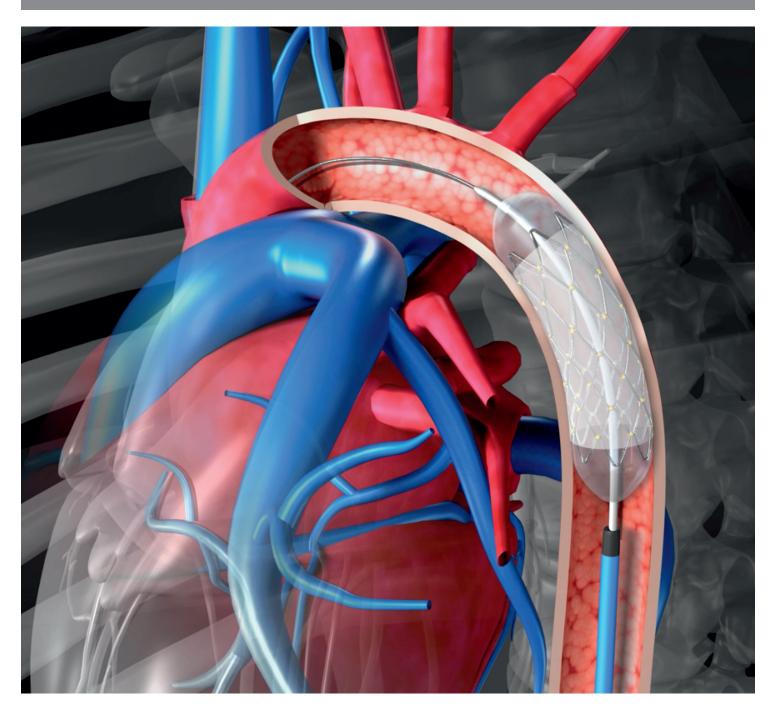


www.numedforchildren.com



# INTERVENTIONAL PRODUCTS

Distributed by:





NuMED is the world leader in interventional pediatric cardiology devices. For over 30 years, we have been developing, manufacturing and delivering innovative cardiovascular products for patients with heart defects.

Our mission is to provide healthcare providers the most advanced and highest quality devices for diagnosing and treating congenital heart conditions or peripheral vascular disease. Through the help of our worldwide network of partners, we have improved the lives of patients in more than 100 countries by supplying the most comprehensive portfolio of innovative products, with a focus on pediatrics.

Working in collaboration with thought leaders around the globe, we continue to pioneer new solutions to meet the evolving clinical needs of interventionalists. We are committed to exceeding our customer's expectations through creating the highest quality products and providing an unsurpassed level of customer service to improve the lives of patients with heart defects.



### NuMED INTERVENTIONAL PRODUCTS

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Refer to Instructions for Use booklet for a complete listing of indications, warnings and precautions.

The devices listed have CE Mark approval. Any customer or distributor outside of the EU will be subject to their individual country's regulations in regards to the importation and sale of these products.



# Percutaneous Transluminal Valvuloplasty Balloon Catheters (PTV)



### Z-MED<sup>TM</sup> Line

Z-MED™ catheters are suitable for percutaneous transluminal valvuloplasty (PTV) and pre-dilatation in transcatheter heart-valve replacement procedures. They are available in the widest range of sizes (2.0 – 40.0 mm) and feature high rated burst pressures suitable for resistant stenosis. Rapid inflation and deflation times minimize procedure times and maximize reperfusion. Short, flexible distal tips with short balloon tapers aid maneuverability and trackability through tortuous anatomy.

### **Benefits**

**Balloon** The Z-MED™ PTV balloons are coaxially constructed with a distally mounted non-compliant high pressure balloon suitable for resistant stenosis.

Inflation and deflation times

The Z-MED™ PTV balloons have extremely fast in- and deflation times for a quick procedure.

Maximum Trackability The distal shaft through the balloon is highly flexible for exceptional maneuverability. This, combined with the pushability of the coaxial shaft, provides outstanding tracking performance.

Radiopaque Marker Platinum image bands facilitate reliable positioning of the balloon.

**Low profile** The low profile of the Z-MED™ require a small introducer for a high pressure balloon.

### Large range of sizes available

Z-MED™ catheters are available in multiple configurations ranging in diameter from 2.0 to 40.0 mm.

	Z-MED <sup>TM</sup>	Z-MED™ II	Z-MED™-X	Z-MED™ II-X
Details		Higher rated burst pressures than Z-MED™ and Z-MED™-X	Braided inner tubi     Extra high inner lu     Increased pushab     Radiopaque inner	imen strength
				Higher rated burst pressures than Z-MED <sup>TM</sup> and Z-MED <sup>TM</sup> -X
C€	Class III			
Catheter Body	Polymeric, DEHP-free, Latex	k-free		
Balloon	Thermoplastic Elastomer (Non-compliant – The balloon will not exceed +/- 10% of the labeled balloon size at Ra Burst Pressure or Nominal Pressure), DEHP-free, Latex-free			
			100	
Image Band			100	
Image Band Balloon Diameter (mm)	Platinum/Iridium	4.0 – 30.0	8.0 – 30.0	8.0 – 30.0
	Platinum/Iridium 2.0 – 40.0	,, , , , , , , , , , , , , , , , , , ,		8.0 – 30.0 2.0 – 6.0
Balloon Diameter (mm)	Platinum/Iridium  2.0 – 40.0  2.0 – 8.0	4.0 – 30.0	8.0 – 30.0	
Balloon Diameter (mm)  Balloon length (cm)	Platinum/Iridium  2.0 – 40.0  2.0 – 8.0  1 – 10	4.0 – 30.0 2.0 – 10.0	8.0 – 30.0 2.0 – 6.0	2.0 – 6.0
Balloon Diameter (mm)  Balloon length (cm)  Rated Burst Pressure (ATM)  Introducer Size (FR)	Platinum/Iridium  2.0 – 40.0  2.0 – 8.0  1 – 10	4.0 – 30.0 2.0 – 10.0 3 – 15 5 – 16	8.0 – 30.0 2.0 – 6.0 2 – 10	2.0 – 6.0 3 – 15 7 – 16
Balloon Diameter (mm)  Balloon length (cm)  Rated Burst Pressure (ATM)  Introducer Size (FR)	Platinum/Iridium  2.0 – 40.0  2.0 – 8.0  1 – 10  6 – 16  PTV of Pulmonary Valve, Mir	4.0 – 30.0 2.0 – 10.0 3 – 15 5 – 16	8.0 – 30.0 2.0 – 6.0 2 – 10 7 – 13	2.0 – 6.0 3 – 15 7 – 16



# Tyshak® Line

Tyshak® catheters are designed with a low profile that delivers high performance. Manufactured from a micro-thin, non-compliant balloon material, these innovative balloon catheters require small introducers. The reduced sheath size helps minimize vessel trauma and entry-site complications. Short, flexible distal tip gives you superior maneuverability. With well-defined shoulders and minimum balloon tapers, Tyshak® catheters glide easily through smaller and difficult-to-negotiate vessels. They are available in the range of sizes (2.0 – 30.0 mm).

### **Benefits**

**Balloon** The Tyshak® PTV balloons are coaxially constructed with a distally mounted non-compliant balloon for correct inflation size.

**Micro-thin** The Tyshak® balloon is made of a micro-thin material which allows an exceptionally low profile and requires therefore the smallest introducers possible. **Inflation and deflation times** 

The Tyshak® PTV balloons have extremely fast inflation and deflation times for a quick procedure.

**Maximum Trackability** The distal shaft through the balloon is highly flexible for exceptional maneuverability.

This, combined with the pushability of the coaxial shaft, provides outstanding tracking performance.

**Radiopaque Marker** Platinum marker bands facilitate reliable positioning of the balloon.

### Large range of sizes available

Tyshak® balloon catheters are available in multiple configurations ranging in diameter from 2.0 to 30.0 mm.

	Tyshak <sup>®</sup>	Tyshak II®	Tyshak-X™	Tyshak Mini®
Details		Lower profile and smaller rated Burst Pressures then Tyshak®	<ul> <li>Braided inner tubing</li> <li>Extra high inner lumen strength</li> <li>Increased pushability</li> <li>Radiopaque inner tubing</li> </ul>	Super thin balloon – lowest profile of any Tyshak® balloon in it's diameter
C€	Class III			
Catheter Body	Polymeric, DEHP-free, Latex	r-free		
Balloon	Thermoplastic Elastomer (Non-compliant – The balloon will not exceed +/- 10% of the labeled balloon size at Rated Burst Pressure or Nominal Pressure), DEHP-free, Latex-free			
Image Band	Platinum/Iridium			
Balloon Diameter (mm)	2.0 – 25.0	4.0 – 30.0	8.0 – 25.0	4.0 – 10.0
Balloon length (cm)	1.0 – 10.0	2.0 – 10.0	2.0 - 6.0	1.0 – 4.0
Rated Burst Pressure (ATM)	1.5 – 10	1.5 – 6	1.5 – 5	3.5 – 6
Introducer Size (FR)	4 – 11	4 – 10	6 – 11	3 – 4
Indication	PTV of the Pulmonary Valve Pediatric PTV of the Pulmonary Valve			
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# NuCLEUSTM Line

NuCLEUS™ are suitable for percutaneous transluminal valvuloplasty (PTV) and pre-dilatation in transcatheter heart-valve replacement procedures. The balloon is designed with a waist formed into the middle of the balloon. Upon reaching a specified pressure, the waist will expand between 90% to almost 100% of the rated balloon diameter. The innovative balloon design enables accurate positioning prior to and during inflation. NuCLEUS sizes start from 10.0 mm and Tyshak NuCLEUS sizes begin with 4.0 mm.

### **Benefits**

Balloon The NuCLEUS™ PTV balloons are coaxially constructed with a distally mounted non-compliant high pressure balloon suitable for resistant stenosis.

Precise positioning The innovative balloon design of NuCLEUS™ facilitates positive positioning while holding the balloon in the correct location prior to and during inflation.

### Inflation and deflation times

The NuCLEUS™ PTV balloons have extremely fast inflation and deflation times for a quick procedure.

**Maximum Trackability** The distal shaft through the balloon is highly flexible for exceptional maneuverability.

This, combined with the pushability of the coaxial shaft, provides outstanding tracking performance.

**Radiopaque Marker** Platinum image bands facilitate reliable positioning of the balloon.

**Low profile** The low profile of the NuCLEUS™ PTV balloons require a small introducer.

### Large range of sizes available

NuCLEUS™ balloon catheters are available in multiple configurations ranging in diameter from 4.0 to 30.0 mm.

	NuCLEUS™	NuCLEUS-X™	Tyshak NuCLEUS®
Details		<ul> <li>Extra high inner lumen strength</li> <li>Increased pushability from new braided inner tubing</li> <li>Radiopaque inner tubing</li> </ul>	Smaller Introducer sizes and lower rated Burst pressures than NuCLEUS™
(€	Class III		
Catheter Body	Polymeric, DEHP-free, Latex-free		
Balloon	Thermoplastic Elastomer (Non-compliant – The balloon will not exceed +/- 10% of the labeled balloon size at Rated Burst Pressure), DEHP-free, Latex-free		
Image Band	Platinum/Iridium		
Balloon Diameter (mm)	10.0 – 30.0	18.0 – 30.0	4.0 – 25.0
Balloon length (cm)	3.0 – 6.0	4.0 – 6.0	2.0 – 4.0
Rated Burst Pressure (ATM)	2-9	2 – 4	2-5
Introducer Size (FR)	7 – 14	10 – 14	6 – 11
Indication	PTV of the Mitral & Aortic Valve PTV of the Pulmonary Valve		PTV of the Pulmonary Valve
Ordering information	Page 33 – 35		





# COEfficient<sup>TM</sup>

The COEfficient™ Pediatric Valvuloplasty catheter is engineered for maximum steering and tracking. The coaxial shaft design provides enhanced column strength and pushability combined with a flexible distal tip for optimum steerability. The distinguishing feature of this high-pressure balloon catheter is its extremely slim profile. It can be used with even the smallest introducer sheaths (4–7 FR at 7–13 ATM).

### **Benefits**

Micro-thin The COEfficient™ balloon is made of a micro-thin material which allows an exceptionally low profile and therefore, requires small introducers.

Balloon The COEfficient™ balloon is coaxially constructed with a distally mounted non-compliant high pressure balloon suitable for resistant stenosis.

Maximum Trackability The distal shaft through the balloon is highly flexible for exceptional maneuverability.

This, combined with the pushability of the coaxial shaft, provides outstanding tracking performance.

Radiopaque Marker Platinum image bands facilitate reliable positioning of the balloon.

	COEfficient™
C€	Class III
Catheter Body	Polymeric, DEHP-free, Latex-free
Balloon	Thermoplastic Elastomer (Non-compliant – The balloon will not exceed +/- 10% of the given balloon size at Rated
	Burst Pressure), DEHP-free, Latex-free
Image Band	Platinum/Iridium
Balloon Diameter (mm)	4.0 – 12.0
Balloon length (cm)	2.0 – 4.0
Rated Burst Pressure (ATM)	7 – 13
Introducer Size (FR)	4 – 7
Indication	Pediatric PTV of the Pulmonary Valve
Ordering information	Page 35





# Mullins-X<sup>TM</sup>

The Mullins-X™ is an ultra high pressure dilatation balloon catheter. It is the specialist when it comes to indications calling for extremely high pressure. It can be used either for percutaneous transluminal valvuloplasty or angioplasty for femoral, iliac & renal arteries.

### **Benefits**

### **Very high Rated Burst Pressures**

Mullins-X<sup>™</sup> special laminated construction provides a rated burst pressure (RBP) of up to 14 ATM.

Four Platinum image bands for precise positioning Two bands are fitted below the shoulder of the balloon and two are in the middle section of the balloon.

Balloon The Mullins-X<sup>TM</sup> PTV and PTA balloon is coaxially constructed with a distally mounted non-compliant high pressure balloon suitable for resistant stenosis.

Maximum Trackability The distal shaft through the balloon is highly flexible for exceptional maneuverability. This, combined with the pushability of the coaxial shaft, provides outstanding tracking performance.

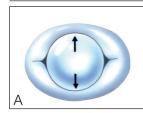
	Mullins-X <sup>™</sup>
Details	Extra high inner lumen strength
	Increased pushability from new braided inner tubing
	Radiopaque inner tubing
(€	Class III for PTV, Class IIa for PTA
Catheter Body	Polymeric, DEHP-free, Latex-free
Balloon	Thermoplastic Elastomer (Non-compliant – The balloon will not exceed +/-10% of the labeled balloon size at Rated
	Burst Pressure), DEHP-free, Latex-free
Image Band	Platinum/Iridium
Balloon Diameter (mm)	12.0 – 25.0
Balloon length (cm)	3.0 – 4.0
Rated Burst Pressure (ATM)	9 – 14
Introducer Size (FR)	9 – 16
Indication	PTV of the Pulmonary valve and PTA for femoral, iliac & renal arteries.
Ordering information	Page 36



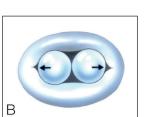
# Mitral Dilatation Kit

The Bonhoeffer Multi-Track Mitral Dilatation Kit is a well-established innovative system for Mitral Dilatation. It consists of a double balloon technique while using a simple, single guidewire approach. It was invented to solve the problem of the mismatch between the round shape of a single balloon (A) and the oval mitral orifice. The procedure times easily match those of single balloon techniques while achieving consistently higher valve areas post dilatation.

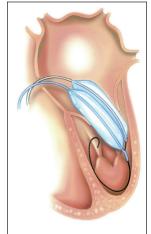
### Procedure

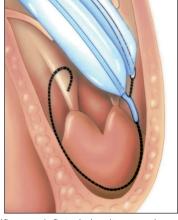


30 mm Balloon









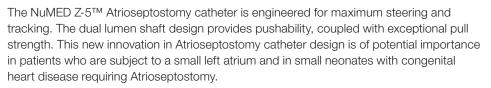
Both balloons in the mitral orifice are inflated simultaneously.

	Bonhoeffer Multi-Track Mitral Dilatation Kit (BMK)
CE	Class III
Catheter Body	Polymeric, DEHP-free, Latex-free
Balloon	Thermoplastic Elastomer (Non-compliant – The balloon will not exceed +/- 10% of the labeled balloon size at Rated Burst Pressure), DEHP-free, Latex-free
Content Bonhoeffer Multi-Track Mitral Dilatation Kit	3
Indication	For Percutaneous Transvenous Mitral Commissurotomy in patients with hemodynamically significant mitral valvular stenosis.
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Ordering information	Page 36



### Atrioseptostomy Balloon Catheter







### **Benefits**

Radiopaque Catheter Body & Balloon Image Marker The NuMED Z-5<sup>TM</sup> Atrioseptostomy catheter body is Radiopaque to facilitate reliable positioning of the catheter. A Platinum image marker band is placed under the balloon for clear identification under fluoroscopy.

**Micro-Thin Non-Compliant Balloon** 

The NuMED Z-5<sup>TM</sup> Atrioseptostomy balloon is micro-thin for low deflated profile that maintains it's flexibility. The Inflation of the balloon is controlled by volume. (see volumetric chart-Instructions for Use)

Reduced Balloon Size The reduced inflated balloon size should make
Atrioseptostomy easier to perform on neonates with a small left atrium.

**Tip Angulation** The tip of the catheter is angled at 35° to facilitate passage into the left atrium.

**Dual Lumen** The NuMED Z-5<sup>™</sup> Atrioseptostomy catheter has a dual lumen, with an end hole that can accommodate a guidewire.

	Z-5 <sup>TM</sup>
(€	Class III
Catheter Body	Polymeric, DEHP-free, Latex-free
Balloon	Thermoplastic Elastomer (Non-compliant), DEHP-free, Latex-free
Image Band	Platinum/Iridium
Balloon Diameter (mm)	9.5 and 13.5
Balloon length (cm)	0.95 and 1.35
Maximum Volume (CC)	1-2
Introducer Size (FR)	5-6
Indication	Recommended for balloon atrioseptostomy
References	Page 46
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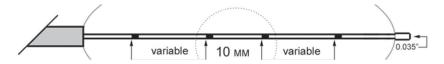


### Sizing Balloon Catheter



# PTS® / PTS-XTM

The PTS® / PTS-X<sup>TM</sup> Sizing Balloon catheters has been designed for use in patients with cardiovascular defects where accurate measurement of the defect is important to select the appropriately sized occluder device.



### **Benefits**

Radiopaque Marker Platinum marker bands facilitate reliable positioning of the balloon for accurately sizing the defect.

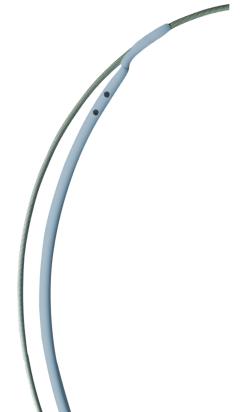
Super-Thin Balloon The PTS® Sizing Balloon catheter is super-thin for a low deflated profile that maintains tip flexibility.

**Double Tapered Balloon** The PTS® Sizing has short tapers at the distal and proximal ends for enhanced transition across the stenosis and post dilatation ease of withdrawal into the introducer.

	PTS®	PTS-X <sup>TM</sup>
Details		Extra high inner lumen strength
		• Increased pushability from new braided
		inner tubing
		Radiopaque inner tubing
(€	Class III	
Catheter Body	Polymeric, DEHP-free, Latex-free	
Balloon	Thermoplastic Elastomer (Non-compliant – The balloon will not exceed +/- 10% of the labeled balloon size at Rated	
	Burst Pressure), DEHP-free, Latex-free	
Image Band	Platinum/Iridium	
Balloon Diameter (mm)	20.0 – 40.0	10.0 – 40.0
Balloon length (cm)	3.0 – 5.0	1.0 – 6.0
Rated Burst Pressure (ATM)	0.5 – 1.5	0.5 – 2.5
Introducer Size (FR)	8-9	6-9
Indication	Recommended for use in those patients with cardiovascular defects wherein accurate measurement of the defect in	
	important to select the appropriately sized occluder device	
Ordering information	Page 37 – 38	

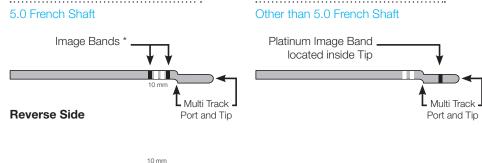


### Diagnostic Catheter



# Multi-Track<sup>TM</sup>

The MULTI-TRACK™ angiographic catheter utilizes a unique concept of guidewire location to increase flow rate and maneuverability of the catheters. Designed from radiopaque materials, the catheters are easily placed and can be used in conjunction with different types of interventional catheters. It's innovative offset distal tip passes over-the-wire, leaving the catheter shaft free for infusion of contrast media or for obtaining pressure measurements. This allows the guidewire to remain in position throughout the procedure. The catheter provides high quality angiography during diagnostic and interventional cardiac catheterization.



NOTE:

x = is the hole facing you

Image Bands \*

0 = is the hole on the opposite side of the shaft

\* = Image Bands are 10.0 mm leading edge to edge

XOXO

	MULTI-TRACK <sup>TM</sup>
Details	<ul> <li>Perform angiography without removing and repositioning the guidewire</li> <li>Obtain simultaneous gradient pressure measurements</li> <li>Place multiple catheters on the guidewire</li> <li>Precisely control pull-back or push-up pressure tracings</li> </ul>
C€	Class III
Catheter Body	Polymeric, DEHP-free, Latex-free
Image Band	Platinum/Iridium
Maximum Injection (PSI)	1000
Flow rate (ml/sec)	4.0 – 25
Introducer Size (FR)	5-8
Shaft Size (FR)	3.0 – 6.0
Indication	Recommended for use in catheterization for angiography of cardiovascular vessels and / or chambers. It can be used for injection of contrast medium and pressure measurement in any chamber or vessel.
Ordering information	Page 38



### Stent placement & Introducers



The Balloon-in-Balloon catheter (BIB®) is used to insert stents in a two-stage implantation process. This enables stents to be opened or expanded evenly and positioned correctly. The inner balloon of the BIB® Catheter is half the diameter of the outer balloon and is 1.0 cm shorter in length.

### **Benefits**

Stent placement with BIB® reduces the risk of asymmetric stent opening and stent dislodgement.

**Inner balloon inflation** When the inner balloon is inflated, the stent expansion begins from the center of the stent. The stent is firmly gripped on to the balloon to allow for fine positioning before the final expansion by inflating the outer balloon.

Outer balloon inflation If the stent is placed in the right position, the outer balloon can be inflated.

	BIB®
Details	Balloon-in-Balloon catheter for two-stage placement of stents
	The diameter of the inner balloon is half the diameter of the outer balloon diameter
	The length of the inner balloon is 1.0 cm shorter than the outer balloon length
	Class III
Catheter Body	Polymeric, DEHP-free, Latex-free
Balloon	Thermoplastic Elastomer (Non-compliant – The balloon will not exceed +/-10% of the labeled balloon size at Rated
	Burst Pressure), DEHP-free, Latex-free
Image Band	Platinum/Iridium
Balloon Diameter (mm)	12.0 – 30.0
Balloon length (cm)	2.5 – 6.0
Outer Balloon Rated Burst Pressure (ATM)	2-7
Introducer Size (FR)	8 – 16
Indication	Indicated for stent placement in vessels over 8 mm in diameter.
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CP Stent®



Covered CP Stent®

# Bare and Covered CP Stent<sup>TM</sup>

The CP Stent™ is composed of 0.013" Platinum/Iridium wire that is arranged in a "zig" pattern, laser welded at each joint and over brazed with 24K Gold. It allows expansion from 12.0 mm to 24.0 mm for the 8 Zig and 26.0 mm to 30.0 mm for the 10 Zig. The Covered CP Stent™ is comprised of the bare CP Stent® that is covered with an expandable sleeve of ePTFE.

### **Benefits**

**High quality** The CP Stent™ is made of a 0.013" thick Platinum/Iridium wire arranged in a zig-zag pattern. Every point of intersection is laser welded and brazed with 24K Gold.

High expansion range It has an expansion range of 12.0 mm – 24.0 mm for the 8 Zig and 26.0 mm – 30.0 mm for the 10 Zig.

Bare & Covered The CP Stent™ is available in a bare version or covered with an expandable sheath of ePTFE.

Adjustable fit Thanks to its considerable capacity for expansion, the stent just needs to be re-dilated to accommodate the child's natural growth. Therefore it may reduce the need for additional stent implantation.

	CP Stent®	Covered CP Stent™
CE		
Wire	0.013" Platinum/iridium	
Brazing	24K Gold	
Stent length (cm)	8 Zig: 1.6 – 6.0 10 Zig: 3.9 – 6.0	
Indication	Indicated for implantation in the native and/or recurrent coarctation of the aorta on patients with the following clinical conditions:	
	Stenosis of the aorta resulting in significant anatomic narrowing as determined by angiography or non- invasive imaging, i.e. echocardiography, magnetic resonance imaging (MRI), CT Scan  Stenosis of the aorta resulting in hemodynamic alterations, resulting in systolic pressure gradient, systemic hypertension or altered left ventricular function  Stenosis of the aorta where balloon angioplasty is ineffective or contraindicated  Stenosis diameter >20% of the adjacent vessel diameter	Stenosis of the aorta resulting in significant anatomic narrowing as determined by angiography or non- invasive imaging, i.e. echocardiography, magnetic resonance imaging (MRI), CT Scan Stenosis of the aorta resulting in hemodynamic alterations, resulting in systolic pressure gradient, systemic hypertension or altered left ventricular function Stenosis of the aorta where balloon angioplasty is ineffective or contraindicated Stenosis diameter <20% of the adjacent vessel diameter Stenosis that would present increased risk of vascular damage or disruption Aneurysm associated with coarctation of the aorta
		(Right Ventricular Outflow Tract) conduit disruptions that are identified during conduit predilatation procedures performed in preparation for transcatheter pulmonary valve replacement
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Covered Mounted CP Stent™

# Mounted and Covered Mounted CP Stent<sup>TM</sup>

The Mounted and Covered Mounted CP Stent™ consists of a bare/covered CP Stent® premounted on a BIB® Catheter. This system allows the physician the flexibility of using a pre-mounted system and will save the time required to mount the stent on the catheter.

Covered Mounted CP Stent™ (CMCP)

### **Benefits**

Mounted CP Stent™ (MCP)

**High quality** The CP Stent® is made of a 0.013" thick Platinum/Iridium wire mesh arranged in a zig-zag pattern. Every point of intersection is laser welded and brazed with 24K Gold.

High expansion range It has an expansion range of 12.0 mm – 24.0 mm for the 8 Zig and 26.0 mm – 30.0 mm for the 10 Zig.

Bare & Covered The CP Stent® is available in a bare version or covered with an expandable sheath of ePTFE.

Adjustable fit Thanks to its considerable capacity for expansion, the stent just needs to be redilated to accommodate the patient's natural growth. Therefore it may reduce the need for additional stent implantation.

**Premounting** saves time and reduces risk of dislodgement.

	IVIOUNICA OF OICHE (IVIOL)	Governa Modrita di Giaria					
CE	Class III						
Wire	0.013" Platinum/Iridium						
Brazing	24K Gold						
Stent length (cm)	8 Zig: 1.6 – 6.0 10 Zig: 3.9 – 6.0						
Balloon Diameter (mm)	12.0 – 30.0						
Balloon length (cm)	2.5 – 6.0						
Indication	ndicated for implantation in the native and/or recurrent coarctation of the aorta on patients with the following clinical conditions:						
	Stenosis of the aorta resulting in significant anatomic narrowing as determined by angiography or non- invasive imaging, i.e. echocardiography, magnetic resonance imaging (MRI), CT Scan  Stenosis of the aorta resulting in hemodynamic alterations, resulting in systolic pressure gradient, systemic hypertension or altered left ventricular function  Stenosis of the aorta where balloon angioplasty is ineffective or contraindicated  Stenosis diameter >20% of the adjacent vessel diameter	Stenosis of the aorta resulting in significant anatomic narrowing as determined by angiography or non-invasive imaging, i.e. echocardiography, magnetic resonance imaging (MRI), CT Scan Stenosis of the aorta resulting in hemodynamic alterations, resulting in systolic pressure gradient, systemic hypertension or altered left ventricular function Stenosis of the aorta where balloon angioplasty is ineffective or contraindicated Stenosis diameter <20% of the adjacent vessel diameter Stenosis that would present increased risk of vascular damage or disruption Aneurysm associated with coarctation of the aorta					
		Indicated for treatment of right ventricle to pulmonary artery (Right Ventricular Outflow Tract) conduit disruptions that are identified during conduit predilatation procedures performed in preparation for transcatheter pulmonary valve replacement					
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# NuDELTM

The NuDEL™ is an all-in-one stent delivery system which is designed for the efficient and effective treatment of Coarctation of the Aorta and Right Ventricular Outflow Tract (RVOT). It includes the proven technologies of the Covered CP Stent™, mounted on a Balloon-In-Balloon catheter (BIB®), which is then covered by an introducer sheath.

Only available in 8 Zig Configuration.

### **Benefits**

**Pre-loaded system** All components are already pre-loaded. This saves time and allows quick actions in emergency situations.

### **All-in-one Aortic stent system**

The NuDEL includes a BIB® balloon catheter and a Covered CP Stent™, which is then covered by a sheath.

**High quality** The CP Stent® is made of a 0.013" thick Platinum/Iridium wire mesh arranged in a zig-zag pattern. Every point of intersection is laser welded and brazed with 24K Gold.

Adjustable fit Thanks to its considerable capacity for expansion, the stent just needs to be re-dilated to accommodate the patient's natural growth. Therefore it may reduce the need for additional stent implantation.

	NuDEL™
(€	Class III
Wire	0.013" Platinum/Iridium
Brazing	24K Gold
Stent length (cm)	1.6 – 4.5
Catheter Body	Polymeric, DEHP-free, Latex-free
Balloon	Thermoplastic Elastomer (Non-compliant – The balloon will not exceed+/- 10% of the labeled balloon size at Rated Burst Pressure), DEHP-free, Latex-free
Image Band	Platinum/Iridium
Balloon Diameter (mm)	12.0 – 24.0
Balloon length (cm)	2.5 – 5.0
Outer Balloon Rated Burst Pressure (ATM)	3 – 7
Indication	Indicated for implantation in the native and/or recurrent coarctation of the aorta on patients with the following clinical conditions:
	Stenosis of the aorta resulting in significant anatomic narrowing as determined by angiography or non-invasive imaging, i.e. echocardiography, magnetic resonance imaging (MRI), CT Scan  Stenosis of the aorta resulting in hemodynamic alterations, resulting in systolic pressure gradient, systemic hypertension or altered left ventricular function  Stenosis of the aorta where balloon angioplasty is ineffective or contraindicated  Stenosis diameter < 20% of the adjacent vessel diameter  Stenosis that would present increased risk of vascular damage or disruption  Aneurysm associated with coarctation of the aorta
	Indicated for treatment of right ventricle to pulmonary artery (Right Ventricular Outflow Tract) conduit disruptions that are identified during conduit pre-dilatation procedures performed in preparation for transcatheter pulmonary valve replacement.
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The D'VILL<sup>TM</sup> is a long-length, kink-resistant hemostasis introducer which is designed for the safe and effective introduction of large diameter interventional devices. The D'VILL<sup>TM</sup> set includes one braided sheath with radiopaque marker band and dilator compatible with 0.035" guidewire.

Available in 12FR and 14FR sheath sizes with 30 cm, 65 cm and 85 cm usable lengths.

Compatible with the CP Stent® Franchise and BIB® catheters.

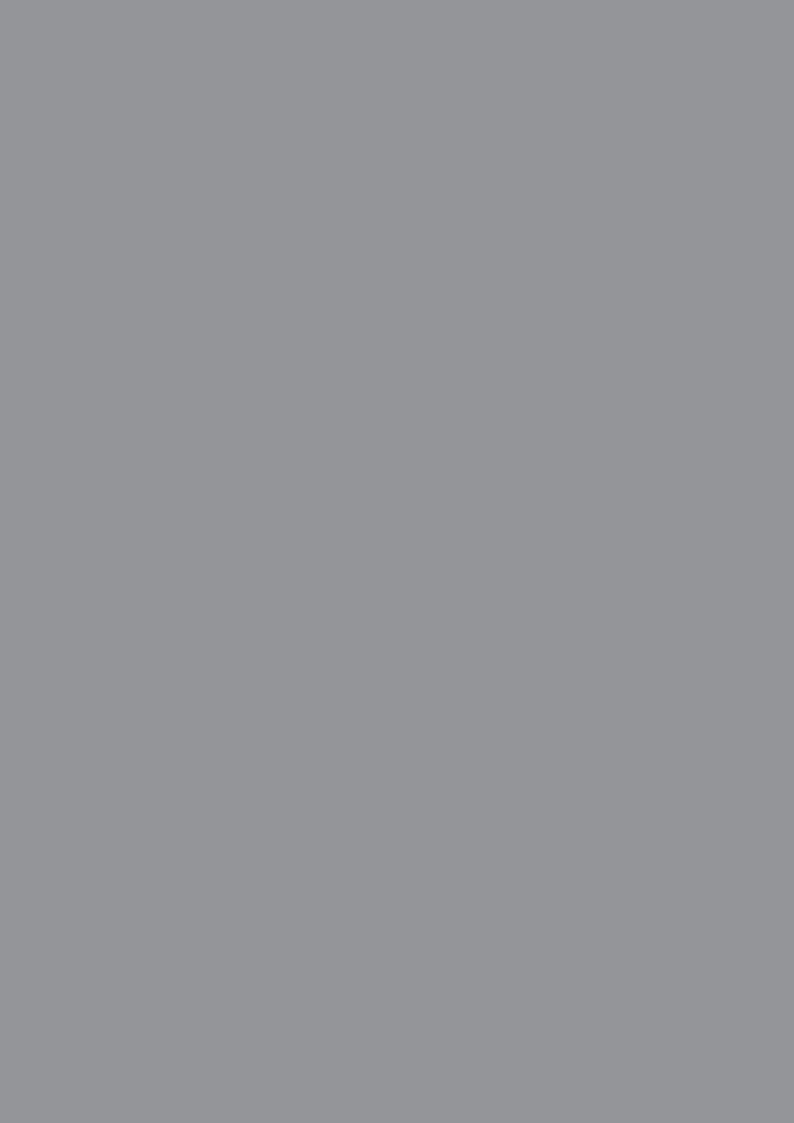
### **Benefits**

**Next generation braided sheath** for optimal flexibility and kink resistance. The distal 20 cm is more flexible which allows for smooth delivery of devices even in complex anatomy.

Radiopaque image band provides improved imaging and helps ensure accurate device delivery. The advanced hemostasis valve is designed to minimize blood loss during difficult procedures.

**Side port and 3-way stopcock** allows for convenient flushing.

	D'Vill™
CE	Class IIa
Sheath Body	Two Stage Braided Nylon (distal 20 cm has additional flexibility)
Image Band	Platinum/Iridium
Usable Sheath length (cm)	30, 65 and 85
Guidewire	0.035" (not included)
Dilator	LDPE
Stopcock	Three way
Indication	Recommended for the introduction of balloons, catheters, and other diagnostic and interventional devices.
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Z-MED <sup>TM</sup>	Z-MED <sup>TM</sup> -X	Balloon	Balloon	Introducer	Shaft	Usable	Guide	Rated	Nominal
Z-MED <sup>TM</sup> II	Z-MED™ II-X	Diameter (mm)	Length (cm)	Size (FR)	Size (FR)	Length* (cm)	Wire (Inches)	Burst (ATM)	Pressure (ATM)
PDZ600		4.0	2.0	5	5	100	0.025	15	6
PDZ323		4.0	2.0	6	5	100	0.025	10	N/A
PDZ601		4.0	3.0	5	5	100	0.025	15	6
PDZ602		4.0	4.0	5	5	100	0.025	15	6
PDZ603		4.0	5.0	5	5	100	0.025	15	6
PDZ604		4.0	6.0	5	5	100	0.025	15	6
PDZ676		4.0	10.0	5	5	100	0.025	15	6
PDZ324		5.0	2.0	6	5	100	0.025	10	N/A
PDZ605		5.0	2.0	6	5	100	0.025	15	6
PDZ606		5.0	3.0	6	5	100	0.025	15	6
PDZ607		5.0	4.0	6	5	100	0.025	15	6
PDZ608		5.0	5.0	6	5	100	0.025	15	6
PDZ609		5.0	6.0	6	5	100	0.025	15	6
PDZ325		6.0	2.0	6	5	100	0.025	10	N/A
PDZ610		6.0	2.0	6	5	100	0.025	15	6
PDZ611		6.0	3.0	6	5	100	0.025	15	6
PDZ344		6.0	3.0	7	6	100	0.035	10	N/A
PDZ612		6.0	4.0	6	5	100	0.025	15	6
PDZ613		6.0	5.0	6	5	100	0.025	15	6
PDZ614		6.0	6.0	6	5	100	0.025	15	6
PDZ317		7.0	2.0	6	5	100	0.025	10	N/A
PDZ615		7.0	2.0	6	5	100	0.025	15	6
PDZ616		7.0	3.0	6	5	100	0.025	15	6
PDZ617		7.0	4.0	6	5	100	0.025	15	6
PDZ618		7.0	5.0	6	5	100	0.025	15	6
PDZ619		7.0	6.0	6	5	100	0.025	15	6
PDZ326	PDZ400	8.0	2.0	7	6	100	0.035	10	N/A
PDZ620	PDZ700	8.0	2.0	7	6	100	0.035	15	6
PDZ327	PDZ401	8.0	3.0	7	6	100	0.035	10	N/A
PDZ621	PDZ701	8.0	3.0	7	6	100	0.035	15	6
	PDZ402	8.0	4.0	7	6	100	0.035	10	N/A
PDZ622	PDZ702	8.0	4.0	7	6	100	0.035	15	6
	PDZ403	8.0	5.0	7	6	100	0.035	10	N/A
PDZ623	PDZ703	8.0	5.0	7	6	100	0.035	15	6
	PDZ404	8.0	6.0	7	6	100	0.035	10	N/A
PDZ624	PDZ704	8.0	6.0	7	6	100	0.035	15	6
PDZ328	PDZ405	9.0	2.0	7	6	100	0.035	10	N/A
PDZ625	PDZ705	9.0	2.0	7	6	100	0.035	14	6
PDZ329	PDZ406	9.0	3.0	7	6	100	0.035	10	N/A
PDZ626	PDZ706	9.0	3.0	7	6	100	0.035	14	6
	PDZ407	9.0	4.0	7	6	100	0.035	10	N/A
PDZ627	PDZ707	9.0	4.0	7	6	100	0.035	14	6
32021	PDZ408	9.0	5.0	7	6	100	0.035	10	N/A
PDZ628	PDZ708	9.0	5.0	7	6	100	0.035	14	6

<sup>\*</sup> Select Z-MED/ Z-MED II catheters may be available in other usable lengths. Please refer to our website.

Z-MED <sup>TM</sup>	Z-MED™-X	Balloon Diameter	Balloon Length	Introducer Size	Shaft Size	Usable Length*	Guide Wire	Rated Burst	Nominal Pressure
Z-MED <sup>TM</sup> II	Z-MED™ II-X	(mm)	(cm)	(FR)	(FR)	(cm)	(Inches)	(ATM)	(ATM)
	PDZ409	9.0	6.0	7	6	100	0.035	10	N/A
PDZ629	PDZ709	9.0	6.0	7	6	100	0.035	14	6
PDZ630	PDZ710	10.0	2.0	7	6	100	0.035	13	6
PDZ330	PDZ410	10.0	2.0	7	6	100	0.035	9	N/A
PDZ631	PDZ711	10.0	3.0	7	6	100	0.035	13	6
PDZ331	PDZ411	10.0	3.0	7	6	100	0.035	9	N/A
PDZ632	PDZ712	10.0	4.0	7	6	100	0.035	13	6
PDZ341	PDZ412	10.0	4.0	7	6	100	0.035	9	N/A
PDZ633	PDZ713	10.0	5.0	7	6	100	0.035	13	6
	PDZ413	10.0	5.0	7	6	100	0.035	9	N/A
PDZ634	PDZ714	10.0	6.0	7	6	100	0.035	13	6
	PDZ414	10.0	6.0	7	6	100	0.035	9	N/A
PDZ371		11.0	3.0	7	6	100	0.035	7	N/A
80028		11.0	3.0	8	6	100	0.035	10	6
50039		11.0	4.0	8	6	100	0.035	10	6
SN022	PDZ415	12.0	2.0	7	6	100	0.035	7	N/A
PDZ635	PDZ715	12.0	2.0	8	6	100	0.035	10	6
DZ342		12.0	2.0	8	6	100	0.035	7	N/A
SN023	PDZ416	12.0	3.0	7	6	100	0.035	7	N/A
PDZ636	PDZ716	12.0	3.0	8	6	100	0.035	10	6
PDZ318		12.0	3.0	8	6	100	0.035	7	N/A
PDZ364		12.0	3.0	8	7	100	0.035	7	N/A
PDZ372		12.0	3.0	9	8	110	0.035	7	N/A
50093		12.0	3.5	8	6	100	0.035	10	6
SN025	PDZ417	12.0	4.0	7	6	100	0.035	7	N/A
PDZ637	PDZ717	12.0	4.0	8	6	100	0.035	10	6
PDZ332		12.0	4.0	8	6	100	0.035	7	N/A
PDZ365		12.0	4.0	8	7	100	0.035	7	N/A
SN026	PDZ418	12.0	5.0	7	6	100	0.035	7	N/A
PDZ638	PDZ718	12.0	5.0	8	6	100	0.035	10	6
	PDZ419	12.0	6.0	7	6	100	0.035	7	N/A
PDZ639	PDZ719	12.0	6.0	8	6	100	0.035	10	6
PDZ378		12.0	6.0	8	6	100	0.035	7	N/A
80068		12.0	2.5	8	6	100	0.035	10	6
SN047		13.0	3.0	9	7	100	0.035	10	5
PDZ348		13.0	3.0	9	7	100	0.035	6	N/A
SN048		13.0	4.0	9	7	100	0.035	10	5
DZ349		13.0	5.0	9	7	100	0.035	6	N/A
PDZ681		14.0	2.0	9	7	100	0.035	10	5
SN027		14.0	3.0	7	6	100	0.035	6	N/A
JINUL1	PDZ420	14.0	3.0	8	7	100	0.035	6	N/A
PDZ640	PDZ420 PDZ720	14.0	3.0	9	7	100	0.035	10	5
PDZ333	I DETEC	14.0	3.0	9	7	100	0.035		N/A
PDZ333		14.0	3.0	9	8	100	0.035	6	N/A N/A

 $<sup>^{\</sup>star}$  Select Z-MED/ Z-MED II catheters may be available in other usable lengths. Please refer to our website.



Z-MED™	Z-MED™-X	Balloon	Balloon	Introducer	Shaft	Usable	Guide	Rated	Nominal
Z-MED <sup>TM</sup> II	Z-MED <sup>TM</sup> II-X	Diameter (mm)	Length (cm)	Size (FR)	Size (FR)	Length* (cm)	Wire (Inches)	Burst (ATM)	Pressure (ATM)
PDZ380		14.0	4.0	7	6	100	0.035	6	N/A
	PDZ421	14.0	4.0	8	7	100	0.035	6	N/A
PDZ641	PDZ721	14.0	4.0	9	7	100	0.035	10	5
PDZ334		14.0	4.0	9	7	100	0.035	6	N/A
PDZ369		14.0	4.0	9	8	100	0.035	6	N/A
	PDZ422	14.0	5.0	8	7	100	0.035	6	N/A
PDZ642	PDZ722	14.0	5.0	9	7	100	0.035	10	5
PDZ351		14.0	5.0	9	7	100	0.035	6	N/A
	PDZ423	14.0	6.0	8	7	100	0.035	6	N/A
PDZ643	PDZ723	14.0	6.0	9	7	100	0.035	10	5
PDZ359		15.0	2.0	9	7	100	0.035	5	N/A
	PDZ424	15.0	3.0	8	7	100	0.035	5	N/A
PDZ335		15.0	3.0	9	7	100	0.035	5	N/A
PDZ644	PDZ724	15.0	3.0	9	7	100	0.035	8	5
	PDZ425	15.0	4.0	8	7	100	0.035	5	N/A
PDZ336		15.0	4.0	9	7	100	0.035	5	N/A
PDZ645	PDZ725	15.0	4.0	9	7	100	0.035	8	5
PDZ366	. 52. 20	15.0	4.0	9	8	100	0.035	5	N/A
<i>B</i> 2000	PDZ426	15.0	5.0	8	7	100	0.035	5	N/A
PDZ361	1 52 120	15.0	5.0	9	7	100	0.035	5	N/A
PDZ646	PDZ726	15.0	5.0	9	7	100	0.035	8	5
<i>D</i> 2010	PDZ427	15.0	6.0	8	7	100	0.035	5	N/A
PDZ647	PDZ727	15.0	6.0	9	7	100	0.035	8	5
PDZ322	PDZ428	16.0	3.0	9	7	100	0.035	5	N/A
PDZ648	PDZ728	16.0	3.0	9	7	100	0.035	8	4
PDZ319	PDZ429	16.0	4.0	9	7	100	0.035	5	N/A
PDZ649	PDZ729	16.0	4.0	9	7	100	0.035	8	4
PDZ367	I DZI ZJ	16.0	4.0	9	8	100	0.035	5	N/A
DZJO1	PDZ430	16.0	5.0	9	7	100	0.035	5	N/A
PDZ650		16.0	5.0	9	7	100	0.035	8	4
	PDZ730								N/A
PDZ370	PDZ431	16.0	6.0	9	7	100	0.035	5	
PDZ651	PDZ731	16.0	6.0	9	7	100	0.035	8	4
PDZ354		17.0	3.0	10	7	100	0.035	4	N/A
PDZ355		17.0	6.0	10	7	100	0.035	4	N/A
PDZ356	DD7400	18.0	3.0	10	7	100	0.035	4	N/A
PDZ373	PDZ432	18.0	3.0	10	8	100	0.035	4	N/A
PDZ652	PDZ732	18.0	3.0	10	8	100	0.035	7	4
PDZ347	DD7465	18.0	4.0	9	8	100	0.035	4	N/A
PDZ337	PDZ433	18.0	4.0	10	8	100	0.035	4	N/A
PDZ653	PDZ733	18.0	4.0	10	8	100	0.035	7	4
PDZ686		18.0	4.5	11	10	110	0.035	7	4
	PDZ434	18.0	5.0	10	8	100	0.035	4	N/A
PDZ654	PDZ734	18.0	5.0	10	8	100	0.035	7	4
PDZ357		18.0	6.0	10	7	100	0.035	4	N/A

<sup>\*</sup> Select Z-MED/ Z-MED II catheters may be available in other usable lengths. Please refer to our website.



Z-MED <sup>TM</sup>	Z-MED™-X	Balloon	Balloon	Introducer	Shaft	Usable	Guide	Rated	Nominal
Z-MED <sup>TM</sup> II	Z-MED <sup>TM</sup> II-X	Diameter (mm)	Length	Size (FR)	Size (FR)	Length*	Wire (Inches)	Burst (ATM)	Pressure
L WILD II		· /	(cm)		` '	(cm)		(ATIVI)	(ATM)
PDZ655	PDZ435 PDZ735	18.0 18.0	6.0	10 10	8	100 100	0.035 0.035	7	N/A 4
PDZ358	FDZ733	19.0	6.0	11	7	100	0.035	4	N/A
FDZ330	PDZ436	20.0	3.0	11	8	100	0.035	4	N/A
PDZ382	FDZ430	20.0	3.0	12	8	100	0.035	4	N/A
PDZ656	PDZ736	20.0	3.0	12	8	100	0.035	5	2
DZ030	PDZ437	20.0	4.0	11	8	100	0.035	4	N/A
PDZ320	I DZ-101	20.0	4.0	12	8	100	0.035	4	N/A
PDZ657	PDZ737	20.0	4.0	12	8	100	0.035	5	2
PDZ678	1 02101	20.0	4.5	11	10	110	0.035	5	2
<i>DL</i> 010	PDZ438	20.0	5.0	11	8	100	0.035	4	N/A
PDZ360	1 02 100	20.0	5.0	12	8	100	0.035	4	N/A
PDZ658	PDZ738	20.0	5.0	12	8	100	0.035	5	2
22000	PDZ439	20.0	6.0	11	8	100	0.035	4	N/A
PDZ659	PDZ739	20.0	6.0	12	8	100	0.035	5	2
S0005	1 02100	20.0	6.0	12	9	100	0.035	4	N/A
S0080		20.0	8.0	12	9	100	0.035	4	N/A
30000	PDZ440	22.0	3.0	11	9	100	0.035	3	N/A
PDZ660	PDZ740	22.0	3.0	12	9	100	0.035	4	2
<i>D</i> 2000	PDZ441	22.0	4.0	11	9	100	0.035	3	N/A
PDZ338	102111	22.0	4.0	12	9	100	0.035	3	N/A
PDZ661	PDZ741	22.0	4.0	12	9	100	0.035	4	2
PDZ679		22.0	4.5	12	10	110	0.035	4	2
	PDZ442	22.0	5.0	11	9	100	0.035	3	N/A
PDZ662	PDZ742	22.0	5.0	12	9	100	0.035	4	2
	PDZ443	22.0	6.0	11	9	100	0.035	3	N/A
S0006		22.0	6.0	12	9	100	0.035	3	N/A
PDZ663	PDZ743	22.0	6.0	12	9	100	0.035	4	2
S0081		22.0	8.0	12	9	100	0.035	3	N/A
	PDZ744	23.0	3.0	13	9	100	0.035	4	2
PDZ664		23.0	3.0	14	9	100	0.035	4	2
	PDZ745	23.0	4.0	13	9	100	0.035	4	2
PDZ665		23.0	4.0	14	9	100	0.035	4	2
PDZ682		23.0	4.5	12	10	110	0.035	4	2
S0016		23.0	5.0	12	9	100	0.035	3	N/A
	PDZ746	23.0	5.0	13	9	100	0.035	4	2
PDZ666		23.0	5.0	14	9	100	0.035	4	2
	PDZ747	23.0	6.0	13	9	100	0.035	4	2
PDZ667		23.0	6.0	14	9	100	0.035	4	2
S0089		24.0	3.0	12	9	100	0.035	3	N/A
S0059		24.0	4.0	12	9	100	0.035	3	N/A
PDZ397		24.0	5.0	12	9	100	0.035	3	N/A
S0042		25.0	2.0	14	9	85	0.035	4	2
S0040		25.0	2.0	14	9	100	0.035	4	2

 $<sup>^{\</sup>star}$  Select Z-MED/ Z-MED II catheters may be available in other usable lengths. Please refer to our website.

Z-MEDTM     Z-MEDTM     -X	Burst (ATM)  3 4 3 4 4 3 4 3 4 3 4 3 4 3 4 3 4 4 3 4	Pressure (ATM) N/A 2 N/A 2 N/A 2 N/A 2 N/A 2
SO056         PDZ4444         25.0         3.0         12         9         100         0.035           PDZ668         PDZ748         25.0         3.0         14         9         100         0.035           PDZ339         PDZ445         25.0         4.0         12         9         100         0.035           PDZ669         PDZ749         25.0         4.0         14         9         100         0.035           PDZ680         25.0         4.5         12         10         110         0.035           PDZ362         PDZ446         25.0         5.0         12         9         100         0.035           PDZ670         PDZ750         25.0         5.0         14         9         100         0.035           PDZ374         PDZ447         25.0         6.0         12         9         100         0.035           PDZ671         PDZ751         25.0         6.0         14         9         100         0.035           S0082         25.0         8.0         12         9         100         0.035           PDZ672         26.0         2.0         12         9         100         0.035	3 4 3 4 4 3 4 3 4 3 4 3 3 4 3	N/A 2 N/A 2 2 N/A 2 N/A 2 N/A 2 N/A N/A N/A
PDZ668         PDZ748         25.0         3.0         14         9         100         0.035           PDZ339         PDZ445         25.0         4.0         12         9         100         0.035           PDZ669         PDZ749         25.0         4.0         14         9         100         0.035           PDZ680         25.0         4.5         12         10         110         0.035           PDZ362         PDZ446         25.0         5.0         12         9         100         0.035           PDZ670         PDZ750         25.0         5.0         14         9         100         0.035           PDZ374         PDZ447         25.0         6.0         12         9         100         0.035           PDZ671         PDZ751         25.0         6.0         14         9         100         0.035           S0082         25.0         8.0         12         9         100         0.035           S0061         26.0         2.0         12         9         100         0.035           S0060         26.0         4.0         14         9         100         0.035 <t< td=""><td>3 4 4 3 4 3 4 3 4 3 4 3</td><td>N/A 2 2 N/A 2 N/A 2 N/A N/A</td></t<>	3 4 4 3 4 3 4 3 4 3 4 3	N/A 2 2 N/A 2 N/A 2 N/A N/A
PDZ669         PDZ749         25.0         4.0         14         9         100         0.035           PDZ680         25.0         4.5         12         10         110         0.035           PDZ362         PDZ446         25.0         5.0         12         9         100         0.035           PDZ670         PDZ750         25.0         5.0         14         9         100         0.035           PDZ374         PDZ447         25.0         6.0         12         9         100         0.035           PDZ671         PDZ751         25.0         6.0         14         9         100         0.035           80082         25.0         8.0         12         9         100         0.035           80061         26.0         2.0         12         9         100         0.035           80060         26.0         4.0         12         9         100         0.035           80070         26.0         4.0         14         9         100         0.035	4 4 3 4 3 4 3 3 4 3	2 2 N/A 2 N/A 2 N/A N/A
PDZ680         25.0         4.5         12         10         110         0.035           PDZ362         PDZ446         25.0         5.0         12         9         100         0.035           PDZ670         PDZ750         25.0         5.0         14         9         100         0.035           PDZ374         PDZ447         25.0         6.0         12         9         100         0.035           PDZ671         PDZ751         25.0         6.0         14         9         100         0.035           S0082         25.0         8.0         12         9         100         0.035           S0061         26.0         2.0         12         9         100         0.035           S0060         26.0         4.0         12         9         100         0.035           S0070         26.0         4.0         14         9         100         0.035	4 3 4 3 4 3 3 4 3	2 N/A 2 N/A 2 N/A N/A
PDZ362         PDZ446         25.0         5.0         12         9         100         0.035           PDZ670         PDZ750         25.0         5.0         14         9         100         0.035           PDZ374         PDZ447         25.0         6.0         12         9         100         0.035           PDZ671         PDZ751         25.0         6.0         14         9         100         0.035           80082         25.0         8.0         12         9         100         0.035           80061         26.0         2.0         12         9         100         0.035           80060         26.0         4.0         12         9         100         0.035           80070         26.0         4.0         14         9         100         0.035	3 4 3 4 3 3 4 3	N/A 2 N/A 2 N/A N/A
PDZ670         PDZ750         25.0         5.0         14         9         100         0.035           PDZ374         PDZ447         25.0         6.0         12         9         100         0.035           PDZ671         PDZ751         25.0         6.0         14         9         100         0.035           S0082         25.0         8.0         12         9         100         0.035           S0061         26.0         2.0         12         9         100         0.035           PDZ672         26.0         2.0         14         9         100         0.035           S0060         26.0         4.0         12         9         100         0.035           S0070         26.0         4.0         14         9         100         0.035	4 3 4 3 3 4 3	2 N/A 2 N/A N/A
PDZ374 PDZ447 25.0 6.0 12 9 100 0.035 PDZ671 PDZ751 25.0 6.0 14 9 100 0.035 S0082 25.0 8.0 12 9 100 0.035 S0061 26.0 2.0 12 9 100 0.035 PDZ672 26.0 2.0 14 9 100 0.035 S0060 26.0 4.0 12 9 100 0.035 S0070 26.0 4.0 14 9 100 0.035	3 4 3 3 4 3	N/A 2 N/A N/A
PDZ671         PDZ751         25.0         6.0         14         9         100         0.035           60082         25.0         8.0         12         9         100         0.035           60061         26.0         2.0         12         9         100         0.035           602672         26.0         2.0         14         9         100         0.035           60060         26.0         4.0         12         9         100         0.035           60070         26.0         4.0         14         9         100         0.035	4 3 3 4 3	2 N/A N/A
50082       25.0       8.0       12       9       100       0.035         50061       26.0       2.0       12       9       100       0.035         PDZ672       26.0       2.0       14       9       100       0.035         50060       26.0       4.0       12       9       100       0.035         50070       26.0       4.0       14       9       100       0.035	3 3 4 3	N/A N/A
30061     26.0     2.0     12     9     100     0.035       2DZ672     26.0     2.0     14     9     100     0.035       30060     26.0     4.0     12     9     100     0.035       30070     26.0     4.0     14     9     100     0.035	3 4 3	N/A
PDZ672       26.0       2.0       14       9       100       0.035         50060       26.0       4.0       12       9       100       0.035         50070       26.0       4.0       14       9       100       0.035	4 3	
30060     26.0     4.0     12     9     100     0.035       30070     26.0     4.0     14     9     100     0.035	3	2
50070         26.0         4.0         14         9         100         0.035		-
	4	N/A
PDZ683 26.0 4.5 13 10 110 0.035		2
	4	2
30087         26.0         6.0         12         9         100         0.035	3	N/A
DZ673 28.0 2.0 16 11 100 0.035	3.5	2
PDZ448 28.0 3.0 12 9 100 0.035	2	N/A
PDZ387 PDZ449 28.0 4.0 12 9 100 0.035	2	N/A
S0071 PDZ752 28.0 4.0 16 11 100 0.035	3.5	2
PDZ684 28.0 4.5 14 11 110 0.035	3.5	2
PDZ450 28.0 5.0 12 9 100 0.035	2	N/A
PDZ451 28.0 6.0 12 9 100 0.035	2	N/A
30088         28.0         6.0         12         9         100         0.035	2	N/A
30096     28.0     8.0     12     9     100     0.035	2	N/A
DZ674 30.0 2.0 16 11 100 0.035	3	2
PDZ452 30.0 3.0 13 9 100 0.035	2	N/A
PDZ453 30.0 4.0 13 9 100 0.035	2	N/A
S0072         PDZ753         30.0         4.0         16         11         100         0.035	3	2
PDZ685 30.0 4.5 14 11 110 0.035	3	2
PDZ454 30.0 5.0 13 9 100 0.035	2	N/A
30079         30.0         5.0         16         11         100         0.035	3	2
PDZ455 30.0 6.0 13 9 100 0.035	2	N/A
PDZ394 30.0 6.0 14 9 100 0.035	2	N/A
30.0       6.0       14       9       100       0.035	2	N/A
PDZ675 30.0 6.0 16 11 100 0.035	3	2
30.0     8.0     14     9     100     0.035	2	N/A
DZ677 30.0 10.0 16 11 100 0.035	3	2
33.0 2.0 16 11 100 0.035	1.5	N/A
33.0         4.0         16         11         100         0.035	1.5	N/A
33.0     6.0     16     11     100     0.035	1.5	N/A
35.0         4.0         16         11         100         0.035	1.5	N/A
30076       35.0       6.0       16       11       100       0.035	1.5	N/A
60077         40.0         4.0         16         11         100         0.035	1	N/A
S0078     40.0     6.0     16     11     100     0.035	1	N/A

<sup>\*</sup> Select Z-MED/ Z-MED II catheters may be available in other usable lengths. Please refer to our website.



Tyshak®	Tyshak® MINI	Balloon Diameter	Balloon Length	Introducer Size	Shaft Size	Usable Length*	Guide Wire	Rated Burst	Nominal Pressure
yshak® II	Tyshak-X™	(mm)	(cm)	(FR)	(FR)	(cm)	(Inches)	(ATM)	(ATM)
PDC162		2.0	1.0	4	3.5	70	0.018	10	N/A
	S0095	4.0	1.0	3	2.5	65	0.014	6	4.5
DC001		4.0	1.0	4	3.5	70	0.018	5	N/A
	PDC400	4.0	2.0	3	2.5	65	0.014	6	4.5
DC021		4.0	2.0	4	3.5	70	0.018	5	N/A
DC500		4.0	2.0	4	4	70	0.021	6	4.5
N003		4.0	2.0	4	4	100	0.021	6	4.5
DC172		4.0	2.0	5	4	70	0.018	5	N/A
DC138		4.0	2.0	6	5.5	100	0.035	5	N/A
DC141		4.0	3.0	6	5.5	100	0.035	5	N/A
DC551		4.0	10.0	4	4	70	0.021	6	4.5
	S0097	5.0	1.0	3	2.5	65	0.014	6	4.5
DC002		5.0	1.0	4	3.5	70	0.018	5	N/A
	PDC401	5.0	2.0	3	2.5	65	0.014	6	4.5
DC073		5.0	2.0	4	3.5	70	0.018	5	N/A
DC501		5.0	2.0	4	4	70	0.021	6	4.5
N004		5.0	2.0	4	4	100	0.021	6	4.5
DC003		5.0	2.0	6	5.5	70	0.035	5	N/A
PDC029		5.0	2.0	6	5.5	100	0.035	5	N/A
DC022		5.0	3.0	4	3.5	70	0.018	5	N/A
60020		5.0	3.0	4	4	70	0.021	6	4.5
DC049		5.0	4.0	4	3.5	90	0.018	5	N/A
PDC035		5.0	4.0	5	4	70	0.018	5	N/A
	S0098	6.0	1.0	3	2.5	65	0.014	4	3.5
DC004		6.0	1.0	4	3.5	70	0.018	5	N/A
DC173		6.0	1.5	4	3.5	70	0.018	5	N/A
	PDC402	6.0	2.0	3	2.5	65	0.014	4	3.5
DC061		6.0	2.0	4	3.5	70	0.018	5	N/A
PDC502		6.0	2.0	4	4	70	0.021	4	3.5
SN005		6.0	2.0	4	4	100	0.021	4	3.5
PDC088		6.0	2.0	5	4	70	0.021	5	N/A
DC062		6.0	2.0	5	5	70	0.025	5	N/A
PDC005		6.0	2.0	6	5.5	70	0.035	5	N/A
DC174		6.0	2.0	6	5.5	70	0.018	5	N/A
PDC030		6.0	2.0	6	5.5	100	0.035	5	N/A
DC156		6.0	3.0	4	3.5	70	0.018	5	N/A
0021		6.0	3.0	4	4	70	0.021	4	3.5
DC023		6.0	3.0	6	5	70	0.025	5	N/A
DC202		6.0	3.0	6	5.5	100	0.035	5	N/A
PDC087		6.0	4.0	5	5	90	0.025	5	N/A
PDC036		6.0	4.0	6	5	70	0.025	5	N/A
PDC102		6.0	5.0	6	5.5	70	0.035	5	N/A
PDC050		6.0	6.0	6	5	90	0.025	5	N/A
PDC103		6.0	8.0	6	5.5	100	0.035	5	N/A

<sup>\*</sup> Select Tyshak catheters may be available in other usable lengths. Please refer to our website.



Γyshak <sup>®</sup>	Tyshak® MINI	Balloon	Balloon	Introducer	Shaft	Usable	Guide	Rated	Nominal
Tyshak® II	Tyshak-X <sup>TM</sup>	Diameter (mm)	Length (cm)	Size (FR)	Size (FR)	Length* (cm)	Wire (Inches)	Burst (ATM)	Pressure (ATM)
•	S0101	7.0	1.0	3	2.5	65	0.014	4	3.5
DC006	00101	7.0	1.5	5	4	70	0.021	5	N/A
2000	PDC403	7.0	2.0	3	2.5	65	0.014	4	3.5
PDC175	1.20.00	7.0	2.0	4	3.5	70	0.018	5	N/A
PDC503		7.0	2.0	4	4	70	0.021	4	3.5
SN006		7.0	2.0	4	4	100	0.021	4	3.5
DC109		7.0	2.0	5	4	70	0.021	5	N/A
PDC126		7.0	2.0	5	4	70	0.018	5	N/A
DC176		7.0	2.0	6	5.5	70	0.025	5	N/A
DC124		7.0	2.0	7	6	75	0.035	5	N/A
DC509		7.0	3.0	4	4	70	0.021	4	3.5
SN010		7.0	3.0	4	4	100	0.021	4	3.5
PDC118		7.0	3.0	5	4	70	0.021	5	N/A
PDC157		7.0	3.0	5	4	70	0.018	5	N/A
DC024		7.0	3.0	6	5.5	70	0.025	5	N/A
PDC037		7.0	4.0	6	5	70	0.025	5	N/A
2000.	S0102	8.0	1.0	3	2.5	65	0.014	4	3.5
PDC007		8.0	1.5	5	5	70	0.021	5	N/A
2000.	PDC404	8.0	2.0	3	2.5	65	0.014	4	3.5
PDC504	, 20.01	8.0	2.0	4	4	70	0.021	4	3.5
SN007		8.0	2.0	4	4	100	0.021	4	3.5
PDC127		8.0	2.0	5	4	70	0.018	5	N/A
PDC177		8.0	2.0	5	5	70	0.025	5	N/A
DC063		8.0	2.0	6	5.5	70	0.025	5	N/A
PDC045		8.0	2.0	6	5.5	100	0.035	5	N/A
	PDC300	8.0	2.0	6	6	100	0.035	5	N/A
PDC510		8.0	3.0	4	4	70	0.021	4	3.5
SN011		8.0	3.0	4	4	100	0.021	4	3.5
PDC178		8.0	3.0	5	4	70	0.025	5	N/A
PDC115		8.0	3.0	5	5	70	0.018	5	N/A
PDC025		8.0	3.0	6	5.5	70	0.035	5	N/A
PDC031		8.0	3.0	6	5.5	70	0.025	5	N/A
PDC008		8.0	3.0	6	5.5	100	0.035	5	N/A
	PDC301	8.0	3.0	6	6	100	0.035	5	N/A
60029		8.0	4.0	4	4	70	0.021	4	3.5
DC179		8.0	4.0	5	5	70	0.025	5	N/A
PDC038		8.0	4.0	6	5	70	0.025	5	N/A
DC051		8.0	4.0	6	5.5	70	0.025	5	N/A
PDC067		8.0	4.0	6	5.5	100	0.035	5	N/A
	PDC302	8.0	4.0	6	6	100	0.035	5	N/A
50032		8.0	5.0	4	4	70	0.021	4	3.5
60011		8.0	5.0	6	5.5	70	0.035	5	N/A
	PDC303	8.0	5.0	6	6	100	0.035	5	N/A
SO030		8.0	6.0	4	4	70	0.021	4	3.5

<sup>\*</sup> Select Tyshak catheters may be available in other usable lengths. Please refer to our website.



Tyshak®	Tyshak® MINI	Balloon	Balloon	Introducer	Shaft	Usable	Guide	Rated	Nominal
Tyshak® II	Tyshak-X <sup>TM</sup>	Diameter (mm)	Length (cm)	Size (FR)	Size (FR)	Length*	Wire (Inches)	Burst (ATM)	Pressure (ATM)
PDC052	Tyonan 71	8.0	6.0	6	5.5	(cm) 70	0.025	5	N/A
PDC052		8.0	6.0	6	5.5	100	0.025	5	N/A
DC000	PDC304	8.0	6.0	6	6	100	0.035	5	N/A
PDC147	FD0304	8.0	8.0	6	5	100	0.033	5	N/A
PDC069		8.0	8.0	6	5.5	100	0.021	5	N/A
20009	S0103	9.0	1.0	4	3.5	65	0.033	3.5	3
	PDC405	9.0	2.0	4	3.5	65	0.014	3.5	3
20007	PD0403	9.0				90			3
S0007			2.0	5	5		0.025	3.5	
SN012		9.0	2.0	5	5	100	0.025	5	N/A
PDC155		9.0	2.0	5	5	110	0.025	5	N/A
PDC009		9.0	2.0	6	5.5	70	0.025	5	N/A
PDC113	DDOOGE	9.0	2.0	6	5.5	100	0.035	5	N/A
DDOFOE	PDC305	9.0	2.0	6	6	100	0.035	5	N/A
PDC505		9.0	3.0	5	5	90	0.025	3.5	3
SN008		9.0	3.0	5	5	100	0.025	3.5	3
PDC116		9.0	3.0	6	5	70	0.018	5	N/A
PDC026		9.0	3.0	6	5.5	70	0.035	5	N/A
PDC180		9.0	3.0	6	5.5	70	0.025	5	N/A
	PDC306	9.0	3.0	6	6	100	0.035	5	N/A
	PDC407	9.0	4.0	4	3.5	65	0.014	3.5	3
PDC086		9.0	4.0	6	5.5	100	0.035	5	N/A
	PDC307	9.0	4.0	6	6	100	0.035	5	N/A
	PDC308	9.0	5.0	6	6	100	0.035	5	N/A
	PDC309	9.0	6.0	6	6	100	0.035	5	N/A
	S0104	10.0	1.0	4	3.5	65	0.014	3.5	3
	PDC406	10.0	2.0	4	3.5	65	0.014	3.5	3
S0003		10.0	2.0	5	5	90	0.025	3.5	3
PDC010		10.0	2.0	6	5.5	85	0.025	5	N/A
PDC064		10.0	2.0	6	5.5	85	0.035	5	N/A
PDC114		10.0	2.0	6	5.5	100	0.035	5	N/A
	PDC310	10.0	2.0	6	6	100	0.035	5	N/A
PDC181		10.0	2.0	7	6	100	0.035	5	N/A
PDC506		10.0	3.0	5	5	90	0.025	3.5	3
SN009		10.0	3.0	5	5	100	0.025	3.5	3
PDC130		10.0	3.0	6	4	70	0.018	5	N/A
PDC163		10.0	3.0	6	5.5	70	0.025	5	N/A
PDC117		10.0	3.0	6	5.5	100	0.035	5	N/A
PDC081		10.0	3.0	6	6	80	0.025	5	N/A
PDC080		10.0	3.0	6	6	100	0.025	5	N/A
	PDC311	10.0	3.0	6	6	100	0.035	5	N/A
PDC164		10.0	3.0	7	6	85	0.025	5	N/A
PDC011		10.0	3.0	7	6	100	0.035	5	N/A
	PDC408	10.0	4.0	4	3.5	65	0.014	3.5	3
S0001		10.0	4.0	5	5	90	0.025	3.5	3

<sup>\*</sup> Select Tyshak catheters may be available in other usable lengths. Please refer to our website.



Tyshak® Li	ne								
Tyshak®	Tyshak® MINI	Balloon Diameter	Balloon Length	Introducer Size	Shaft Size	Usable Length*	Guide Wire	Rated Burst	Nominal Pressure
Tyshak® II	Tyshak-X <sup>TM</sup>	(mm)	(cm)	(FR)	(FR)	(cm)	(Inches)	(ATM)	(ATM)
PDC044		10.0	4.0	6	5.5	70	0.025	5	N/A
PDC053		10.0	4.0	6	5.5	100	0.025	5	N/A
PDC182		10.0	4.0	6	5.5	100	0.035	5	N/A
	PDC312	10.0	4.0	6	6	100	0.035	5	N/A
PDC012		10.0	4.0	7	6	100	0.035	5	N/A
SO031		10.0	5.0	5	5	90	0.025	3.5	3
PDC132		10.0	5.0	6	5	70	0.025	5	N/A
PDC089		10.0	5.0	6	5.5	85	0.025	5	N/A
	PDC313	10.0	5.0	6	6	100	0.035	5	N/A
DC047		10.0	5.0	7	6	100	0.035	5	N/A
DC054		10.0	6.0	6	5.5	100	0.035	5	N/A
DC055		10.0	6.0	6	5.5	100	0.025	5	N/A
50009		10.0	6.0	6	6	100	0.025	3.5	3
	PDC314	10.0	6.0	6	6	100	0.035	5	N/A
PDC183		10.0	6.0	7	6	100	0.035	5	N/A
DC146		10.0	8.0	6	5	100	0.025	5	N/A
PDC074		10.0	8.0	7	6	100	0.025	5	N/A
DC129		10.0	8.0	7	6	100	0.035	5	N/A
PDC075		10.0	10.0	7	6	100	0.025	5	N/A
DC090		10.0	10.0	7	6	100	0.035	5	N/A
80086		11.0	2.0	5	5	90	0.025	3.5	3
SN11290		11.0	2.0	5	5	90	0.025	3.5	3
60017		11.0	3.0	5	5	90	0.025	3.5	3
DC150		11.0	3.0	6	5	70	0.018	4.5	N/A
PDC159		11.0	3.0	7	6	100	0.035	4.5	N/A
80002		11.0	4.0	5	5	90	0.025	3.5	3
80008		12.0	2.0	5	5	90	0.025	3.5	3
50014		12.0	2.0	6	6	90	0.035	3.5	3
SO100		12.0	2.0	6	6	100	0.035	3.5	3
PDC166		12.0	2.0	7	5.5	85	0.035	4.5	N/A
DC100		12.0	2.0	7	5.5	100	0.025	4.5	N/A
DC146 DC186		12.0	2.0	7	5.5	100	0.025	4.5	N/A
PDC167		12.0	2.0	7	6	85	0.035	4.5	N/A
DC107	PDC315	12.0	2.0	7	6	100	0.025	4.5	N/A
DC165	1 00010	12.0	2.5	7	5.5	85	0.035	4.5	N/A
		12.0		7	5.5	100			N/A N/A
DC184			2.5				0.035	4.5	
DC195		12.0	2.5	7	6	85	0.025	4.5	N/A
DC185		12.0	2.5	7	6	100	0.035	4.5	N/A
PDC507		12.0	3.0	5	5	90	0.025	3.5	3
DC169		12.0	3.0	7	5.5	85	0.025	4.5	N/A
PDC149		12.0	3.0	7	5.5	100	0.025	4.5	N/A
DC188		12.0	3.0	7	5.5	100	0.035	4.5	N/A
PDC170		12.0	3.0	7	6	85	0.025	4.5	N/A
PDC014		12.0	3.0	7	6	100	0.035	4.5	N/A

<sup>\*</sup> Select Tyshak catheters may be available in other usable lengths. Please refer to our website.



Tuobali®	Tuebel (® MINI	Balloon	Balloon	Introducer	Shaft	Usable	Guide	Rated	Nominal
Tyshak <sup>®</sup>	Tyshak® MINI	Diameter	Length	Size	Size	Length*	Wire	Burst	Pressure
Tyshak® II	Tyshak-X <sup>TM</sup>	(mm)	(cm)	(FR)	(FR)	(cm)	(Inches)	(ATM)	(ATM)
PDC133		12.0	3.0	7	6	100	0.025	4.5	N/A
PDC079		12.0	3.0	7	6	100	0.035	4.5	N/A
	PDC316	12.0	3.0	7	6	100	0.035	4.5	N/A
PDC168		12.0	3.5	7	5.5	85	0.025	4.5	N/A
PDC187		12.0	3.5	7	5.5	100	0.035	4.5	N/A
PDC508		12.0	4.0	6	6	90	0.035	3.5	3
PDC171		12.0	4.0	7	5.5	85	0.025	4.5	N/A
PDC015		12.0	4.0	7	6	100	0.035	4.5	N/A
PDC134		12.0	4.0	7	6	100	0.025	4.5	N/A
	PDC317	12.0	4.0	7	6	100	0.035	4.5	N/A
80033		12.0	5.0	5	5	90	0.025	3.5	3
PDC039	PDC318	12.0	5.0	7	6	100	0.035	4.5	N/A
50004		12.0	6.0	6	6	90	0.035	3.5	3
DC056	PDC319	12.0	6.0	7	6	100	0.035	4.5	N/A
PDC057		12.0	7.0	7	6	100	0.035	4.5	N/A
PDC091		12.0	8.0	7	6	100	0.035	4.5	N/A
S0015		12.0	10.0	7	6	100	0.035	4.5	N/A
80035		13.0	2.0	6	6	100	0.035	3	2.5
50036		13.0	3.0	6	6	100	0.035	3	2.5
50010		13.0	3.0	7	6	100	0.035	4	N/A
S0034		13.0	4.0	6	6	100	0.035	3	2.5
PDC152		13.0	4.0	7	6	100	0.035	4	N/A
PDC098		13.0	5.0	7	6	100	0.035	4	N/A
50069		13.0	5.0	6	6	100	0.035	3	2.5
PDC078		13.0	5.0	7	6	100	0.035	4	N/A
PDC158		13.0	6.0	7	6	100	0.035	4	N/A
S0018		14.0	2.0	7	7	100	0.035	3	2
PDC511		14.0	3.0	7	7	100	0.035	3	2
PDC190	PDC320	14.0	3.0	8	7	100	0.035	3.5	N/A
PDC189	1 00020	14.0	3.5	8	7	100	0.035	3.5	N/A
PDC191		14.0	4.0	7	6	100	0.035	3.5	N/A
PDC512		14.0	4.0	7	7	100	0.035	3.5	2
PDC107		14.0	4.0	8	6	100	0.035	3.5	Z N/A
	DDC221				7				
PDC192	PDC321	14.0	4.0	8		100	0.035	3.5	N/A
PDC513	DDCCCC	14.0	5.0	7	7	100	0.035	3	2
D0150	PDC322	14.0	5.0	8	7	100	0.035	3.5	N/A
PDC153		14.0	5.0	9	7	100	0.035	3.5	N/A
DC514	DD 0000	14.0	6.0	7	7	100	0.035	3	2
PDC193	PDC323	14.0	6.0	8	7	100	0.035	3.5	N/A
30019		14.0	8.0	7	7	100	0.035	3	2
PDC095		15.0	2.0	7	6	100	0.035	3.5	N/A
PDC033		15.0	2.0	8	7	100	0.035	3.5	N/A
PDC515		15.0	3.0	7	7	100	0.035	3	2
PDC016	PDC324	15.0	3.0	8	7	100	0.035	3.5	N/A

 $<sup>^{\</sup>star}$  Select Tyshak catheters may be available in other usable lengths. Please refer to our website.



Tyshak®	Tyshak® MINI	Balloon	Balloon	Introducer	Shaft	Usable	Guide	Rated	Nominal
Tyshak® II	Tyshak-X™	Diameter (mm)	Length (cm)	Size (FR)	Size (FR)	Length* (cm)	Wire (Inches)	Burst (ATM)	Pressure (ATM)
PDC516		15.0	4.0	7	7	100	0.035	3	2
PDC046	PDC325	15.0	4.0	8	7	100	0.035	3.5	N/A
PDC128		15.0	4.0	9	8	100	0.035	3.5	N/A
PDC517		15.0	5.0	7	7	100	0.035	3	2
PDC040	PDC326	15.0	5.0	8	7	100	0.035	3.5	N/A
PDC518		15.0	6.0	7	7	100	0.035	3	2
PDC058	PDC327	15.0	6.0	8	7	100	0.035	3.5	N/A
PDC119		15.0	7.0	8	7	100	0.035	3.5	N/A
PDC121		15.0	7.0	8	7	100	0.035	3.5	N/A
DC092		15.0	8.0	8	7	100	0.035	3.5	N/A
PDC070		15.0	10.0	8	7	100	0.035	3.5	N/A
SN002		16.0	2.0	7	7	100	0.035	2.5	2
PDC519		16.0	3.0	7	7	100	0.035	2.5	2
PDC195	PDC328	16.0	3.0	8	7	100	0.035	3.5	N/A
DC194		16.0	3.5	8	7	100	0.035	3.5	N/A
PDC520		16.0	4.0	7	7	100	0.035	2.5	2
PDC196	PDC329	16.0	4.0	8	7	100	0.035	3.5	N/A
PDC521	1 00020	16.0	5.0	7	7	100	0.035	2.5	2
DOOLI	PDC330	16.0	5.0	8	7	100	0.035	3.5	N/A
PDC522	1 00000	16.0	6.0	7	7	100	0.035	2.5	2
PDC197	PDC331	16.0	6.0	8	7	100	0.035	3.5	N/A
PDC144	1 00001	16.0	6.0	9	7	100	0.035	3.5	N/A
S0037		16.0	8.0	7	7	100	0.035	2.5	2
PDC125		16.0	9.0	9	7	100	0.035	3.5	N/A
PDC523		17.0	3.0	7	7	100	0.035	2.5	2
		17.0	4.0	7		100		2.5	2
PDC524 PDC525		17.0		7	7		0.035		2
			5.0			100		2.5	
S0012		17.0	5.0	9	7	100	0.035	2	N/A
PDC526		17.0	6.0	7	7	100	0.035	2.5	2
PDC151		17.0	6.0	9	7	100	0.035	2	N/A
80038		17.0	8.0	7	7	100	0.035	2.5	2
PDC123		17.0	8.0	9	8	100	0.035	2	N/A
PDC094		18.0	2.0	8	7	100	0.035	2	N/A
PDC034		18.0	2.0	9	8	100	0.035	2	N/A
PDC527		18.0	3.0	8	8	100	0.035	2	1.5
DC017	PDC332	18.0	3.0	9	8	100	0.035	2	N/A
DC528		18.0	4.0	8	8	100	0.035	2	1.5
DC122		18.0	4.0	9	7	80	0.035	2	N/A
DC097		18.0	4.0	9	8	85	0.035	2	N/A
DC076	PDC333	18.0	4.0	9	8	100	0.035	2	N/A
DC529		18.0	5.0	8	8	100	0.035	2	1.5
PDC041	PDC334	18.0	5.0	9	8	100	0.035	2	N/A
PDC530		18.0	6.0	8	8	100	0.035	2	1.5
PDC027	PDC335	18.0	6.0	9	8	100	0.035	2	N/A

<sup>\*</sup> Select Tyshak catheters may be available in other usable lengths. Please refer to our website.



yshak®	Tyshak® MINI	Balloon	Balloon	Introducer	Shaft	Usable	Guide	Rated	Nominal
yshak® II	Tyshak-X™	Diameter (mm)	Length (cm)	Size (FR)	Size (FR)	Length* (cm)	Wire (Inches)	Burst (ATM)	Pressure (ATM)
DC093		18.0	8.0	9	8	100	0.035	2	N/A
DC135		18.0	8.0	9	8	100	0.035	2	N/A
DC059		18.0	10.0	10	8	100	0.035	2	N/A
PDC136		19.0	6.0	9	8	100	0.035	2	N/A
PDC099		19.0	9.0	9	8	100	0.035	2	N/A
DC137		19.0	9.0	9	8	100	0.035	2	N/A
SN001		20.0	2.0	8	8	100	0.035	2	1.5
DC531		20.0	3.0	8	8	100	0.035	2	1.5
DC042	PDC336	20.0	3.0	10	8	100	0.035	2	N/A
DC532		20.0	4.0	8	8	100	0.035	2	1.5
DC198		20.0	4.0	9	8	100	0.035	2	N/A
DC018	PDC337	20.0	4.0	10	8	100	0.035	2	N/A
DC533		20.0	5.0	8	8	100	0.035	2	1.5
DC048	PDC338	20.0	5.0	10	8	100	0.035	2	N/A
DC534		20.0	6.0	8	8	100	0.035	2	1.5
DC199		20.0	6.0	9	8	100	0.035	2	N/A
DC028	PDC339	20.0	6.0	10	8	100	0.035	2	N/A
DC140		20.0	8.0	9	8	100	0.035	2	N/A
DC104		20.0	8.0	10	8	100	0.035	2	N/A
DC100		20.0	9.0	9	8	100	0.035	2	N/A
DC111		20.0	9.0	9	8	100	0.035	2	N/A
DC060		20.0	10.0	10	8	100	0.035	2	N/A
N013		22.0	2.0	8	8	100	0.035	2	1.5
DC535		22.0	3.0	8	8	100	0.035	2	1.5
	PDC340	22.0	3.0	10	9	100	0.035	2	N/A
DC065		22.0	3.0	11	9	100	0.035	2	N/A
DC536		22.0	4.0	8	8	100	0.035	2	1.5
	PDC341	22.0	4.0	10	9	100	0.035	2	N/A
DC019		22.0	4.0	11	9	100	0.035	2	N/A
DC537		22.0	5.0	8	8	100	0.035	2	1.5
	PDC342	22.0	5.0	10	9	100	0.035	2	N/A
DC108		22.0	5.5	10	9	100	0.035	2	N/A
DC538		22.0	6.0	8	8	100	0.035	2	1.5
DC200	PDC343	22.0	6.0	10	9	100	0.035	2	N/A
DC131		22.0	6.0	11	7	100	0.035	2	N/A
DC139		22.0	6.0	11	9	100	0.035	2	N/A
DC539		23.0	3.0	9	9	100	0.035	2	1.5
DC540		23.0	4.0	9	9	100	0.035	2	1.5
DC541		23.0	5.0	9	9	100	0.035	2	1.5
DC120		23.0	5.5	11	9	100	0.035	2	N/A
DC542		23.0	6.0	9	9	100	0.035	2	1.5
DC145		23.0	6.0	11	9	100	0.035	2	N/A
DC543		25.0	3.0	9	9	100	0.035	1.5	1
	PDC344	25.0	3.0	11	9	100	0.035	1.5	N/A

 $<sup>^{\</sup>star}$  Select Tyshak catheters may be available in other usable lengths. Please refer to our website.



Tyshak <sup>®</sup> Lir	ne								
Tyshak®	Tyshak® MINI	Balloon Diameter	Balloon Length	Introducer Size	Shaft Size	Usable Length	Guide Wire	Rated Burst	Nominal Pressure
Tyshak® II	Tyshak-X™	(mm)	(cm)	(FR)	(FR)	(cm)	(Inches)	(ATM)	(ATM)
PDC544		25.0	4.0	9	9	100	0.035	1.5	1
PDC020	PDC345	25.0	4.0	11	9	100	0.035	1.5	N/A
PDC545		25.0	5.0	9	9	100	0.035	1.5	1
	PDC346	25.0	5.0	11	9	100	0.035	1.5	N/A
PDC546		25.0	6.0	9	9	100	0.035	1.5	1
PDC201		25.0	6.0	10	9	100	0.035	1.5	N/A
PDC072	PDC347	25.0	6.0	11	9	100	0.035	1.5	N/A
PDC547		30.0	3.0	10	9	100	0.035	1.5	1
PDC548		30.0	4.0	10	9	100	0.035	1.5	1
PDC549		30.0	5.0	10	9	100	0.035	1.5	1
PDC550		30.0	6.0	10	9	100	0.035	1.5	1
PDC552		30.0	10.0	10	9	100	0.035	1.5	1

<sup>\*</sup> Select Tyshak catheters may be available in other usable lengths. Please refer to our website.



NuCLEUS™	NuCLEUS-X™	Balloon	Balloon	Introducer	Shaft	Usable	Guide	Rated
Tyshak NuCLEUS™		Diameter	Length	Size	Size	Length	Wire	Burst
		(mm)	(cm)	(FR)	(FR)	(cm)	(Inches)	(ATM)
TN001		4.0	2.0	6	5,5	100	0.035	5
TN002		4.0	3.0	6	5,5	100	0.035	5
TN003		5.0	2.0	6	5,5	100	0.035	5
TN004		5.0	3.0	6	5,5	100	0.035	5
TN005		5.0	4.0	6	5,5	100	0.035	5
TN006		6.0	2.0	6	5,5	100	0.035	5
TN007		6.0	3.0	6	5,5	100	0.035	5
TN008		6.0	4.0	6	5,5	100	0.035	5
ΓN009		7.0	2.0	6	5,5	100	0.035	5
ΓN010		7.0	3.0	6	5,5	100	0.035	5
ΓN011		7.0	4.0	6	5,5	100	0.035	5
ΓN012		8.0	2.0	6	5,5	100	0.035	5
ΓN013		8.0	3.0	6	5,5	100	0.035	5
ΓN014		8.0	4.0	6	5,5	100	0.035	5
ΓN015		9.0	2.0	6	5,5	100	0.035	5
TN016		9.0	3.0	6	5,5	100	0.035	5
ΓN017		9.0	4.0	6	5,5	100	0.035	5
ΓN018		10.0	2.0	7	6	100	0.035	5
ΓN019		10.0	3.0	7	6	100	0.035	5
ΓN020		10.0	4.0	7	6	100	0.035	5
PVN218		10.0	3.0	7	6	110	0.035	9
PVN219		10.0	4.0	7	6	110	0.035	9
PVN236		10.0	5.0	7	6	110	0.035	9
PVN237		10.0	6.0	7	6	110	0.035	9
ΓN021		12.0	2.0	7	6	100	0.035	4,5
ΓN022		12.0	3.0	7	6	100	0.035	4,5
ΓN023		12.0	4.0	7	6	100	0.035	4,5
PVN220		12.0	3.0	7	6	110	0.035	7
PVN221		12.0	3.0	8	6	110	0.035	7
PVN222		12.0	4.0	7	6	110	0.035	7
PVN223		12.0	4.0	8	6	110	0.035	7
PVN238		12.0	5.0	8	6	110	0.035	7
PVN239		12.0	6.0	8	6	110	0.035	7
TN024		14.0	3.0	8	6	100	0.035	3,5
TN024		14.0	4.0	8	6	100	0.035	3,5
PVN224		14.0	3.0	9	7	110	0.035	6
					7			
PVN225 PVN240		14.0 14.0	4.0	9		110	0.035	6
			5.0	9	7	110	0.035	6
VN241		14.0	6.0	9	7	110	0.035	6
N026		15.0	3.0	8	7	100	0.035	3,5
N027		15.0	4.0	8	7	100	0.035	3,5
N028		16.0	3.0	8	7	100	0.035	3,5
TN029		16.0	4.0	8	7	100	0.035	3,5
PVN226		16.0	3.0	9	7	110	0.035	5



NuCLEUS™	NuCLEUS-X™	Balloon	Balloon	Introducer	Shaft	Usable	Guide	Rated
Tyshak	-	Diameter	Length	Size	Size	Length	Wire	Burst
NuCLEUS™		(mm)	(cm)	(FR)	(FR)	(cm)	(Inches)	(ATM)
PVN227		16.0	4.0	9	7	110	0.035	5
PVN242		16.0	5.0	9	7	110	0.035	5
PVN243		16.0	6.0	9	7	110	0.035	5
TN030		18.0	3.0	9	8	100	0.035	3
TN031		18.0	4.0	9	8	100	0.035	3
PVN228		18.0	3.0	10	8	110	0.035	4
PVN229		18.0	4.0	10	8	110	0.035	4
PVN244		18.0	5.0	10	8	110	0.035	4
PVN245		18.0	6.0	10	8	110	0.035	4
	PVN400	18.0	4.0	10	9	110	0.035	4
	PVN401	18.0	5.0	10	9	110	0.035	4
	PVN402	18.0	6.0	10	9	110	0.035	4
TN032		20.0	3.0	10	8	100	0.035	2
TN033		20.0	4.0	10	8	100	0.035	2
PVN230		20.0	4.0	12	8	110	0.035	4
PVN246		20.0	5.0	12	8	110	0.035	4
PVN247		20.0	6.0	12	8	110	0.035	4
	PVN403	20.0	4.0	12	9	110	0.035	4
	PVN404	20.0	5.0	12	9	110	0.035	4
	PVN405	20.0	6.0	12	9	110	0.035	4
TN034		22.0	3.0	11	9	100	0.035	2
TN035		22.0	4.0	11	9	100	0.035	2
PVN231		22.0	4.0	12	9	110	0.035	4
PVN248		22.0	5.0	12	9	110	0.035	4
PVN249		22.0	6.0	12	9	110	0.035	4
	PVN406	22.0	4.0	12	9	110	0.035	3
	PVN407	22.0	5.0	12	9	110	0.035	3
	PVN408	22.0	6.0	12	9	110	0.035	3
TN036		25.0	3.0	11	9	100	0.035	2
TN037		25.0	4.0	11	9	100	0.035	2
PVN232		25.0	4.0	12	9	110	0.035	4
PVN250		25.0	5.0	12	9	110	0.035	4
PVN251		25.0	6.0	12	9	110	0.035	4
	PVN409	25.0	4.0	12	9	110	0.035	3
	PVN410	25.0	5.0	12	9	110	0.035	3
	PVN411	25.0	6.0	12	9	110	0.035	3
PVN233		28.0	4.0	12	9	110	0.035	2
PVN234		28.0	4.0	14	9	110	0.035	2
PVN252		28.0	5.0	14	9	110	0.035	2
PVN253		28.0	6.0	14	9	110	0.035	2
	PVN412	28.0	4.0	12	9	110	0.035	2
	PVN413	28.0	5.0	12	9	110	0.035	2
	PVN414	28.0	6.0	12	9	110	0.035	2
PVN235		30.0	4.0	14	9	110	0.035	2



NuCLEUS™	NuCLEUS™ Line											
NuCLEUS™ Tyshak NuCLEUS™	NuCLEUS-X™	Balloon Diameter (mm)	Balloon Length (cm)	Introducer Size (FR)	Shaft Size (FR)	Usable Length (cm)	Guide Wire (Inches)	Rated Burst (ATM)				
PVN254		30.0	5.0	14	9	110	0.035	2				
PVN255		30.0	6.0	14	9	110	0.035	2				
	PVN415	30.0	4.0	14	9	110	0.035	2				
	PVN416	30.0	5.0	14	9	110	0.035	2				
	PVN417	30.0	6.0	14	9	110	0.035	2				

COEfficient™							
Usable Lengths	Usabel Lengths	Balloon Diameter	Balloon Length	Introducer Size	Shaft Size	Guide Wire	Rated Burst
75 cm	135 cm	(mm)	(cm)	(FR)	(FR)	(Inches)	(ATM)
C0E101	C0E128	4.0	2.0	4	3.5	0.018	13
C0E102	C0E137	4.0	3.0	4	3.5	0.018	13
C0E103	COE138	4.0	4.0	4	3.5	0.018	13
C0E104	COE129	5.0	2.0	4	3.5	0.018	12
C0E105	C0E139	5.0	3.0	4	3.5	0.018	12
C0E106	COE140	5.0	4.0	4	3.5	0.018	12
C0E107	COE130	6.0	2.0	5	3.5	0.018	12
C0E108	COE141	6.0	3.0	5	3.5	0.018	12
C0E109	C0E142	6.0	4.0	5	3.5	0.018	12
C0E110	C0E131	7.0	2.0	5	3.5	0.018	11
C0E111	C0E143	7.0	3.0	5	3.5	0.018	11
C0E112	COE144	7.0	4.0	5	3.5	0.018	11
C0E113	C0E132	8.0	2.0	6	3.5	0.018	10
C0E114	COE145	8.0	3.0	6	3.5	0.018	10
C0E115	COE146	8.0	4.0	6	3.5	0.018	10
SN032	N/A	9.0	2.0	5	3.5	0.018	10
C0E116	C0E133	9.0	2.0	6	3,5	0.018	10
C0E117	COE147	9.0	3.0	6	3.5	0.018	10
C0E118	COE148	9.0	4.0	6	3.5	0.018	10
C0E119	C0E134	10.0	2.0	6	3.5	0.018	10
C0E120	C0E149	10.0	3.0	6	3.5	0.018	10
C0E121	C0E150	10.0	4.0	6	3.5	0.018	10
C0E122	C0E135	11.0	2.0	6	3.5	0.018	8
C0E123	C0E151	11.0	3.0	6	3.5	0.018	8
C0E124	C0E152	11.0	4.0	6	3.5	0.018	8
C0E125	C0E136	12.0	2.0	6	3.5	0.018	7
C0E126	C0E153	12.0	3.0	7	3.5	0.018	7
C0E127	C0E154	12.0	4.0	7	3.5	0.018	7



Mullins-X <sup>TM</sup>							
REF	Balloon Diameter (mm)	Balloon Length (cm)	Introducer Size (FR)	Shaft Size (FR)	Usable Length (cm)	Guide Wire (Inches)	Rated Burst (ATM)
PTM440	12.0	3.0	9	7	100	0.035	14
PTM441	12.0	4.0	9	7	100	0.035	14
PTM442	14.0	3.0	10	8	100	0.035	14
PTM443	14.0	4.0	10	8	100	0.035	14
PTM444	15.0	3.0	10	8	100	0.035	13
PTM445	15.0	4.0	10	8	100	0.035	13
PTM446	16.0	3.0	11	8	100	0.035	12
PTM447	16.0	4.0	11	8	100	0.035	12
PTM448	18.0	3.0	12	8	100	0.035	12
PTM449	18.0	4.0	12	8	100	0.035	12
PTM450	20.0	3.0	13	8	100	0.035	11
PTM451	20.0	4.0	13	8	100	0.035	11
PTM452	22.0	3.0	14	9	100	0.035	10
PTM453	22.0	4.0	14	9	100	0.035	10
PTM456	23.0	3.0	14	9	100	0.035	9
PTM457	23.0	4.0	14	9	100	0.035	9
PTM454	25.0	3.0	16	9	100	0.035	9
PTM455	25.0	4.0	16	9	100	0.035	9

Bonhoeffe	er Multi-Track Mitral D	ilatation Kit					
REF Kit	Part No. included in Kit	Balloon Diameter (mm)	Balloon Length (cm)	Shaft Size (FR)	Usable Length (cm)	Guide Wire (Inches)	Rated Burst (ATM)
BMK14	MTK145	14.0	5.0	7	80	0.035	6
	REMC145	14.0	5.0	7	80	0.035	6
	MMTA0580	N/A	N/A	5	80	0.035	1000 PSI
	D1470	N/A	N/A	14	70	0.035	N/A
	J3FC-SS C 210-035	N/A	N/A	0	210	0.035	N/A
BMK16	MTK165	16.0	5.0	7	80	0.035	5
	REMC165	16.0	5.0	7	80	0.035	5
	MMTA0580	N/A	N/A	5	80	0.035	1000 PSI
	D1470	N/A	N/A	14	70	0.035	N/A
	J3FC-SS C 210-035	N/A	N/A	0	210	0.035	N/A
BMK18	MTK185	18.0	5.0	7	80	0.035	4
	REMC185	18.0	5.0	7	80	0.035	4
	MMTA0580	N/A	N/A	5	80	0.035	1000 PSI
	D1470	N/A	N/A	14	70	0.035	N/A
	J3FC-SS C 210-035	N/A	N/A	0	210	0.035	N/A
BMK20	MTK205	20.0	5.0	7	80	0.035	4
	REMC205	20.0	5.0	7	80	0.035	4
	MMTA0580	N/A	N/A	5	80	0.035	1000 PSI
	D1470	N/A	N/A	14	70	0.035	N/A
	J3FC-SS C 210-035	N/A	N/A	0	210	0.035	N/A

<sup>• 1</sup> x Multi-Track balloon dilatation catheter (MTK) (14, 16, 18 or 20 mm in diameter) x 5 cm in length

<sup>• 1</sup> x matched Rapid Exchange balloon dilatation catheter (REMC) • 1 x 14 F, 70 cm Dilator (D)

<sup>• 1</sup> x Multi-Track<sup>TM</sup> angiographic catheter (5 F X 80 cm) (MMTA) • 1 x Super Stiff, preformed 0.035" guidewire ( – SS)

Z-5 <sup>TM</sup>							
REF	Balloon Diameter (mm)	Balloon Length (cm)	Introducer Size (FR)	Shaft Size (FR)	Usable Length (cm)	Guide Wire (Inches)	Maximum Volume (CC)
SPT002	9.5	0.95	5	4	50	0.014	1
SPT003	13.5	1.35	6	5	50	0.021	2

PTS®							
REF	Balloon Diameter (mm)	Balloon Length (cm)	Introducer Size (FR)	Shaft Size (FR)	Usable Length (cm)	Guide Wire (Inches)	Rated Burst (ATM)
PTS203	20.0	3.0	8	8	80	0.035	1.5
PTS204	20.0	3.0	8	8	110	0.035	1.5
PTS253	25.0	3.0	8	8	80	0.035	1.5
PTS254	25.0	3.0	8	8	110	0.035	1.5
PTS303	30.0	3.0	8	8	80	0.035	1.0
PTS304	30.0	4.0	8	8	80	0.035	1.0
PTS305	30.0	5.0	8	8	80	0.035	1.0
PTS306	30.0	3.0	8	8	110	0.035	1.0
PTS307	30.0	4.0	8	8	110	0.035	1.0
PTS308	30.0	5.0	8	8	110	0.035	1.0
PTS403	40.0	3.0	9	8	80	0.035	0.5
PTS404	40.0	4.0	9	8	80	0.035	0.5
PTS405	40.0	5.0	9	8	80	0.035	0.5
PTS406	40.0	3.0	9	8	110	0.035	0.5
PTS407	40.0	4.0	9	8	110	0.035	0.5
PTS408	40.0	5.0	9	8	110	0.035	0.5

PTS-X <sup>TM</sup>							
REF	Balloon Diameter (mm)	Balloon Length (cm)	Introducer Size (FR)	Shaft Size (FR)	Usable Length (cm)	Guide Wire (Inches)	Rated Burst (ATM)
PTSX101	10.0	1.0	6	6	80	0.035	2.5
PTSX102	10.0	2.0	6	6	80	0.035	2.5
PTSX103	10.0	3.0	6	6	80	0.035	2.5
PTSX104	10.0	1.0	6	6	110	0.035	2.5
PTSX105	10.0	2.0	6	6	110	0.035	2.5
PTSX106	10.0	3.0	6	6	110	0.035	2.5
PTSX122	12.0	2.0	6	6	80	0.035	2.0
PTSX123	12.0	3.0	6	6	80	0.035	2.0
PTSX124	12.0	2.0	6	6	110	0.035	2.0
PTSX125	12.0	3.0	6	6	110	0.035	2.0
PTSX152	15.0	2.0	6	6	80	0.035	2.0
PTSX153	15.0	3.0	6	6	80	0.035	2.0
PTSX154	15.0	4.0	6	6	80	0.035	2.0
PTSX155	15.0	2.0	6	6	110	0.035	2.0
PTSX156	15.0	3.0	6	6	110	0.035	2.0
PTSX157	15.0	4.0	6	6	110	0.035	2.0
PTSX203	20.0	3.0	8	8	80	0.035	1.5
PTSX204	20.0	4.0	8	8	80	0.035	1.5



PTS-X <sup>TM</sup>							
REF	Balloon Diameter (mm)	Balloon Length (cm)	Introducer Size (FR)	Shaft Size (FR)	Usable Length (cm)	Guide Wire (Inches)	Rated Burst (ATM)
PTSX205	20.0	3.0	8	8	110	0.035	1.5
PTSX206	20.0	4.0	8	8	110	0.035	1.5
PTSX253	25.0	3.0	8	8	80	0.035	1.5
PTSX254	25.0	4.0	8	8	80	0.035	1.5
PTSX255	25.0	3.0	8	8	110	0.035	1.5
PTSX256	25.0	4.0	8	8	110	0.035	1.5
PTSX303	30.0	3.0	8	8	80	0.035	1.0
PTSX304	30.0	4.0	8	8	80	0.035	1.0
PTSX305	30.0	5.0	8	8	80	0.035	1.0
PTSX306	30.0	3.0	8	8	110	0.035	1.0
PTSX307	30.0	4.0	8	8	110	0.035	1.0
PTSX308	30.0	5.0	8	8	110	0.035	1.0
PTSX353	35.0	3.0	9	8	80	0.035	1.0
PTSX354	35.0	4.0	9	8	80	0.035	1.0
PTSX355	35.0	5.0	9	8	80	0.035	1.0
PTSX356	35.0	6.0	9	8	80	0.035	1.0
PTSX357	35.0	3.0	9	8	110	0.035	1.0
PTSX358	35.0	4.0	9	8	110	0.035	1.0
PTSX359	35.0	5.0	9	8	110	0.035	1.0
PTSX360	35.0	6.0	9	8	110	0.035	1.0
PTSX403	40.0	3.0	9	8	80	0.035	0.5
PTSX404	40.0	4.0	9	8	80	0.035	0.5
PTSX405	40.0	5.0	9	8	80	0.035	0.5
PTSX406	40.0	6.0	9	8	80	0.035	0.5
PTSX407	40.0	3.0	9	8	110	0.035	0.5
PTSX408	40.0	4.0	9	8	110	0.035	0.5
PTSX409	40.0	5.0	9	8	110	0.035	0.5
PTSX410	40.0	6.0	9	8	110	0.035	0.5

Multi-Track™	Λ					
REF	Introducer Size (FR)	Shaft Size (FR)	Usable Length (cm)	Guide Wire (Inches)	Flow Rate (ml/sec)	Maximum Injection (PSI)
MMTA03100	5.0	3.0	100	0.025	4.0	1000
MMTA0380	5.0	3.0	80	0.025	5.5	1000
MMTA04100	6.0	4.0	100	0.035	11.0	1000
MMTA0480	6.0	4.0	80	0.035	13.0	1000
MMTA05100	7.0	5.0	100	0.035	20.0	1000
MMTA0580	7.0	5.0	80	0.035	22.0	1000
MMTA06100	8.0	6.0	100	0.035	25.0	1000

8B003 8B006 8B009 8B033 8B037 8B034 8B051 8B052 8B052 8B052 8B038 8B038 8B038 8B038 8B035 8B038 8B035 8B053 8B053 8B054 8B055 8B056 8B057 8B058 8B059 8B060 8B023 8B023 8B026	12.0 12.0 12.0 12.0 12.0 12.0 12.0 14.0 14.0 14.0	2.5 3.0 3.5 4.0 4.5 5.0 5.5 2.5	8 8 8 8 8	8 8 8 8	110 110 110 110	0.035 0.035 0.035	(ATM) 7 7
8B006 8B009 8B033 8B037 8B034 8B051 8B052 8B052 8B025 8B035 8B035 8B035 8B035 8B053 8B053 8B055 8B056 8B057 8B058 8B059 8B059 8B060 8B023 8B023	12.0 12.0 12.0 12.0 12.0 12.0 14.0 14.0 14.0	3.0 3.5 4.0 4.5 5.0 5.5 2.5	8 8 8 8	8 8 8	110 110	0.035	
8B009 8B033 8B037 8B034 8B051 8B052 8B052 8B055 8B035 8B035 8B035 8B053 8B053 8B055 8B056 8B057 8B058 8B059 8B059 8B060 8B023 8B023	12.0 12.0 12.0 12.0 12.0 14.0 14.0 14.0	3.5 4.0 4.5 5.0 5.5 2.5	8 8 8	8	110		
8B033 8B037 8B034 8B051 8B052 8B052 8B055 8B035 8B035 8B035 8B035 8B053 8B053 8B055 8B056 8B057 8B058 8B059 8B059 8B060 8B023 8B023	12.0 12.0 12.0 12.0 14.0 14.0 14.0	4.0 4.5 5.0 5.5 2.5	8 8 8	8		0.000	7
8B037 8B034 8B051 8B022 8B052 8B035 8B035 8B039 8B053 8B054 8B055 8B055 8B056 8B057 8B058 8B059 8B059 8B060 8B023	12.0 12.0 12.0 14.0 14.0 14.0	4.5 5.0 5.5 2.5	8		1 111	0.035	7
8B034 8B051 8B022 8B052 8B035 8B035 8B035 8B053 8B053 8B055 8B055 8B056 8B057 8B058 8B059 8B059 8B060 8B023	12.0 12.0 14.0 14.0 14.0	5.0 5.5 2.5	8	0	110	0.035	7
8B051 8B022 8B025 8B035 8B035 8B035 8B035 8B053 8B054 8B055 8B056 8B057 8B058 8B059 8B060 8B023 8B010	12.0 14.0 14.0 14.0 14.0	5.5 2.5		8	110	0.035	7
8B022 8B052 8B035 8B038 8B035 8B039 8B053 8B054 8B055 8B056 8B057 8B058 8B059 8B060 8B023	14.0 14.0 14.0 14.0	2.5	8	8	110	0.035	7
8B052 8B025 8B038 8B035 8B035 8B053 8B054 8B055 8B056 8B057 8B058 8B059 8B060 8B023	14.0 14.0 14.0		8	8	110	0.035	6
8B025 8B038 8B035 8B039 8B053 8B054 8B055 8B056 8B057 8B058 8B059 8B060 8B023	14.0 14.0	3.0	8	8	110	0.035	6
8B038 8B035 8B039 8B053 8B054 8B055 8B056 8B057 8B058 8B059 8B060 8B023 8B010	14.0	3.5	8	8	110	0.035	6
8B035 8B039 8B053 8B054 8B055 8B056 8B057 8B058 8B059 8B060 8B023		4.0	8	8	110	0.035	6
8B039 8B053 8B054 8B055 8B056 8B057 8B058 8B059 8B060 8B023	17.0	4.5	8	8	110	0.035	6
8B053 8B054 8B055 8B056 8B057 8B058 8B059 8B060 8B023	14.0	5.0	8	8	110	0.035	6
8B054 8B055 8B056 8B057 8B058 8B059 8B060 8B023 8B010	14.0	5.5	8	8	110	0.035	6
8B055 8B056 8B057 8B058 8B059 8B060 8B023	15.0	2.5	9	9	110	0.035	5
BB056 BB057 BB058 BB059 BB060 BB023 BB010	15.0	3.0	9	9	110	0.035	5
B057 B058 B059 B060 B023 B010	15.0	3.5	9	9	110	0.035	5
8B058 8B059 8B060 8B023 8B010	15.0	4.0	9	9	110	0.035	5
3B059 3B060 3B023 3B010	15.0	4.5	9	9	110	0.035	5
BB060 BB023 BB010	15.0	5.0	9	9	110	0.035	5
BB023 BB010	15.0	5.5	9	9	110	0.035	5
BB010	16.0	2.5	9	9	110	0.035	5
	16.0	3.0	9	9	110	0.035	5
	16.0	3.5	9	9	110	0.035	5
BB013	16.0	4.0	9	9	110	0.035	5
B016	16.0	4.5	9	9	110	0.035	5
BB028	16.0	5.0	9	9	110	0.035	5
BB019	16.0	5.5	9	9	110	0.035	5
3B024	18.0	2.5	10	9	110	0.035	4
BB040	18.0	3.0	10	9	110	0.035	4
BB027	18.0	3.5	10	9	110	0.035	4
B041	18.0	4.0	10	9	110	0.035	4
B029	18.0	4.5	10	9	110	0.035	4
B030	18.0	5.0	10	9	110	0.035	4
BB031	18.0	5.5	10	9	110	0.035	4
BB031	20.0	3.0	10	9	110	0.035	4
B042	20.0	3.5	10	9	110	0.035	4
B014	20.0	4.0	10	9	110	0.035	4
B017	20.0		10		110	0.035	4
BB032	20.0	5.0	10	9	110	0.035	4
B020	20.0	5.5	10	9	110	0.035	4
BB061	()() ()	3.0	11	9	110	0.035	3
BB062 BB063	22.0 22.0	3.5 4.0	11	9	110 110	0.035 0.035	3



BIB® Stent Pla	acement						
REF	Balloon Diameter (mm)	Balloon Length (cm)	Introducer Size (FR)	Shaft Size (FR)	Usable Length (cm)	Guide Wire (Inches)	Outer Balloon Rated Burst (ATM)
BB064	22.0	4.5	11	9	110	0.035	3
BB065	22.0	5.0	11	9	110	0.035	3
BB066	22.0	5.5	11	9	110	0.035	3
BB012	24.0	3.0	11	9	110	0.035	3
BB067	24.0	3.5	11	9	110	0.035	3
BB015	24.0	4.0	11	9	110	0.035	3
BB018	24.0	4.5	11	9	110	0.035	3
BB036	24.0	5.0	11	9	110	0.035	3
BB021	24.0	5.5	11	9	110	0.035	3
BB077	24.0	6.0	11	9	110	0.035	3
BB068	26.0	4.0	16	11	110	0.035	3
BB069	26.0	5.0	16	11	110	0.035	3
BB070	26.0	6.0	16	11	110	0.035	3
BB071	28.0	4.0	16	11	110	0.035	2
BB072	28.0	5.0	16	11	110	0.035	2
BB073	28.0	6.0	16	11	110	0.035	2
BB074	30.0	4.0	16	11	110	0.035	2
BB075	30.0	5.0	16	11	110	0.035	2
BB076	30.0	6.0	16	11	110	0.035	2

CP Stent® and Co	overed CP Stent™			
REF CP Stent®	REF Covered CP Stent™	Stent Length (cm)	Configuration (Number of Zigs)	Platinum Wire (Inches)
CP8Z16	CVRD CP8Z16	1.6	8	0.013
CP8Z22	CVRD CP8Z22	2.2	8	0.013
CP8Z28	CVRD CP8Z28	2.8	8	0.013
CP8Z34	CVRD CP8Z34	3.4	8	0.013
CP8Z39	CVRD CP8Z39	3.9	8	0.013
CP8Z45	CVRD CP8Z45	4.5	8	0.013
CP8Z50	CVRD CP8Z50	5.0	8	0.013
CP8Z55	CVRD CP8Z55	5.5	8	0.013
CP8Z60	CVRD CP8Z60	6.0	8	0.013
CP10Z39	CVRD CP10Z39	3.9	10	0.013
CP10Z45	CVRD CP10Z45	4.5	10	0.013
CP10Z50	CVRD CP10Z50	5.0	10	0.013
CP10Z55	CVRD CP10Z55	5.5	10	0.013
CP10Z60	CVRD CP10Z60	6.0	10	0.013



### NuMED recommends using the BIB® Stent Placement Catheter.

Required Introducer Size		
BIB® delivery catheter balloon diameter and introducer size	Required introducer with Bare CP Stent®	Required introducer with Covered CP Stent™
12 mm (8F)	10F	12F
14 mm (8F)	10F	12F
15 mm (9F)	11F	12F
16 mm (9F)	11F	12F
18 mm (10F)	11F	14F
20 mm (10F)	12F	14F
22 mm (11F)	12F	14F
24 mm (11F)	12F	14F
26 mm (16F)	16F	16F
28 mm (16F)	16F	18F
30 mm (16F)	16F	18F

### For choosing the correct stent refer to the following Foreshortening Chart:

CP Stent® Fo	oreshortenin	g Chart										
Stent	Inflated	1.6 cm	2.2 cm	2.8 cm	3.4 cm	3.9 cm	4.5 cm	5.0 cm	5.5 cm	6.0 cm		
Configuration (Zigs)	Balloon - Diameter		Stent Length (cm) After Expansion (Percentage Shortening)									
8	12 mm	1.61 (2.8%)	2.18 (0.8%)	2.62 (4.4%)	3.23 (3.1%)	3.72 (1.9%)	4.17 (3.8%)	4.71 (6.2%)	5.25 (5.0%)	5.84 (4.5%)		
8	14 mm	1.54 (6.5%)	2.08 (5.4%)	2.56 (6.8%)	3.15 (5.4%)	3.66 (3.6%)	3.97 (8.4%)	4.58 (8.7%)	5.11 (7.6%)	5.67 (7.3%)		
8	15 mm	1.51 (8.5%)	2.02 (7.9%)	2.51 (8.6%)	3.10 (7.0%)	3.54 (6.6%)	3.94 (9.2%)	4.50 (10.3%)	4.98 (10.0%)	5.55 (9.2%)		
8	16 mm	1.48 (10.6%)	1.98 (10.1%)	2.45 (10.7%)	3.00 (9.8%)	3.48 (8.2%)	3.84 (11.4%)	4.42 (11.9%)	4.91 (11.2%)	5.43 (11.2%)		
8	18 mm	1.43	1.89	2.38 (13.3%)	2.88 (13.5%)	3.20 (15.6%)	3.71 (14.5%)	4.21 (16.1%)	4.70 (15.1%)	5.20 (14.9%)		
8	20 mm	1.32 (20.0%)	1.80 (17.9%)	2.30 (16.3%)	2.63 (20.9%)	2.96 (21.9%)	3.27 (24.7%)	3.96 (21.0%)	4.43 (20.0%)	4.92 (19.5%)		
8	22 mm	1.23 (25.4%)	1.67 (23.9%)	2.09 (24.0%)	2.46 (26.0%)	2.85 (25.0%)	3.15 (27.3%)	3.71 (26.0%)	4.09 (26.1%)	4.55 (25.5%)		
8	24 mm	1.05 (36.4%)	1.46 (33.8%)	1.91 (30.3%)	2.07 (37.9%)	2.27 (40.1%)	2.83 (34.9%)	3.33 (33.5%)	3.72 (32.8%)	4.14 (32.3%)		
10	26 mm	-	-	-	-	3.17 (18.3%)	3.44 (22.1%)	4.10 (17.3%)	4.24 (23.3%)	4.85 (20.2%)		
10	28 mm	-	-	-	-	2.96 (23.7%)	3.24 (26.8%)	3.71 (25.1%)	4.00 (27.6%)	4.39 (27.9%)		
10	30 mm	-	-	-	-	2.58 (33.5%)	3.09	3.26 (34.3%)	3.64	4.11 (32.6%)		



REF MCP™	REF CMCP™		Length # of Zig	Outer Balloon Diameter (mm)	Outer Balloon Length (cm)	Usable Length (cm)	Guide Wire (Inches)	Rated Burst* (ATM)
MCP001	CMCP001	1.6	8 Zig	12.0	2.5	110	0.035	7
MCP002	CMCP002	1.6	8 Zig	14.0	2.5	110	0.035	6
MCP003	CMCP003	1.6	8 Zig	16.0	2.5	110	0.035	5
MCP004	CMCP004	2.2	8 Zig	12.0	2.5	110	0.035	7
MCP005	CMCP005	2.2	8 Zig	14.0	2.5	110	0.035	6
ИСР006	CMCP006	2.2	8 Zig	16.0	2.5	110	0.035	5
MCP007	CMCP007	2.2	8 Zig	18.0	2.5	110	0.035	4
ЛСР038	CMCP038	2.8	8 Zig	12.0	3.0	110	0.035	7
MCP008	CMCP008	2.8	8 Zig	14.0	3.0	110	0.035	6
ИСР009	CMCP009	2.8	8 Zig	16.0	3.0	110	0.035	5
MCP010	CMCP010	2.8	8 Zig	18.0	3.0	110	0.035	4
ЛСР011	CMCP011	2.8	8 Zig	20.0	3.0	110	0.035	4
MCP035	CMCP035	3.4	8 Zig	12.0	3.5	110	0.035	7
MCP012	CMCP012	3.4	8 Zig	14.0	3.5	110	0.035	6
ЛСР013	CMCP013	3.4	8 Zig	16.0	3.5	110	0.035	5
MCP014	CMCP014	3.4	8 Zig	18.0	3.5	110	0.035	4
MCP015	CMCP015	3.4	8 Zig	20.0	3.5	110	0.035	4
ИСР016	CMCP016	3.4	8 Zig	22.0	3.5	110	0.035	3
MCP036	CMCP036	3.9	8 Zig	12.0	4.0	110	0.035	7
ЛСР017	CMCP017	3.9	8 Zig	14.0	4.0	110	0.035	6
MCP018	CMCP018	3.9	8 Zig	16.0	4.0	110	0.035	5
ЛСР019	CMCP019	3.9	8 Zig	18.0	4.0	110	0.035	4
MCP020	CMCP020	3.9	8 Zig	20.0	4.0	110	0.035	4
MCP021	CMCP021	3.9	8 Zig	22.0	4.0	110	0.035	3
MCP022	CMCP022	3.9	8 Zig	24.0	4.0	110	0.035	3
MCP023	CMCP023	4.5	8 Zig	14.0	4.5	110	0.035	6
MCP024	CMCP024	4.5	8 Zig	16.0	4.5	110	0.035	5
MCP025	CMCP025	4.5	8 Zig	18.0	4.5	110	0.035	4
MCP026	CMCP026	4.5	8 Zig	20.0	4.5	110	0.035	4
ЛСР027	CMCP027	4.5	8 Zig	22.0	4.5	110	0.035	3
/ICP028	CMCP028	4.5	8 Zig	24.0	4.5	110	0.035	3
/ICP037	CMCP037	4.5	8 Zig	12.0	5.0	110	0.035	7
MCP029	CMCP029	4.5	8 Zig	14.0	5.0	110	0.035	6
ЛСР030	CMCP030	4.5	8 Zig	16.0	5.0	110	0.035	5
MCP031	CMCP031	4.5	8 Zig	18.0	5.0	110	0.035	4
/ICP032	CMCP032	4.5	8 Zig	20.0	5.0	110	0.035	4
ЛСР033	CMCP033	4.5	8 Zig	22.0	5.0	110	0.035	3

<sup>\*</sup> Outer Balloon RBP



REF MCP™	REF CMCP™		Length # of Zig	Outer Balloon Diameter (mm)	Outer Balloon Length (cm)	Usable Length (cm)	Guide Wire (Inches)	Rated Burst* (ATM)
MCP034	CMCP034	4.5	8 Zig	24.0	5.0	110	0.035	3
MCP059	CMCP059	5.0	8 Zig	12.0	5.5	110	0.035	7
MCP060	CMCP060	5.0	8 Zig	14.0	5.5	110	0.035	6
MCP061	CMCP061	5.0	8 Zig	16.0	5.5	110	0.035	5
MCP062	CMCP062	5.0	8 Zig	18.0	5.5	110	0.035	4
MCP063	CMCP063	5.0	8 Zig	20.0	5.5	110	0.035	4
MCP064	CMCP064	5.0	8 Zig	22.0	5.5	110	0.035	3
MCP065	CMCP065	5.0	8 Zig	24.0	5.5	110	0.035	3
MCP066	CMCP066	5.5	8 Zig	12.0	6.0	110	0.035	7
MCP067	CMCP067	5.5	8 Zig	14.0	6.0	110	0.035	6
MCP068	CMCP068	5.5	8 Zig	16.0	6.0	110	0.035	5
MCP069	CMCP069	5.5	8 Zig	18.0	6.0	110	0.035	4
MCP070	CMCP070	5.5	8 Zig	20.0	6.0	110	0.035	4
MCP071	CMCP071	5.5	8 Zig	22.0	6.0	110	0.035	3
MCP072	CMCP072	5.5	8 Zig	24.0	6.0	110	0.035	3
MCP073	CMCP073	6.0	8 Zig	12.0	6.0	110	0.035	7
MCP074	CMCP074	6.0	8 Zig	14.0	6.0	110	0.035	6
MCP075	CMCP075	6.0	8 Zig	16.0	6.0	110	0.035	5
MCP076	CMCP076	6.0	8 Zig	18.0	6.0	110	0.035	4
MCP077	CMCP077	6.0	8 Zig	20.0	6.0	110	0.035	4
MCP078	CMCP078	6.0	8 Zig	22.0	6.0	110	0.035	3
MCP079	CMCP079	6.0	8 Zig	24.0	6.0	110	0.035	3
MCP040	CMCP040	3.9	10 Zig	26.0	4.0	110	0.035	3
MCP041	CMCP041	3.9	10 Zig	28.0	4.0	110	0.035	2
MCP042	CMCP042	3.9	10 Zig	30.0	4.0	110	0.035	2
MCP044	CMCP044	4.5	10 Zig	26.0	5.0	110	0.035	3
MCP045	CMCP045	4.5	10 Zig	28.0	5.0	110	0.035	2
MCP046	CMCP046	4.5	10 Zig	30.0	5.0	110	0.035	2
MCP048	CMCP048	5.0	10 Zig	26.0	5.5	110	0.035	3
MCP049	CMCP049	5.0	10 Zig	28.0	5.5	110	0.035	2
MCP050	CMCP050	5.0	10 Zig	30.0	5.5	110	0.035	2
MCP052	CMCP052	5.5	10 Zig	26.0	6.0	110	0.035	3
MCP053	CMCP053	5.5	10 Zig	28.0	6.0	110	0.035	2
MCP054	CMCP054	5.5	10 Zig	30.0	6.0	110	0.035	2
MCP056	CMCP056	6.0	10 Zig	26.0	6.0	110	0.035	3
MCP057	CMCP057	6.0	10 Zig	28.0	6.0	110	0.035	2
MCP058	CMCP058	6.0	10 Zig	30.0	6.0	110	0.035	2

<sup>\*</sup> Outer Balloon RBP



NuDEL™								
REF	Stent Configuration (Zigs)	Stent Length (cm)	Outer Balloon Diameter (mm)	Outer Balloon Length (cm)	Profile Size (FR)	Usable Length (cm)	Guide Wire (Inches)	Rated Burst* (ATM)
DEL001	8	1.6	12	2.5	12	100	0.035	7
DEL002	8	1.6	14	2.5	12	100	0.035	6
DEL003	8	1.6	16	2.5	12	100	0.035	5
DEL004	8	2.2	12	2.5	12	100	0.035	7
DEL005	8	2.2	14	2.5	12	100	0.035	6
DEL006	8	2.2	16	2.5	12	100	0.035	5
DEL007	8	2.2	18	2.5	14	100	0.035	4
DEL008	8	2.8	14	3.0	12	100	0.035	6
DEL009	8	2.8	16	3.0	12	100	0.035	5
DEL010	8	2.8	18	3.0	14	100	0.035	4
DEL011	8	2.8	20	3.0	14	100	0.035	4
DEL012	8	3.4	14	3.5	12	100	0.035	6
DEL013	8	3.4	16	3.5	12	100	0.035	5
DEL014	8	3.4	18	3.5	14	100	0.035	4
DEL015	8	3.4	20	3.5	14	100	0.035	4
DEL016	8	3.4	22	3.5	14	100	0.035	3
DEL017	8	3.9	14	4.0	12	100	0.035	6
DEL018	8	3.9	16	4.0	12	100	0.035	5
DEL019	8	3.9	18	4.0	14	100	0.035	4
DEL020	8	3.9	20	4.0	14	100	0.035	4
DEL021	8	3.9	22	4.0	14	100	0.035	3
DEL022	8	3.9	24	4.0	14	100	0.035	3
DEL023	8	4.5	14	5.0	12	100	0.035	6
DEL024	8	4.5	16	5.0	12	100	0.035	5
DEL025	8	4.5	18	5.0	14	100	0.035	4
DEL026	8	4.5	20	5.0	14	100	0.035	4
DEL027	8	4.5	22	5.0	14	100	0.035	3
DEL028	8	4.5	24	5.0	14	100	0.035	3

<sup>\*</sup> Outer Balloon RBP

D'VILL <sup>TM</sup>			
REF	Introducer size (FR)	Usable Length (cm)	Guide Wire (Inches)
DV1230	12	30	0.035
DV1430	14	30	0.035
DV1265	12	65	0.035
DV1465	14	65	0.035
DV1285	12	85	0.035
DV1485	14	85	0.035
0.035" guidewire not inc	luded		

Each D'VILL™ set includes (1) One Sheath and (1) One Dilator.





### Z-MED® Line

## Current results of balloon aortic valvuloplasty in high-risk patients.

Shareghi S, Rasouli L, Shavelle DM, Burstein S, MD, Matthews RV.

The Journal of Invasive Cardiology (2007); 19 (1): pp. 1-5.

### Tyshak® Line

## Balloon pulmonary valvutomy as interim palliation for symptomatic young infants with tetralogy of Fallot.

Remadevi KS, Vaidyanathan B, Francis E, Kannan BR, Kumar RK.

Annals of Pediatric Cardiology (2008); January; 1 (1): pp. 2-7.

### Z-5TM

## A new low profile balloon atrial septostomy catheter: initial animal and clinical experience.

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The Journal of Invasive Cardiology (1994); July - August; 6 (6): pp. 209-12.

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## Percutaneous mitral valve dilatation with the Multi-Track System.

Bonhoeffer P, Esteves C, Casal U, Tortoledo F, Yonga G, Patel T, Chisholm R, Luxereau P, Ruiz C. Catheterization and Cardiovascular Interventions (1999); October; 48 (2): pp. 178-83.

# The multi-track angiography catheter: a new tool for complex catheterisation in congenital heart disease.

Bonhoeffer P, Piéchaud JF, Stümper O, Bonnet D, Aggoun Y, Sidi D, Kachaner J. Heart (1996); August; 76 (2): pp. 173-7.

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### Percutaneous interventions of the aorta.

Gewillig M, Budts W, Boshoff D, Maleux G. Future Cardiology (2012); March; 8 (2): pp. 251-69.

### CP Stent™ (Bare/Covered)

### Stenting of aortic coarctation: acute, intermediate, and long-term results of a prospective multiinstitutional registry - Congenital Cardiovascular Interventional Study Consortium (CCISC).

Holzer R, Qureshi S, Ghasemi A, Vincent J, Sievert H, Gruenstein D, Weber H, Alday L, Peirone A, Zellers T, Cheatham J, Slack M, Rome J. Catheterization and Cardiovascular Interventions (2010); October; 76 (4): pp. 553-63.

### Covered stents in patients with complex aortic coarctations.

Butera G, Piazza L, Chessa M, Negura DG, Rosti L, Abella R, Delogu A, Condoluci C, Magherini A, Carminati M. American Heart Journal (2007); October; 154 (4): pp. 795-800.

### Results and mid-long-term follow-up of stent implantation for native and recurrent coarctation of the aorta.

Chessa M, Carrozza M, Butera G, Piazza L, Negura DG, Bussadori C, Bossone E, Giamberti A, Carminati M. European Heart Journal (2005); December; 26 (24): pp. 2728-32.

### Initial experience using the NuMED Cheatham Platinum (CP) stent for interventional treatment of coarctation of the aorta in children and adolescents.

Haas NA, Lewin MA, Knirsch W, Nossal R, Ocker V, Uhlemann F.

Zeitschrift für Kardiologie (2005); February; 94 (2): pp. 113-20.

### **Immediate Outcomes of Covered Stent Placement** for Treatment or Prevention of Aortic Wall Injury Associated With Coarctation of the Aorta (COAST II).

Taggart NW, Minahan M, Cabalka AK, Cetta F, Usmani K, Ringel RE; COAST II Investigators.

JACC Cardiovasc Interv. 2016 March 14; 9(5): pp. 484-93

### **Coarctation Of the Aorta Stent Trial** (COAST: NCT00552812)

The CP Stent® was tested and found to be safe and effective to widen the narrow part of the aorta related to coarctation of the aorta.

### **Covered CP Stents for the Prevention or Treatment of Aortic Wall Injury Associated With Coarctation of the** Aorta (COASTII: NCT 01278303)

The Covered CP Stent® was tested and found to be safe and effective to repair aortic wall injuries and widen the narrow part of the aorta related to coarctation of the aorta.

### **Pulmonary Artery Repair With Covered Stents** (PARCS: NCT01824160)

The Covered CP Stent® was tested and found to be safe and effective to use as a treatment of right ventricle to pulmonary artery (right ventricular outflow tract) conduit disruptions that are identified during conduit pre-dilatation procedures performed in preparation for transcatheter pulmonary valve replacement (TPVR).





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