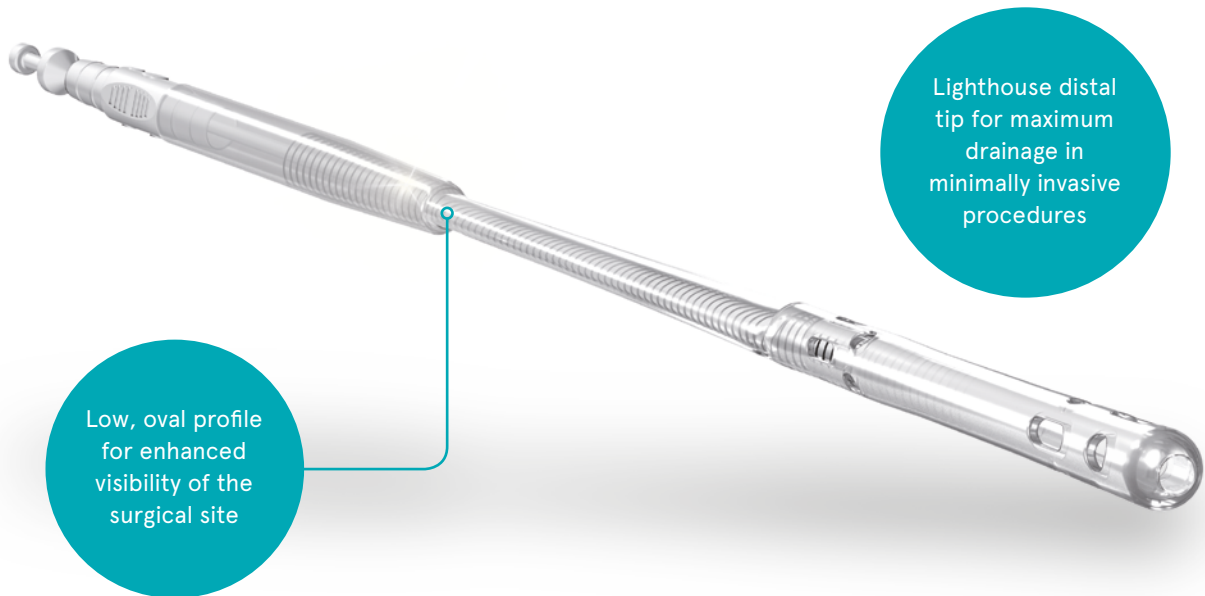


Pressure Drop



Low Profile Venous Cannulae

The Low Profile Venous Cannula is a one-piece constructed, wire reinforced dual-stage venous return cannula with a lighthouse distal tip for maximum drainage in minimally invasive procedures. It has a low, oval profile which allows better visibility of the surgical site and can be easily flexed with very gentle force for easy manipulation.

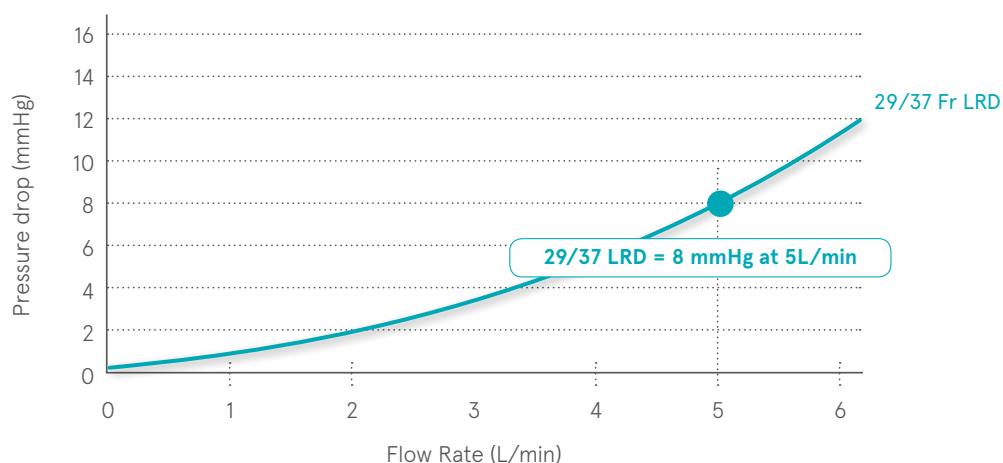


LRD Family

Low Profile Venous Cannulae

29, 32, 34, 36 Fr sizes available

Pressure Drop

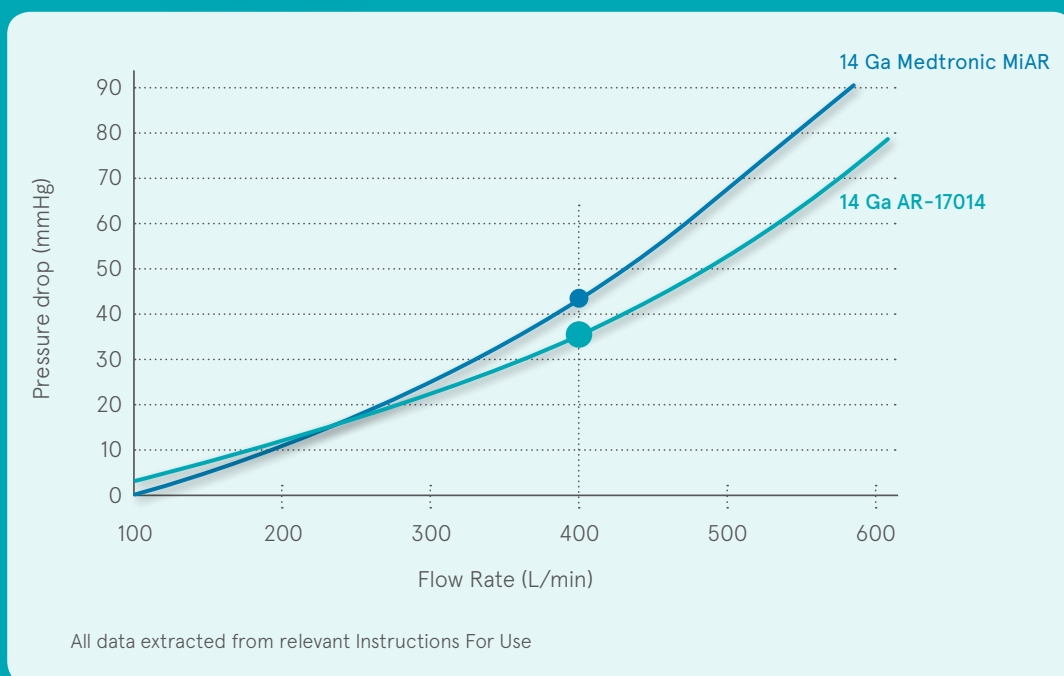


Aortic Root Long Needle

The Aortic Root Long Needle has been specifically designed for minimally invasive cardiac surgery in lateral thoracotomy, especially mitral valve procedures. It is longer than a conventional aortic root (35 cm) which allows it to be positioned in lateral thoracotomy.

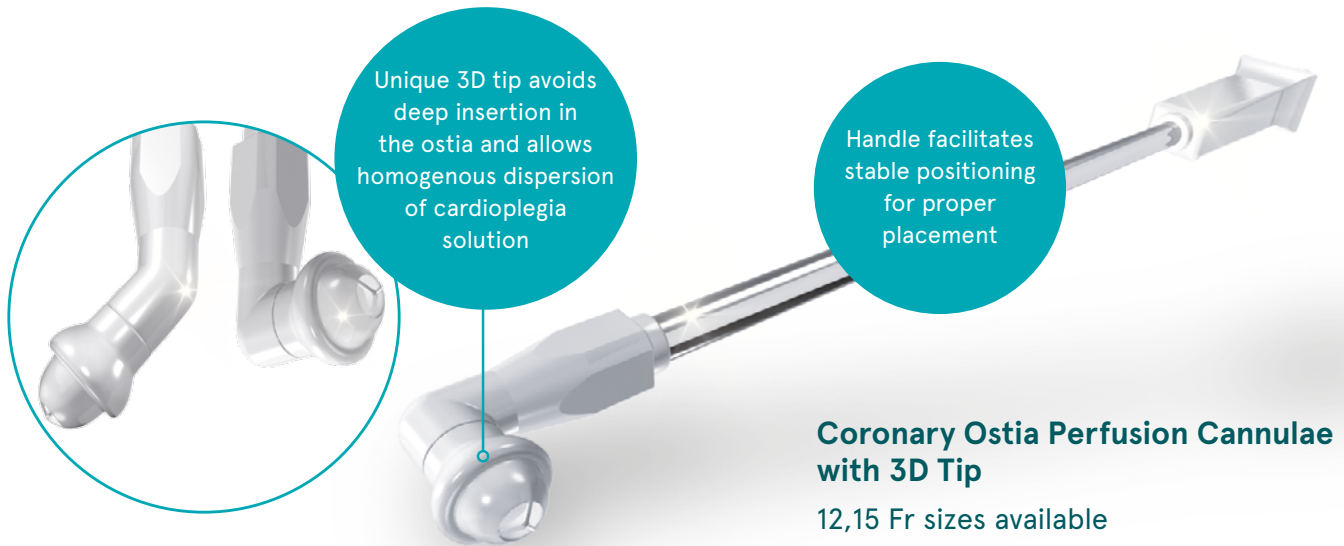


Pressure Drop

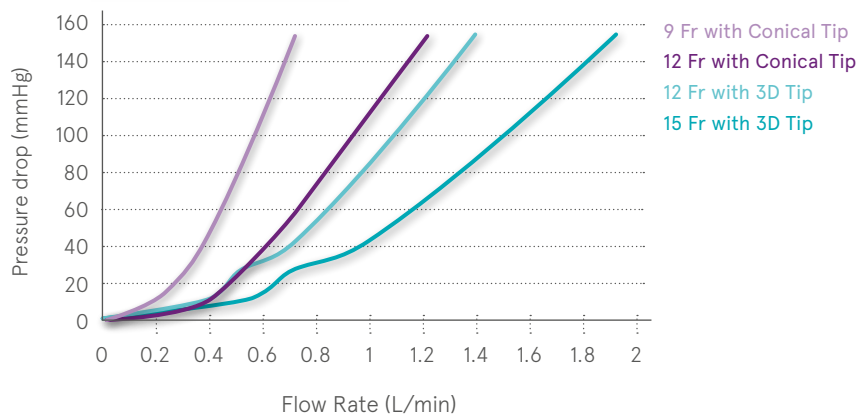


Coronary Ostia Perfusion Cannulae with 3D Tip

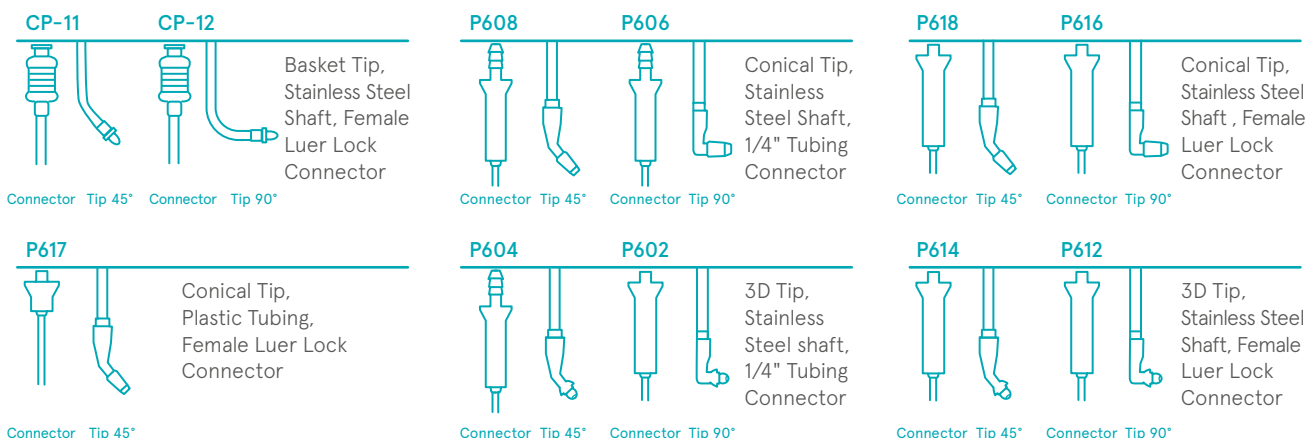
Coronary Ostia Perfusion Cannulae with 3D tip and stainless steel shaft. The unique 3D tip is angled at 45° or 90° to easily reach the right and left ostia and ensures homogeneous perfusion of the cardioplegia solution in the coronary path. Also available with female luer connector and with conical or basket tips.



Pressure Drop



Available Configurations



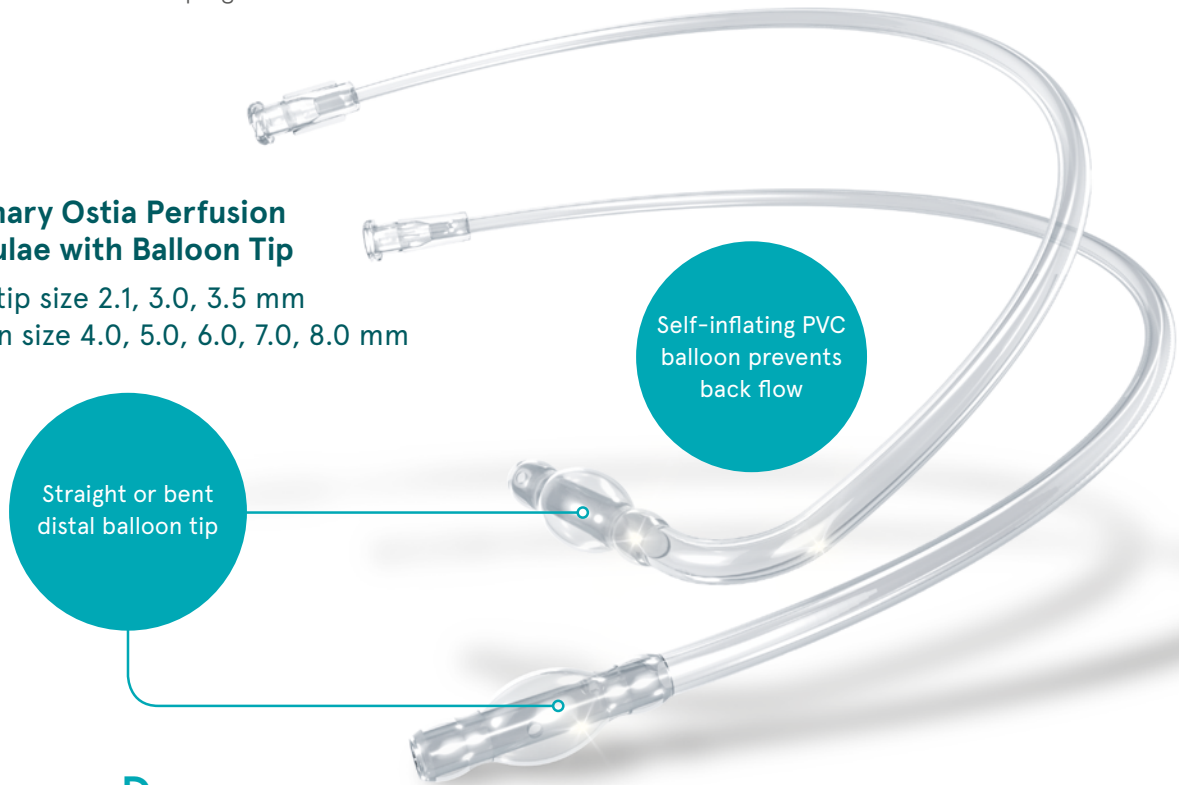
Coronary Ostia Perfusion Cannulae with Balloon Tip

Coronary Ostia Perfusion Cannulae with balloon tip, plastic tubing and female lure lock connector. The flexible, plastic tubing terminates with a self-inflating PVC balloon designed to occlude the coronary ostia and prevents any back flow of cardioplegia solution.

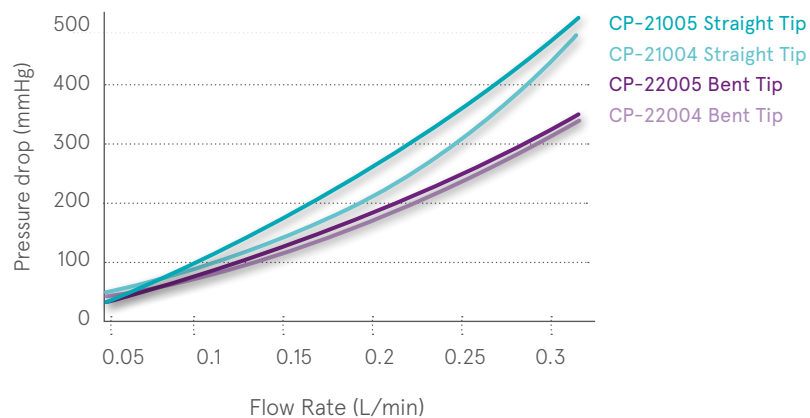
Coronary Ostia Perfusion Cannulae with Balloon Tip

Distal tip size 2.1, 3.0, 3.5 mm

Balloon size 4.0, 5.0, 6.0, 7.0, 8.0 mm

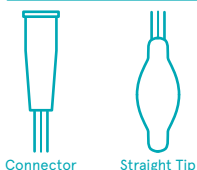


Pressure Drop



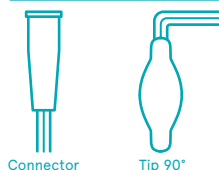
Available Configurations

CP-21



Straight Tip Plastic
Tubing and Female Luer
Lock Connector

CP-22



Bent Tip Plastic Tubing
and Female Luer Lock
Connector

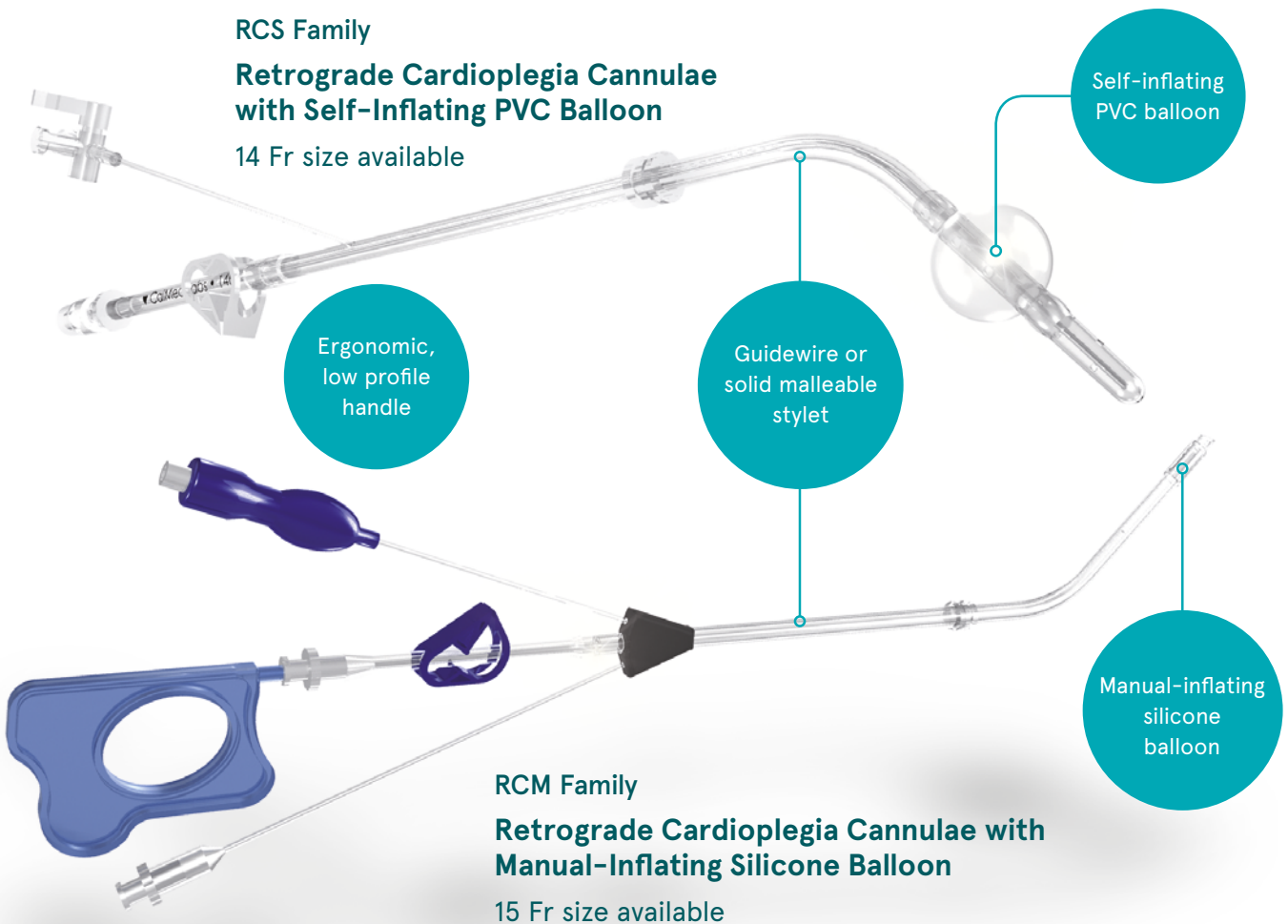
Retrograde Cardioplegia Cannulae

Retrograde Cardioplegia Cannulae are available with either a self-inflating PVC balloon, or a manual-inflating silicone balloon. Balloons are bonded with a unique method that provides a smooth transition to the body of the cannula. Both cannulae are available with either a guidewire or solid malleable stylet and a choice between a standard or low-profile handle.

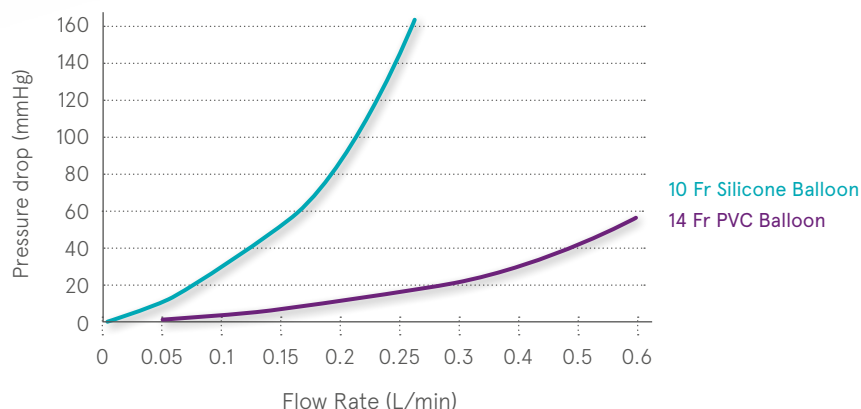
RCS Family

Retrograde Cardioplegia Cannulae with Self-Inflating PVC Balloon

14 Fr size available

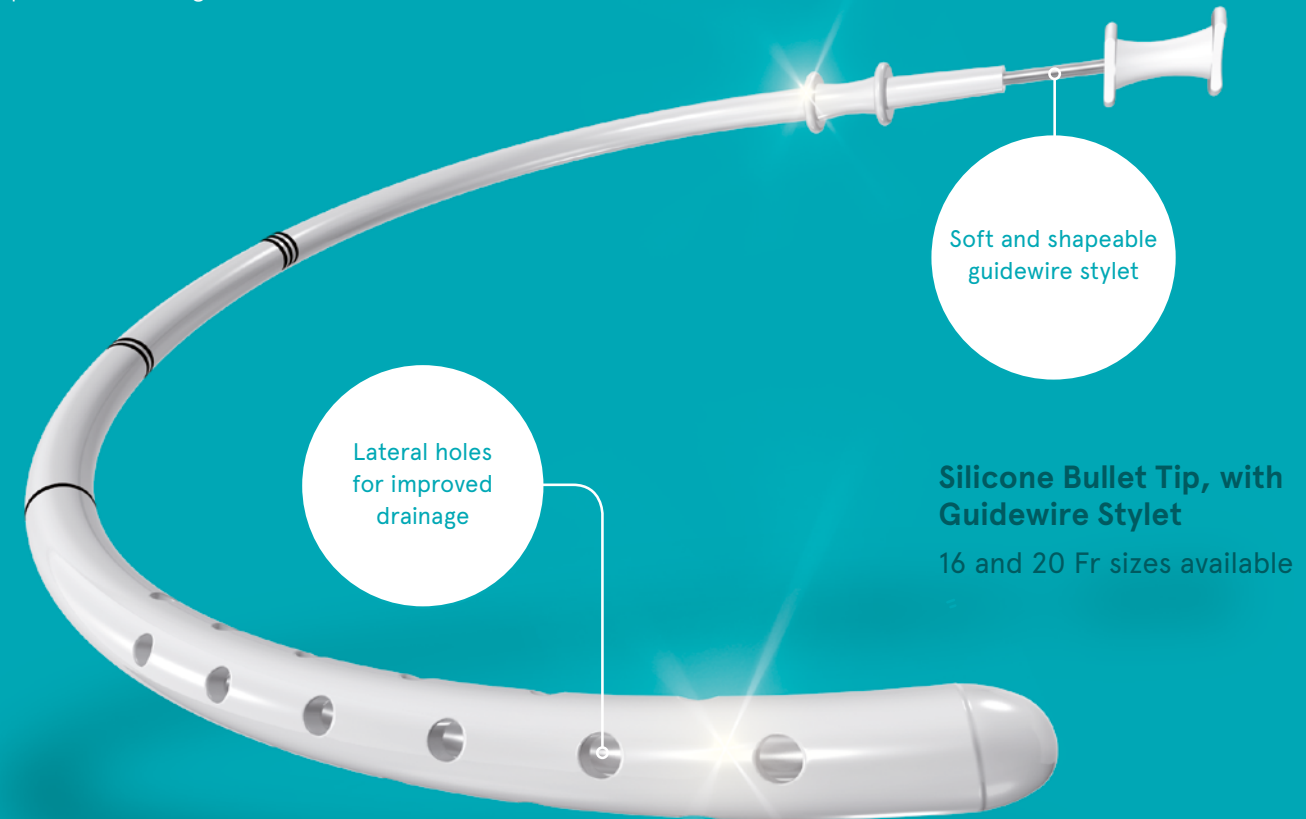


Pressure Drop



Vents

Vents for direct or indirect venting of the left ventricle are available in either PVC or silicone in a variety of configurations, including straight or malleable tubings with removable guidewire or malleable stylet with a two-position latching mechanism.

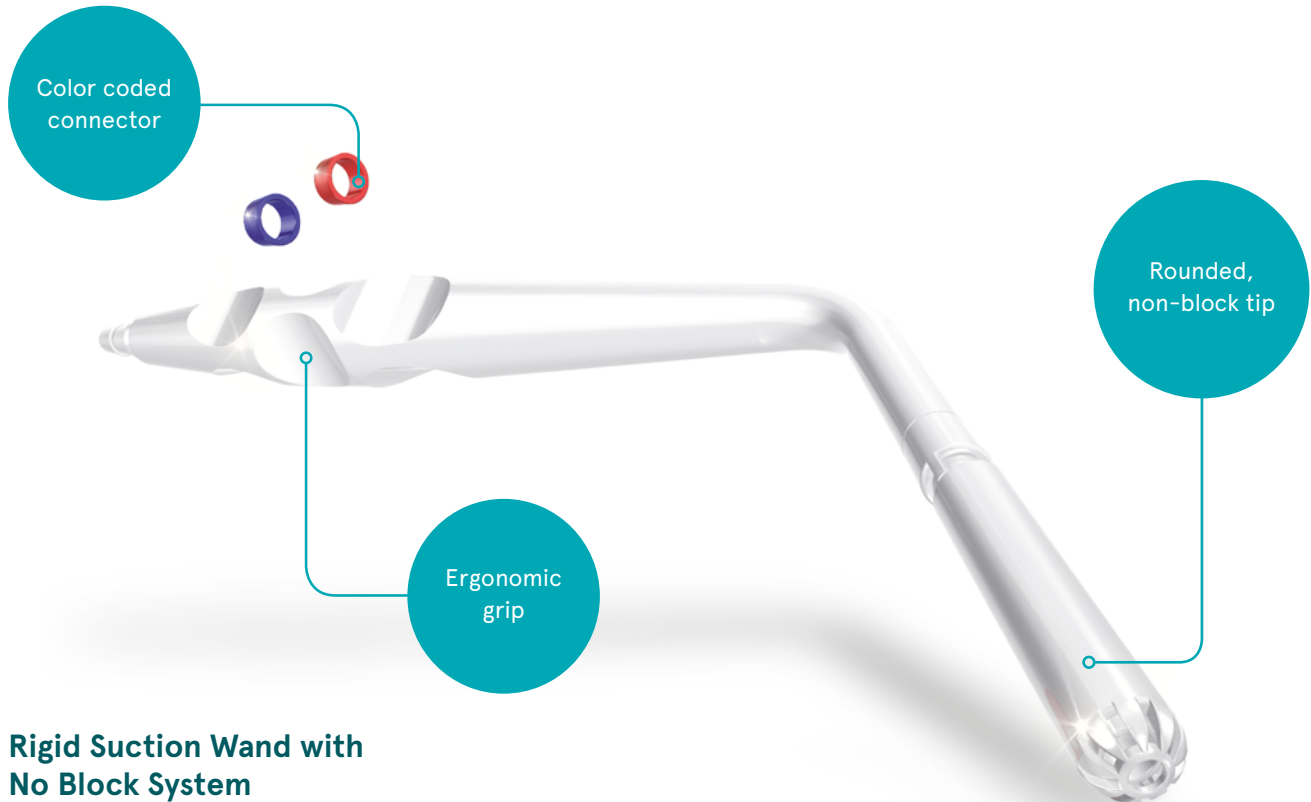


Available Configurations

VT-57 Connector Tip Silicone Bullet Tip, with removable Stylet	VT-46 Connector Tip Malleable PVC, Open Blunt Tip, with Stylet	VT-31/VT-53/VT-63 Connector Tip PVC Open Blunt Tip, with removable Stylet, with Two Position Latching Device	VT-92 Connector Tip PVC Open Blunt Tip, without Stylet
VT-844 Connector Tip PVC Straight, Bullet Tip, with Guidewire Stylet	VT-845 Connector Tip 90° PVC Right Angle, Bullet Tip, without Stylet, with Venting Luer Connector	VT-83 Connector Tip PVC Bullet Tip, without Stylet	
VT-896 Connector Tip PVC Bullet Tip, without Stylet with Venting Luer Lock	VT-894 Connector Tip PVC Bullet Tip, with Guidewire Stylet	W410 Connector Tip Pre-bent Left Ventricle Catheters, PVC Bullet Tip, with Stylet	W420 Connector Tip Pre-bent Left Atrium Catheters, PVC Bullet Tip, with Stylet

Suction Wand

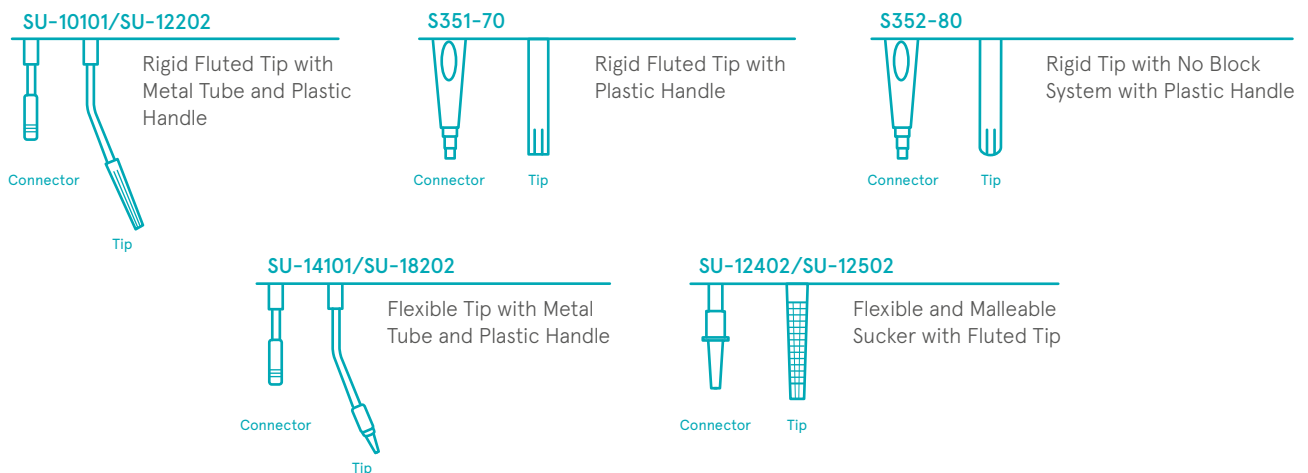
The Suction Wand features a rounded, less traumatic tip and a non-block suction system that prevents damage to the cardiac wall tissue. The rigid, ergonomic grip allows fatigueless handling and may be color coded with colored rings to easily associate pumps. Also available with flexible tubing.



Rigid Suction Wand with No Block System

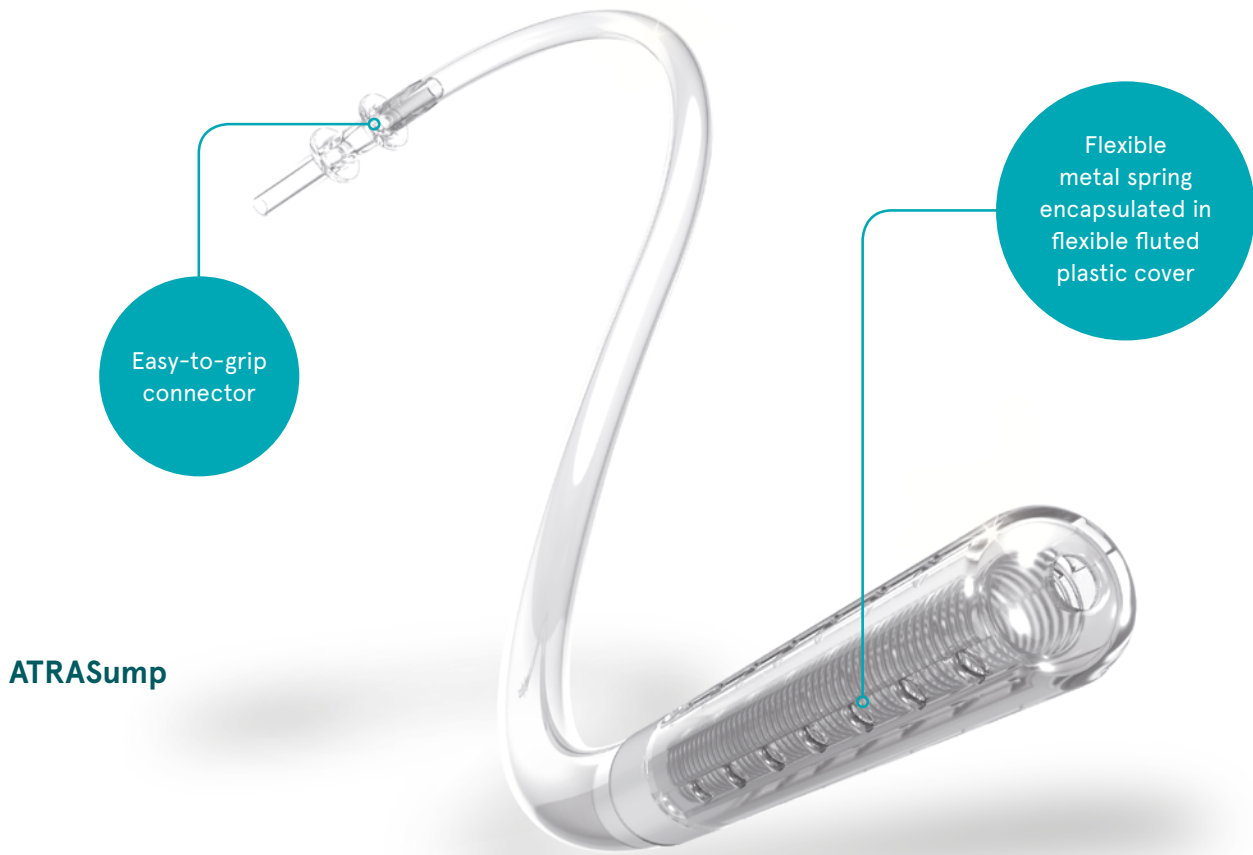
24 Fr size available

Available Configurations



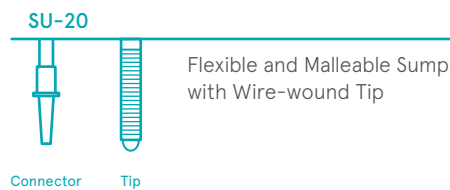
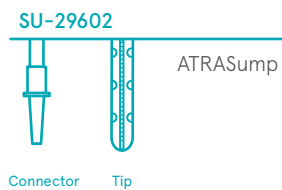
ATRASump

ATRASump is a new generation, flexible tubing sump with a unique, atraumatic weighted-tip specifically designed to provide enhanced patient safety. The special, flexible metal spring tip is encapsulated within a flexible, fluted plastic covering that avoids the risk of tissue entanglement and damage. The flutes provide smooth flow of fluids and the embedded perforations uninterrupted drainage.



ATRASump

Available Configurations





Discover more at cannulae.livanova.com

www.livanova.com



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info.cardiacsurgery@livanova.com

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

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