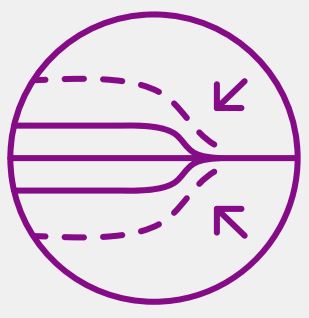


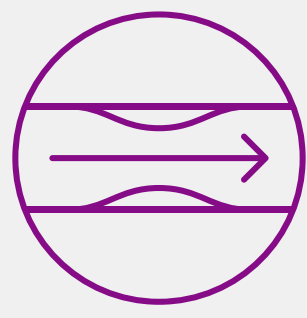


# VI Product Catalogue

May 2020



Up to 3.8 x faster  
deflation times



Enhanced crossability



High pushability  
and flexibility

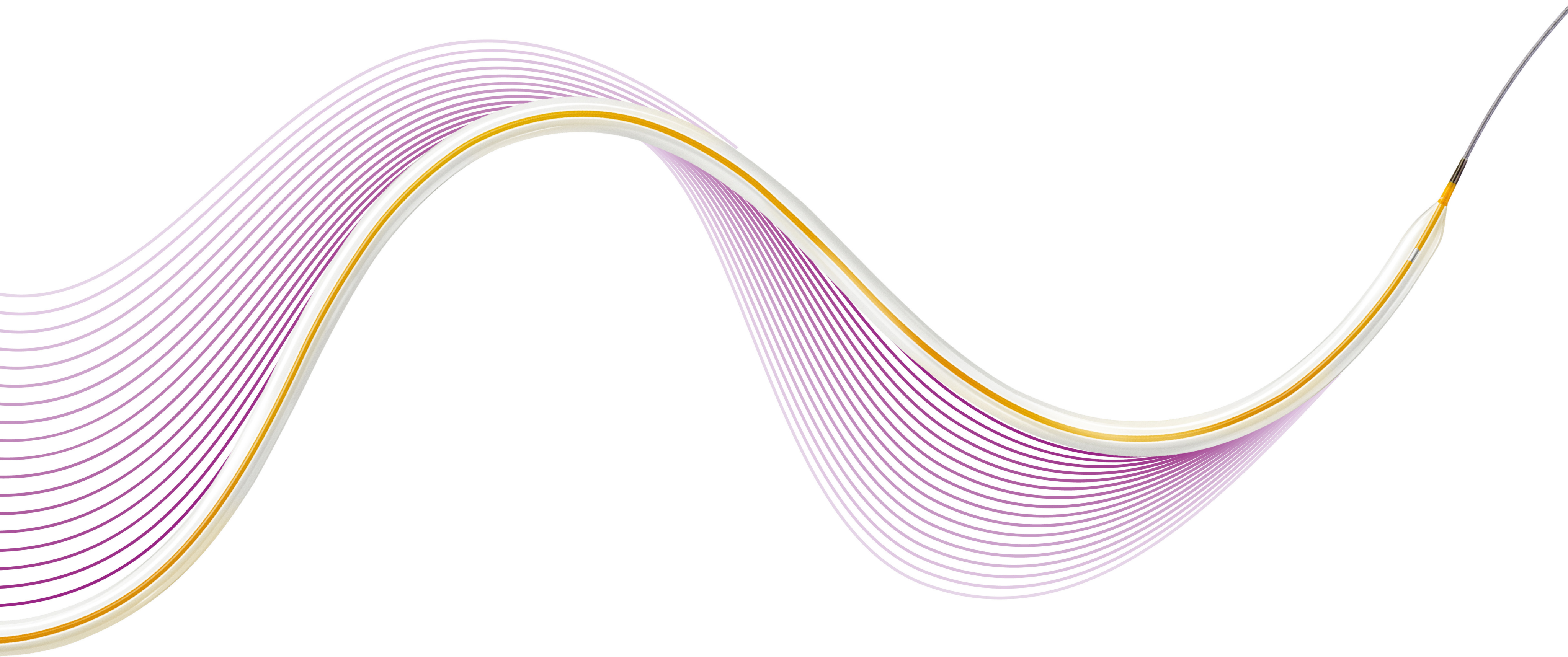


Technical data /  
ordering info

Vascular Intervention // **Peripheral**  
PTA Balloon Catheter/0.014"/OTW

 **BIOTRONIK**  
excellence for life

# Passeo-14



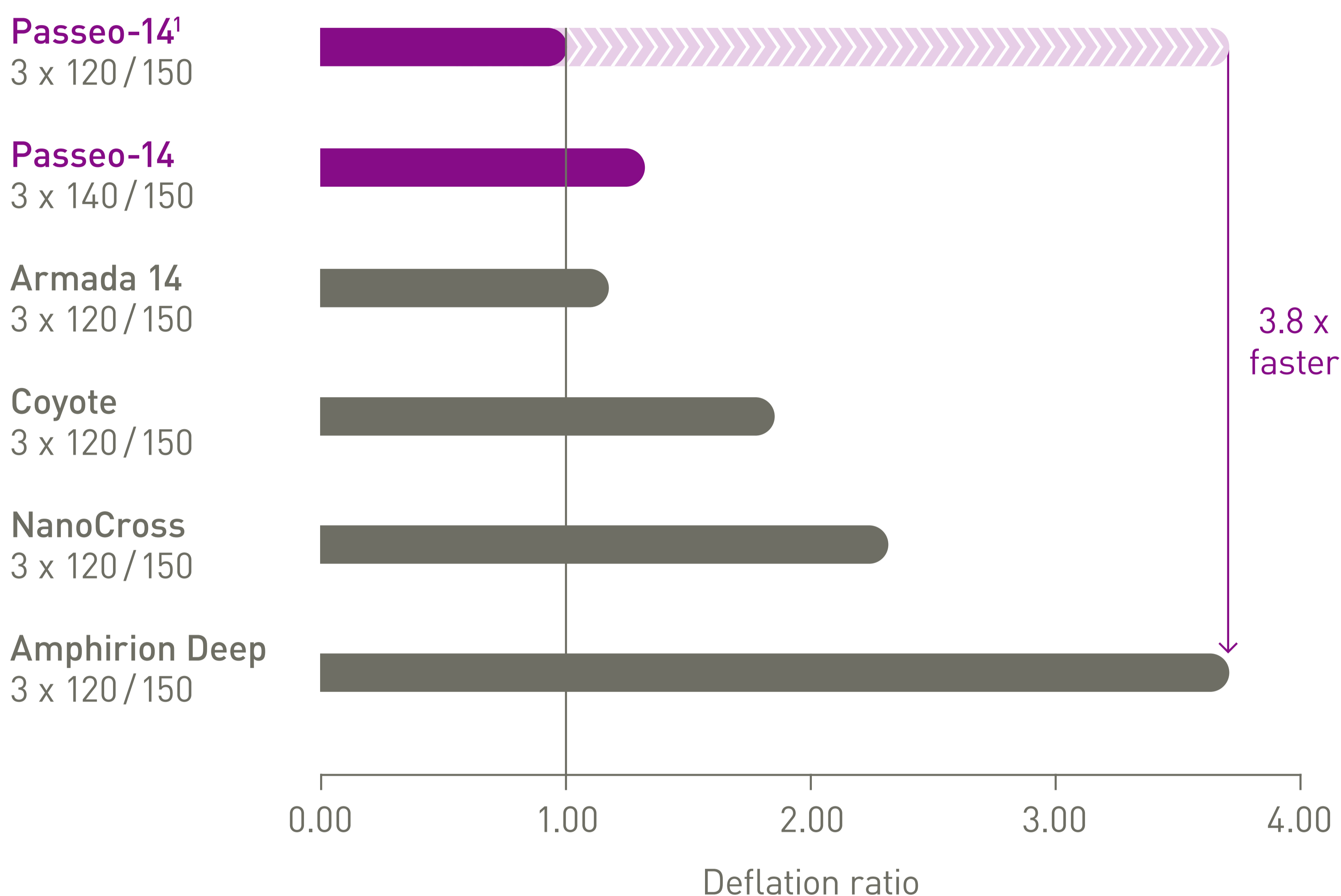
# Up to 3.8 x faster deflation times<sup>1</sup>

Due to the coaxial catheter shaft design that creates a large balloon lumen facilitating rapid inflation and deflation, Passeo-14 deflates:

**3.8 x** faster than Amphirion Deep

**2.0 x** faster than Coyote

**2.4 x** faster than NanoCross



## The solution for dedicated below the ankle sizes

- $\varnothing$  1.5 - 2.0 mm
- 150 mm flexible distal shaft
- Tailored stiffening wire



Pre-treatment



Dilatation  
pedal arch



Dilatation  
plantar arch



Post dilatation

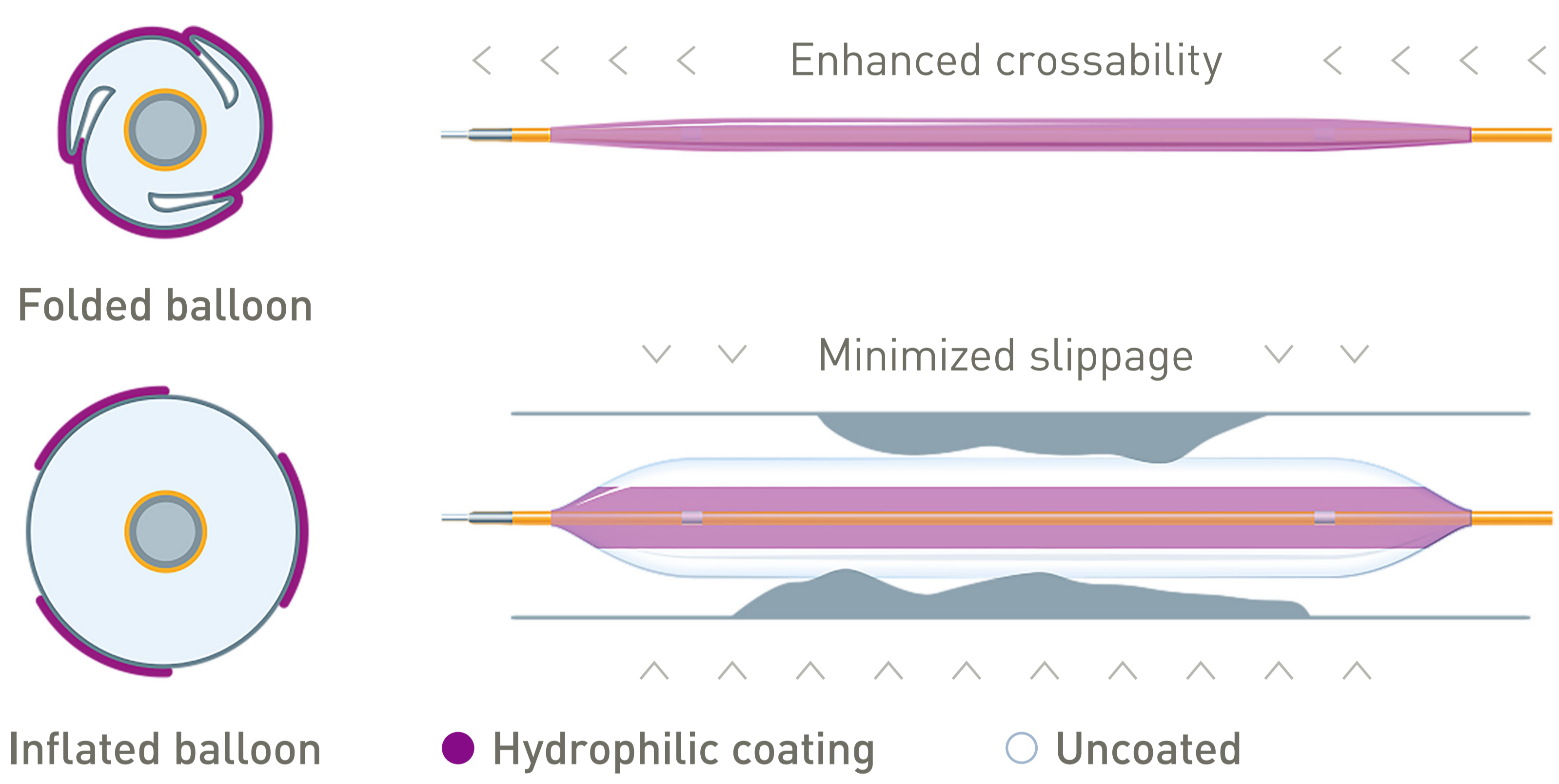
Courtesy of Dr. L. Steffanon, Vicenza, Italy





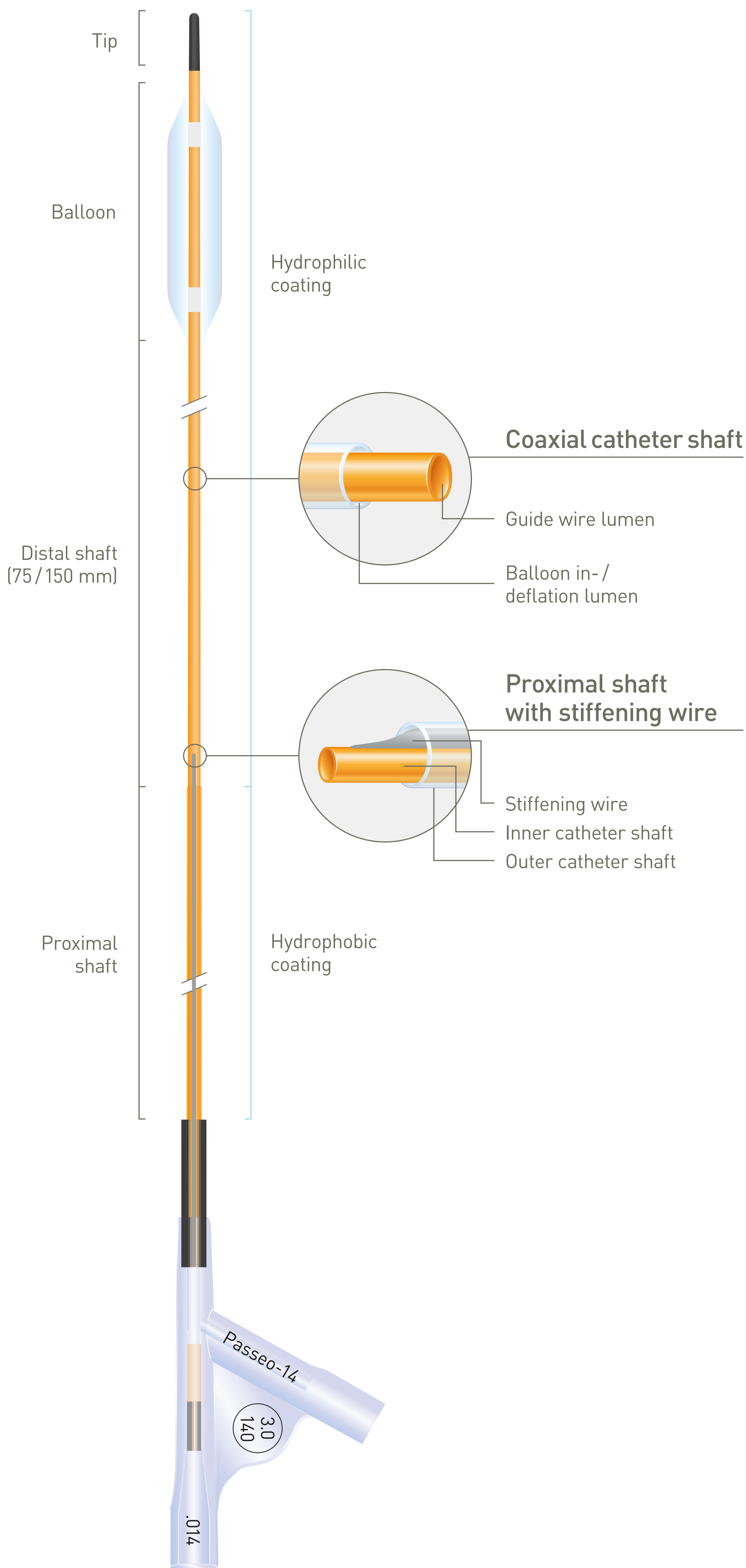
## Enhanced crossability

The tri-fold balloon, which is fully coated when folded and only partly coated when inflated, enables an enhanced crossability while minimizing slippage during inflation.



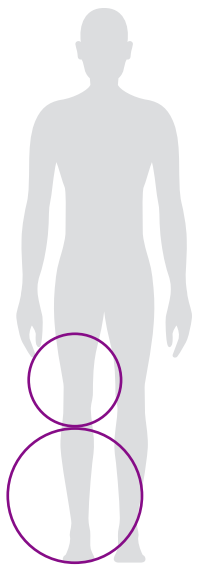
# High pushability and flexibility<sup>2</sup>

Impressive pushability due to catheter shaft design featuring a unique stiffening wire in the proximal shaft of the catheter, while enabling high flexibility due to a lower profile distal shaft in small, tortuous vessels.



# Passeo-14

Vascular  
Intervention  
Peripheral



Indicated for balloon dilatation of the stenotic portion of a lower limb artery for the purpose of improving perfusion.

Technical Data	Balloon catheter
Catheter type	OTW
Recommended guide wire	0.014"
Tip	Optimized entry profile and colored
Balloon material	SCP (Semi-Crystalline Polymer), controlled compliance (4 - 6%)
Balloon folding	3-fold
Balloon coating	Hydrophilic patchwork coating
Balloon markers	2 swaged markers (zero profile)
Sizes	ø 1.5 - 4.0 mm; L: 20 - 220 mm
Distal shaft	3.1F, hydrophilic coating, coaxial design; 150 mm length (ø 1.5/2.0 x 20 - 100 mm); 75 mm length (ø 2.0 x 140 - 220 mm and ø 2.5 - 4.0 mm)
Proximal shaft	3.9F, hydrophobic coating, coaxial design; stiffening wire
Usable length	150 cm (ø 1.5 - 4.0 mm); 120 cm (ø 1.5 - 2.0 mm); 90 cm (ø 2.5 - 4.0 mm)

Compliance Chart		Balloon diameter x length (mm)					
		ø 1.5 x 20-70	ø 2.0 x 40-220	ø 2.5 x 40-220	ø 3.0 x 40-220	ø 3.5 x 40-140	ø 4.0 x 40-140
Nominal Pressure (NP)	atm*	7	7	7	7	7	7
	ø (mm)	1.5	2.0	2.5	3.0	3.5	4.0
Rated Burst Pressure (RBP)	atm*	14	14	14	14	14	14
	ø (mm)	1.57	2.08	2.61	3.18	3.63	4.16

\*1 atm = 1.013 bar

Ordering Information	Catheter Length (cm)	Balloon ø (mm)	Balloon Length (mm)						
			20	40	70	100	140	180	220
4F Antegrade approach	120	1.5	380271 <sup>a</sup>	380277	380283	-	-	-	-
	120	2.0	-	380278	380284	380290	380296	380302	380308
	90	2.5	-	380279	380285	380291	380297	380303	380309
	90	3.0	-	380280	380286	380292	380298	380304	380310
	90	3.5	-	380281 <sup>a</sup>	380287 <sup>a</sup>	380293 <sup>a</sup>	380299	-	-
	90	4.0	-	380282	380288	380294	380300	-	-
4F Crossover approach	150	1.5	380313 <sup>a</sup>	380319	380325	-	-	-	-
	150	2.0	-	380320	380326	380332	380338	380344	380350
	150	2.5	-	380321	380327	380333	380339	380345	380351
	150	3.0	-	380322	380328	380334	380340	380346	380352
	150	3.5	-	380323 <sup>a</sup>	380329 <sup>a</sup>	380335 <sup>a</sup>	380341 <sup>a</sup>	-	-
	150	4.0	-	380324	380330	380336	380342	-	-

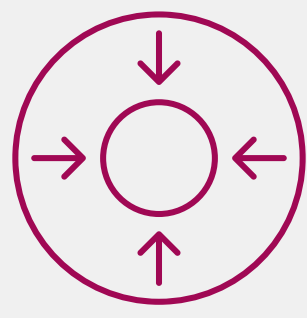
<sup>a</sup>8 weeks pre-order only

1. BIOTRONIK data on file. Volume adjustment: A 3mm x 120mm balloon contains 17% less contrast media volume than a 3mm x 140mm balloon. The measured deflation time of a 3mm x 140mm balloon was adjusted by 17 % to make a direct competitive comparison; 2. BIOTRONIK Data on file.

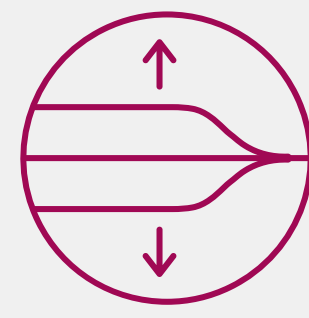
Amphirion is a registered trademark of the Medtronic Group of Companies; Armada is a registered trademark of Abbott; Coyote is a registered trademark of Boston Scientific. NanoCross is a registered trademark of Medtronic Group of Companies.



High pushability



Low profile and wide  
range of sizes



Controlled  
compliance

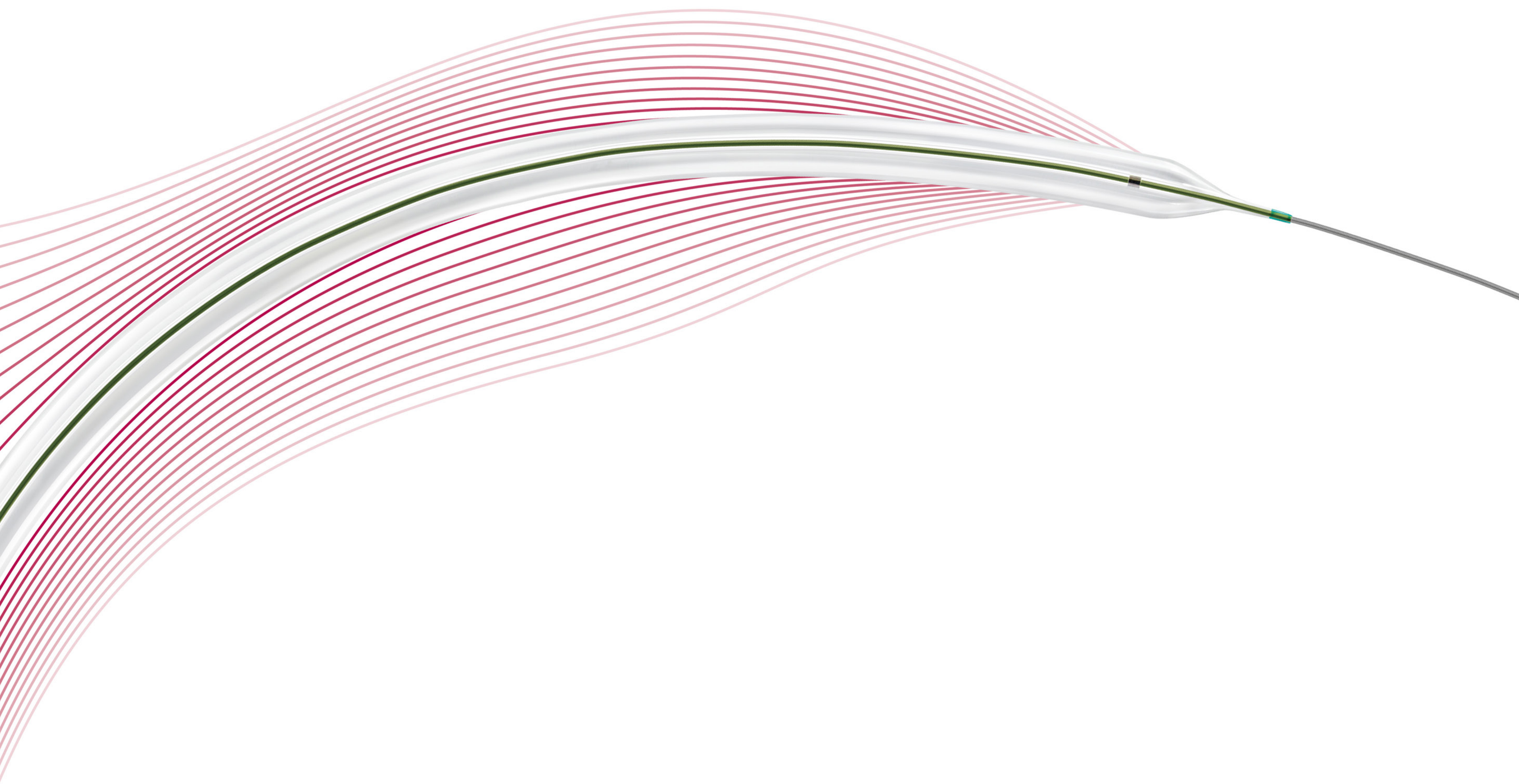


Technical data /  
ordering info

Vascular Intervention // **Peripheral**  
PTA Balloon Catheter/0.018"/OTW

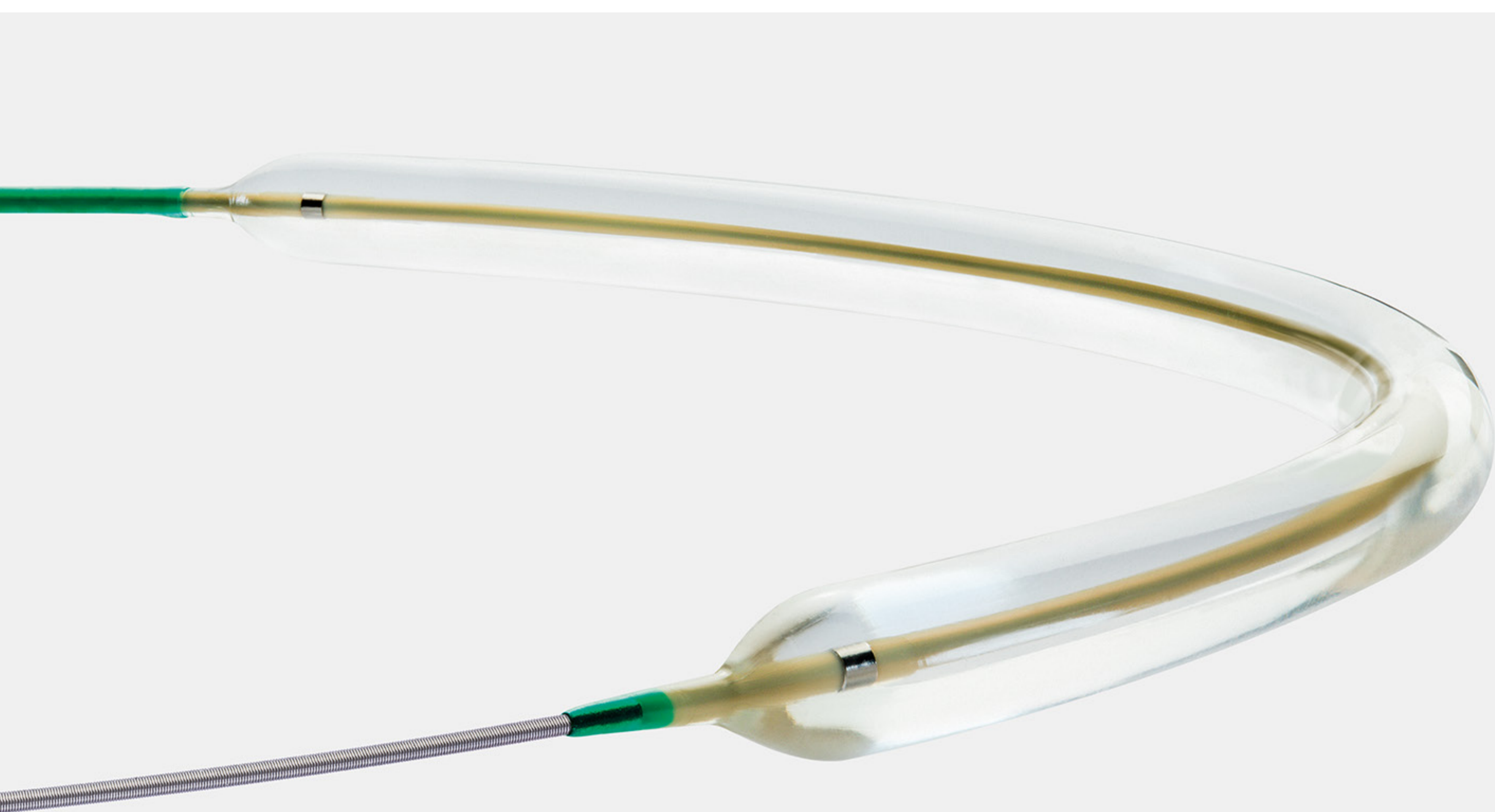
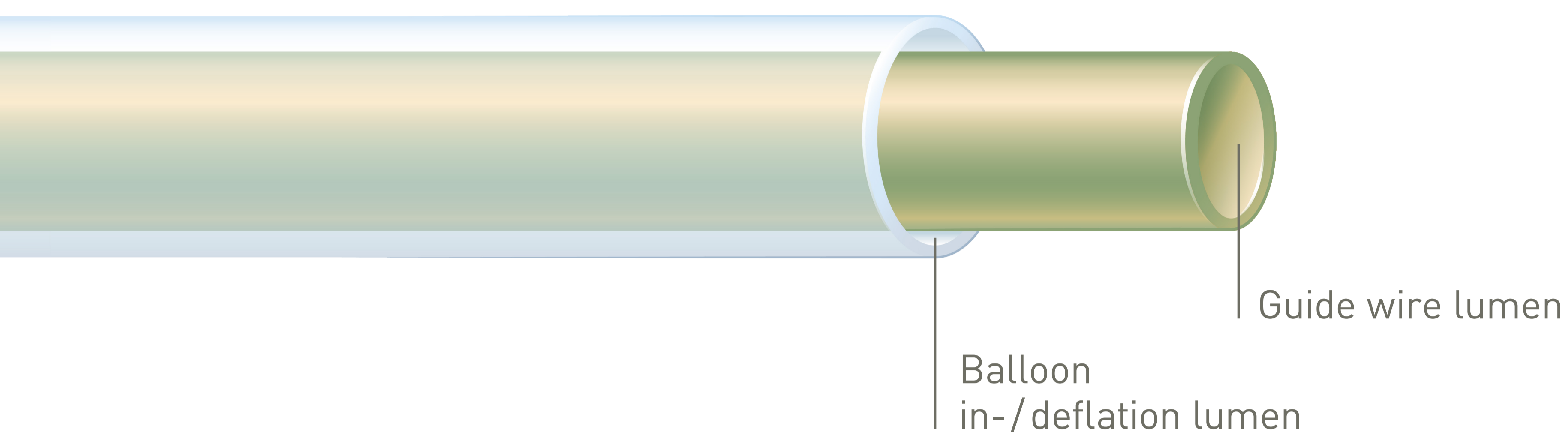
 **BIOTRONIK**  
excellence for life

# Passeo-18



## Highly pushable coaxial shaft design

A strong inner shaft and a flexible outer shaft creating a highly pushable and deliverable system.

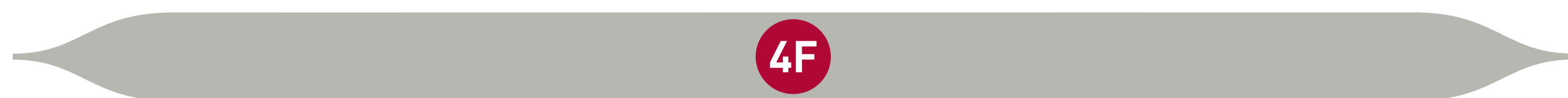


## Low profile and wide range of sizes

The available low profile 3.8F coaxial catheter shaft design facilitates access to distal lesions and allows reduction of access site complications.<sup>1</sup>

### Available balloon diameters/lengths

ø 2.0 - 5.0 mm



ø 6.0 mm - 7.0 mm



0 20 40 60 80 120 150 170 200

Balloon length (mm)

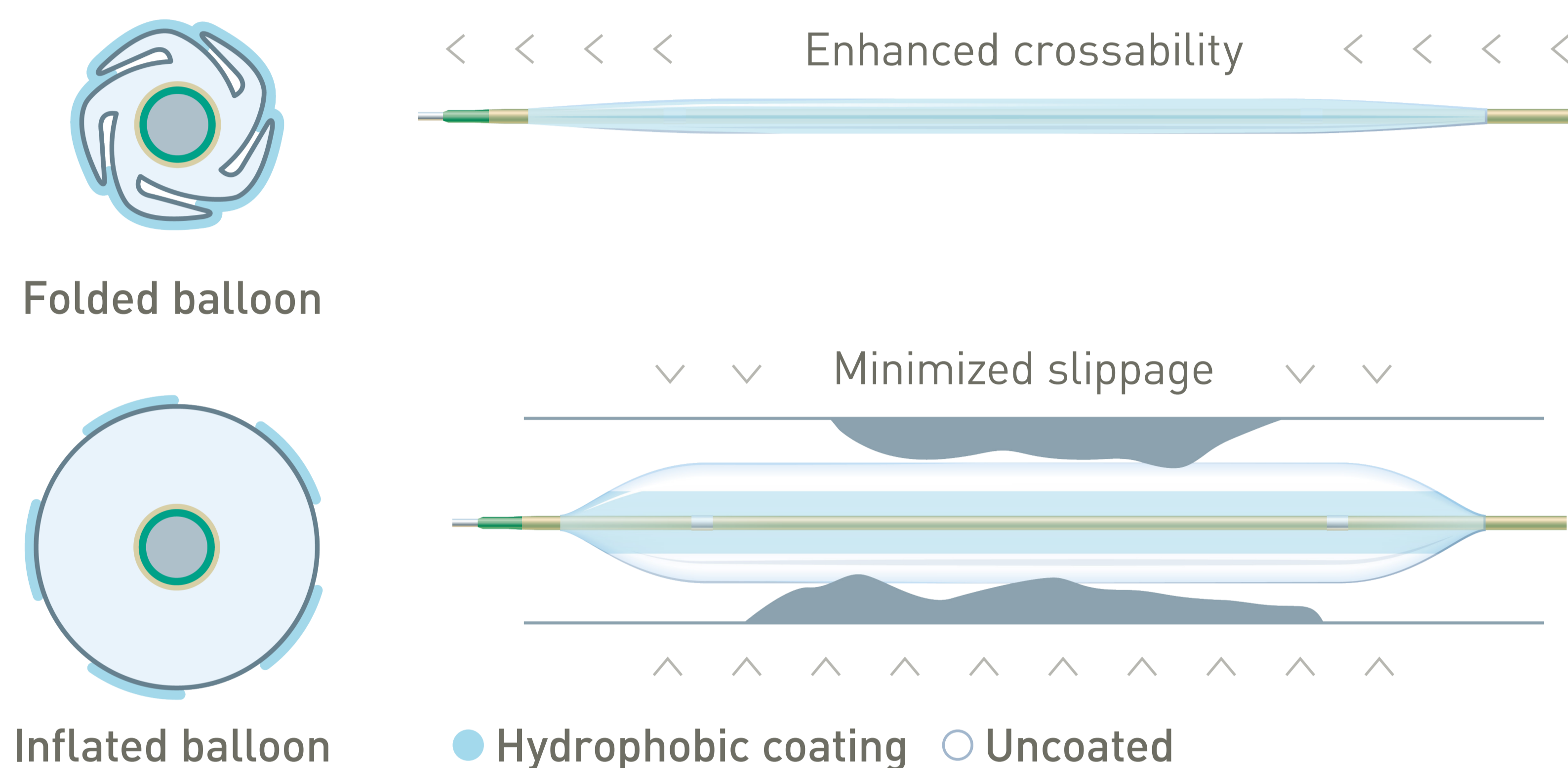


# Controlled compliant balloon for predictable expansion

Low, controlled compliance for predictable radial balloon expansion to minimize the risk of dissection.

## Patchwork coating for enhanced crossability

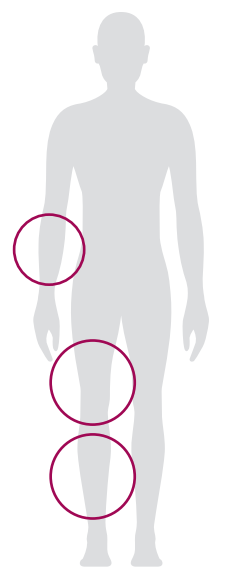
The penta-fold balloon is coated in a folded state, exposing uncoated balloon sections when inflated. This is intended to facilitate crossing while minimizing slippage during inflation.



Smooth tapered tip  
for enhanced lesion crossing

# Passeo-18

Vascular  
Intervention  
Peripheral



Indicated to dilate stenosis in the femoral, popliteal and infrapopliteal arteries and for the treatment of obstructive lesions of native or synthetic arteriovenous dialysis fistulae.

Technical Data	Balloon catheter
Catheter type	OTW
Recommended guide wire	0.018"
Tip	Short and tapered, colored
Balloon material	SCP (Semi-Crystalline Polymer), controlled compliance (4 - 8 %)
Balloon folding	5-fold
Balloon coating	Hydrophobic patchwork coating
Balloon markers	2 swaged markers (zero profile)
Sizes	ø 2.0 - 7.0 mm; L: 20 - 200 mm
Shaft	3.8F, 3.9F (ø 6.0 / 7.0 mm x 170 - 200 mm); coaxial design
Usable length	90, 130 and 150 cm

Compliance Chart	Balloon diameter x length (mm)							
	ø 2.0 x 20-170	ø 2.0 x 200	ø 2.5 x 20-170	ø 2.5 x 200	ø 3.0 x 20-170	ø 3.0 x 200	ø 3.5 x 20-170	ø 3.5 x 200
Nominal Pressure (NP) atm*	6	6	6	6	6	6	6	6
ø (mm)	2.0	2.0	2.5	2.5	3.0	3.0	3.5	3.5
Rated Burst Pressure (RBP) atm*	15	14	15	14	15	14	15	14
ø (mm)	2.1	2.1	2.6	2.6	3.2	3.2	3.7	3.7

Compliance Chart	Balloon diameter x length (mm)						
	ø 4.0 x 20-150	ø 4.0 x 170-200	ø 5.0 x 20-120	ø 5.0 x 150	ø 5.0 x 170-200	ø 6.0 x 20-200	ø 7.0 x 20-200
Nominal Pressure (NP) atm*	6	6	6	6	6	6	6
ø (mm)	4.0	4.0	5.0	5.0	5.0	6.0	7.0
Rated Burst Pressure (RBP) atm*	15	13	15	12	13	12	12
ø (mm)	4.3	4.2	5.3	5.2	5.2	6.2	7.3

\*1 atm = 1.013 bar

Ordering Information	Catheter Length (cm)	Balloon ø (mm)	Balloon Length (mm)							
			20	40	60	80	120	150	170	200
4F Antegrade approach	90	2.0	366098	366099	366100	366104	366105	366106	366114	376276
	90	2.5	357451	357458	366101	357469	357476	366107	357483	376277
	90	3.0	357452	357459	366102	357470	357477	366108	357484	376278
	90	3.5	357453	357460	366103	357471	357478	366109	357485	376279
	90	4.0	357454	357461	357465	357472	357479	366110	376272	376280
	90	5.0	357455	357462	357466	357473	357480	366111	376273	376281
	90	6.0	357456	357463	357467	357474	357481	366112	376274	376282
	90	7.0	357457	357464	357468	357475	357482	366113 <sup>a</sup>	376275 <sup>a</sup>	376283 <sup>a</sup>

4F

5F

Antegrade approach

Ordering Information	Catheter Length (cm)	Balloon ø (mm)	Balloon Length (mm)							
			20	40	60	80	120	150	170	200
4F Retrograde approach	150	2.0	366115	366118	366119	366123	366126	366129	366137	376296
	130	2.5	357486	357491	366120	357502	357507	366130	357512	376297
	130	3.0	357487	357492	366121	357503	357508	366131	357513	376298
	130	3.5	357488	357493	366122	357504	357509	366132	357514	376299
	130	4.0	357489	357494	357498	357505	357510	366133	376292	376300
	130	5.0	357490	357495	357499	357506	357511	366134	376293	376301
	130	6.0	366116	357496	357500	366124	366127	366135	376294	376302
	130	7.0	366117	357497	357501	366125	366128	366136 <sup>a</sup>	376295 <sup>a</sup>	376303 <sup>a</sup>

4F

5F

Retrograde approach

<sup>a</sup>8 weeks pre-order only

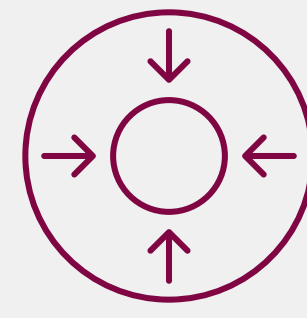
1. Bosiers M, Deloose K, Callaert J, et al. 4-French-compatible endovascular material is safe and effective in the treatment of femoropopliteal occlusive disease: results of the 4-EVER trial. J Endovasc Ther. 2013; 20: 746-756.



Improved  
crossability



Excellent  
deliverability



Low profile, wide  
range of sizes



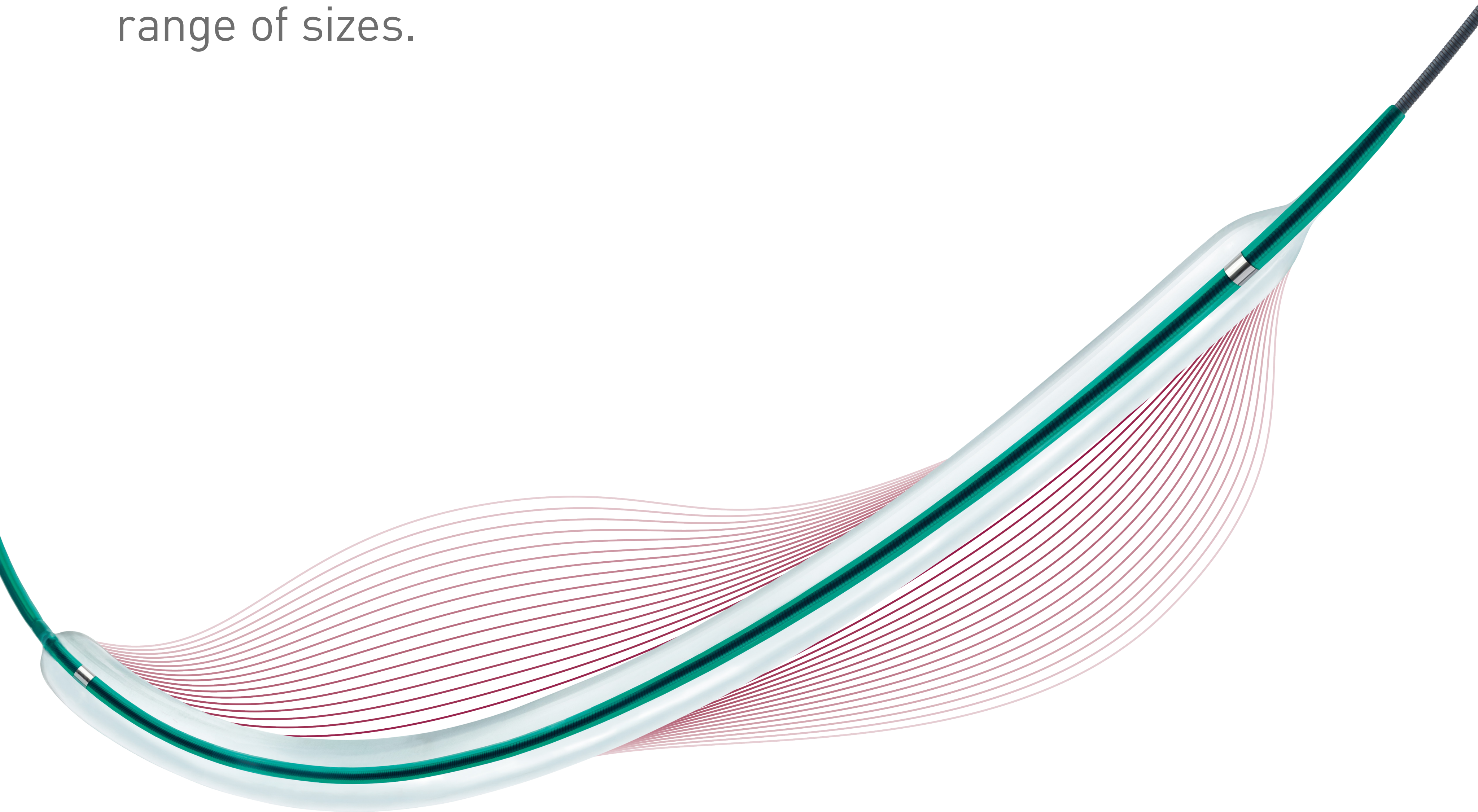
Technical data /  
ordering info

Vascular Intervention // **Peripheral**  
PTA Balloon Catheter/0.035"/OTW

 **BIOTRONIK**  
excellence for life

# Passeo<sup>®</sup>-35 Xeo

Low profile PTA balloon with  
excellent deliverability in a wide  
range of sizes.



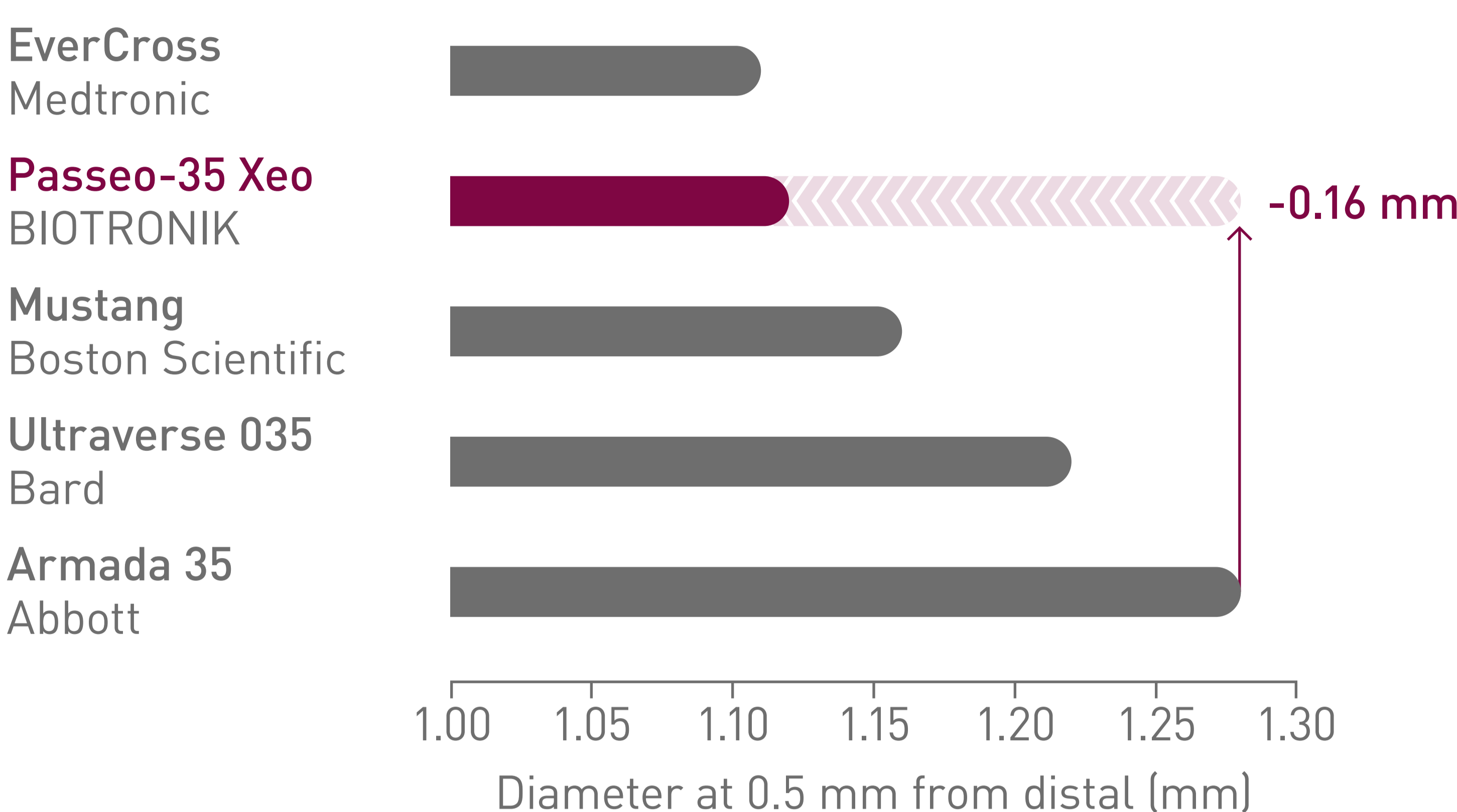


# Passeo-35 Xeo

Low profile PTA balloon with excellent deliverability in a wide range of sizes.

## Improved crossability

Up to 0.16 mm lower tip entry profile compared to leading competitors.<sup>1</sup>



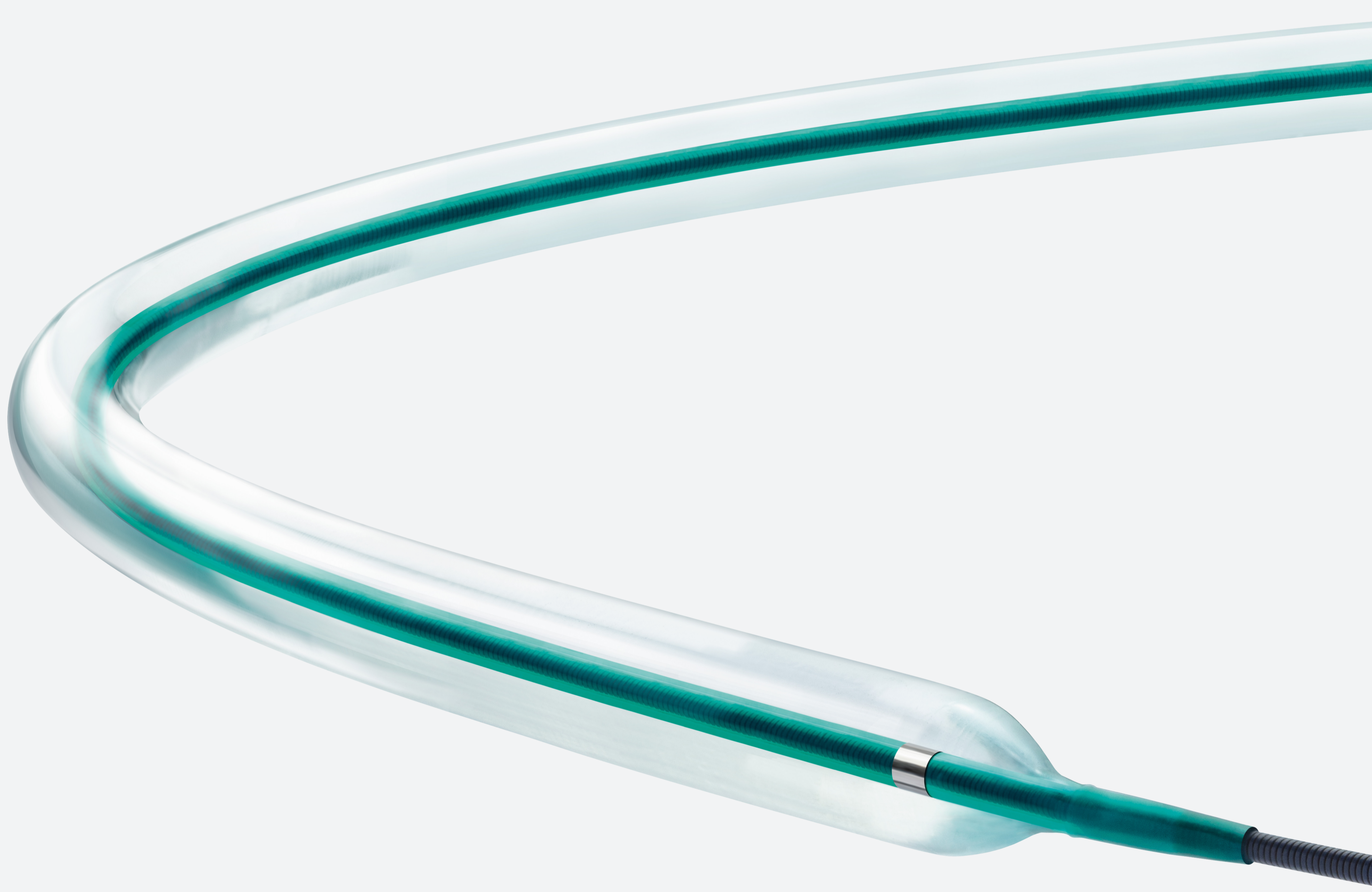
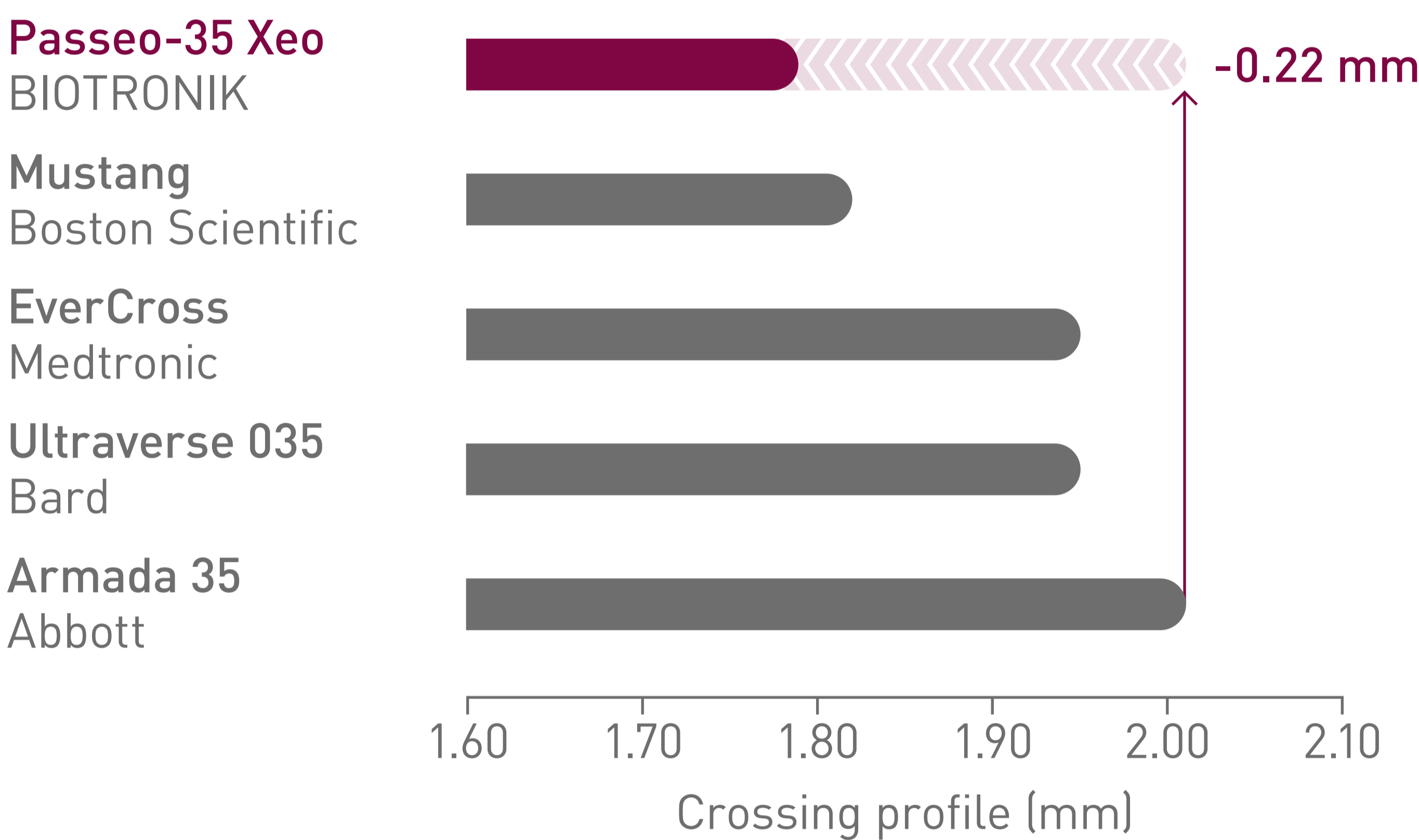
## Advanced tip profile

The low tip entry profile and smooth tapered tip of Passeo-35 Xeo facilitates crossing.



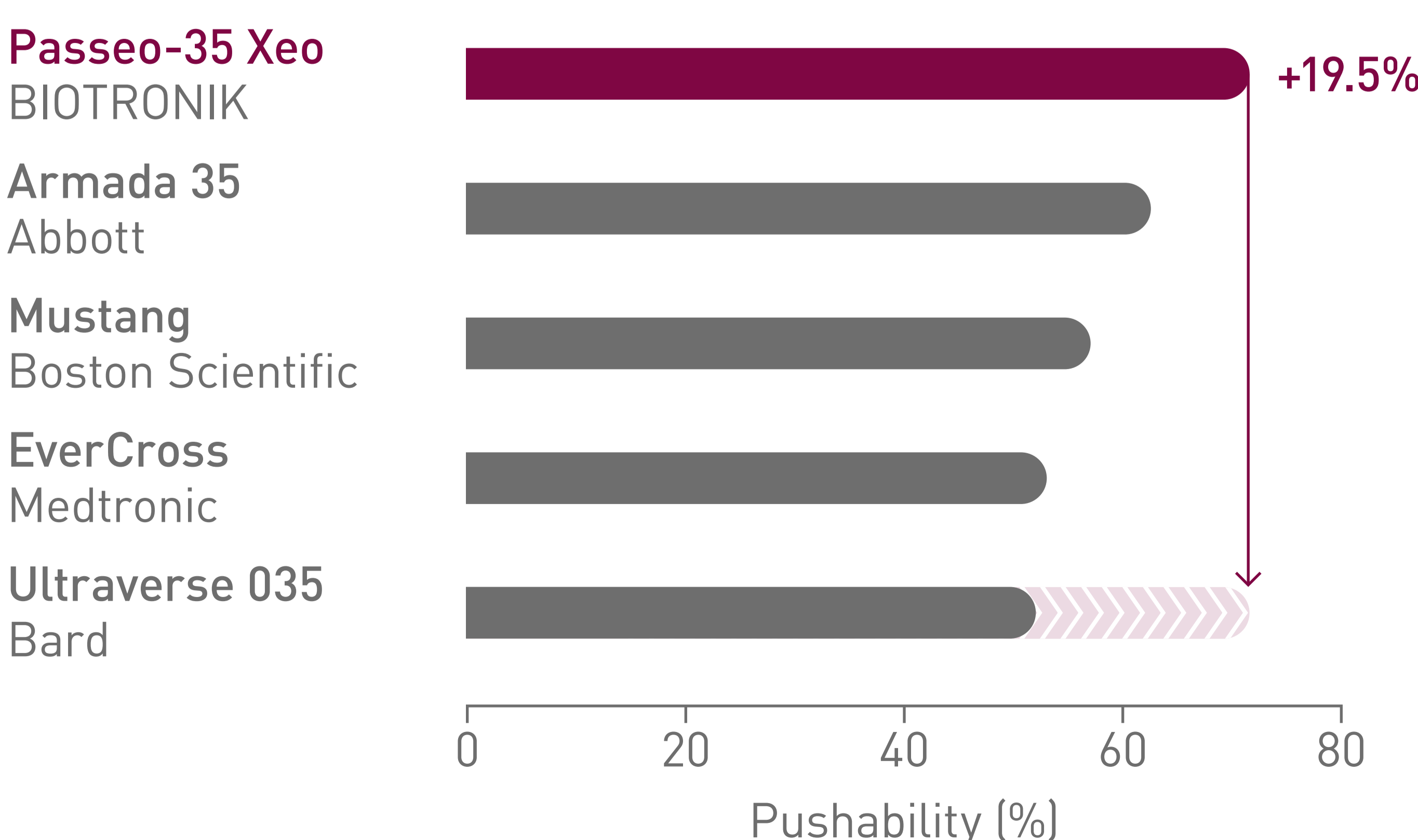
## Lowest crossing profile

Up to 0.22 mm lower crossing profile compared to leading competitors.<sup>1</sup>



## Excellent deliverability

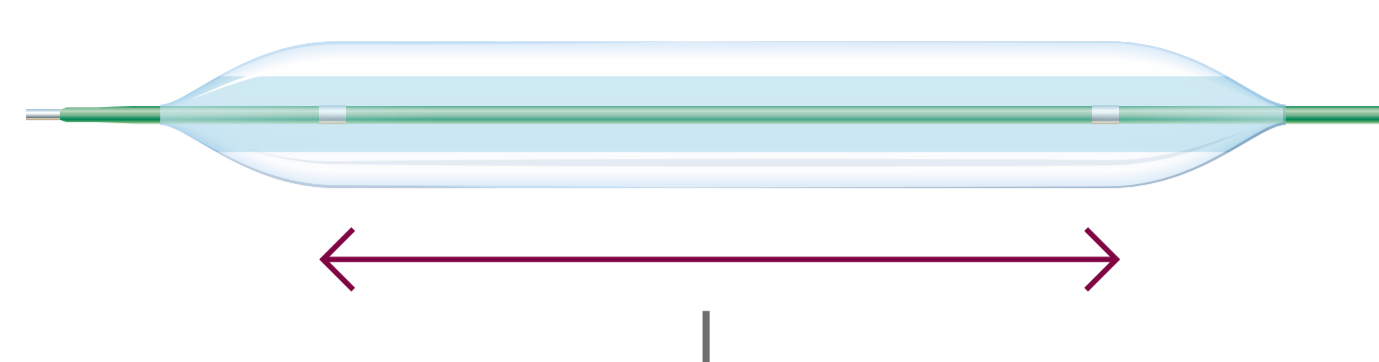
The Passeo-35 Xeo catheter offers excellent trackability and pushability compared to competitive 0.035" PTA balloon catheters.<sup>2</sup>



# Low profile, wide range of sizes

Passeo-35 Xeo features a low profile design with a full 5F compatibility up to 7.0 mm balloon diameter and 250 mm balloon length, 6F up to 10.0 mm and 7F up to 12.0 mm diameter.

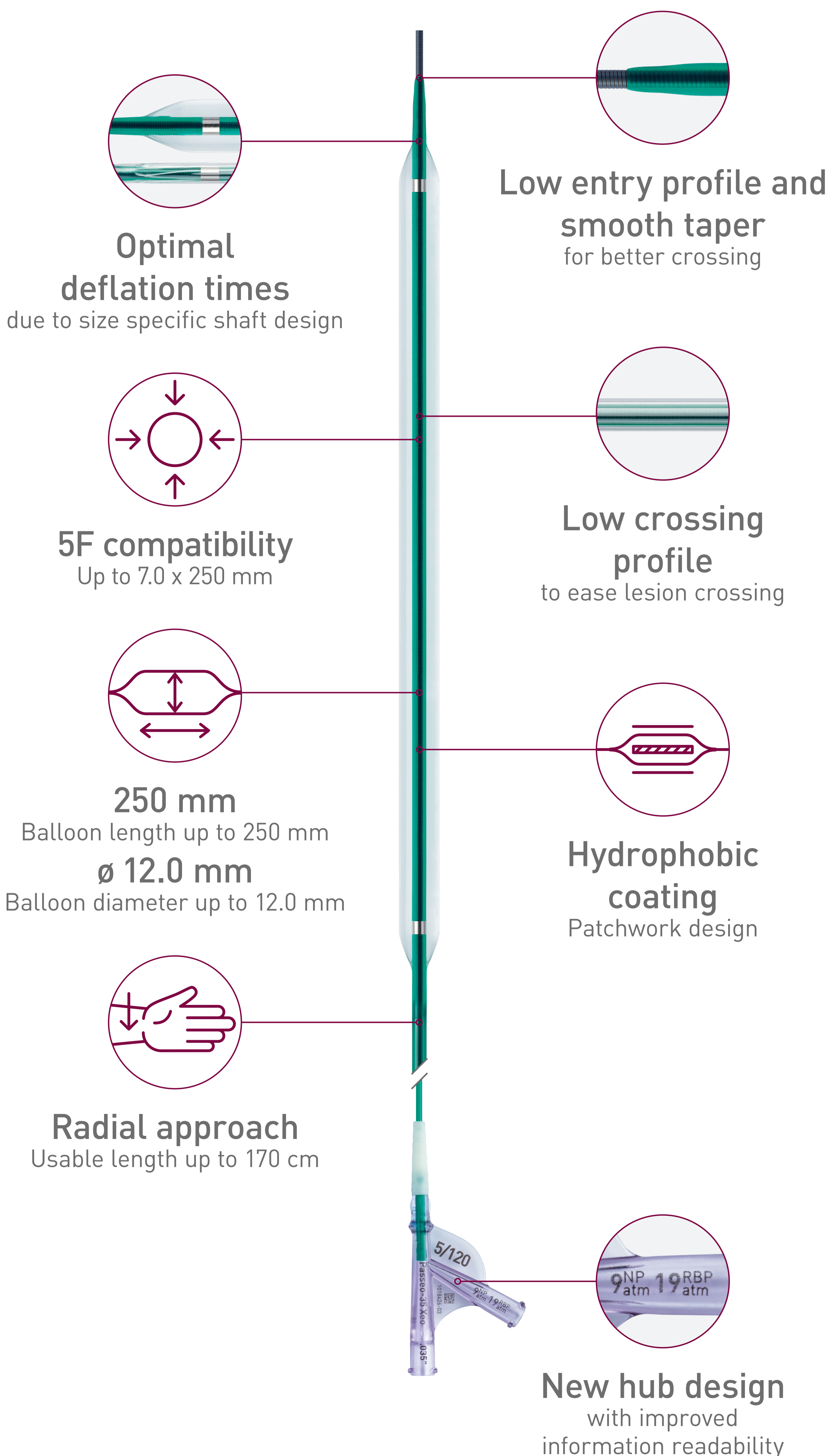
**5F**  $\varnothing$  3.0 – 7.0 mm  
L 20 – 250 mm



**6F**  $\varnothing$  8.0 – 10.0 mm  
L 20 – 120 mm

## Passeo-35 Xeo

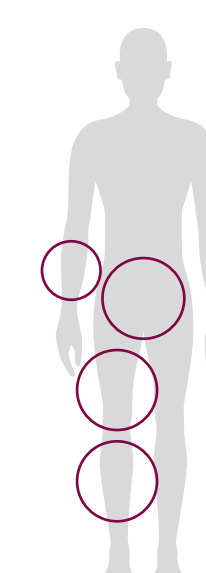
Low profile PTA balloon designed to cross





# Passeo-35 Xeo

Vascular  
Intervention  
Peripheral



The Passeo-35 Xeo is indicated to dilate stenosis in the iliac\*, femoral, popliteal and infrapopliteal arteries and for the treatment of obstructive lesions of native or synthetic arteriovenous dialysis fistulae. Passeo-35 Xeo is also recommended for post-dilation of balloon expandable and self-expanding stents in the peripheral vasculature.\*\*

## Technical Data - Balloon Catheter

Catheter type	OTW	Balloon markers	2 swaged markers
Recommended guide wire	0.035"	Sizes	ø 3.0-12.0 mm; L: 20-250 mm
Tip	Low entry profile, colored	Shaft	5.1-5.4F, dual-lumen, hydrophobic coating
Balloon material	SCP (Semi-Crystalline Polymer), controlled compliance	Usable length	90, 130 and 170 cm
Balloon coating	Hydrophobic patchwork coating	Guide wire lumen	Hydrophobic coating

Balloon ø (mm)	NP <sup>a</sup>	RBP <sup>a</sup>	Catheter length 90 cm									
			Balloon length (mm)									
			20	40	60	80	100	120	150	170	200	250
5F			428777	428786	428795	428804	-	-	-	-	-	-
			428778	428787	428796	428805	428814	428823	-	-	-	-
			428779	428788	428797	428806	428815	428824	428833	-	428843	428848
			428780	428789	428798	428807	428816	428825	428834	-	428844	428849
			428781	428790	428799	428808	428817	-	-	-	-	-
6F			428782	428791	428800	428809	428818	-	-	-	-	-
			428783	428792	428801	428810	428819	-	-	-	-	-
			428784	428793	428802	428811	428820	-	-	-	-	-
7F			-	428794	428803	428812	428821	-	-	-	-	-

Balloon ø (mm)	NP <sup>a</sup>	RBP <sup>a</sup>	Catheter length 130 cm									
			Balloon length (mm)									
			20	40	60	80	100	120	150	170	200	250
5F			428851	428860	428869	428878	428887	428896	428905	428910	428915	428920
			428852	428861	428870	428879	428888	428897	428906	428911	428916	428921
			428853	428862	428871	428880	428889	428898	428907	428912	428917	428922
			428854	428863	428872	428881	428890	428899	428908	428913	428918	428923
			428855	428864	428873	428882	428891	428900	428909	428914	428919	428924
6F			428856	428865	428874	428883	428892	428901	-	-	-	-
			428857	428866	428875	428884	428893	428902 <sup>b</sup>	-	-	-	-
			428858	428867	428876	428885	428894	428903 <sup>b</sup>	-	-	-	-
7F			-	428868	428877	428886	428895	428904 <sup>b</sup>	-	-	-	-

Balloon ø (mm)	NP <sup>a</sup>	RBP <sup>a</sup>	Catheter length 170 cm										
			Balloon length (mm)										
			20	40	60	80	100	120	150	170	200	250	
5F			-	428935 <sup>b</sup>	428944 <sup>b</sup>	428953 <sup>b</sup>	-	-	428971 <sup>b</sup>	428980 <sup>b</sup>	-	428990 <sup>b</sup>	428995 <sup>b</sup>
			428927 <sup>b</sup>	428936 <sup>b</sup>	428945 <sup>b</sup>	428954 <sup>b</sup>	-	-	428972 <sup>b</sup>	428981 <sup>b</sup>	-	428991 <sup>b</sup>	428996 <sup>b</sup>
			428928 <sup>b</sup>	428937 <sup>b</sup>	428946 <sup>b</sup>	428955 <sup>b</sup>	-	-	428973 <sup>b</sup>	428982 <sup>b</sup>	-	428992 <sup>b</sup>	428997 <sup>b</sup>
			428929 <sup>b</sup>	428938 <sup>b</sup>	428947 <sup>b</sup>	428956 <sup>b</sup>	-	-	-	-	-	-	-
			428930 <sup>b</sup>	428939 <sup>b</sup>	428948 <sup>b</sup>	428957 <sup>b</sup>	-	-	-	-	-	-	-
6F			-	428940 <sup>b</sup>	428949 <sup>b</sup>	428958 <sup>b</sup>	-	-	-	-	-	-	
			-	428941 <sup>b</sup>	428950 <sup>b</sup>	428959 <sup>b</sup>	-	-	-	-	-	-	

<sup>a</sup>NP = Nominal Pressure and RBP = Rated Burst Pressure in atm (1 atm = 1.013 bar)  
<sup>b</sup>8 weeks pre-order only

1. BIOTRONIK data on file. Compared to leading competitors 6.0 mm diameter balloon size. IIB(P) 39/217; 2. BIOTRONIK data on file. Compared to leading competitors 6.0x200 mm balloon size. \*Note for Australia: Passeo-35 Xeo not approved by Therapeutic Goods Administration for use in the common iliac arteries.\*\*Indication as per IFU. Passeo and Xeo are trademarks or registered trademarks of the BIOTRONIK Group of Companies. EverCross is a trademark or registered trademark of the Medtronic Group of companies. Mustang is a trademark or registered trademark of the Boston Scientific Group of companies. Ultraverse is a trademark or registered trademark of Becton, Dickinson and Company or its affiliates. Armada is a trademark or registered trademark of the Abbott Group of companies.



# Dynamic

Balloon Expandable Stent/0.035"/OTW

Indicated for iliac arteries<sup>1</sup>



- Helical stent design for optimal stent flexibility
- Trusted delivery system for state of the art trackability
- Improved stent surface biocompatibility<sup>2</sup>

<sup>1</sup> Australia: not TGA approved for use within common iliac arteries

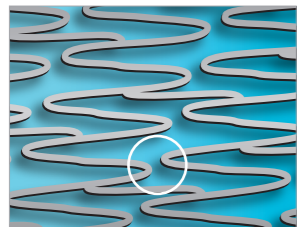
<sup>2</sup> Rzany A, Schaldach M. Smart Material Silicon Carbide: Reduced Activation of Cells and Proteins on a-SiC:H-coated Stainless Steel. Progress in Biomedical Research 2001; May: 182-194.

# Dynamic Balloon Expandable Stent

The Dynamic balloon expandable stent system is designed to treat most iliac arterial disease through a 6F introducer sheath<sup>3</sup>. The **proBIO** coated Dynamic stent features state of the art trackability and stent flexibility.

## Flexible stent design for iliac artery

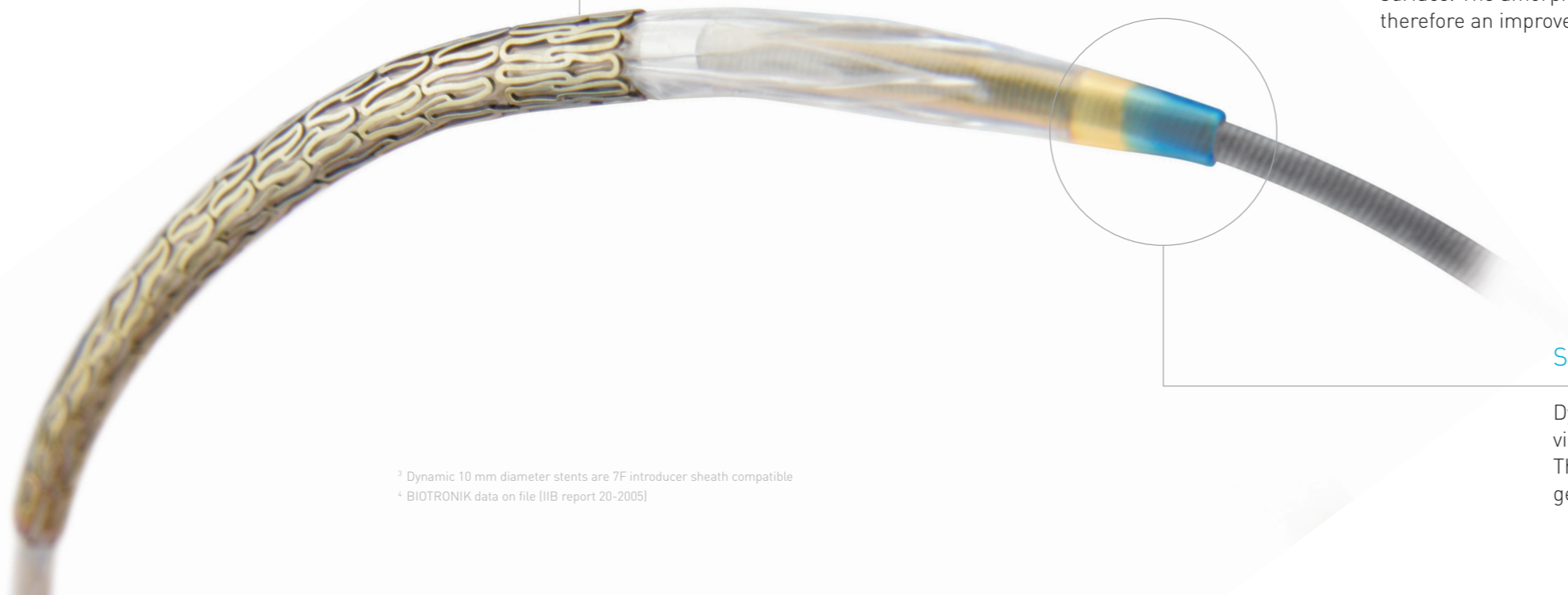
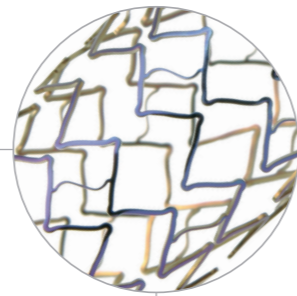
- The helical stent design provides optimal flexibility respecting vessel movement
- Peak-to-valley design avoids the fish-scaling effect optimizing stent scaffolding



Dynamic  
Peak-to-Valley



Competitive  
Peak-to-Peak

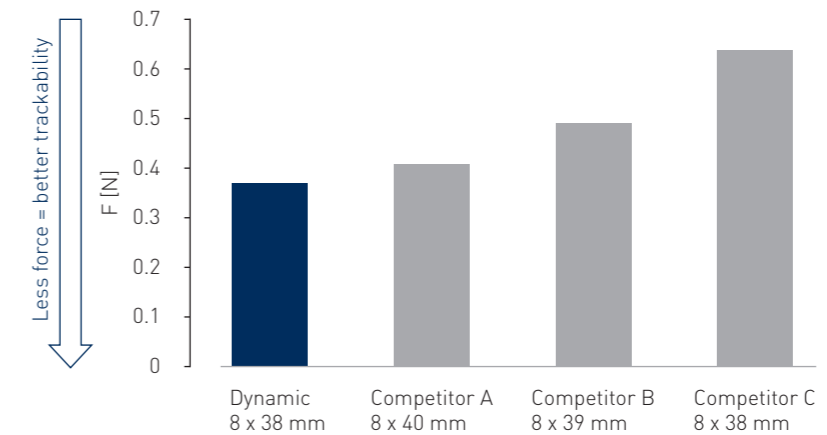


<sup>3</sup> Dynamic 10 mm diameter stents are 7F introducer sheath compatible  
<sup>4</sup> BIOTRONIK data on file (IIB report 20-2005)

# Stent designed for flexibility in iliac arteries

## State of the art trackability

The Dynamic delivery system offers best trackability compared to competitive balloon expandable devices<sup>4</sup>.



## Improved stent surface biocompatibility<sup>2</sup>

The proprietary **proBIO** stent coating provides a barrier against metal ion release. This results in a reduction in platelet activation and encourages a continuous endothelial layer to form on its surface. The amorphous silicon carbide coating provides therefore an improved biocompatible stent surface.

## Smooth tapered tip

Dynamic has a colored tip for better tip visibility promoting easy guide wire insertion. The smooth tapered tip design facilitates gentle trackability in tortuous anatomy.



# Dynamic

## Balloon Expandable Stent/0.035"/OTW

Technical Data		Stent	
Stent		Balloon-expandable	
Stent material		Stainless Steel	
Strut thickness		160 µm (ø 5.0 - 8.0 mm) 180 µm (ø 9.0 - 10.0 mm)	
Shortening		Negligible	
Stent coating		proBIO (Amorphous Silicon Carbide)	
Sizes		ø 5.0 - 10.0 mm; L: 15 - 25 - 38 - 56 mm	
		Delivery system	
Catheter type		OTW	
Recommended guide wire		0.035"	
Tip		Soft, short, tapered, colored	
Balloon markers		2 swaged markers	
Shaft		5F, hydrophobic coating, dual-lumen	
Usable length		80 and 130 cm (ø 5.0 - 8.0 mm)	
Markers		2 swaged markers	
Guide wire lumen		Hydrophobic coating	
Nominal Pressure (NP)		9 atm	
Rated Burst Pressure (RBP)		15 atm (ø 5.0 - 8.0 mm) 13 atm (ø 9.0 - 10.0 mm)	

Ordering Information	Stent ø (mm)	Catheter length 80 cm Stent length (mm)				Catheter length 130 cm Stent length (mm)			
		15	25	38	56	15	25	38	56
5F	5.0	350110	350114	350120	350126	350132	350136	350140	350144
	6.0	350111	350115	350121	350127	350133	350137	350141	350145
6F	7.0	350112	350116	350122	350128	350134	350138	350142	350146
	8.0	350113	350117	350123	350129	350135	350139	350143	350147
7F	9.0	-	350118	350124	350130	-	-	-	-
	10.0	-	350119	350125	350131	-	-	-	-

Dynamic is part of the BIOTRONIK **6F** Solutions portfolio, including:

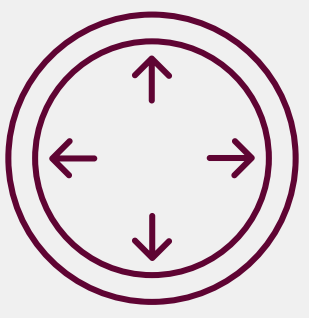
■ Introducer Sheath: **Fortress** ■ Balloons: **Passeo-35, Passeo-35 HP** ■ Stents: **Astron, Pulsar-35**

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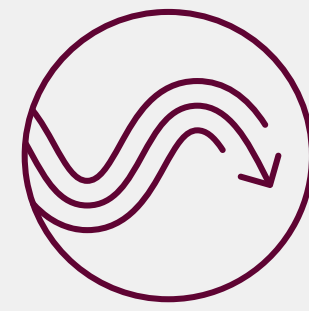
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Large inner diameter enables extraction of larger thrombotic particles



Extra large 60 ml locking syringe allows for longer aspiration time



Hydrophilic coating for optimal trackability

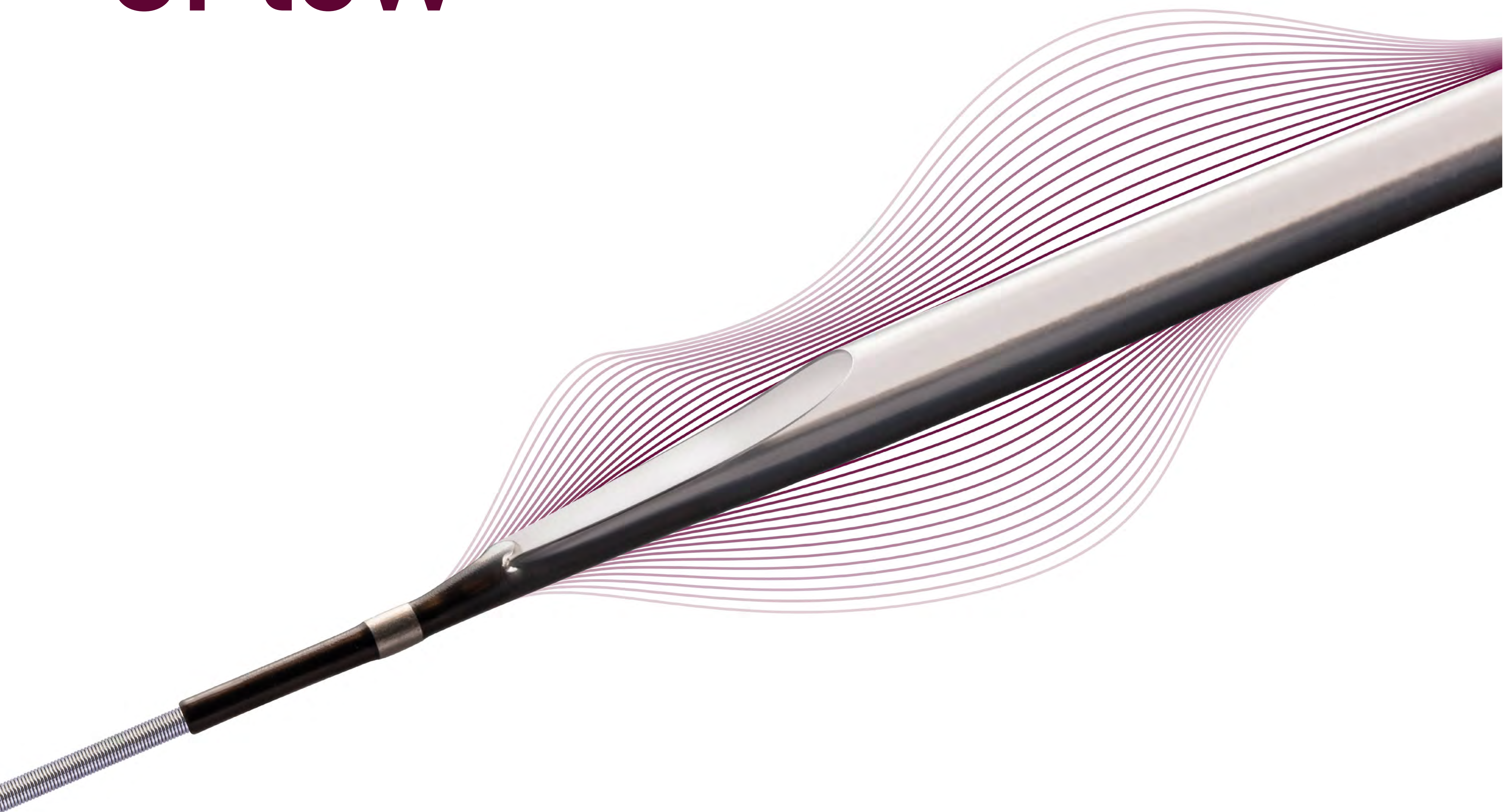


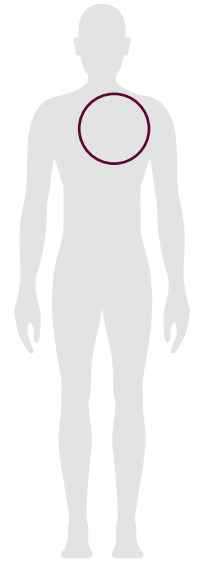
Technical data / ordering info

Vascular Intervention // **Accessory Products**  
Aspiration Catheter

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# 3Flow





# 3Flow

Indicated for central and peripheral circulatory system including saphenous vein grafts.\*

Technical Data	Aspiration catheter	3Flow 6F
	Outer diameter (dist./mid/prox.)	0.067"/0.067"/0.051"
	Guide catheter min. inner diameter	0.071" (1.80 mm)
	Usable length	145 cm
	Proximal shaft	PEEK
	Distal shaft	SCP (Semi Crystalline Polymer)
	Coating (distal 25 cm)	Hydrophilic
	Distal marker band	Platinum-iridium, 3 mm from tip
Ordering Information	Catalogue number	Size
	387456	6F

\*Indication as per IFU.

**Manufacturer:**  
ARTHESYS  
4, rue René Razel  
91400 Saclay, France  
Tel +33 (0) 141118777  
Fax +33 (0) 141118770  
info@arthesys.com  
www.arthesys.com

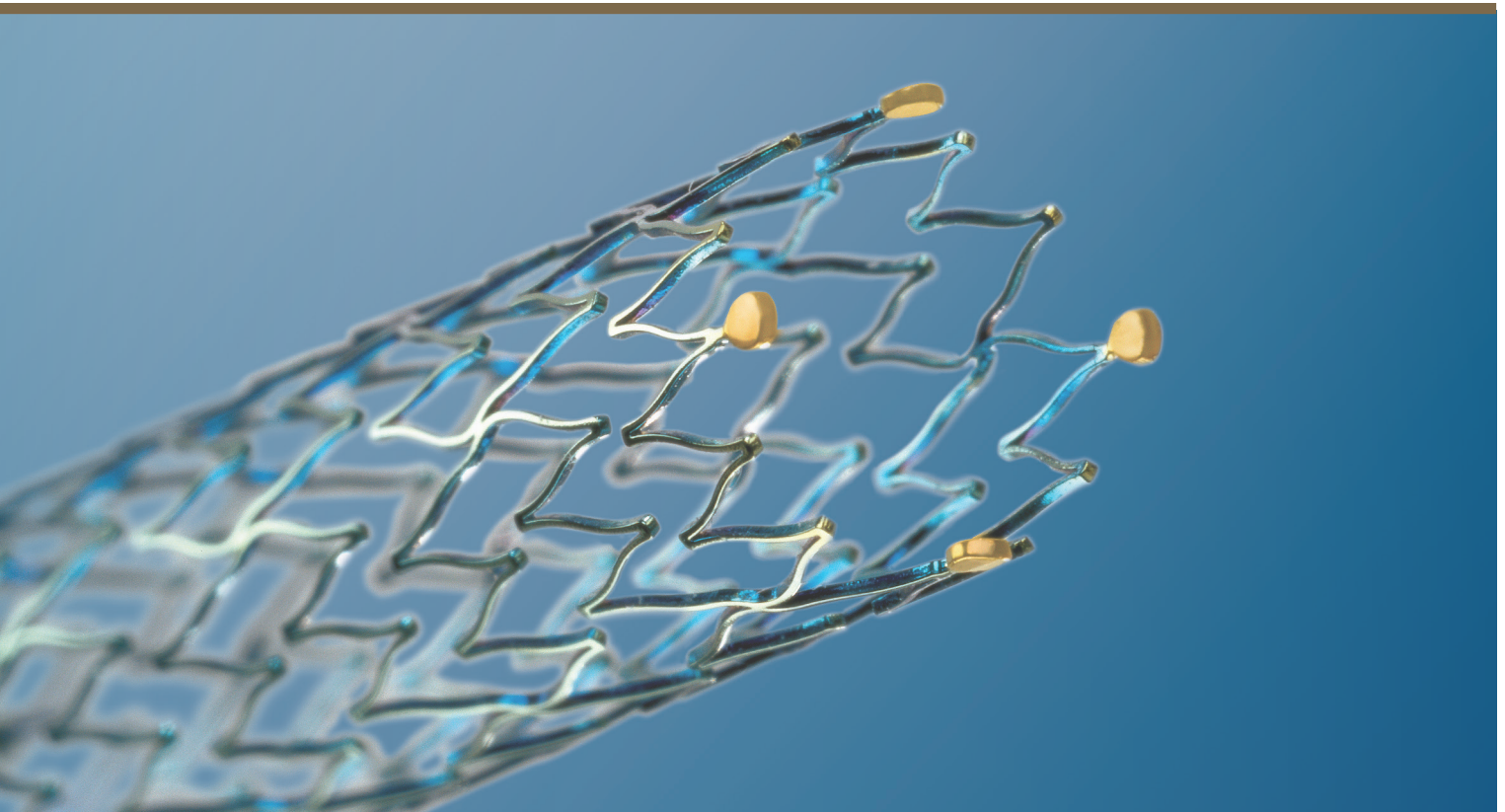
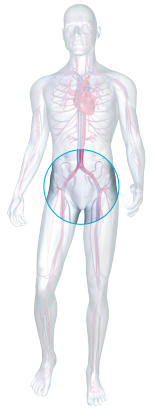
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# Astron

Self-Expanding Stent/0.035"/OTW

Indicated for atherosclerotic disease of iliac arteries



- Pull-back delivery system for simple stent deployment
- 5.2F proximal shaft for contrast injection with device in sheath
- Segmented stent design and thick struts for sufficient chronic outward force
- S-articulating connecting bars and peak-to-valley design for multi-directional flexibility

# Astron Strength with flexibility

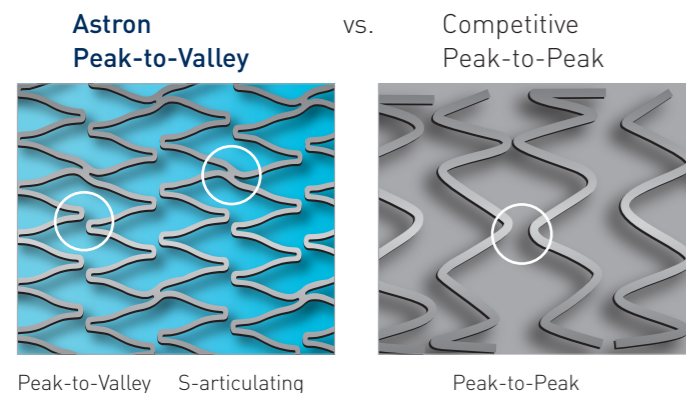
A stent designed for iliac artery lesions which are often calcified and occluded. Both stent and markers are completely coated with **proBIO**. Unique “S-articulations” to allow stent conformability. The particular design respects the vessel movement without compromising the needed strength.

## Easy release

Relieves friction of introducer valve on the retractable shaft during stent deployment for a smoother action.

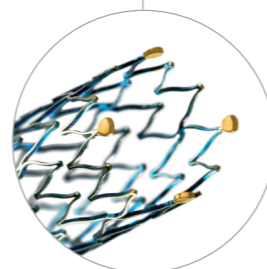
## Segmented stent design for iliac artery

- Peak-to-valley design and S-articulating connecting bars provide multi-directional flexibility and avoid fish-scaling in tortuous arteries.
- Segmented design and strut thickness designed to provide sufficient chronic outward force.



## Enhanced visibility

Four gold markers at each end of the stent enhance visibility.



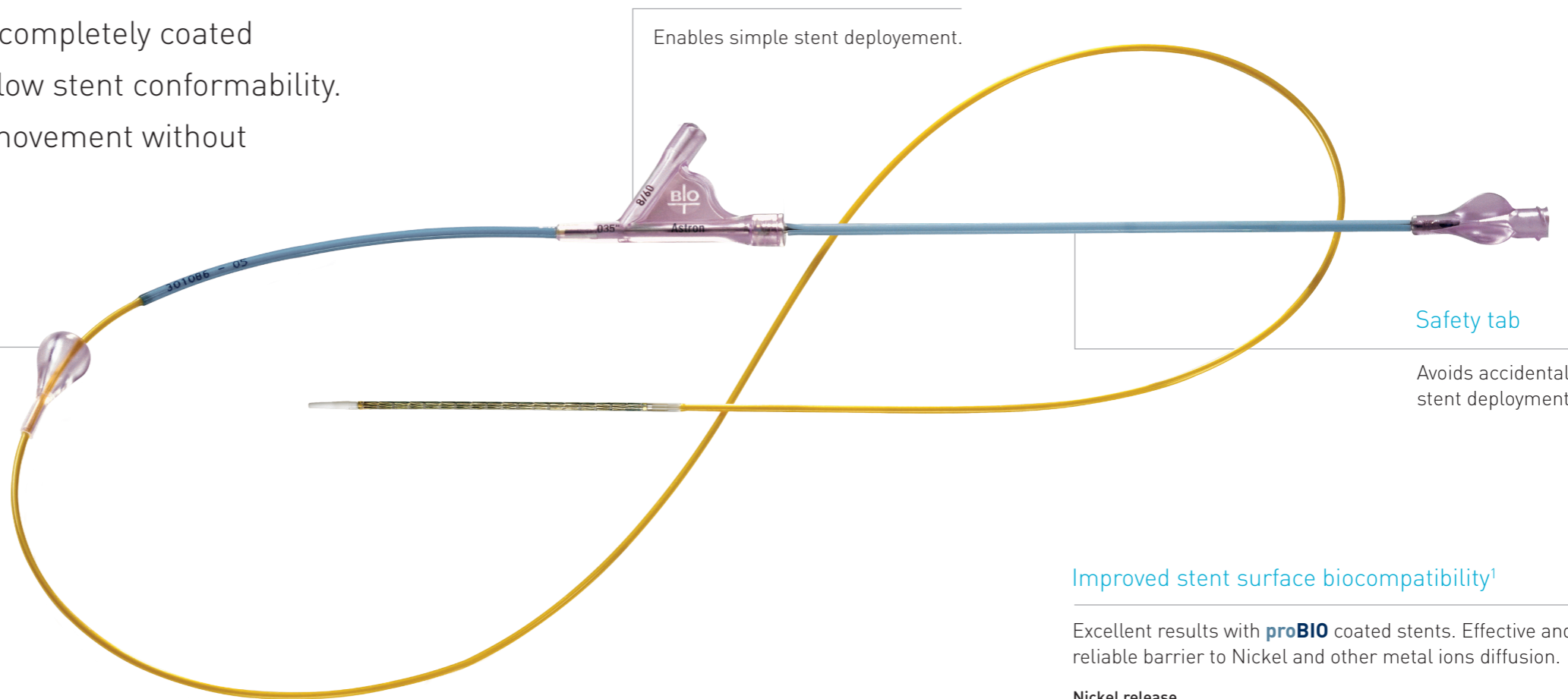
# Stent designed to achieve radial force and flexibility in iliac arteries

## Pull-back delivery system

Enables simple stent deployment.

## Safety tab

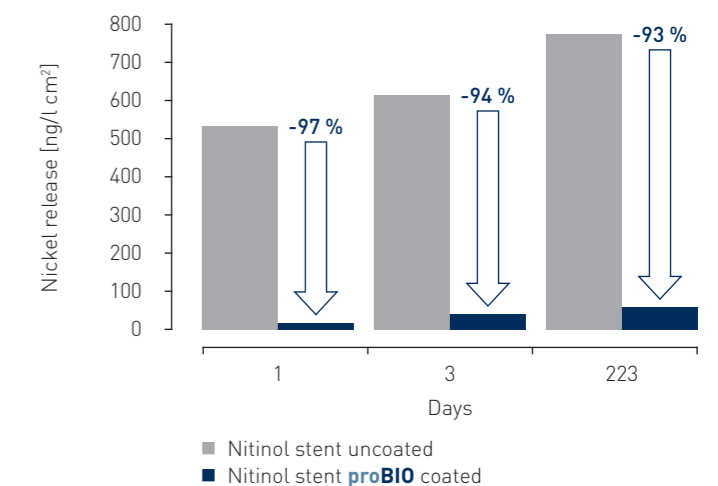
Avoids accidental stent deployment.



## Improved stent surface biocompatibility<sup>1</sup>

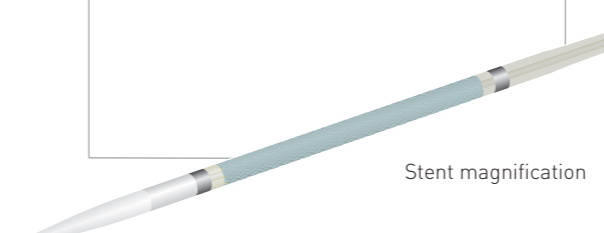
Excellent results with **proBIO** coated stents. Effective and reliable barrier to Nickel and other metal ions diffusion.

### Nickel release



## 6F Introducer compatibility

6F distal shaft with 5.2F proximal shaft for contrast injection with device positioned inside introducer and across lesion.



<sup>1</sup> Nickel release test results; BIOTRONIK Data on file

# Astron

## Self-Expanding Nitinol Stent/0.035"/OTW

Technical Data	Stent
Catheter type	OTW
Recommended guide wire	0.035"
Stent material	Nitinol
Strut thickness	225 µm (ø 10 mm = 230 µm)
Stent coating	<b>proBIO</b> (Amorphous Silicone Carbide)
Stent markers	4 gold markers each end
Sizes	ø 7 - 10 mm; L: 30 - 80 mm
Proximal shaft	5.2F, hydrophobic coating
Usable length	70 and 120 cm

Ordering Information	Stent ø (mm)	Catheter length 70 cm			
		Stent length (mm)			
		30	40	60	80
	7.0	343773	343774	343775	343776
	8.0	343777	343778	343779	343780
6F	9.0	343781	343782	343783	343784
	10.0	-	349214	349215	349216

	Stent ø (mm)	Catheter length 120 cm			
		Stent length (mm)			
		30	40	60	80
	7.0	343785	343786	343787	343788
6F	8.0	343789	343790	343791	343792
	9.0	343793	343794	343795	343796

Astron is part of the BIOTRONIK **6F** Solutions portfolio, including:

■ Introducer Sheath: **Fortress** ■ Balloons: **Passeo-35, Passeo-35 HP** ■ Stents: **Dynamic, Pulsar-35**

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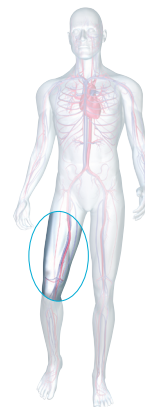
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# Pulsar-35

Self-expanding stent/0.035"/OTW

Indicated for femoral and proximal popliteal arteries



- One-handed stent release for accurate stent deployment
- Tri-axial shaft for a stable delivery system during stent deployment
- S-articulating connecting bars and peak-to-valley design for multi-directional flexibility
- Segmented stent design with thin struts for lower restenosis rates

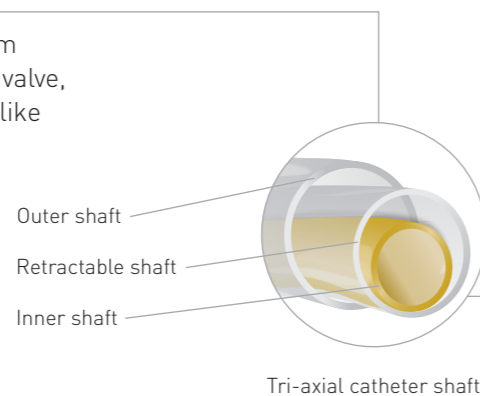
# Pulsar-35

## Deliverability where it matters

Being a relatively mobile artery, the SFA requires a stent that conforms to the natural vessel movement and provides sufficient support in complex, long lesions that are often difficult to cross. Pulsar-35 is a stent designed for SFA with high multi-directional flexibility on a tri-axial delivery system.

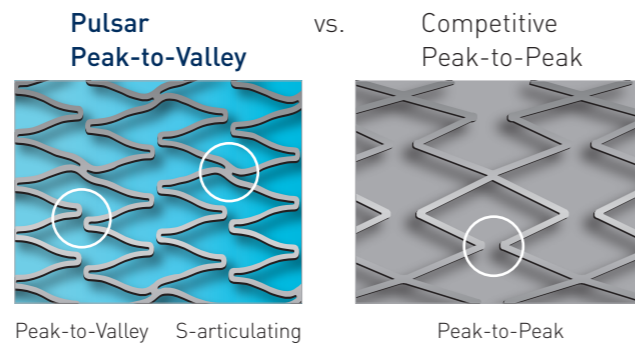
### Tri-axial outer shaft

Isolates retractable shaft from friction caused by introducer valve, aimed at ensuring precision-like implantation accuracy.



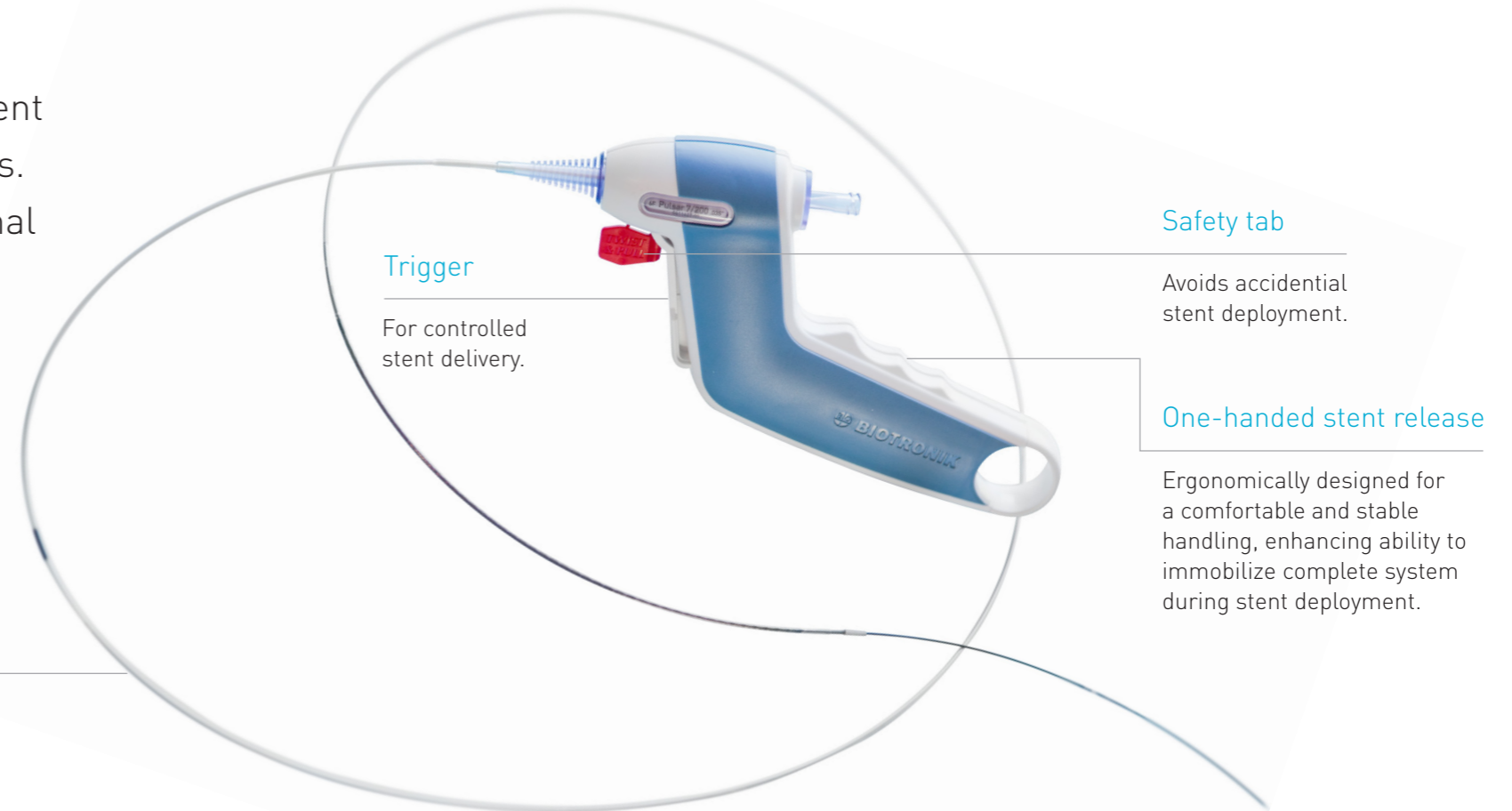
### Stent designed for SFA

- Peak-to-valley design and S-articulating connecting bars provide multi-directional flexibility and avoid fish-scaling in mobile vessel architecture.
- A segmented design with thin struts provides low Chronic Outward Force (COF)<sup>1</sup> sufficient to maintain vessel scaffolding even in calcified lesions (4EVER study<sup>2</sup>). High COF has been shown to result in higher rates of neointimal hyperplasia<sup>3</sup>.
- Stent lengths up to 170 mm for covering long lesions with a single stent.



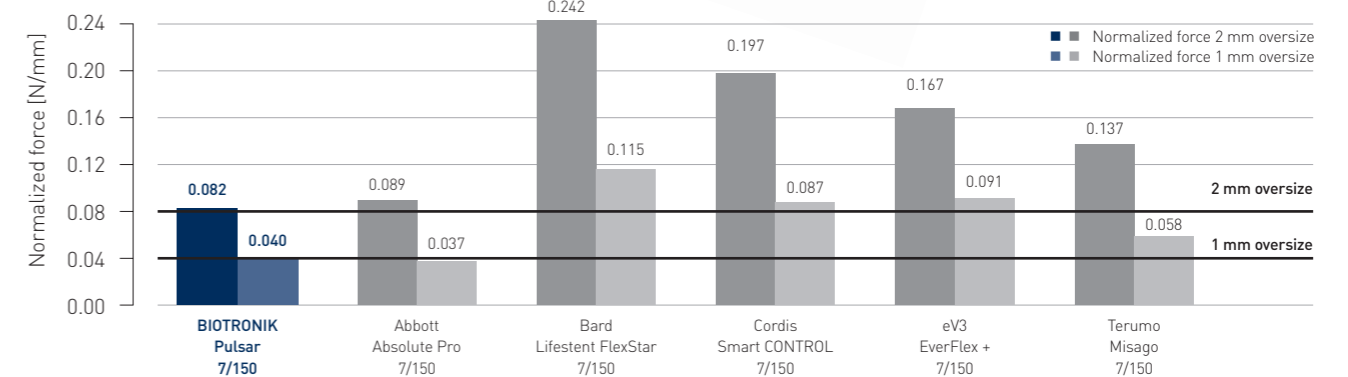
<sup>1</sup> BIOTRONIK data on file [IIB report (P) 71/2011-1]  
<sup>2</sup> 4EVER study. Bosiers. M. 24m results presented CIRSE 2013; Deloose K. 24m results presented LINC 2014  
<sup>3</sup> Ballyk PD. Intramural stress increases exponentially with stent diameter: a stress threshold for neointimal hyperplasia. J Vasc Interv Radiol. 2006 Jul; 17(7): 1139-45.  
 Freeman JW, Snowhill PB, Noshier JL. A link between stent radial forces and vascular wall remodeling: the discovery of an optimal stent radial force for minimal vessel restenosis. Connect Tissue Res. 2010 Aug; 51(4): 314-26.  
 Zhao HQ, Nikanorov A, Virmani R, Jones R, Pacheco E, Schwartz LB. Late stent expansion and neointimal proliferation of oversized Nitinol stents in peripheral arteries. Cardiovasc Intervent Radiol. 2009 Jul; 32(4): 720-6.

# Stent designed to achieve radial force and flexibility required by SFA



### Low chronic outward force

Low Chronic Outward Force (COF)<sup>1</sup> sufficient to maintain vessel scaffolding even in calcified lesions (4EVER study<sup>2</sup>). As shown below, COF of Pulsar stents increases less than many competitor stents when oversized, thus potentially reducing inflammatory response and restenosis<sup>3</sup>.



BIOTRONIK data on file [IIB report (P) 71/2011-1]



# Pulsar-35

## Self-expanding stent/0.035"/OTW

Technical Data	Stent
Catheter type	OTW
Recommended guide wire	0.035"
Stent material	Nitinol
Strut thickness	140 µm
Strut width	85 µm
Stent coating	<b>proBIO</b> (Amorphous Silicon Carbide)
Stent markers	6 gold markers each end
Sizes	ø 5.0 - 7.0 mm; L: 30 - 170 mm
Proximal shaft	6F, hydrophobic coating
Usable length	90 and 135 cm

Ordering Information	Stent ø (mm)	Catheter length 90 cm								
		Stent length (mm)								
		30	40	60	80	100	120	150	170	200
	5.0	379878	379879	379880	379881	379917	379918	379919	379920	379921
6F	6.0	379883	379884	379885	379886	379922	379923	379924	379925	379926
	7.0	379888	379889	379890	379891	379927	379928	379929	379930	379931

	Stent ø (mm)	Catheter length 135 cm								
		Stent length (mm)								
		30	40	60	80	100	120	150	170	200
	5.0	379898	379899	379900	379901	379937	379938	379939	379940	379941
6F	6.0	379903	379904	379905	379906	379942	379943	379944	379945	379946
	7.0	379908	379909	379910	379911	379947	379948	379949	379950	379951

Pulsar-35 is part of the BIOTRONIK **6F** Solutions portfolio, including:

■ Introducer Sheath: **Fortress** ■ Balloons: **Passeo-35, Passeo-35 HP** ■ Stents: **Dynamic, Astron**

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