PCI Materials
TABLE OF CONTENTS

SC Balloons

AlveoHP

Balloon Dilatation Catheter

CTO Balloon Catheter

Ø 0.75mm

- With 0.75 mm in diameter Alveo HP is the smallest high pressure CTO balloon catheter in the world.Its tip entry profile is 0.0156.
- Specifically designed for crossing complex lesions and Chronic Total Occlusions (CTO) as well as tracking tortuous anatomy.
- It is ideal used as Lesions preparation for complex CTO, when the normal SC balloon easily scratched by severe calcification, Alveo can cross it due to its unique balloon material, high pressure resistance(20atm RBP) and smallest profile.
- (Alveo may not be the only one that passes through, but it's certainly the one that passes through without being punctured by calcification and can be expansioned to RBP 20 atm!Average 28atm)

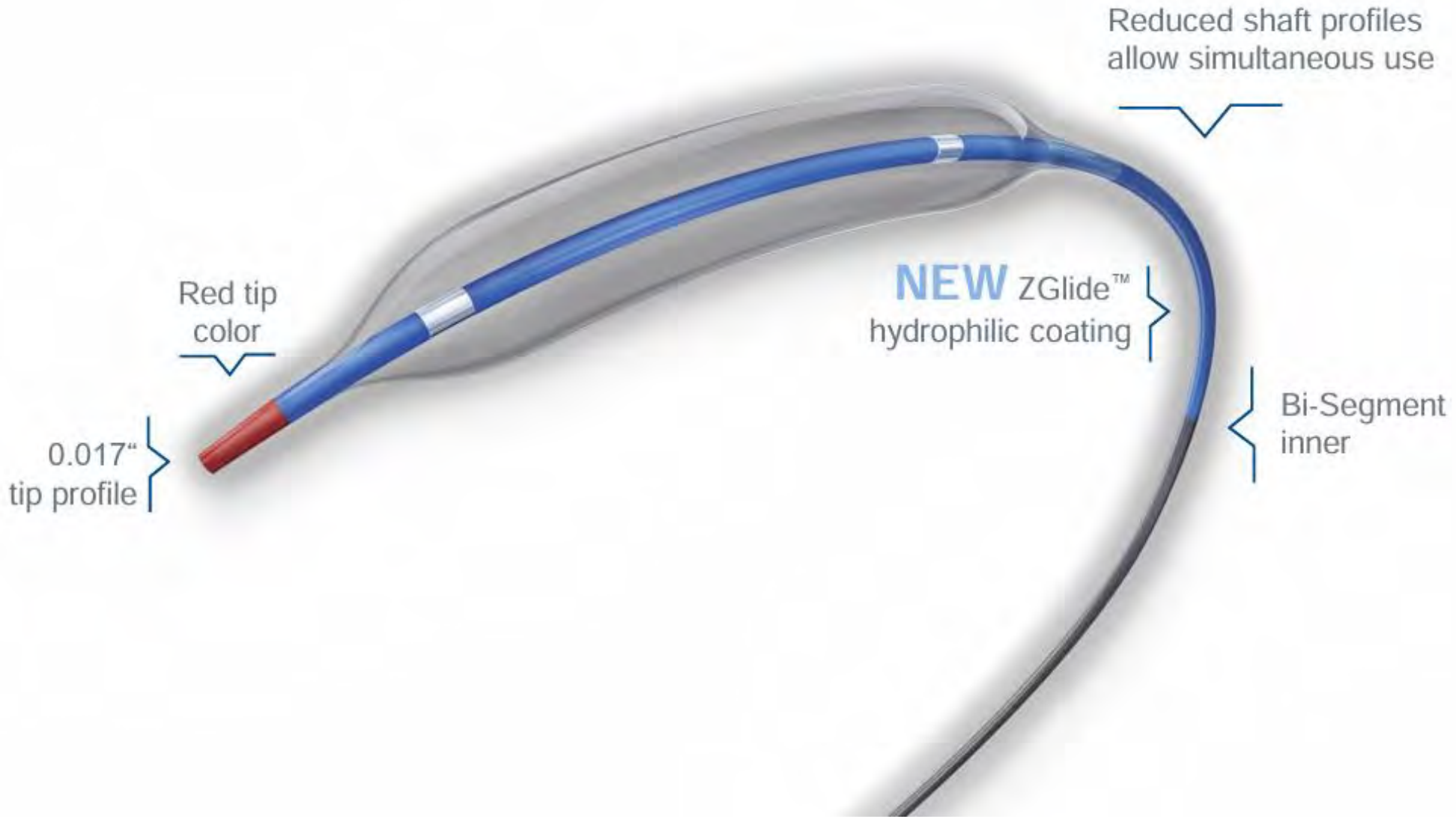
Artimes Resume

Semi-Compliant Balloon Catheter

Artimes is a SC pre-dilatation balloon sizes 1.0 and 1.25mm are designed for small and narrow lesions and for the treatment of CTOs.
It is 5F Compatible, 6F Guiding Kissing • Balanced with Ultra-low 0.016" Profile Tip as well as Enhanced Balloon Flexibility and crossibility

Artimes comes with unique technology:
(1) Balanced tip processing and distal welding technique balanced tip processing and distal welding technique
(2)Patented microcrystalline grid balloon technology
(3)Laser spiral cut pole-vault hypotube design
(4)Ultra-lubricated coating technique

EMERGE Features



Ryurei

TERUMO INTERVENTIONAL SYSTEMS

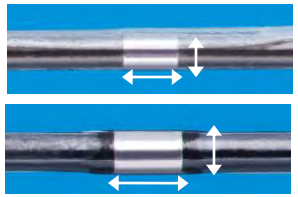
PTCA Balloon Dilatation Catheter

Low profiles

Ryurei ϕ1.00mm

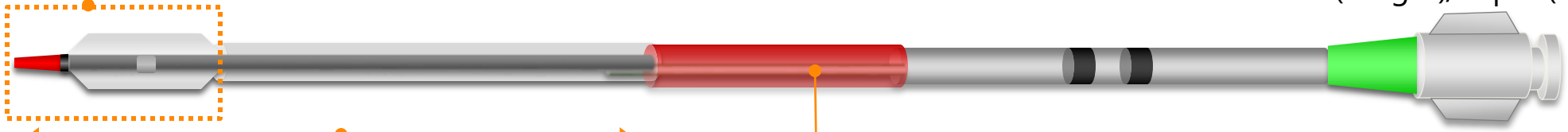
Entry profile	0.41mm
Balloon profile	0.58mm

Thinner and shorter radiopaque marker*



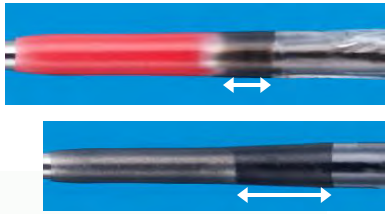
Ryurei
0.8mm (Length)/25μm (Thickness)

Tazuna
1.0mm (Length)/30μm (Thickness)



Flexible distal shaft

Shorter balloon bonding part*

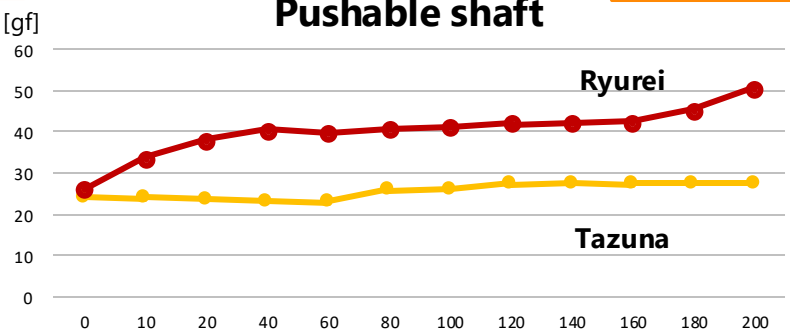


0.4mm

1.0mm

Robust and pushable shaft

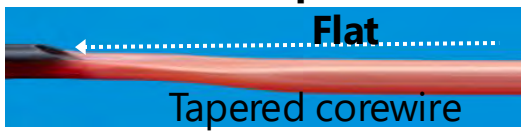
Pushable shaft



Source: Internal data on file,

[Unit : mm]

Smooth exit port*

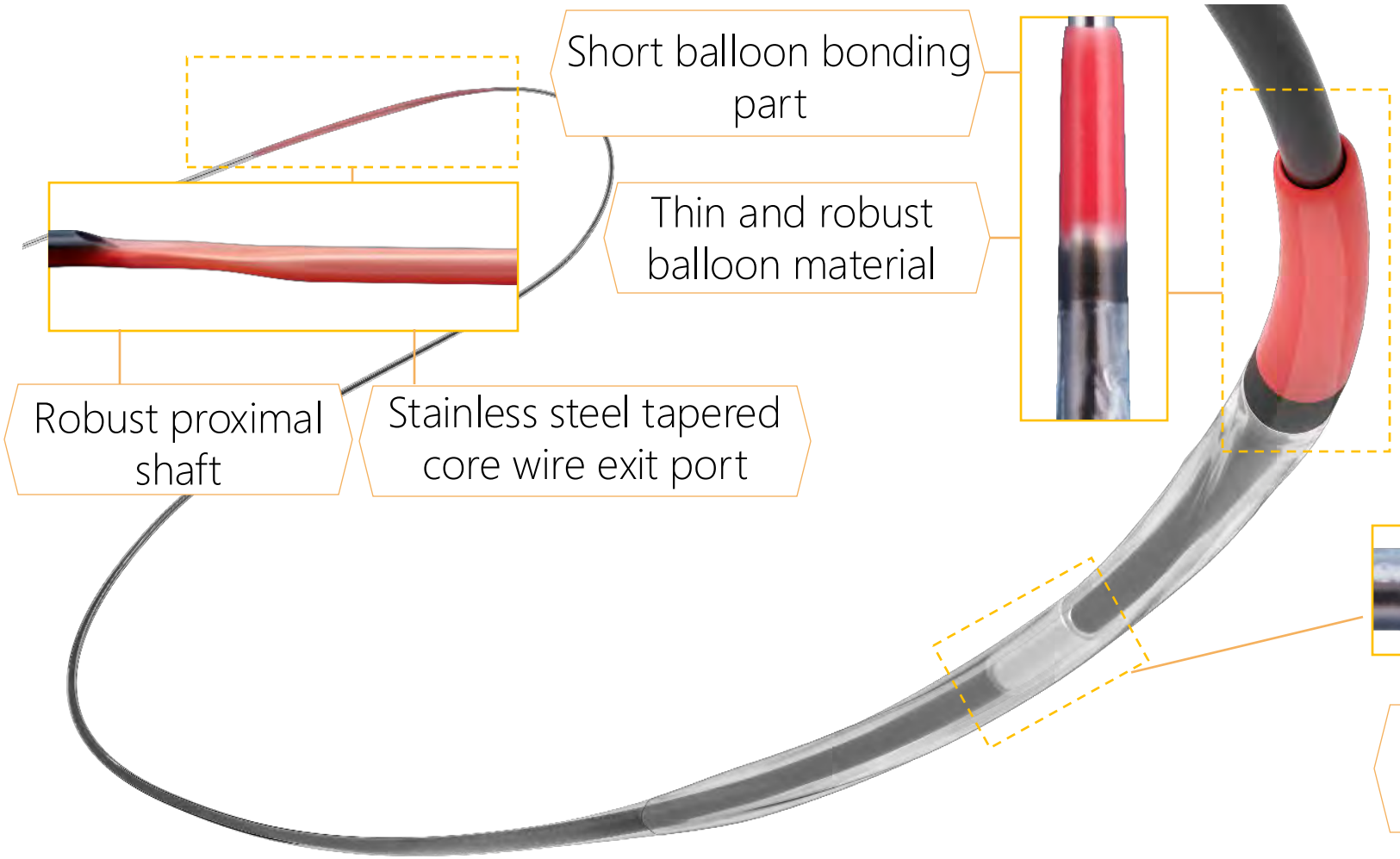


* Compared to Tazuna PTCA dilatation catheter

Ryurei

TERUMO INTERVENTIONAL SYSTEMS

PTCA Balloon Dilatation Catheter



Short balloon bonding part

Thin and robust balloon material

Robust proximal shaft

Stainless steel tapered core wire exit port

Diameters from 1.00 mm to 4.00mm available

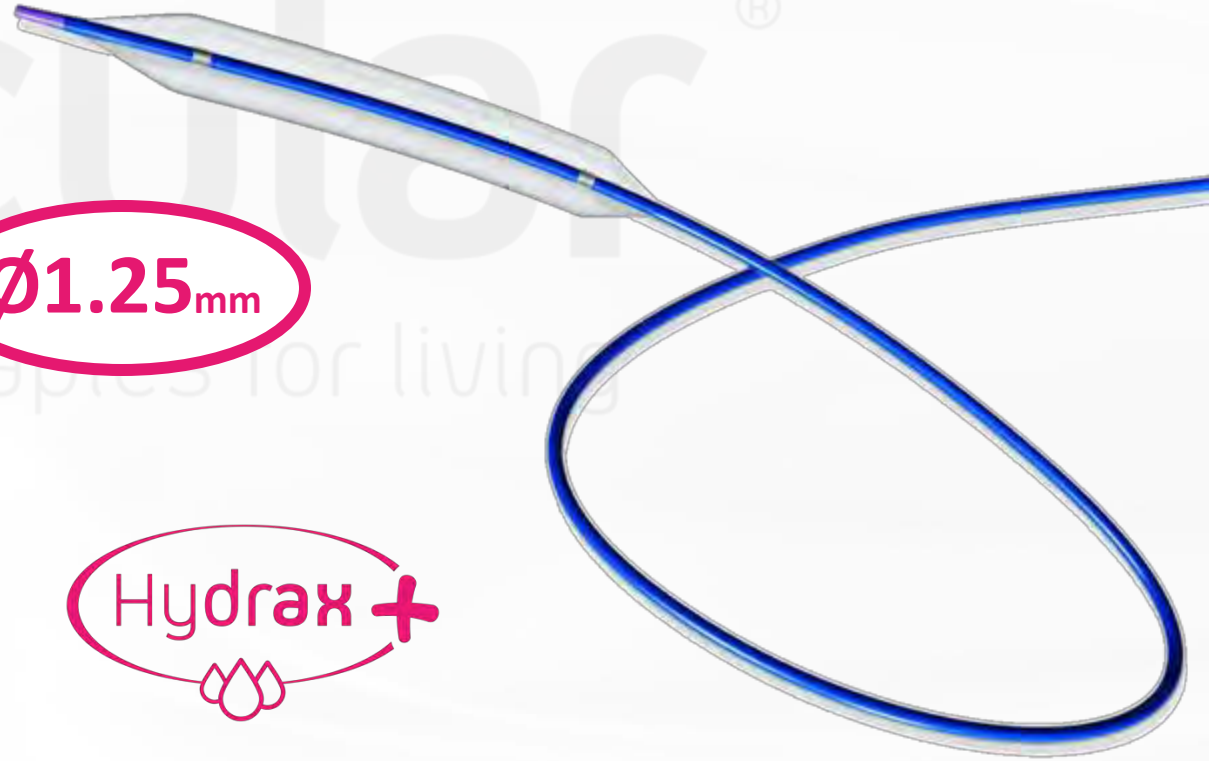
Optimal delivery for the most complex lesions

Low profile flexible distal shaft for superior crossability

Short and Thin radiopaque markers

xperience pro

Semi compliant PTCA balloon



OPTIMAL CROSSABILITY

Low tip entry, penetration and crossing profiles for crossing the most-challenging lesions

Ø1.25mm

HIGH TRACKABILITY

Proprietary durable hydrophilic coating *Hydrax plus* in all catheter balloon. It reduces the friction with the arterial wall improving the navigation.

Hydrax +

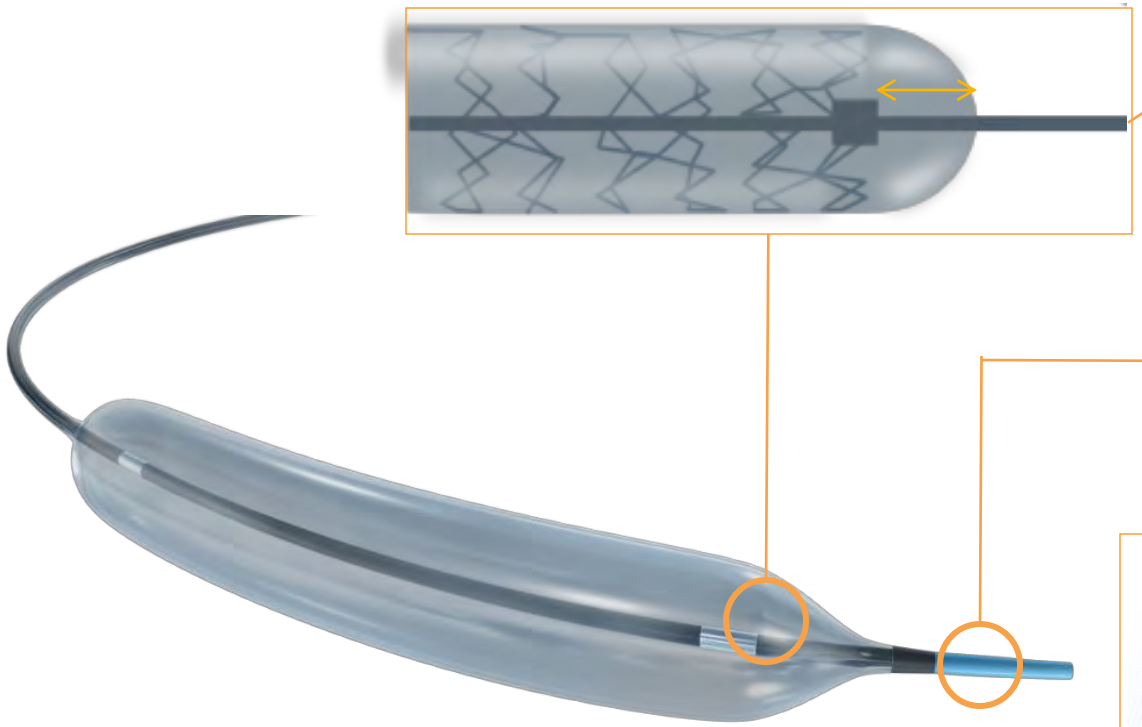
iVascular therapies for living

NC Balloons

Accuforce®

TERUMO INTERVENTIONAL SYSTEMS

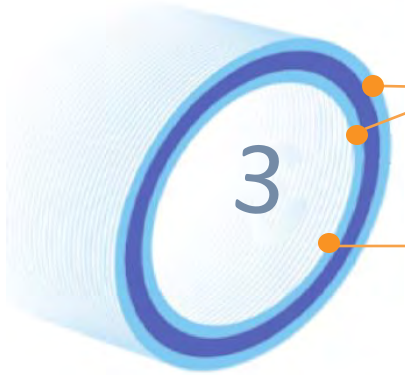
PTCA balloon catheter



Accurate pre- & post-dilatation

Short rounded balloon shoulders only target lesions & stents for effective & focused dilatation

High pressure resistance up to 22 ATM via triple layer technology

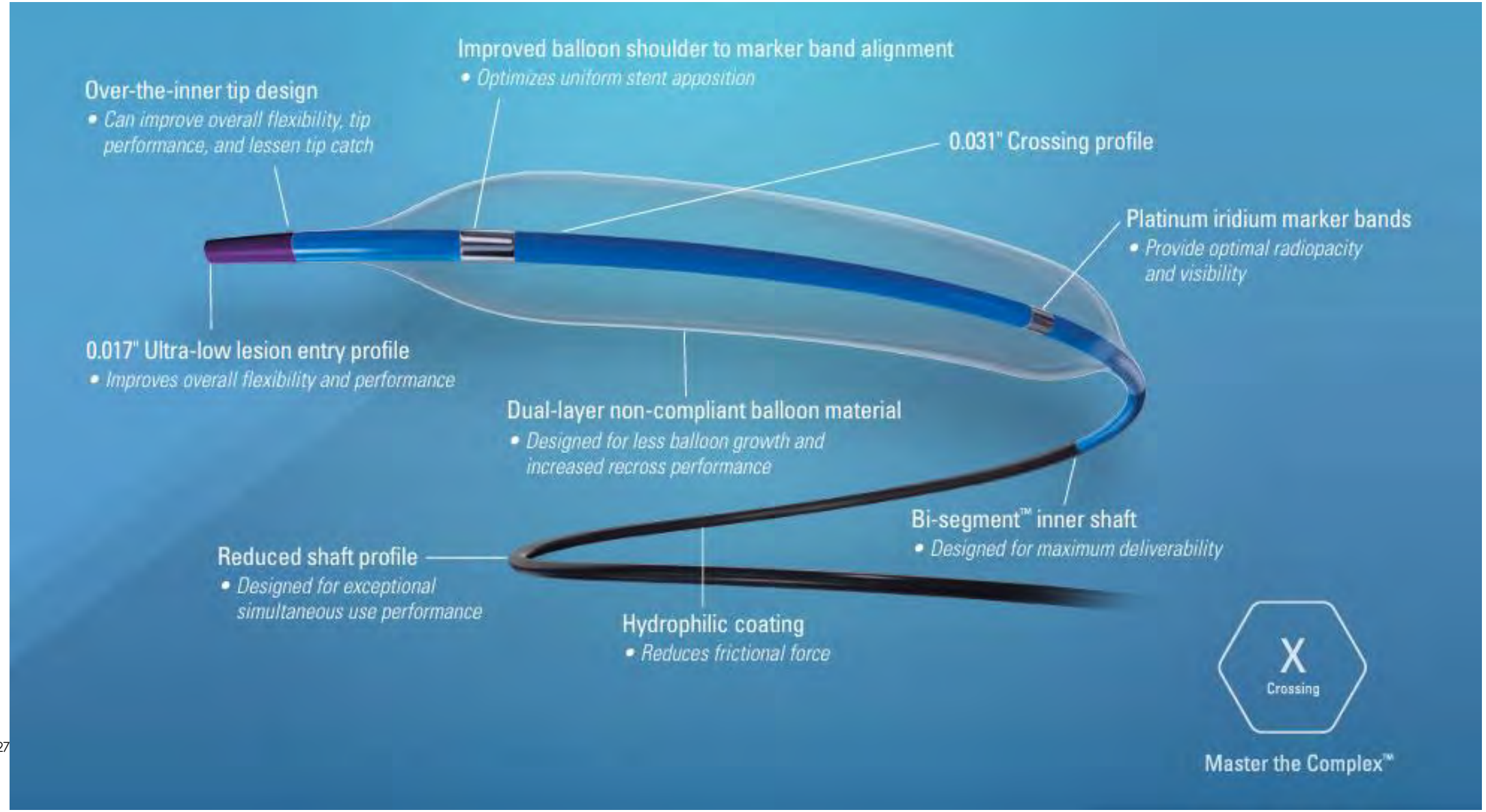


Elastomer — Resists internal pressure & outer damage

Polyamide — Additional & safer high pressure resistance for severe calcified lesions[1]

1. Data on File: ISCD-415-11-24, Comparison with Hiryu. Non Compliant PTCA Balloon Catheter manufactured by Terumo Corporation.

NC EMERGE Features



Brosmed
embrace life

POT™ PTCA NC®

Balloon Dilatation Catheter

A dedicated balloon for:
Proximal Optimization Technique
Distal Optimization Technique

www.brosmed.com

NC xperience

Non compliant PTCA balloon

OPTIMAL CROSSABILITY

Low tip entry, penetration and crossing profiles for crossing the most-challenging lesions

HIGH TRACKABILITY

Proprietary durable hydrophilic coating *Hydrax plus* in all catheter balloon. It reduces the friction with the arterial wall improving the navigation.

Hydrax +

iVascular therapies for living

Drug Coated Balloons

AGENT™ Drug Coated Balloon Features

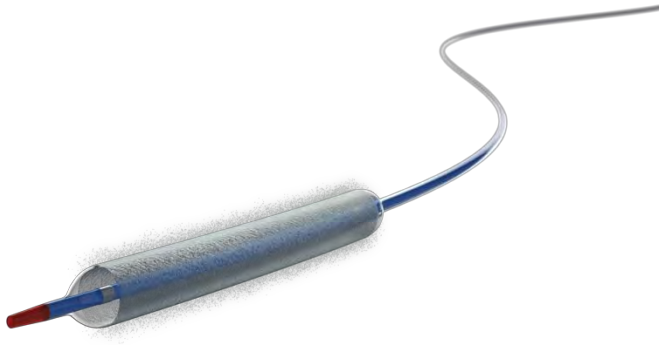
Agent combines the exceptional deliverability of the Emerge™ platform with the efficient drug transfer technology of TransPax™ coating

Emerge™
PTCA Dilatation Catheter

+

TransPax™
Coating Technology

=



Agent™

Low balloon Ptx load at 2ug/mm2

+

Novel Excipient Acetyl Tributyl Citrate (ATBC)

+

Proprietary Coating Technology

TransPax™

BECAUSE TIME MATTERS

essential pro
Drug coated balloon

- **Fast deliverability: Latest balloon design**
- **Rapid drug transfer and long term efficacy**

Not all DCBs are the same

TransferTech
Nanotechnology that makes the difference

www.ivascular.global

iVascular
therapies for living

Pantera Lux

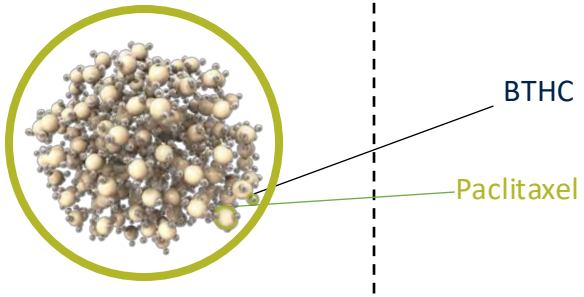
Coronary Drug Coated Balloon

Lux coating technology

- For rapid drug absorption into the vessel wall[1]
- Improving bioavailability at the target site[1]

Drug Paclitaxel

Excipient Butyryl-tri-hexyl citrate (BTHC)



Pantera® balloon platform

- Semi-compliant
- Low profile
- Highly deliverable

Lowest crossing profile

44% smaller crossing profile compared to RESTORE (Cardionovum)[2]

Better pushability

136% more force transmitted from hub to distal tip compared to Agent (Boston Scientific)[2]

Best in class crossability

82% less force needed to cross lesions compared to RESTORE (Cardionovum)[2]

- 1.Radke P. et al. EuroIntervention. 2011 Oct; 7(6): 730-7; 2. BIOTRONIK data on file, compared to main competitors. * Indicated as per IFU.

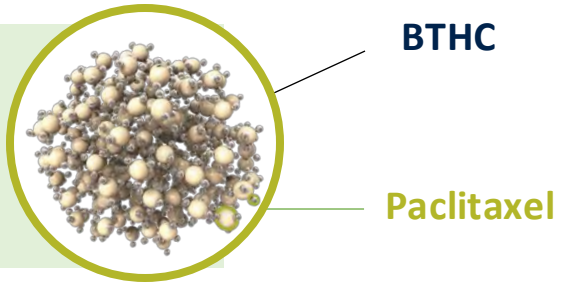
BIOTRONIK
excellence for life

Pantera Lux

Coronary Drug Coated Balloon

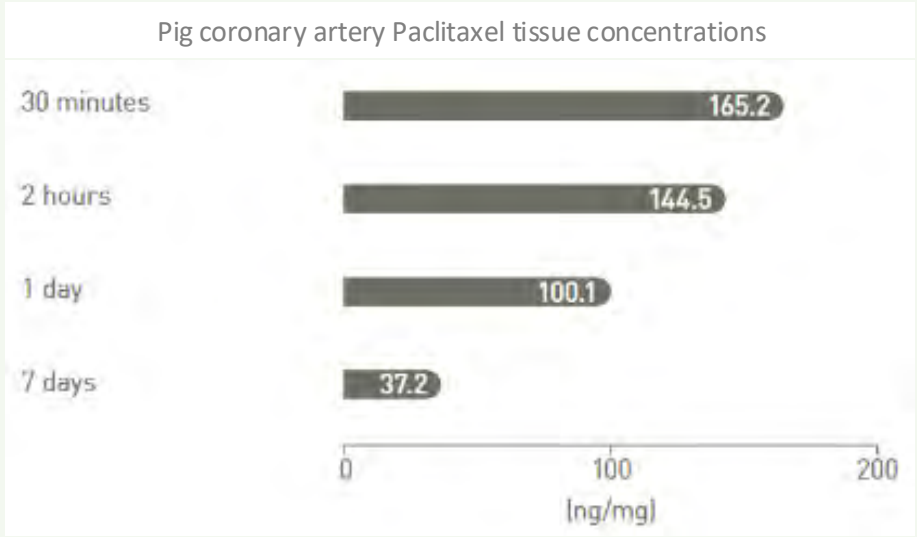
Lux Coating Technology

- For rapid drug absorption into the vessel wall[1]
- Improving bioavailability at the target site



- **Drug Paclitaxel**

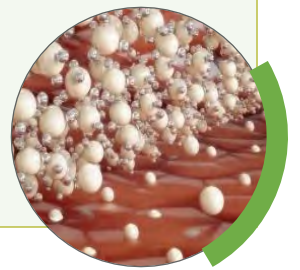
- Prolonged tissue retention at the target site



- **Excipient Butyryl-tri-hexyl citrate (BTHC)**

BTHC hydrophobic excipient increases bioavailability of the drug, increasing uptake by the vessel during delivery

- Rapidly metabolized by the body and excreted via urine, biliary excretion and expired air[1]
- Degrades to citric acid and alcohol[1]
- Keeps Paclitaxel in microcrystalline structure for rapid drug absorption into the vessel wall



1. Radke P et al. EuroIntervention. 2011 Oct; 7(6): 730-7.

Medtronic

Engineering the extraordinary

Paclitaxel-Coated Balloon

Prevail™

Performance you want for treating complex patients

Superior deliverability[1]

Deliberately designed to maximize pushability: 2 times more pushable vs. InPact Falcon DCB

Rapid absorption of paclitaxel[2]

Facilitated by biocompatible urea expcipient[3], 65% of drug is protected within the folds

Excellent safety and efficacy[4]

Demonstrated in the IN.PACT Falcon clinical program, confirmed by the PREVAIL study

1. Compared with IN.PACT Falcon™ DCB, SeQuent®* Please NEO DCB Agent™* DCB and MagicTouch™* DCB. Deliverability defined as pushability. Based on bench test data, 2020. Bench test data may not be indicative of clinical performance.
2. Prevail Instructions for Use.
3. Chang GH et al. Scientific Reports. May 2, 2019;9(1):6839.
4. Latib A, et al. J Invasive Cardiol. Published online August 19, 2021. PREVAIL study did not have powered endpoints. Prevail DCB and IN.PACT Falcon DCB uses the same drug coating.

19

SeQuent® DCBs

The Proven Performers in Coronary Angioplasty

If you rely on decades of evidence...

SEQUENT PLEASE NEO

- Paclitaxel + Iopromide coating
- **Best Evidence for all coronary DCBs**
- 110+ Studies
  - ISR: 55+ studies
  - De-Novo: 65+ studies
- 25.000+ enrolled patients in 20+ countries
- 15+ years experience

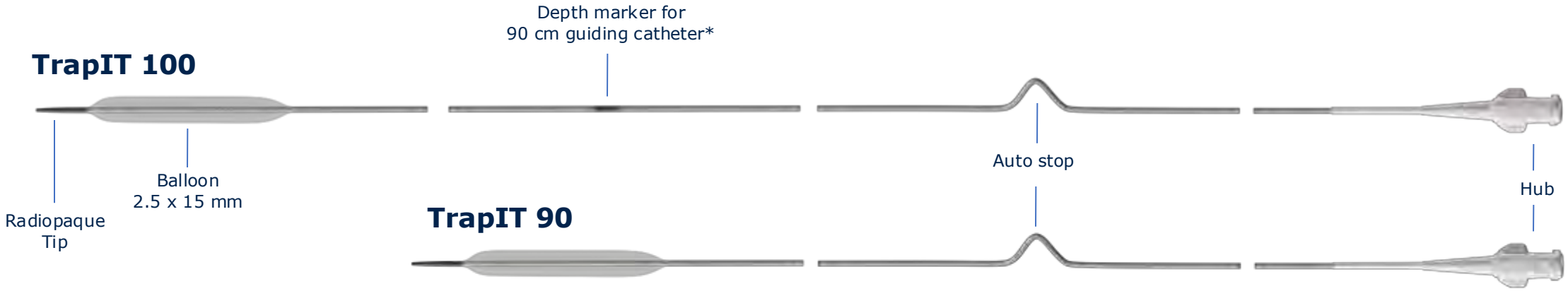
If you want a new technology with a clinical pioneering role…

SEQUENT SCB

- Sirolimus + BHT coating
- New innovative coating technology for:
  - ISR: 3 RCTs
  - De-Novo: 2 RCTs
- Multi-center trials from Europe and Asia
- Ongoing trials for de-novo and real world

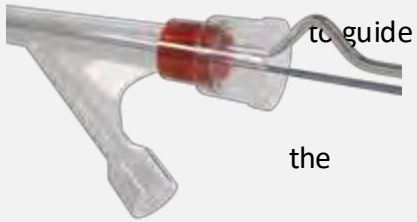
Trapping Balloons

Trapping Balloon



Unique auto-stop for positioning aid[1]

- Tactile auto-stop at hemostatic valve to guide correct insertion depth
- Prevents the tip from exiting the guiding catheter
- No X-ray required to position



Designed to trap with high trapping force[1]

- Dedicated trapping balloon to securely trap guide wires within guiding catheters to exchange OTW catheters
- No guide wire required to deliver TrapIT
- High trapping force at Nominal Pressure (8atm)
- 2.5mm diameter allows trapping in 6-8F guiding catheters

OTW = over-the-wire. *TrapIT 100 (TRP10015) only. Two versions available (T-90 and T-100) with respective auto-stop position for respective guiding catheter lengths (90 cm and 100 cm) 1. IMDS data on file.

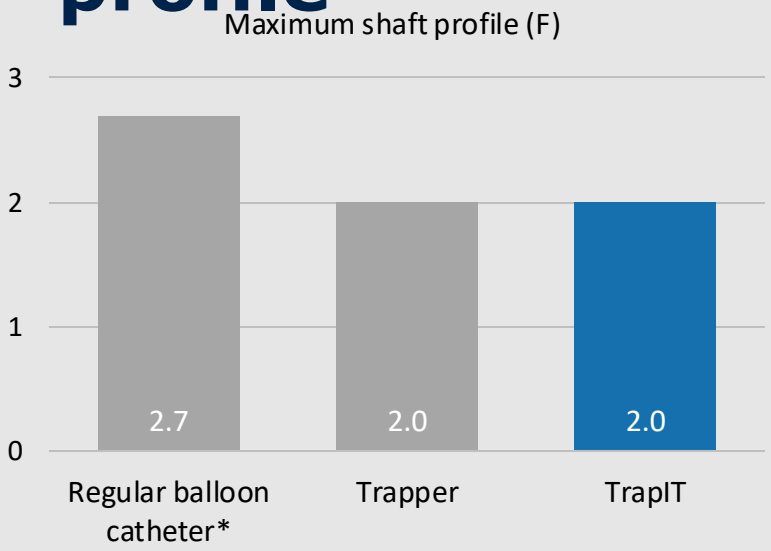
In partnership with IMDS

BIOTRONIK excellence for life

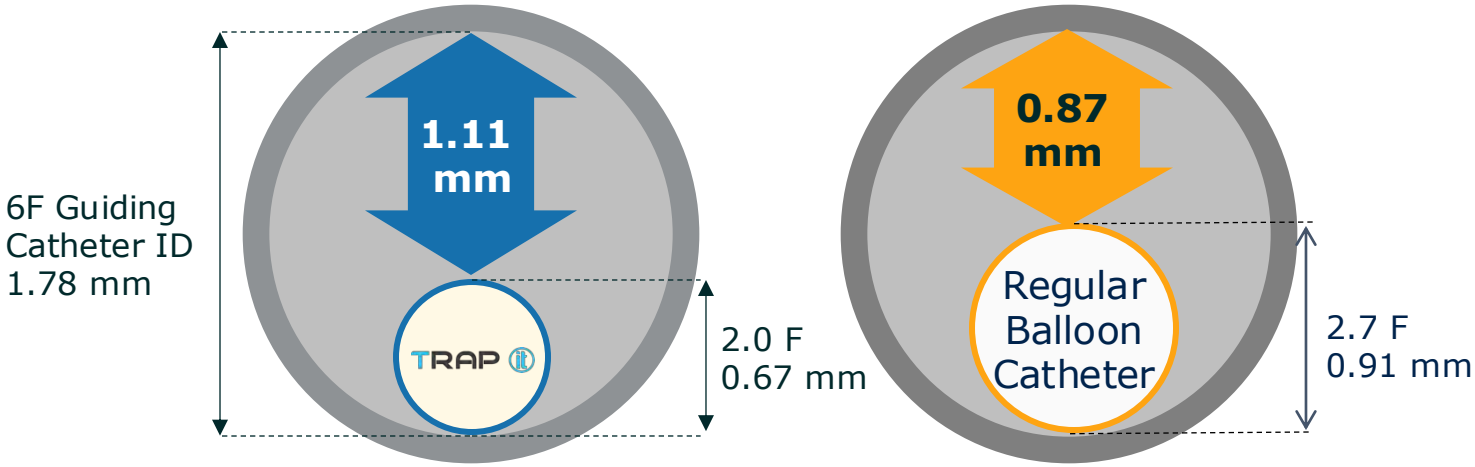
Trapping Balloon

- The small shaft profile frees up space inside the guiding catheter for other devices

- **Low shaft profile[1]**



Free space inside 6F Guiding Catheter



- 1 Data on file at IMDS, *Pantera Pro 2.5mm diameter

TRAPPER Features

Maximize the efficiency of complex cases by facilitating device exchanges

Core Wire
Tip to hub for durability during multiple insertions

Non-compliant Balloon
6-8F compatible, 2.4mm @ nominal, uncoated

Markerband
2mm long and double thickness (of POBA) for easy identification

Low-profile Shaft
2F diameter

Telescope
Compatible with 90 or 100cm guide catheters

Distal Markerband
1mm length to confirm position in guide catheter

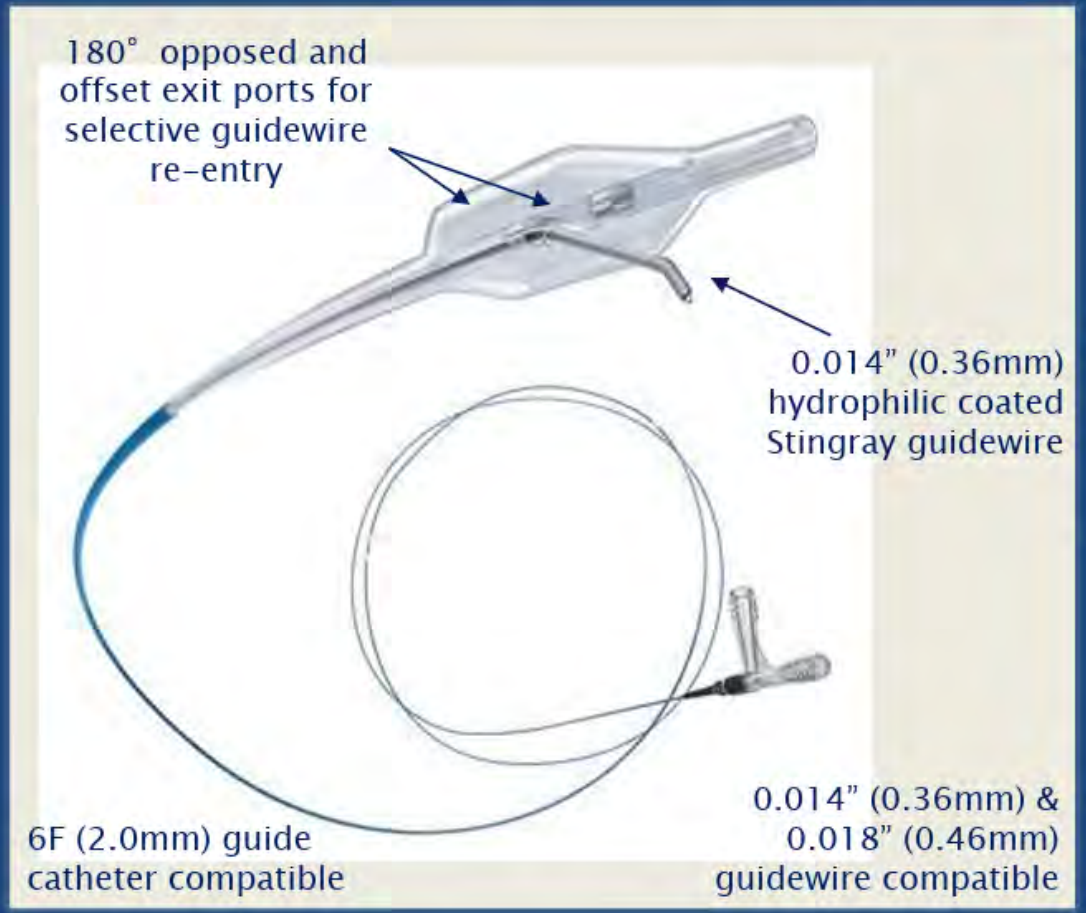
Orange Manifold
Unique and easily identifiable

Balloon Length: 10mm
Nominal Pressure: 12ATM
Rated Burst Pressure (RBP): 20ATM

Re-entry Balloons

Stingray™ LP CTO Balloon Re-Entry Device Features

The Stingray LP System (catheter and guidewire) is designed to accurately target and re-enter the true lumen from a subintimal position in coronary arteries*



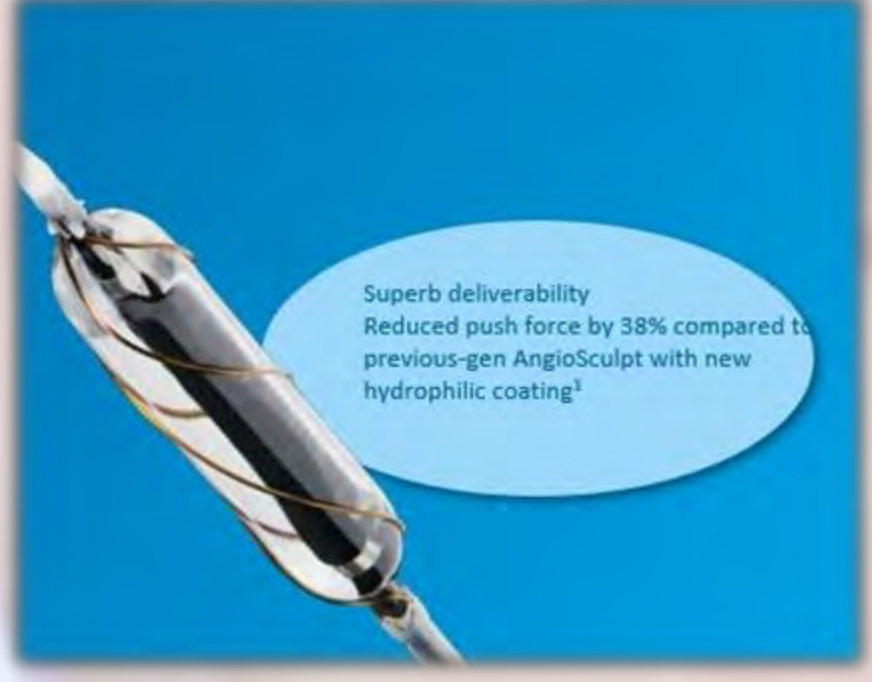
- Self-orienting, flat balloon hugs the vessel, automatically positioning one exit port toward the true lumen
- 3.2F (1.07mm) shaft diameter
  - •Trap in 7F (2.33mm) guide
  - •STRAW in 8F (2.67mm) guide
- Stingray Guidewire's angled tip and distal probe are designed for facilitated re-entry into the true lumen
- 2 radiopaque marker bands for exact placement

*Stingray LP DFU, Directions For Use

Calcium Modifiers

AngioSculpt EVO

RX PTCA Scoring Balloon Catheter



Maximize gain.
Minimize risk.

Acrostak
Devices for interventional applications

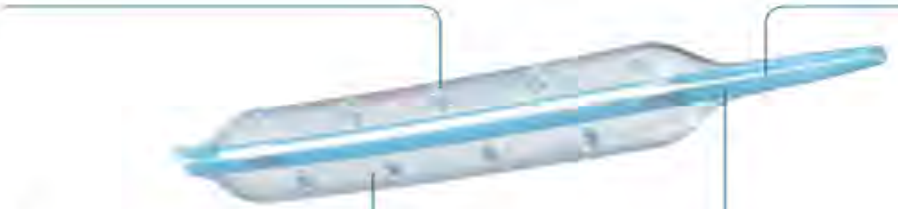
GRIP TT

Sintec Group®
Advanced Medical Devices

GRIP TT is the **unique balloon** with 4 lines of knobs

POLIMERIC KNOBS

- **4 lines of** 200µm-thick **knobs**
- Enhanced **stability**
- Reduced risk of dissection



LONG TIP

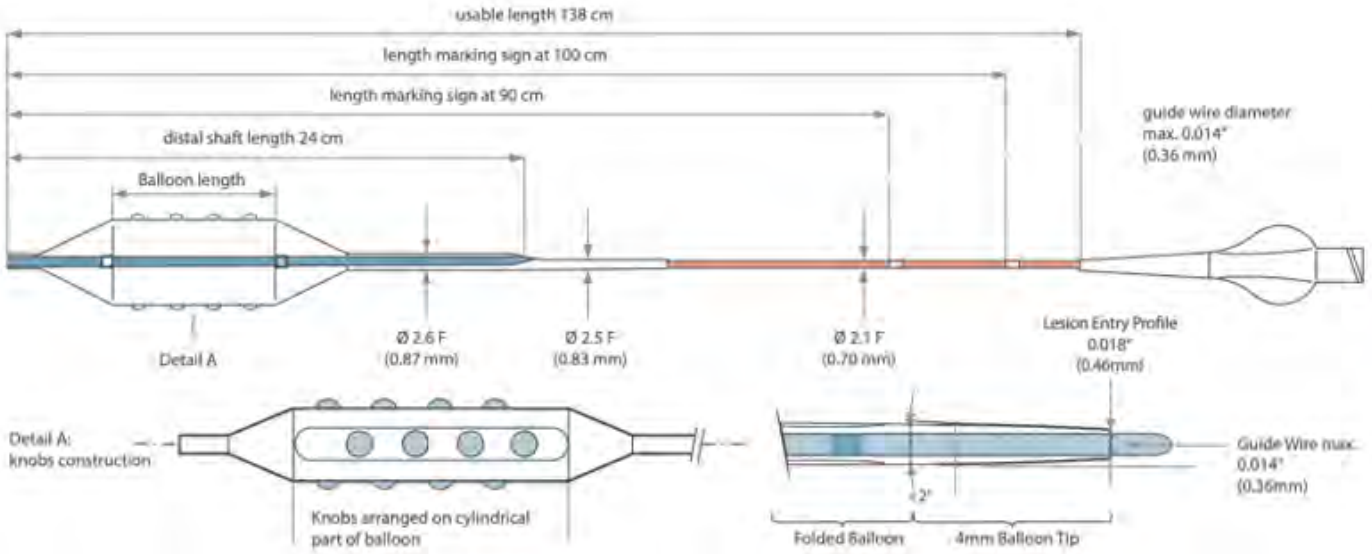
- 4 mm tapared tip
- improved **navigability**

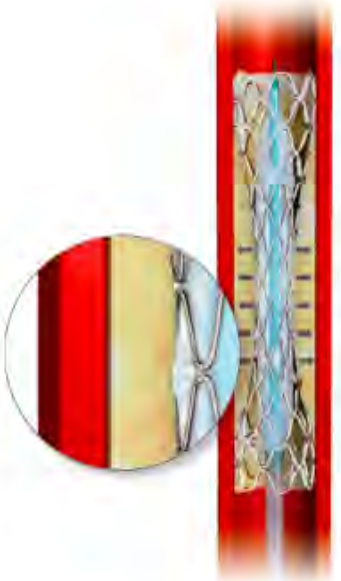
SPECIAL MATERIAL

- High RBP up to 21 Atm
- ABP over 30 atm
- Reduced risk of balloon burst
- High radial force

SMALLER PROFILE

- Low entry profile 0.017”





TYPE OF PROCEDURE

- Heavily Calcified Lesions
- Pre-Dilatation
- Post-Dilatation
- Intra Stent Restenosis
- Slippery Lesions
- Short Lesions
- Kissing balloon

Naviscore

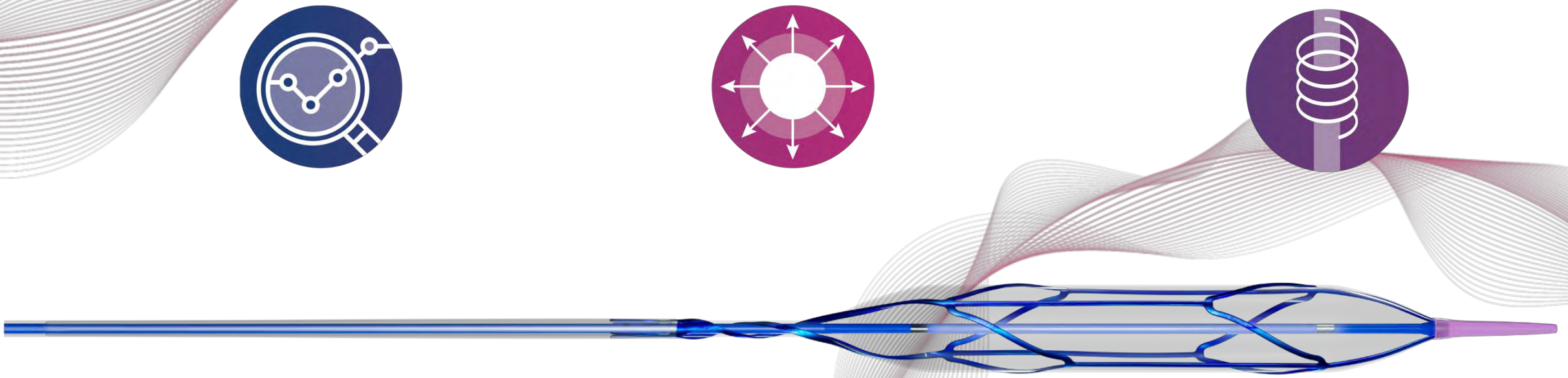
Balloon for calcified lesions

Unique design combining the benefits of scoring and cutting balloons

Easy advance up to the lesion

Large plaque modification capacity

Excellent recross without modifying its profile



Naviscore. Challenging calcifications limits

iVascular
therapies for living

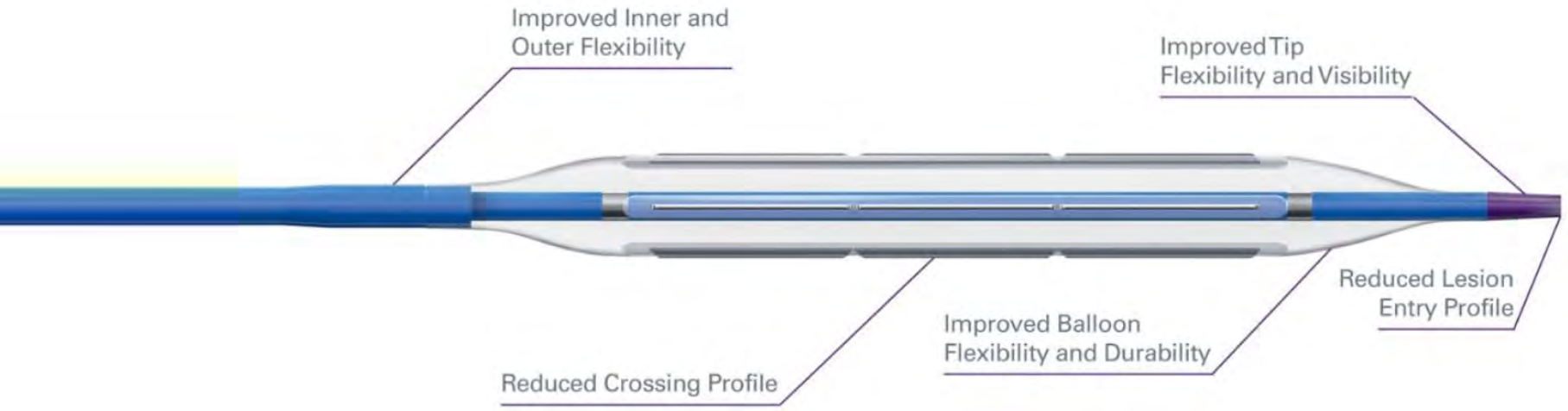
Wolverine Features

Traditional balloon angioplasty can result in complications like:

VESSEL DISSECTION | **POOR LUMINAL GAIN** | **LESION RECOIL** | **BALLOON SLIPPAGE** | **POOR STENT APPOSITION**

The WOLVERINE™ Advantage

The unique design of the WOLVERINE Cutting Balloon is designed with **proprietary atherotomes** on a **low pressure non-compliant balloon** to directly address each of these complications



NC EMERGE™ Balloon Platform

Coronary IVL System Components

Integrated 12mm SC balloon
facilitates energy transfer
IVL=4 atm Nominal=6atm RBP=10 atm

Distal and proximal marker bands

2 emitters that pulse once per second (120 pulses/catheter)

Generator
Portable, IV-pole Mountable
Battery-Powered
No External Connections

Catheter
RX System
Any .014” Guidewire
Standard PCI Technique
120 Lithotripsy Pulses

Connector Cable
Smart Magnetic Connection
Push-Button Activated

Diameter	Length	Pulses	Guide-wire	Guide Cath	Length	Tip Profile	Max Crossing Profile (in)
2.5-3.0-3.5-4.0mm	12mm	120	0.014”	5F	138cm	0.023”	0.044”-0.047”

ROTAPRO™
Rotational Atherectomy System

Easy to Use. Hard on Calcium.
The **ROTA**PRO Atherectomy System is the gold standard in atherectomy technology.

Access harder to reach anatomy and tighter lesions

Preferred in complex cases

Burrs spins concentrically for predictable results

Multiple burr sizes for better versatility

Trusted for 30 years to treat over 1.5 million patients in over 115 countries[1]

Coronary Orbital Atherectomy System components

CORONARY GUIDE WIRE

- ViperWire Advance™ Guide Wire
- ViperWire Advance™ with Flex Tip Guide Wire

- Only device indicated for severe calcium
- Easy to setup; the prep time is < 2 minutes
- Controlled within the operating field
- Compatible with 6F guide

OAS PUMP

VIPERSLIDE™ LUBRICANT

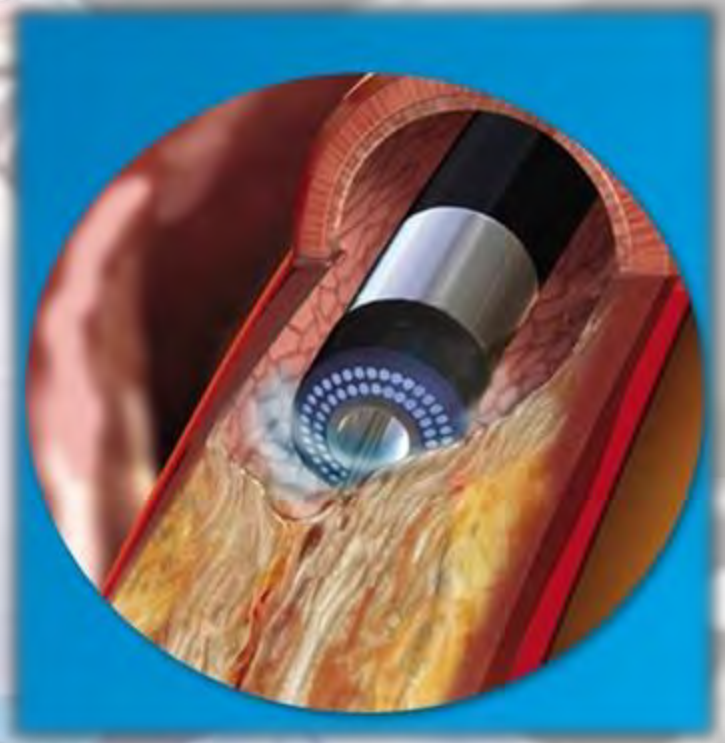
ORBITAL ATHERECTOMY DEVICE (OAD)

- Features a 1.25 mm Classic Crown

All components are sold separately.
Images on file at Abbott.

ELCA

Coronary Laser Atherectomy Catheter



Treatment versatility for vascular interventions

Coils

AZUR CX

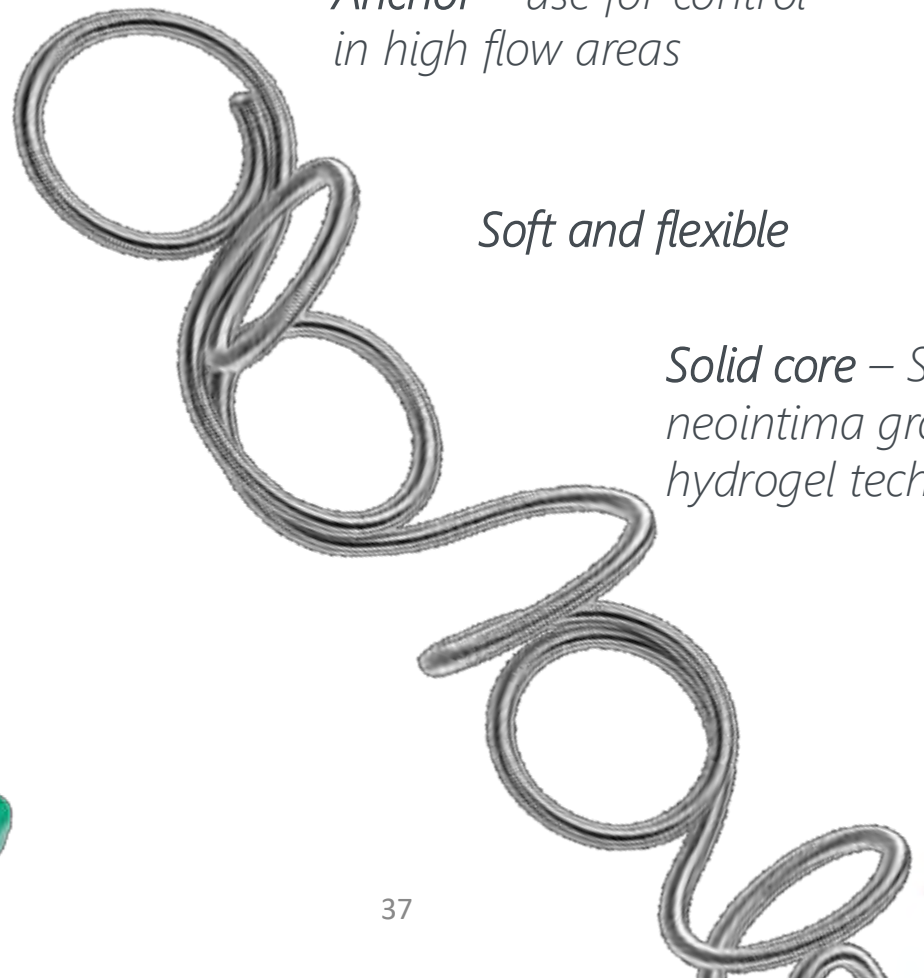
A unique balance of coil design and hydrogel technology for a wide range of procedures

Soft, flexible hydrogel for efficiency and controlled delivery

- Superior volume and packing density[1,2]
- Sustainable, natural tissue proliferation may reduce incidence of recanalization[3,4]
- Mechanical occlusion
- Up to 20-30 minutes of repositioning time

Anchor – use for control in high flow areas

Soft and flexible



Solid core – Supports neointima growth with hydrogel technology

Cross coverage – Designed to fill vessel with no gap in center

TERUMO INTERVENTIONAL SYSTEMS

Guide Catheters

Medtronic

Engineering the extraordinary

Guide Catheter

Launcher™

Balanced performance
that's ahed of the curve

The Launcher™ guide catheter offers you a blend of flexibility, support and visualization – the capability you need to respond to your challenging cases.

Advanced platform designed for multiple interventional approaches

- Full-wall technology construction provides kink resistance and stable torque control
- Supportive secondary curve for increased backup support and curve retention

Enhanced visualization

Full range of traditional and specialty curves

39

ASAHI Hyperion

SPECIFICATIONS

ASAHI Hyperion Guide Catheter

INNER LUMEN	FRENCH SIZES	CONSTRUCTION
0.071", 0.081", 0.090" (1.80mm, 2.05mm, 2.28mm)	**6Fr, 7Fr, 8Fr**	**PTFE Liner, HENKA Braid and Processed Round Tip**

- HENKA-Braid
- flexible tip
- Anti-heat deformation
- 3rd curve

Support during long procedures and Engagement safety

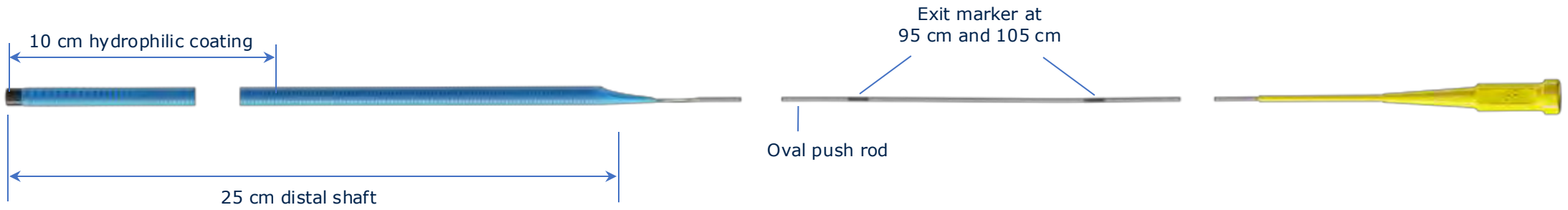
Your dreams. Woven together.
ASAHI INTECC

Guide Extensions

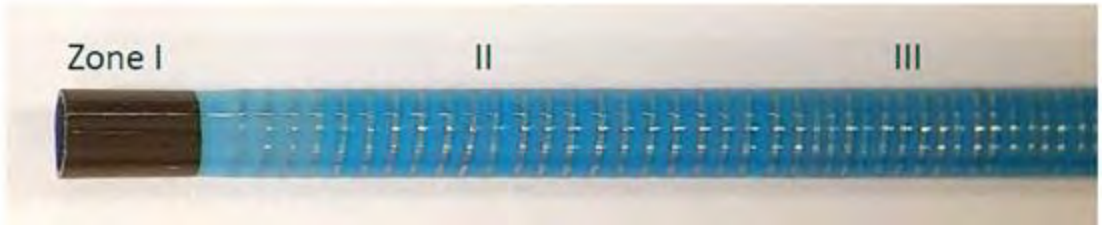
Guide Extensions

- **BIOTRONIK:** Guidion Hydro, Guidion Short, Flowguide
- **BOSTON:** Guidezilla
- **MEDTRONIC:** Telescope
- **TELEFLEX:** Guideliner, Trapliner

Guide Extension Catheter



Balanced distal shaft design for optimal trackability and device delivery



Soft radiopaque tip

True distal end visibility

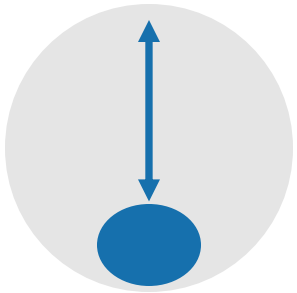
FLEX ZONE

Lower density coiling for optimized trackability

Coil reinforced shaft

High density coiling for optimal lumen integrity

Oval Push Road



- Keep profile low while securing optimal pushability
- Low profile ensures optimal free crossing space for devices

In partnership with IMDS INTERVENTIONAL MEDICAL DEVICE SOLUTIONS

BIOTRONIK excellence for life

Guide Extension Catheter

APPLICATION VERSATILITY

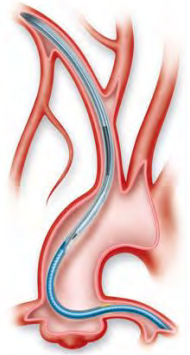
A guide extension catheter extends the guiding catheter into the coronaries:

- To provide backup support for device delivery
- For local contrast vessel visualization
- To capture a retrograde guide wire

Guide Extension Catheter

Facilitating trapping of OTW devices:

Distal shaft length 15 cm

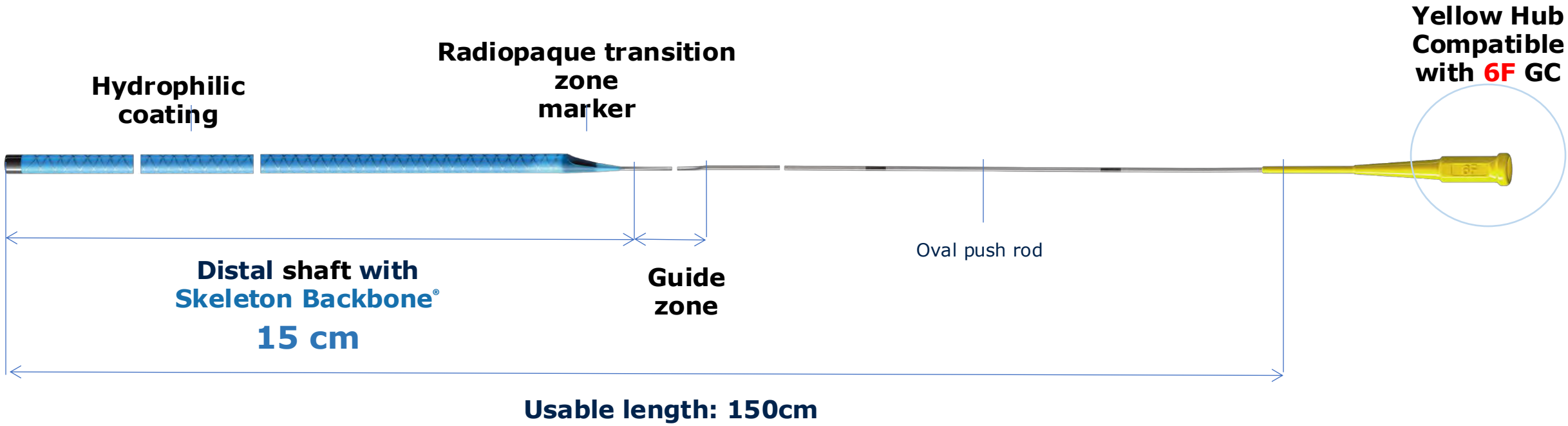


Optimizing

trans-radial approach

True visibility of soft tip and transition zone

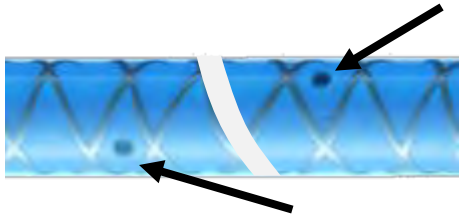
Guide Extension Catheter



Guide Extension Catheter with perfusion holes

Maintain Perfusion:

9 perfusion holes

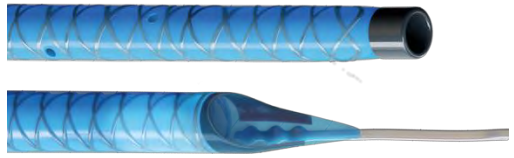


Optimizing

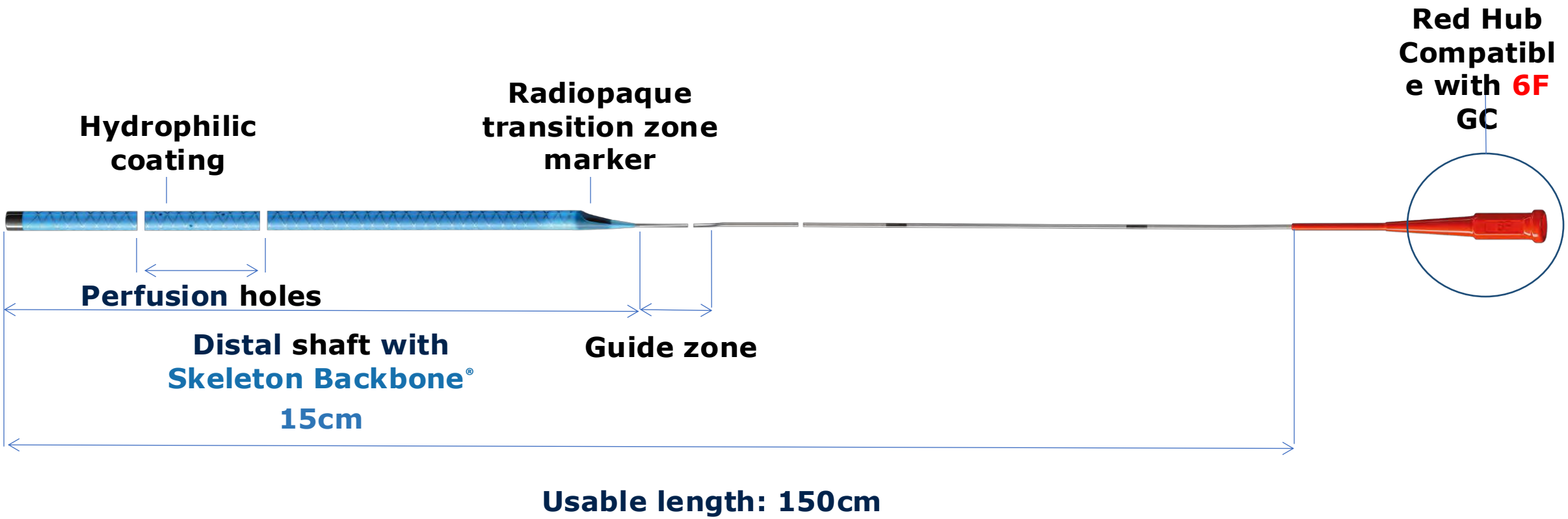
trans-radial approach:

Distal shaft length 15 cm

True visibility of soft tip and transition zone

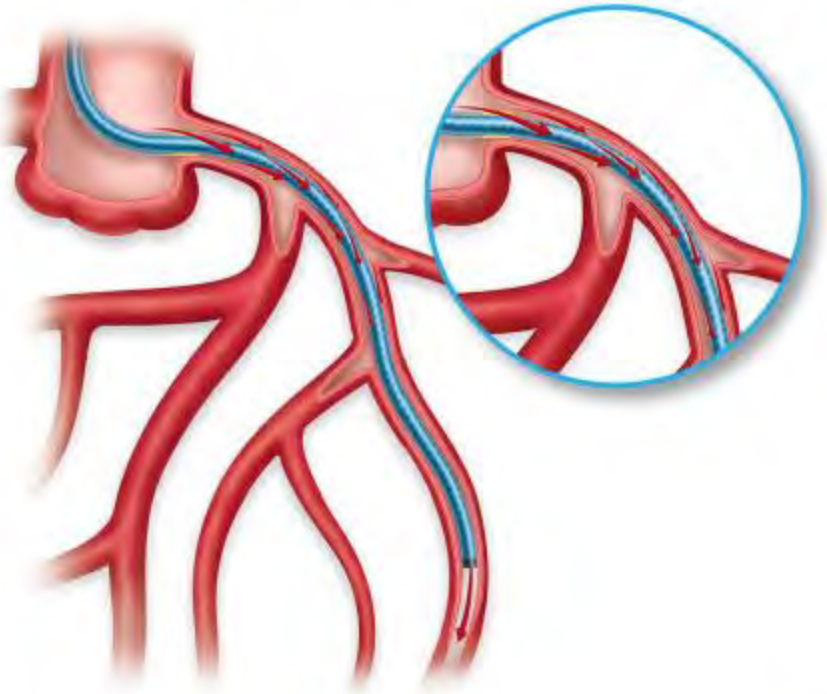


Guide Extension Catheter with perfusion holes



Guide Extension Catheter with perfusion holes

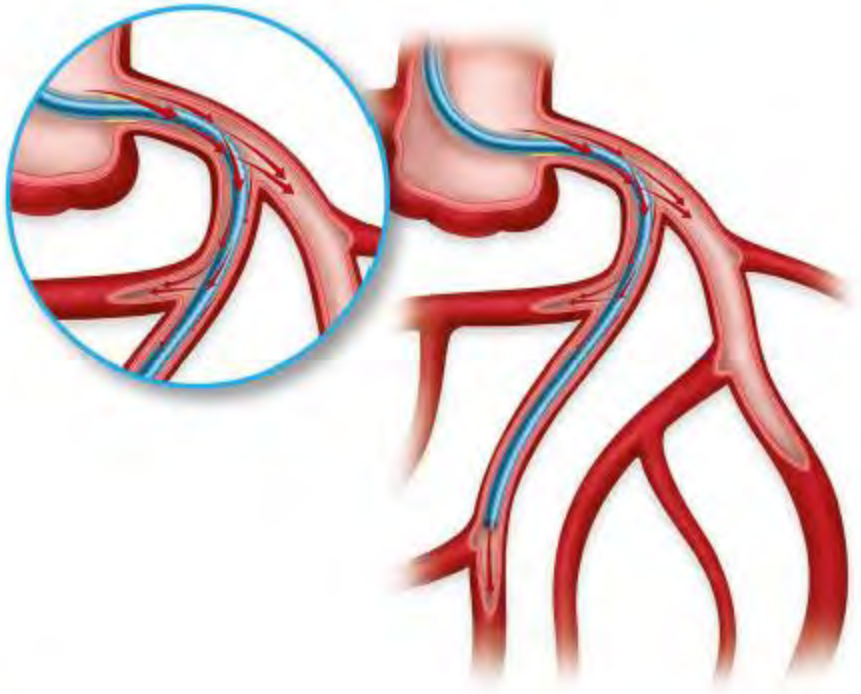
Distal flow



Perfusion holes

provide a blood flow of 12.5ml/min at 80 mmHg**, **reducing the risk of procedure induced ischemia[1].**

Side branches flow



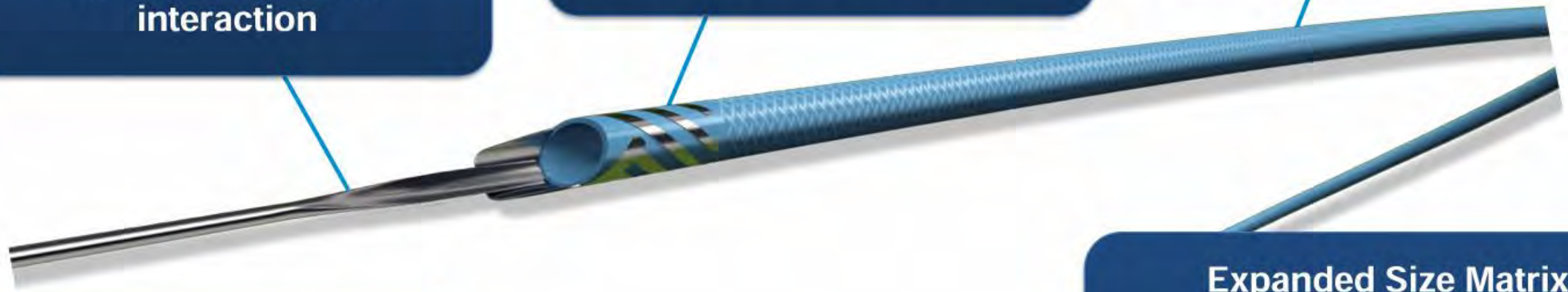
GUIDEZILLA II Features

Boston Scientific

Short Hypotube Transition
for reduced device interaction

Radiopaque Helical Collar
Designed for improved strength and visibility

Z-Glide™ Coating
For improved deliverability



Green Ergonomic Hub
Unique and easily identifiable

Expanded Size Matrix
6, 7 & 8F 25 cm;
6F 40cm
(Rapid Exchange Length Noted)

Medtronic

Engineering the extraordinary

Guide Extension Catheter

Telescope™

Extended reach,
smooth delivery

Solid, round pushwire

Enhances pushability, which is a critical component of deliverability[1]

Hydrophilic coating

Reduces friction with the inner lumen of the guide catheter and contributes to superior deliverability[1]

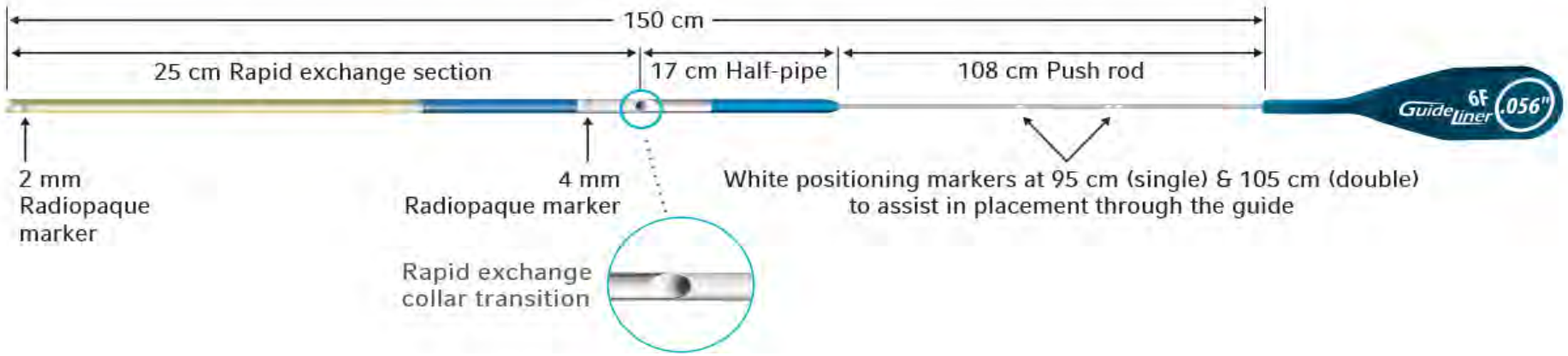
Atraumatic soft polymer tip

Designed to responsively deflect and provide flexibility[2]

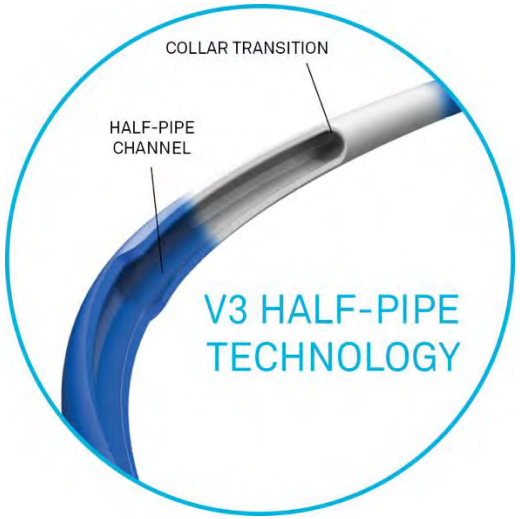
1. Based on bench test data.§ Compared to Telescope 6FGEC. n=8 of each GEC. Internal doc number is 10839897DOC, Rev. 1B
2. Based on the Telescope GEC design freeze document (internal design document) Internal doc number is 10703702DOC, Rev. 1C

51

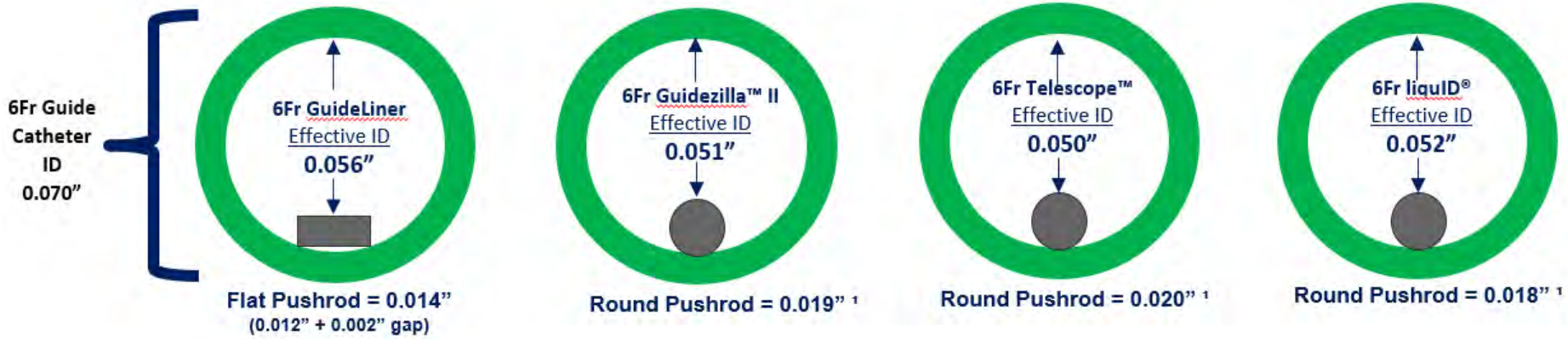
• GuideLiner V3 Catheter



Half-Pipe Technology



Effective ID Matters [1]



The larger the pushrod, the less space there is within the **guide catheter**, before you reach the guide extension portion of the device

[1] Effective ID = Guide Catheter I.D. (0.070") – Pushrod O.D. Dimensions taken from manufacturer's labeling and internal testing by Teleflex. Data on file at Teleflex
All comparisons based on bench test results. Testing completed by Teleflex. Data on file.

Teleflex

TrapLiner

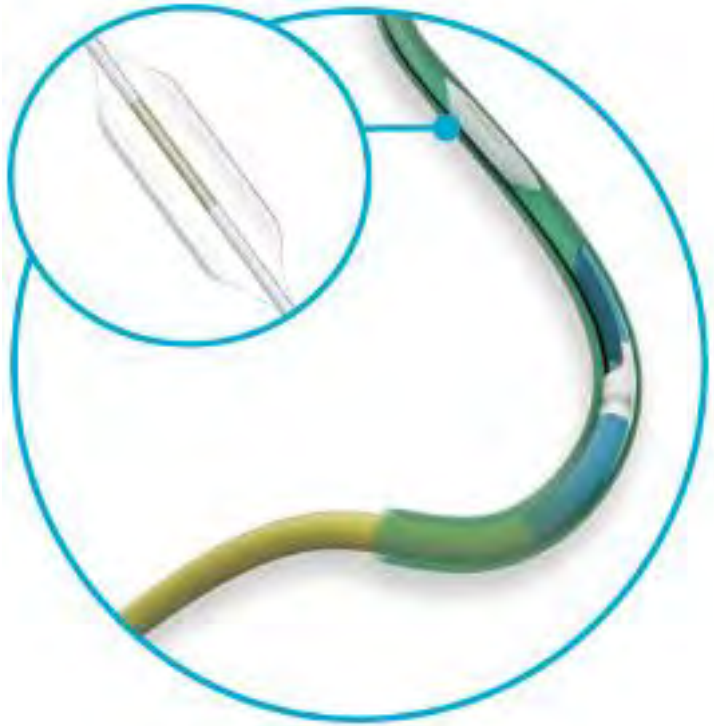
2-in-1 device — guide extension catheter with trapping capabilities

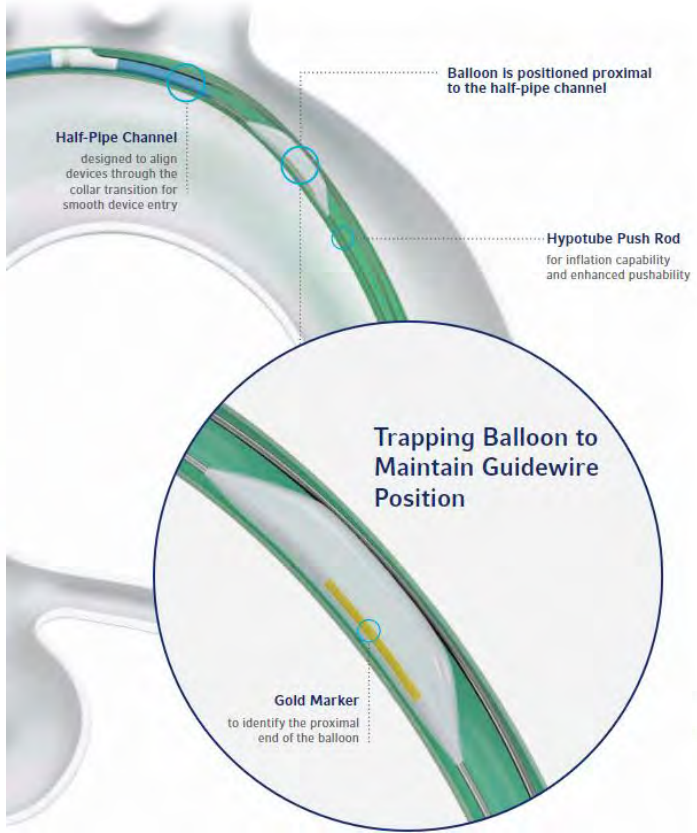
Hypotube pushrod

Trapping balloon

Half-pipe 3 cm

Guide Extension 13 cm





Teleflex

Guidewires

Workhorse wires

Hydrophilic coating + Hydrophobic tip

Sion Blue (0.5 g)
Sion Blue ES (0.5 g)

Hydrophilic coating

Anyreach C and P (0.3 g)
Samurai (0.5 g)
Sion (0.7 g)
Marvel (0.9 g) Samurai RC (1.2 g)

Crossing wires (0.6 - 2.0 g)

Hydrophilic coating

JUDO 1 (1.0 g)
Gaia First (1.7 g)
Gaia Next 1 (2.0 g)

Hydrophilic coating + Polymer jacket

Fielder XT-R (0.6 g)
Fielder XT (0.8 g)
Bandit (0.8 g)
Fielder XT-A (1.0 g)
AnyreachP LanceR (1.5 g)
FIGHTER (1.5 g)

Crossing wires (2.1 - 3.9 g)

Hydrophilic coating

Ultimate Bros 3 (3.0 g)

JUDO 3 (3.0 g)

Miracle Neo 3 (3.0 g)

Gaia Second (3.5 g)

Hydrophilic coating + Polymer jacket

AnyreachP LanceR (3.0 g)

Gladius EX (3.0 g)

Gladius MG (3.0 g - Knuckle)

Crossing wires (4.0 - 6.0 g)

Hydrophilic coating

Gaia Next 2 (4.0 g)

Gaia Third (4.5 g)

Gaia Next 3 (6.0 g)

JUDO 6 (6.0 g)

Hydrophilic coating + Polymer jacket

Anyreach LanceR (6.0 g)

Raider (4.0 g)

Crossing wires (9.0 - 14.0 g)

Hydrophilic coating

Confianza Pro (9 g / 12 g)

Hornet (10 g / 14 g)

HT-INFILTRAC (10 g / 14 g)

Warrior (14 g)

Hydrophobic coating

Miracle Bros (12 g)

Externalization

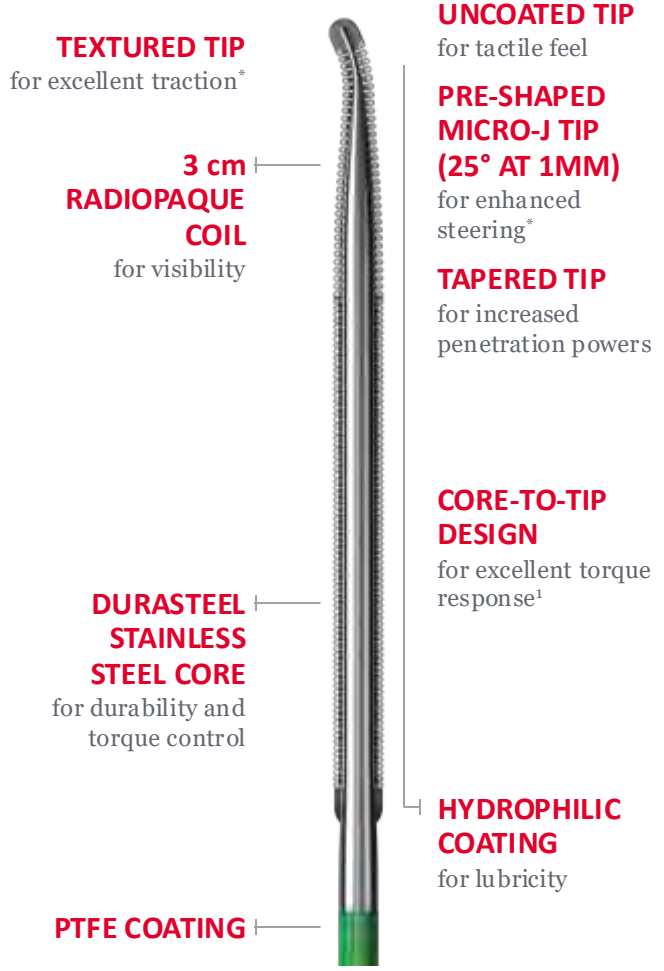
RG3, R350

HI-TORQUE INFILTRAC™ Guide Wire

SPECIALTY

TECHINCAL FEATURES

- Durasteel
- Core to tip
- Tapered tip
- Pre-shaped micro-J tip
- Micro-textured tip
- Uncoated tip
- 0.009” tip diameter



AnyreachC™ & AnyreachP™

Lightest tip load of 0.3g with superior crossability in tortuous vessels

0.3g

Support Shaft: Stainless Steel

Proximal stainless steel core with PTFE coating provides excellent pushability and rail support

Core-to-Tip Design

Core-to-tip to enhance the tactile feedback and pushability

Hydrophilic Coating

Durable hydrophilic coating ensures low friction advancement

Safe Net Core Design

Offers superior torque control, safety and shape retention

AnyreachC

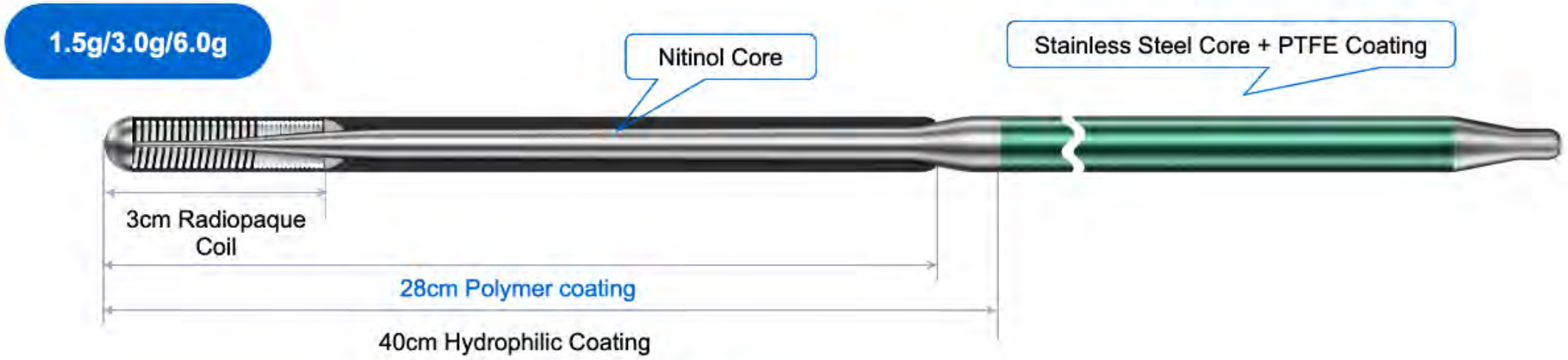
EXCLUSIVE

AnyreachP

APTMedical

AnyreachP™ LanceR
(CTO Indicated)

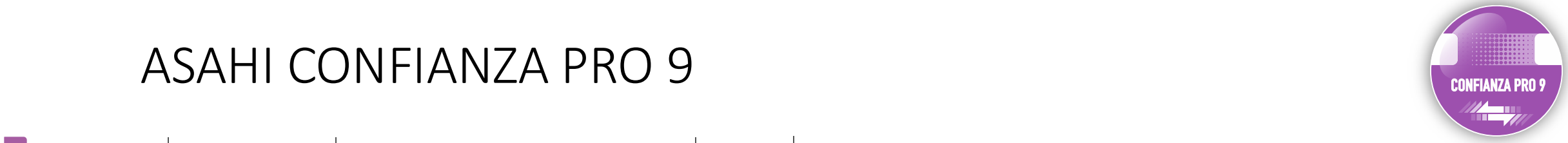
Sintec Group®
Advanced Medical Devices



Three Tip Loads	1.5g, 3.0g, 6.0g EXCLUSIVE
Polymer Sleeve Length	28cm
Hydrophilic Coating	40cm
Classification	CTO Indicated

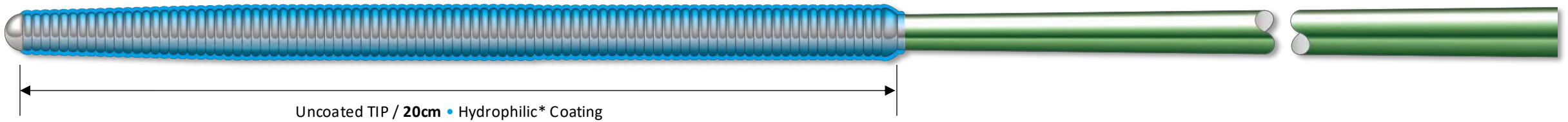
1. **Superior ability of penetration and curve retention**
2. **Three tip loads: 1.5g, 3.0g, 6.0g**
3. **For calcified CTO lesions (principle: guidewire escalation)**

ASAHI CONFIANZA PRO 9

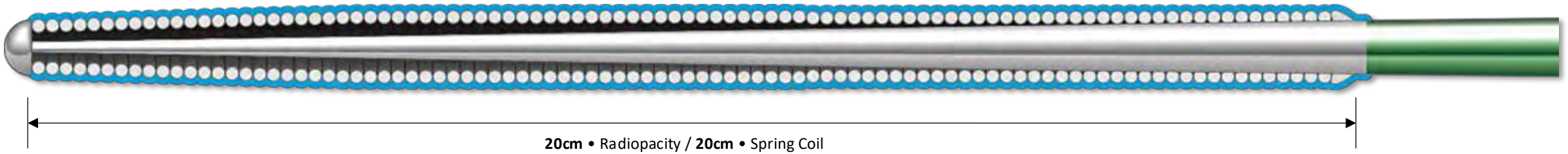


Tip Load	Core Material	Wire OD	Cover	Coating
9.0gf	Stainless Steel	0.23mm (0.009") / 0.36mm (0.014")	None	Uncoated Tip + Hydrophilic

*Coated with SLIP-COAT® coating.



Uncoated TIP / **20cm** • Hydrophilic* Coating



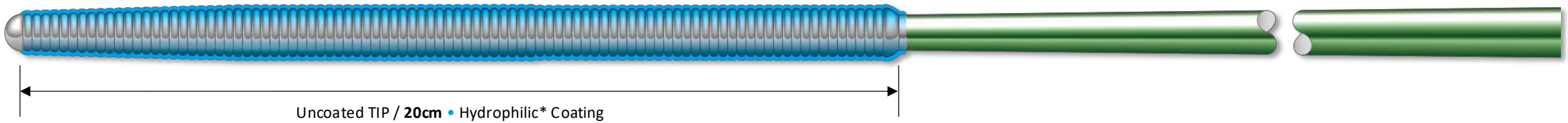
20cm • Radiopacity / **20cm** • Spring Coil

Your dreams. Woven together.
ASAHI INTECC

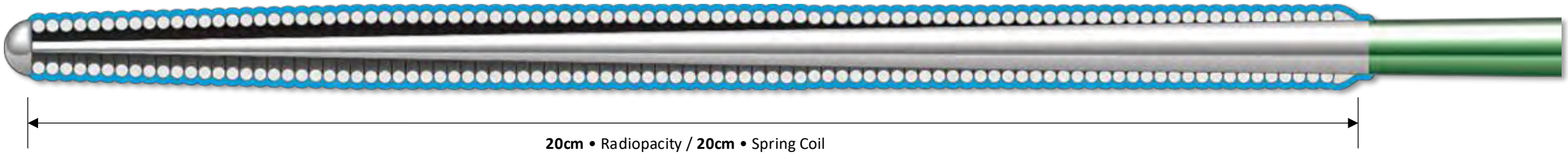
ASAHI CONFIANZA PRO 12

Tip Load	Core Material	Wire OD	Cover	Coating
12.0gf	Stainless Steel	0.23mm (0.009") / 0.36mm (0.014")	None	Uncoated Tip + Hydrophilic

*Coated with SLIP-COAT® coating.



Uncoated TIP / **20cm** • Hydrophilic* Coating



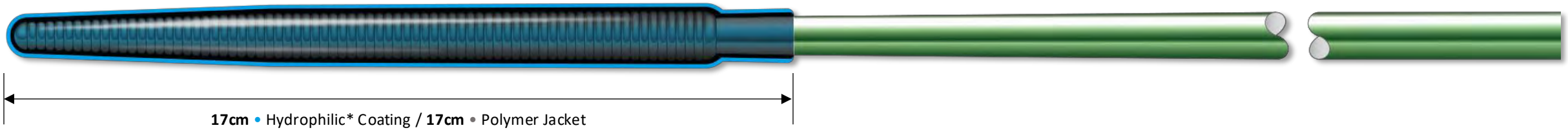
20cm • Radiopacity / **20cm** • Spring Coil

Your dreams. Woven together.
ASAHI INTECC

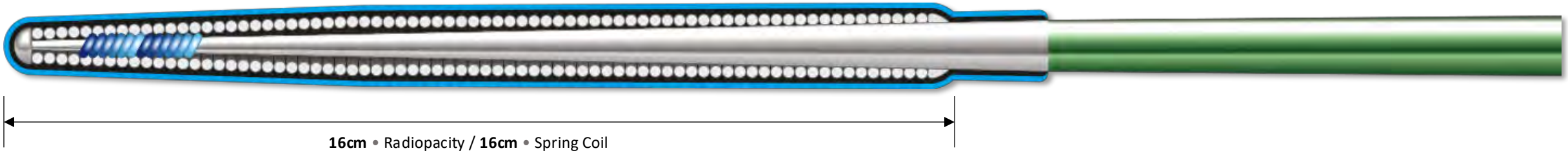
Fielder XT-A

Tip Load	Core Material	Wire OD	Cover	Coating
1.0gf	Stainless Steel	0.26mm (0.010") /0.36mm (0.014")	Polymer Jacket	Full Hydrophilic

*Coated with SLIP-COAT® coating.



17cm • Hydrophilic* Coating / **17cm** • Polymer Jacket



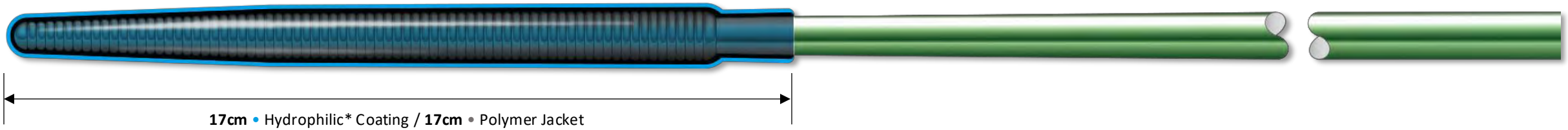
16cm • Radiopacity / **16cm** • Spring Coil

Your dreams. Woven together.
ASAHI INTECC

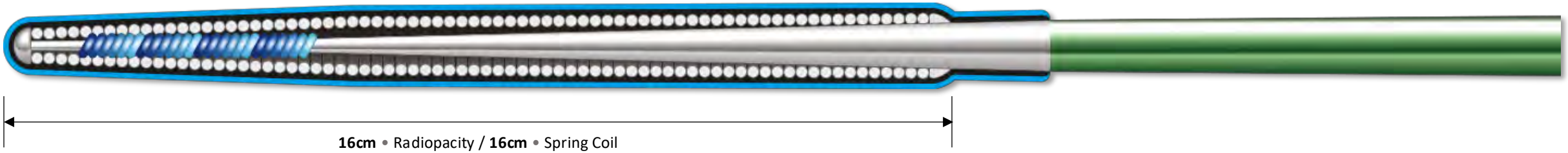
Fielder XT-R

Tip Load	Core Material	Wire OD	Cover	Coating
0.6gf	Stainless Steel	0.26mm (0.010") /0.36mm (0.014")	Polymer Jacket	Full Hydrophilic

*Coated with SLIP-COAT® coating.



17cm • Hydrophilic* Coating / **17cm** • Polymer Jacket



16cm • Radiopacity / **16cm** • Spring Coil

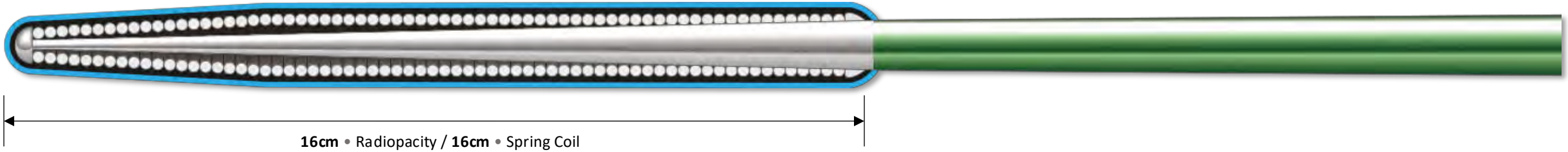
Your dreams. Woven together.
ASAHI INTECC

Fielder XT

Tip Load	Core Material	Wire OD	Cover	Coating
0.8gf	Stainless Steel	0.23mm (0.009") /0.36mm (0.014")	Polymer Jacket	Full Hydrophilic

*Coated with SLIP-COAT® coating.

16cm • Hydrophilic* Coating / **16cm** • Polymer Jacket



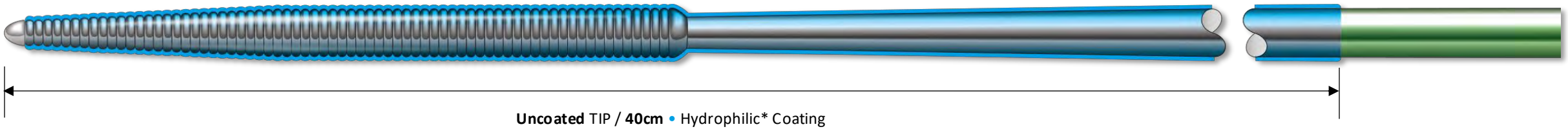
16cm • Radiopacity / **16cm** • Spring Coil

Your dreams. Woven together.
ASAHI INTECC

ASAHI Gaia First

Tip Load	Core Material	Wire OD	Cover	Coating
1.7gf	Stainless Steel	0.26mm (0.010") / 0.36mm (0.014“)	None	Uncoated Tip + Hydrophilic

*Coated with SLIP-COAT® coating.



Uncoated TIP / **40cm** • Hydrophilic* Coating

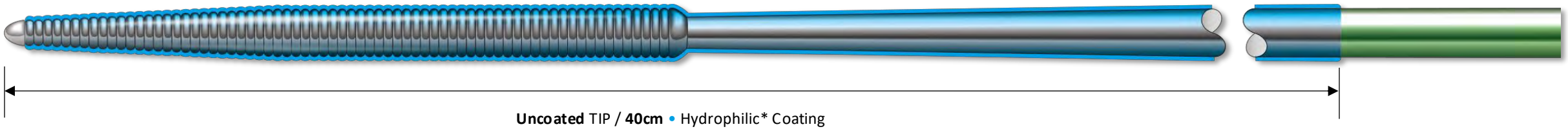
15cm • Radiopacity / **15cm** • Spring Coil

Your dreams. Woven together.
ASAHI INTECC

ASAHI Gaia Second

Tip Load	Core Material	Wire OD	Cover	Coating
3.5gf	Stainless Steel	0.28mm (0.011") / 0.36mm (0.014“)	None	Uncoated Tip + Hydrophilic

*Coated with SLIP-COAT® coating.



Uncoated TIP / **40cm** • Hydrophilic* Coating

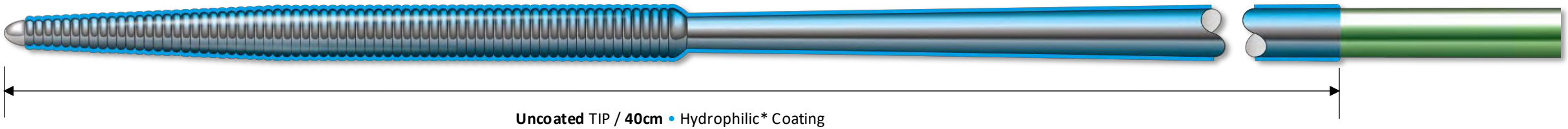
15cm • Radiopacity / **15cm** • Spring Coil

Your dreams. Woven together.
ASAHI INTECC

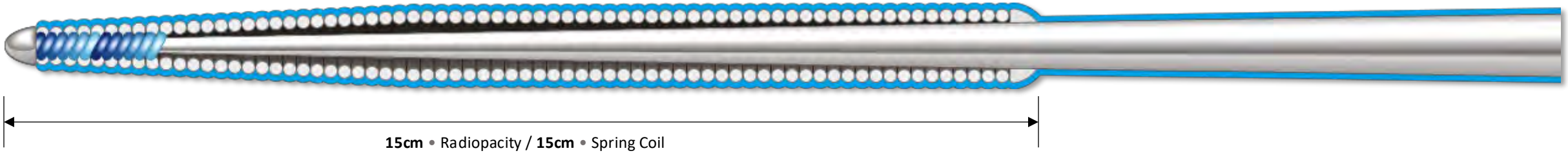
ASAHI Gaia Third

Tip Load	Core Material	Wire OD	Cover	Coating
4.5gf	Stainless Steel	0.30mm (0.012") / 0.36mm (0.014“)	None	Uncoated Tip + Hydrophilic

*Coated with SLIP-COAT® coating.



Uncoated TIP / **40cm** • Hydrophilic* Coating



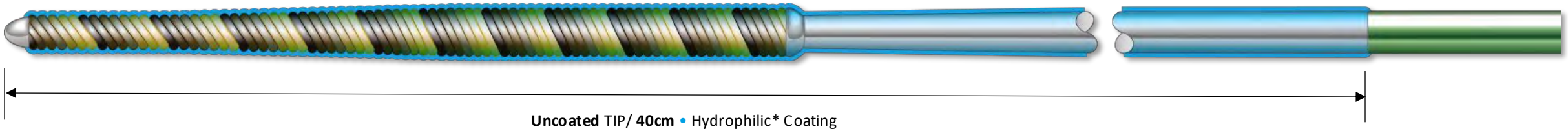
15cm • Radiopacity / **15cm** • Spring Coil

Your dreams. Woven together.
ASAHI INTECC

ASAHI Gaia Next 1

Tip Load	Core Material	Wire OD	Cover	Coating
2.0gf	Stainless Steel	0.27mm (0.011") / 0.36mm (0.014")	None	Uncoated Tip + Hydrophilic

*Coated with SLIP-COAT® coating.



Uncoated TIP/ **40cm** • Hydrophilic* Coating

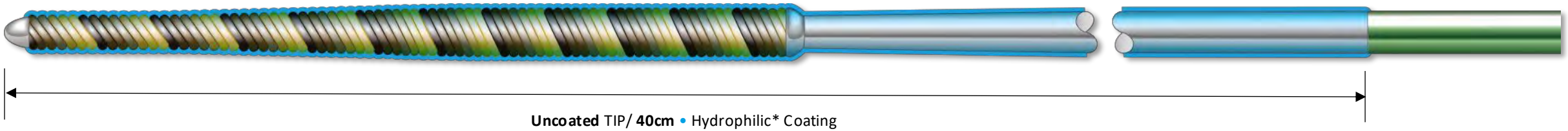
15cm • Radiopacity / **15cm** • Spring Coil

Your dreams. Woven together.
ASAHI INTECC

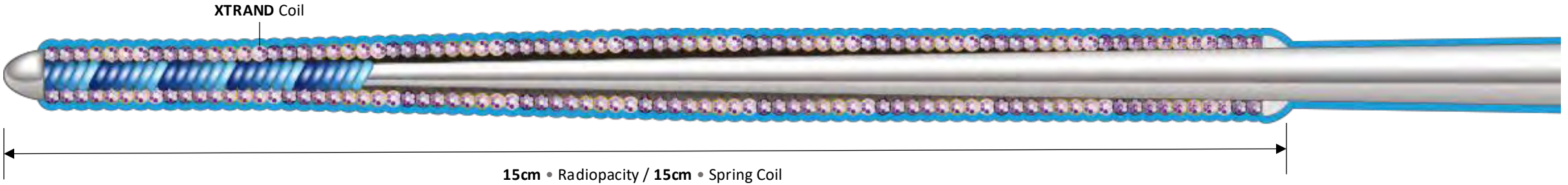
ASAHI Gaia Next 2

Tip Load	Core Material	Wire OD	Cover	Coating
4.0gf	Stainless Steel	0.30mm (0.012") / 0.36mm (0.014")	None	Uncoated Tip + Hydrophilic

*Coated with SLIP-COAT® coating.



Uncoated TIP/ **40cm** • Hydrophilic* Coating



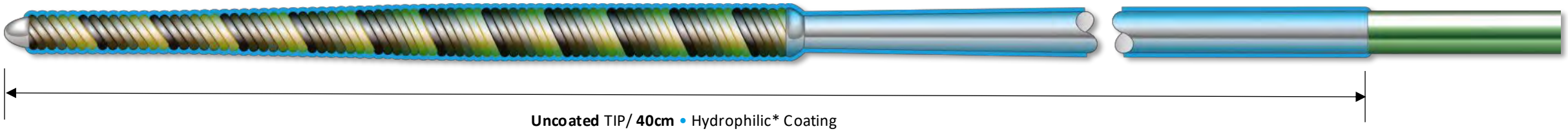
15cm • Radiopacity / **15cm** • Spring Coil

Your dreams. Woven together.
ASAHI INTECC

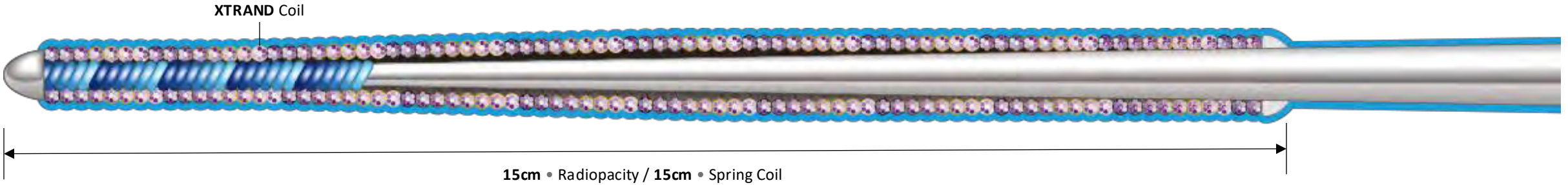
ASAHI Gaia Next 3

Tip Load	Core Material	Wire OD	Cover	Coating
6.0gf	Stainless Steel	0.30mm (0.012") / 0.36mm (0.014")	None	Uncoated Tip + Hydrophilic

*Coated with SLIP-COAT® coating.



Uncoated TIP/ **40cm** • Hydrophilic* Coating



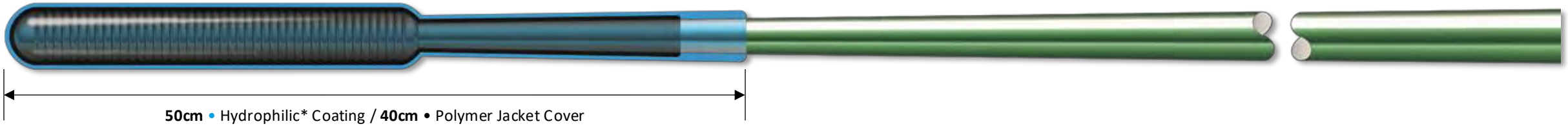
15cm • Radiopacity / **15cm** • Spring Coil

Your dreams. Woven together.
ASAHI INTECC

ASAHI Gladius EX

Tip Load	Core Material	Wire OD	Cover	Coating
3.0gf	Stainless Steel	0.36mm (0.014")	Polymer Jacket	Full Hydrophilic

*Coated with SLIP-COAT® coating.



50cm • Hydrophilic* Coating / **40cm** • Polymer Jacket Cover

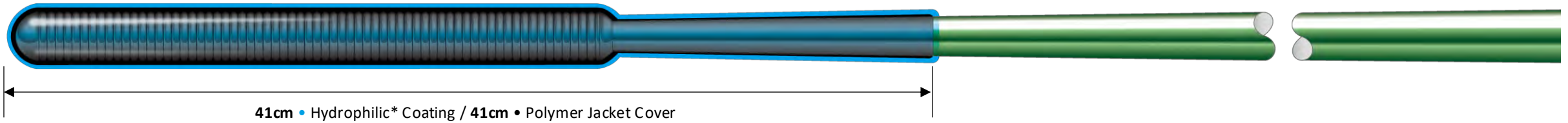
3cm • Radiopacity / **11cm** • Spring Coil

Your dreams. Woven together.
ASAHI INTECC

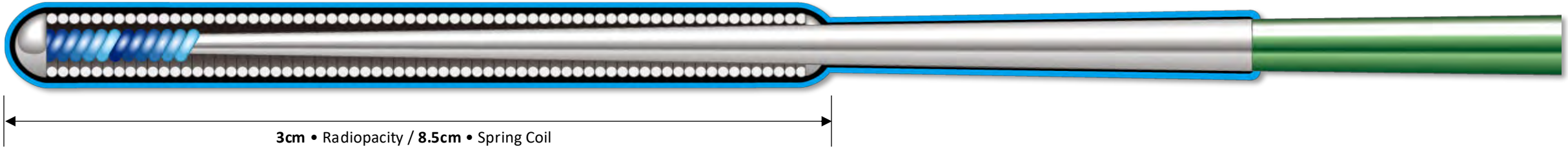
ASAHI Gladius MG

Tip Load	Core Material	Wire OD	Cover	Coating
3.0gf	Stainless Steel	0.36mm (0.014")	Polymer Jacket	Full Hydrophilic

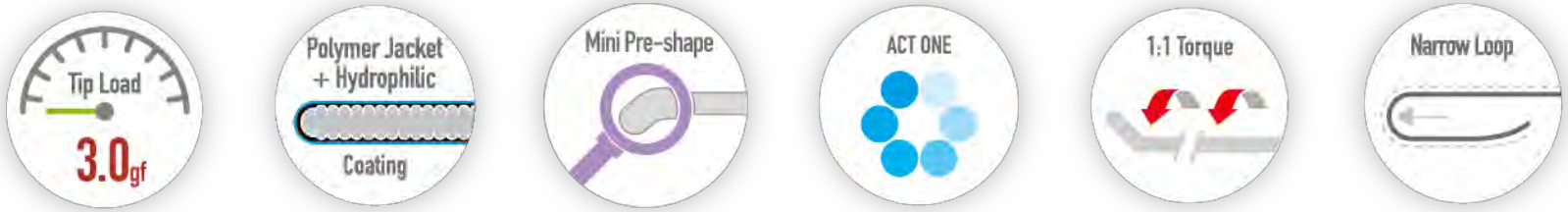
*Coated with SLIP-COAT® coating.



41cm • Hydrophilic* Coating / **41cm** • Polymer Jacket Cover



3cm • Radiopacity / **8.5cm** • Spring Coil



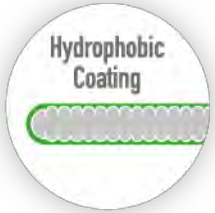
Your dreams. Woven together.
ASAHI INTECC

Grand Slam

Tip Load	Core Material	Wire OD	Cover	Coating
0.7gf	Stainless Steel	0.36mm (0.014")	None	Full Hydrophobic

4cm • Hydrophobic Coating

4cm • Radiopacity / **4cm** • Spring Coil



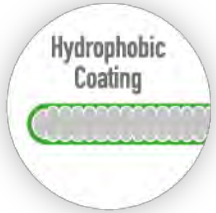
Your dreams. Woven together.
ASAHI INTECC

MIRACLEbros 12

Tip Load	Core Material	Wire OD	Cover	Coating
12.0gf	Stainless Steel	0.36mm (0.014")	None	Full Hydrophobic

11cm • Hydrophobic Coating

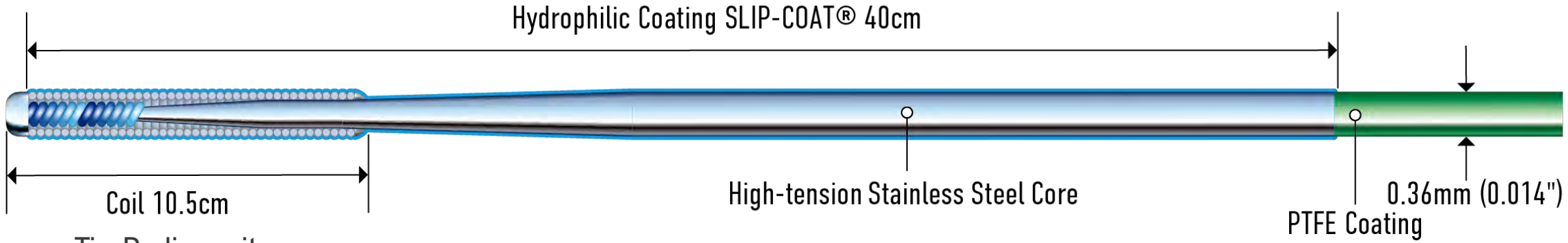
11cm • Radiopacity / **11cm** • Spring Coil



Your dreams. Woven together.
ASAHI INTECC

Miracle Neo 3

Tip Load	Core Material	Wire OD	Cover	Coating
3gf	Stainless Steel	0.36mm (0.014")	None	Uncoated Tip (1mm) + Hydrophilic (400mm)



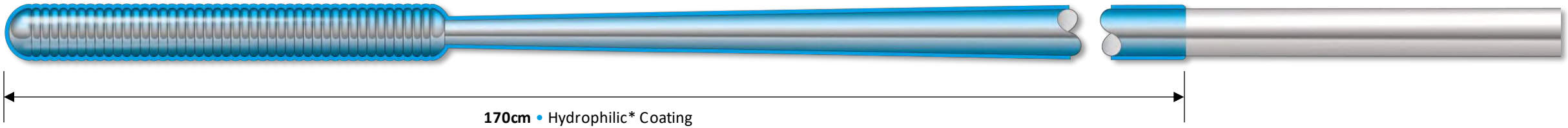
Tip Radiopacity
10.5cm

ASAHI RG3

Exit
RG3
EXTERNALISATION

Tip Load	Core Material	Wire OD	Cover	Coating
3.0gf	Stainless Steel	0.26mm (0.010")	None	Full Hydrophilic

*Coated with SLIP-COAT® coating.



170cm • Hydrophilic* Coating

3cm • Radiopacity / **8cm** • Spring Coil

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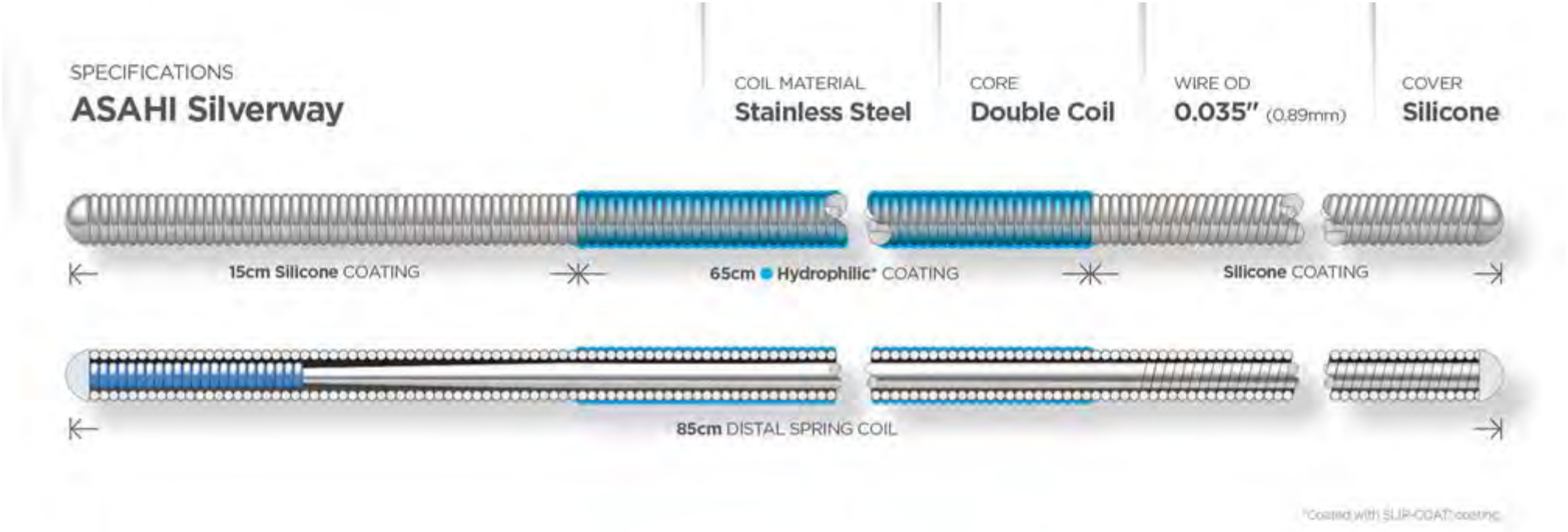
ASAHI Silverway



Double coil structure

Hybrid coating design

Hybrid shaft design

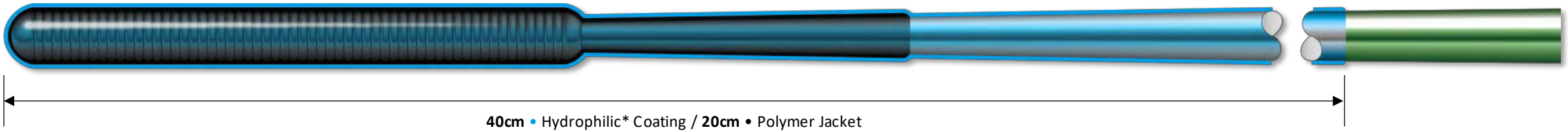
Safe and maneuverable with improved tip durability

Your dreams. Woven together.
ASAHI INTECC

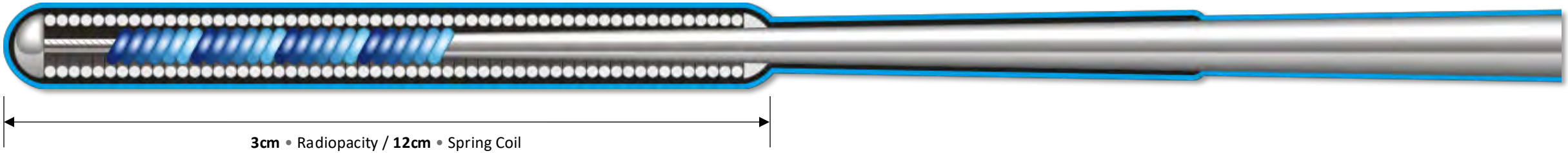
ASAHI SION black

Tip Load	Core Material	Wire OD	Cover	Coating
0.8gf	Stainless Steel	0.36mm (0.014")	Polymer Jacket	Full Hydrophilic

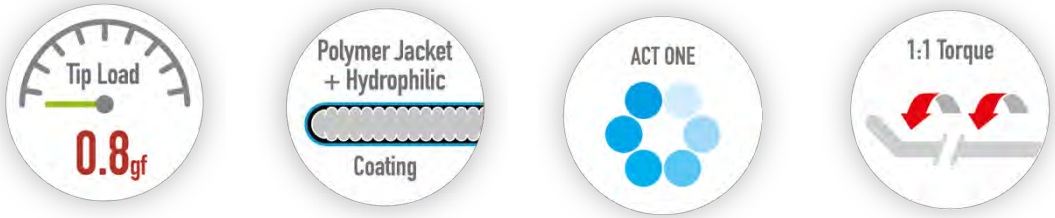
*Coated with SLIP-COAT® coating.



40cm • Hydrophilic* Coating / **20cm** • Polymer Jacket



3cm • Radiopacity / **12cm** • Spring Coil

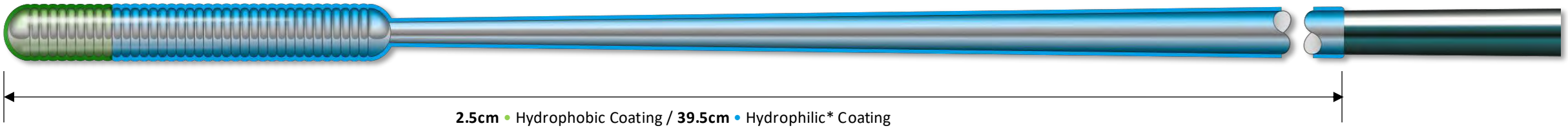


Your dreams. Woven together.
ASAHI INTECC

ASAHI SION blue ES

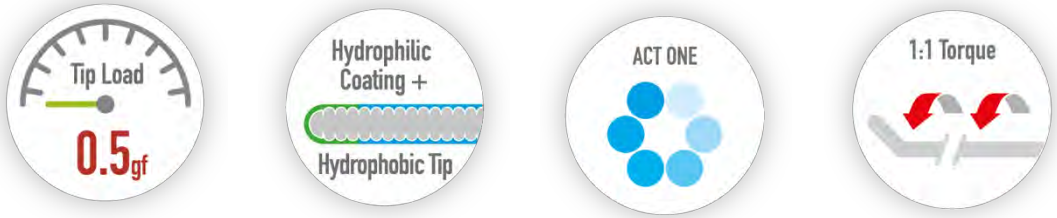
Tip Load	Core Material	Wire OD	Cover	Coating
0.5gf	Stainless Steel	0.36mm (0.014")	None	Hydrophobic + Hydrophilic

*Coated with SLIP-COAT® coating.



2.5cm • Hydrophobic Coating / **39.5cm** • Hydrophilic* Coating

3cm • Radiopacity / **8.5cm** • Spring Coil

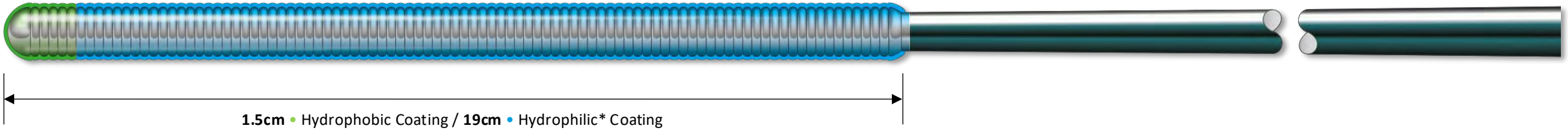


Your dreams. Woven together.
ASAHI INTECC

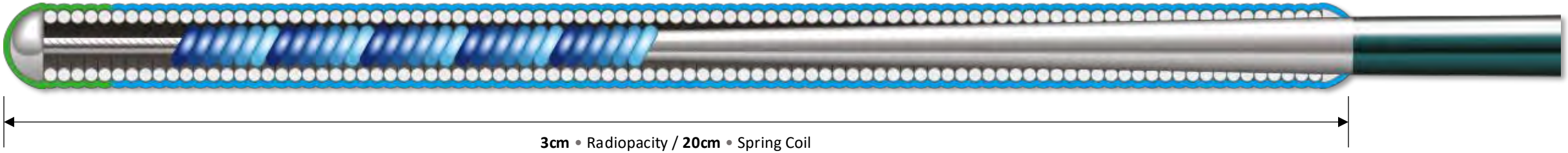
ASAHI SION blue

Tip Load	Core Material	Wire OD	Cover	Coating
0.5gf	Stainless Steel	0.36mm (0.014")	None	Hydrophobic + Hydrophilic

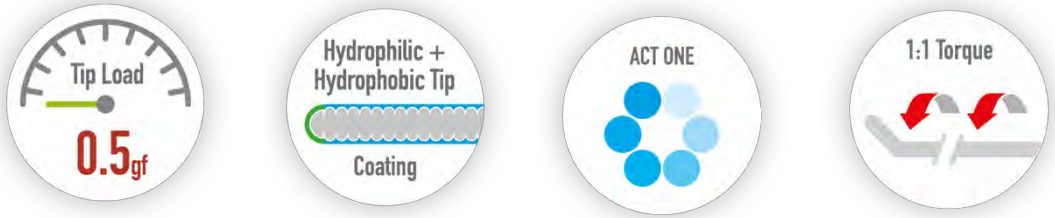
*Coated with SLIP-COAT® coating.



1.5cm • Hydrophobic Coating / **19cm** • Hydrophilic* Coating



3cm • Radiopacity / **20cm** • Spring Coil



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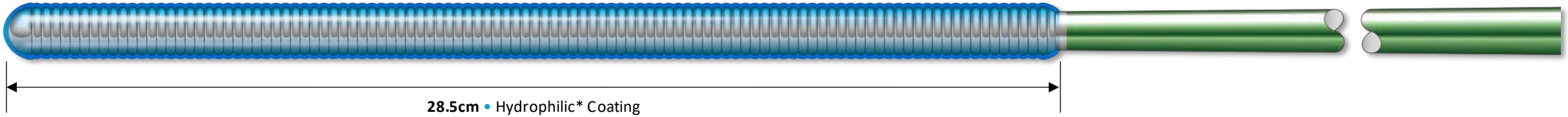
ASAHI SION

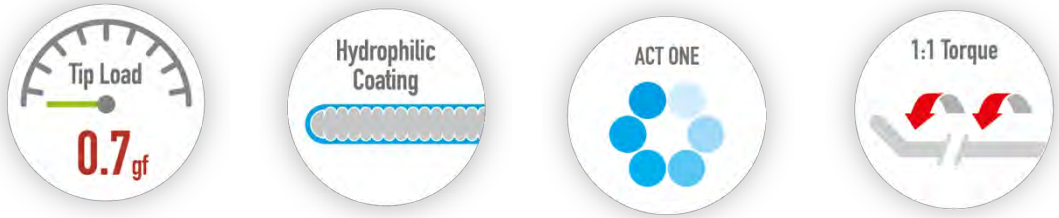
Tip Load	Core Material	Wire OD	Cover	Coating
0.7gf	Stainless Steel	0.36mm (0.014")	None	Full Hydrophilic

*Coated with SLIP-COAT® coating.



28.5cm • Hydrophilic* Coating

3cm • Radiopacity / **28cm** • Spring Coil



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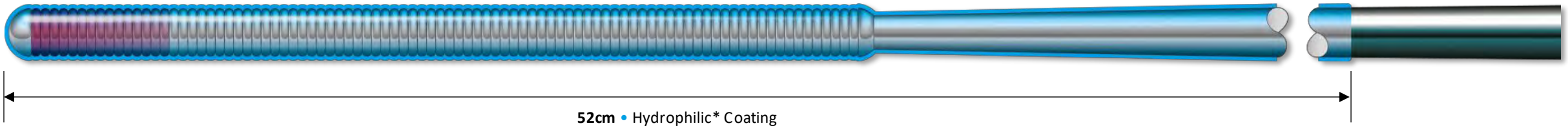
ASAHI INTECC

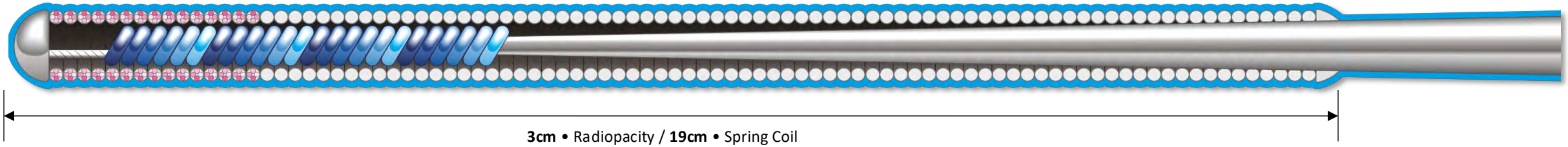
ASAHI SUOH 03

Tip Load	Core Material	Wire OD	Cover	Coating
0.3gf	Stainless Steel	0.36mm (0.014")	None	Full Hydrophilic

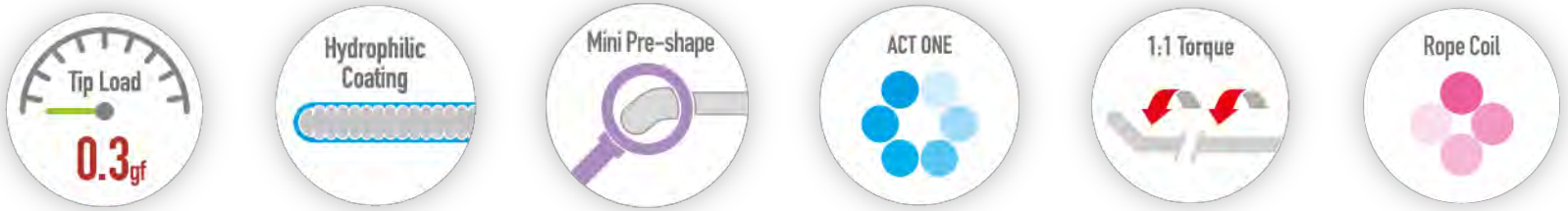
*Coated with SLIP-COAT® coating.



52cm • Hydrophilic* Coating



3cm • Radiopacity / **19cm** • Spring Coil



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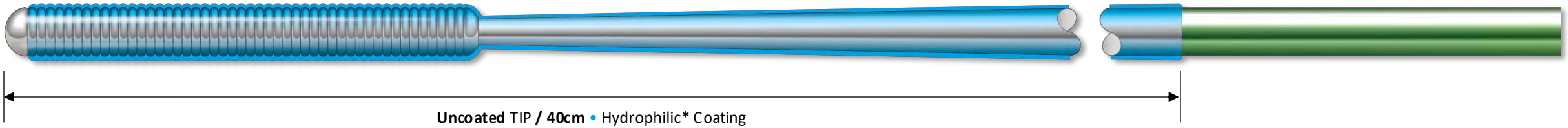
ASAHI INTECC

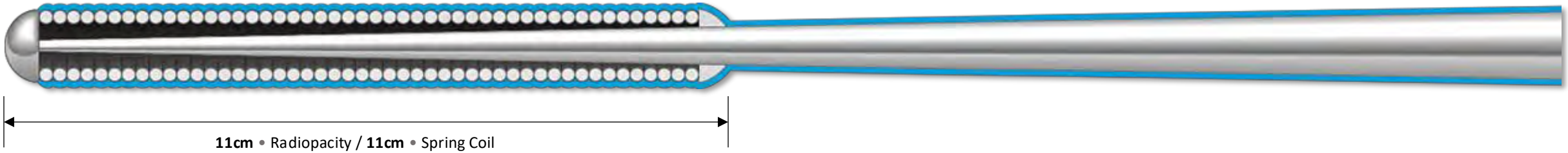
ULTIMATEbros 3

Tip Load	Core Material	Wire OD	Cover	Coating
3.0gf	Stainless Steel	0.36mm (0.014")	None	Uncoated Tip + Hydrophilic

*Coated with SLIP-COAT® coating.



Uncoated TIP **/ 40cm** • Hydrophilic* Coating

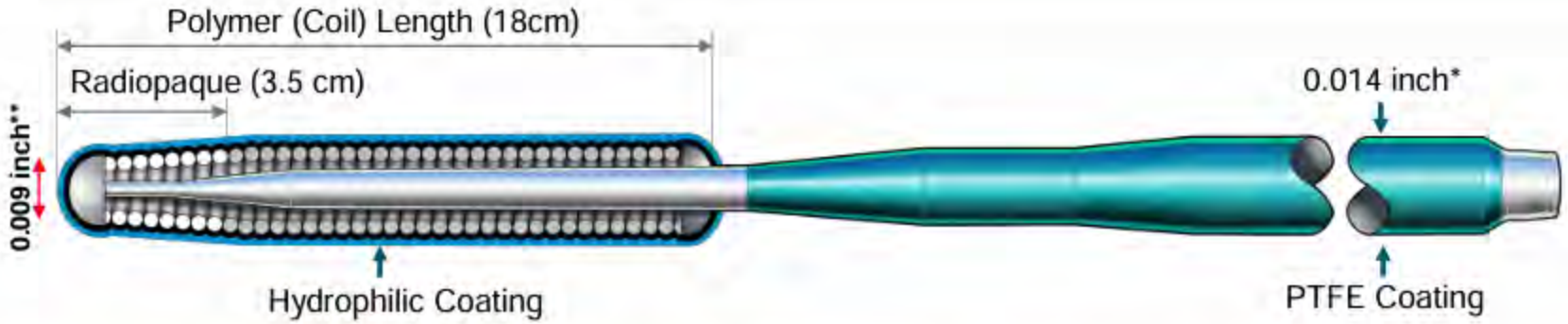


11cm • Radiopacity / **11cm** • Spring Coil

Your dreams. Woven together.
ASAHI INTECC

FIGHTER Features

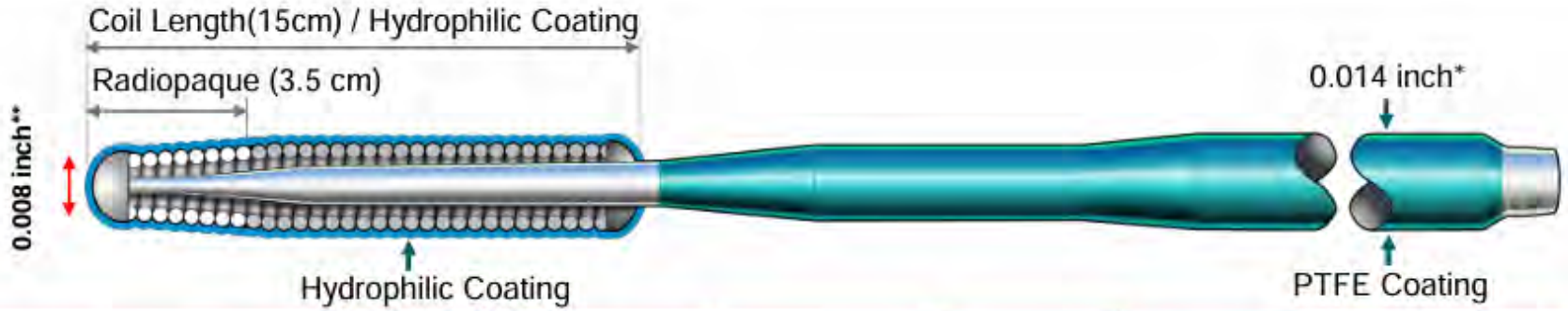
Key Points
Tapered tip
Clear polymer jacket
Hydrophilic coating
Ideal prolapse wire
Moderate rail support



Name	Diameter* (inch/ mm)	Tip Diameter** (inch/mm)	Length (cm)	Coil length (cm)	Radiopaque (cm)	Tip Load (gf)	Core Material	Tip Shape	Coating
FIGHTER	0.014/ 0.36	0.009/ 0.23	190 300	18	3.5	1.5	Stainless Steel	Straight	Polymer Jacket, Hydrophilic

HORNET Family Features

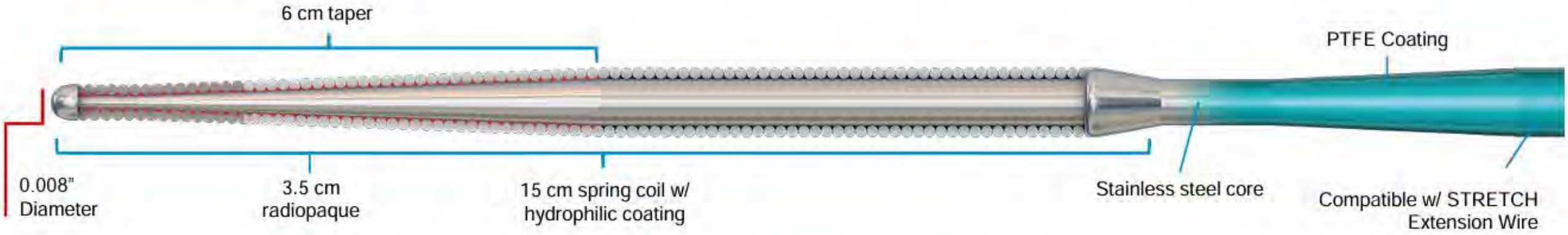
Key Points
Tapered tip: lowest tip profile on market (.008")**
Hornet 14: highest tip load on market
Hornet 10 & 14: highest penetration force on market
Hydrophilic coating



Name	Diameter* (inch/ mm)	Tip Diameter** (inch/mm)	Total Length (cm)	Coil Length (cm)	Radiopaque (cm)	Tip Load (gf)	Penetration Force (gf/mm²)^^	Core Material	Tip Shape	Coating
HORNET 10	0.014/ 0.37	0.008/ 0.20	190 300	15	3.5	10	308	Stainless Steel	Straight	Hydrophilic
HORNET 14	0.014/ 0.37	0.008/ 0.20	190 300	15	3.5	14	432	Stainless Steel	Straight	Hydrophilic

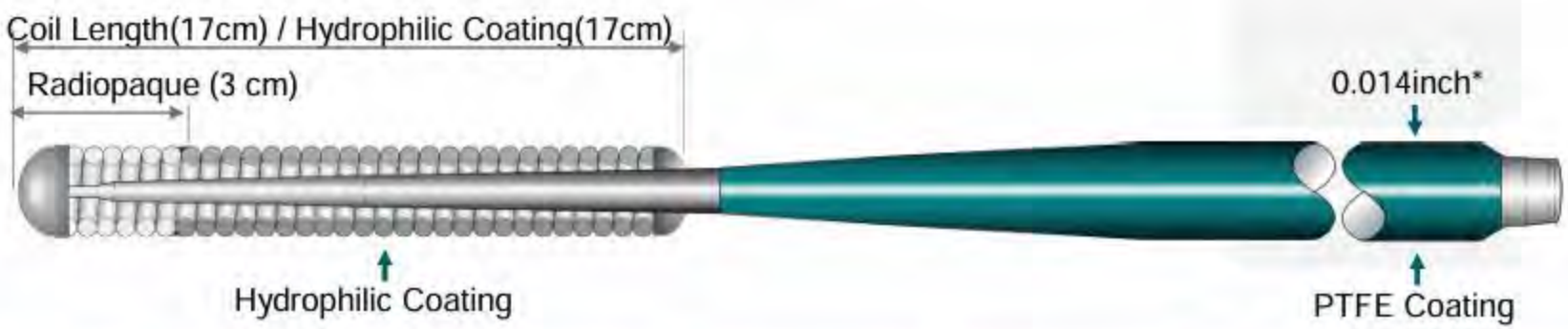
JUDO Features

Designed with **Micro EMT** technology to have an ultra low crossing profile, excellent tactile feedback, and superb steerability, JUDO Guidewires are ideal **intraluminal crossing wires** for complex lesions



Wire	Expected Clinical Application	Tip Load (gf)	Penetration Force (gf/mm²)	Diameter	Radiopaque Length	Tip Style	Cover	Coil Length	Distal Coating	Core Material	Rail Support
JUDO 1	Soft intraluminal crossing wire for antegrade microchannels	1.0	31	0.008" tip 0.014" proximal	3.5 cm	Core-to-tip	Spring Coil	15 cm	Hydrophilic	Stainless Steel	Moderate
JUDO 3	Intermediate intraluminal crossing wire for fibro-calcific lesions	3.0	93								
JUDO 6	Increased penetration and excellent steerability in tight lesions	6.0	185								

MARVEL Features

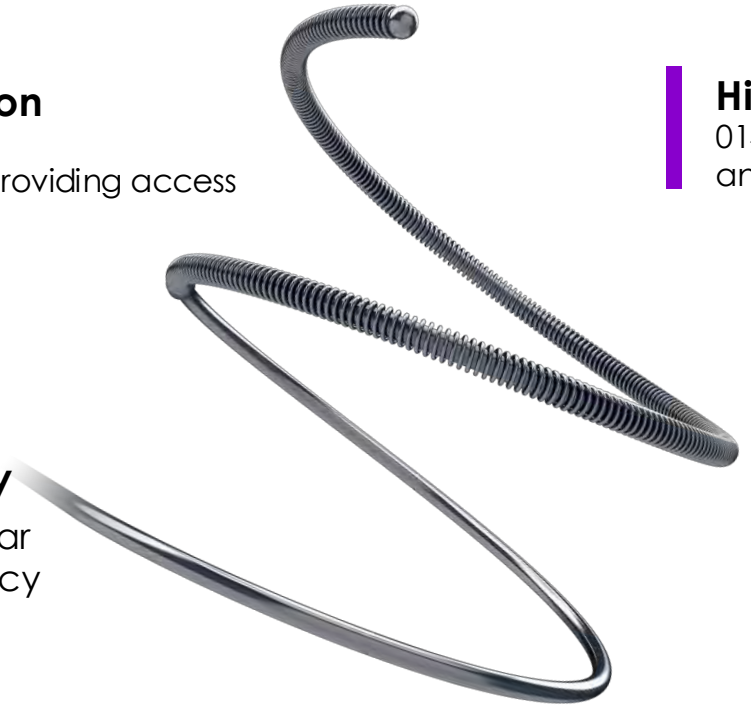


Name	Diameter* (inch/ mm)	Length (cm)	Coil (cm)	Radiopaque (cm)	Tip Load (gf)	Core Material	Tip Shape	Coating
MARVEL	0.014/ 0.37	190 300	17	3	0.9	Stainless Steel	Straight J	Hydrophilic

ROTAWIRE™ Drive Features

Enhanced torque transmission for predictable and precise lesion access in calcified lesions

Unsurpassed Torque Transmission
Able to navigate calcified lesions with 1:1 torque through tortuous anatomy, providing access for ROTAPRO™



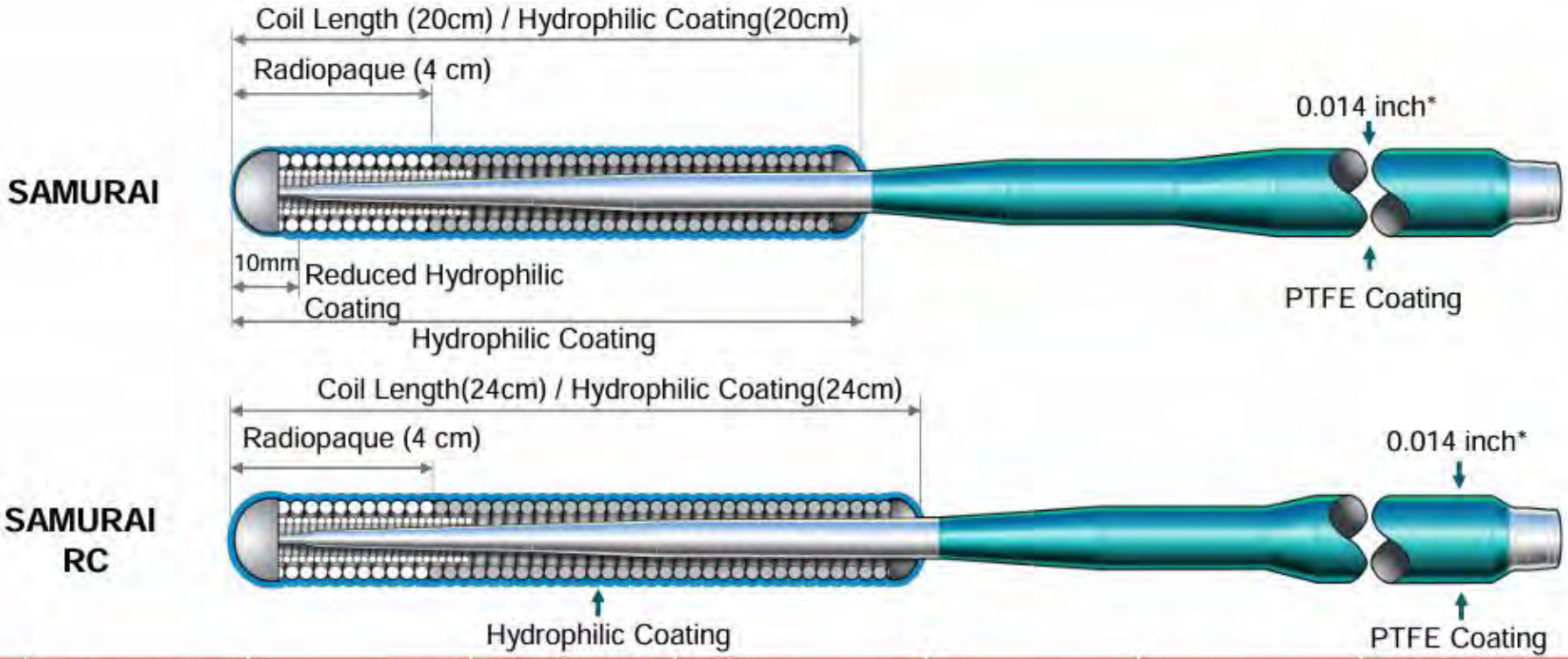
Highly Visible Safety Tip
014 platinum coil to provide visibility and added safety during Rotational atherectomy

Improved Core Wire Durability
Improved kink resistance and wear resistance compared to the legacy Rotawire

ASAHI Core Wire Technology
One-piece stainless steal core wire transmits torque for predictable steering

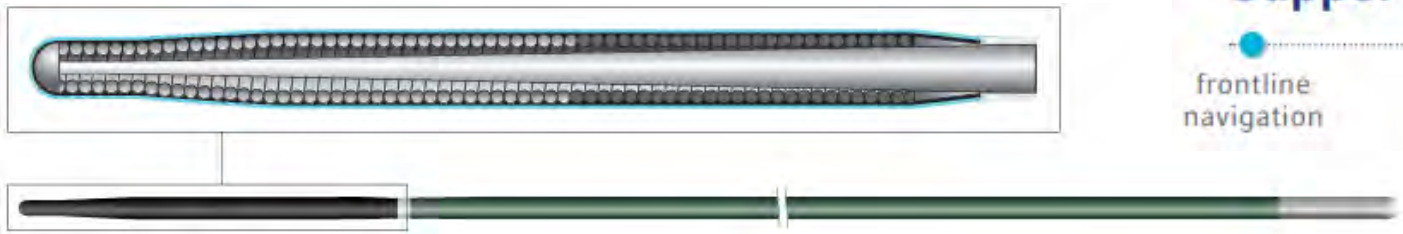
Reduce reliance on wire exchange devices, saving procedural time and lowering overall device spend

SAMURAI – SAMURAI RC Features



Name	Diameter* (inch/ mm)	Length (cm)	Coil Length (cm)	Radiopaque (cm)	Tip Load (gf)	Core Material	Tip Shape	Coating
SAMURAI	0.014/ 0.37	190 300	20	4	0.5	Stainless Steel	Straight J	Hydrophilic (Reduced Distal Coating)
SAMURAI RC	0.014/ 0.37	190 300	24	4	1.2	Stainless Steel	Straight	Hydrophilic (Full Length)

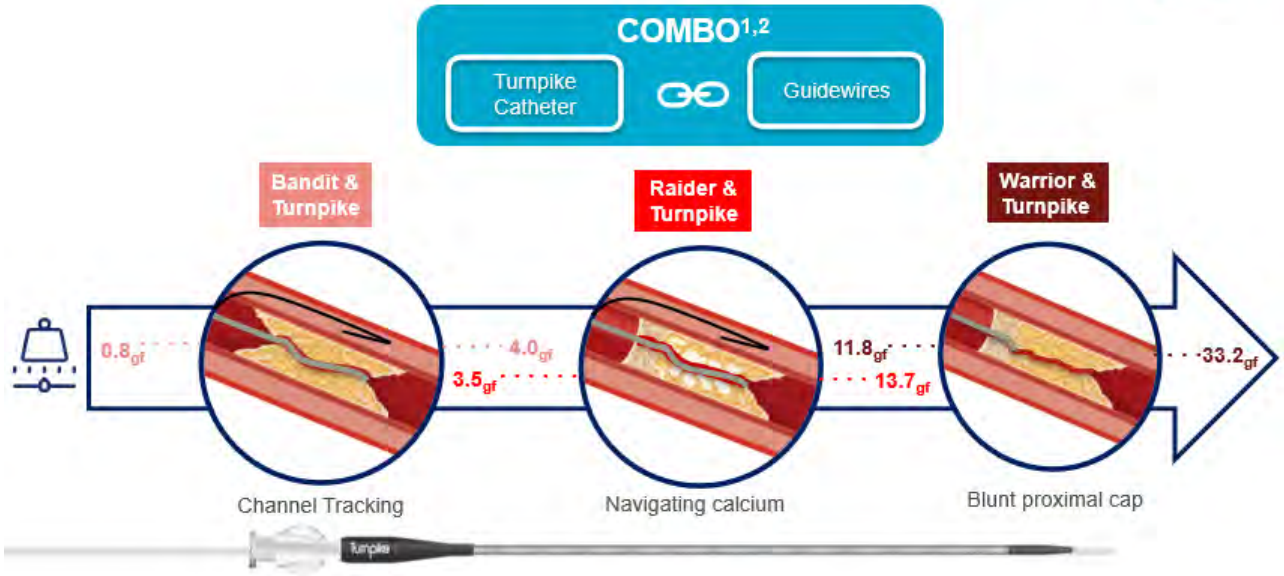
Bandit

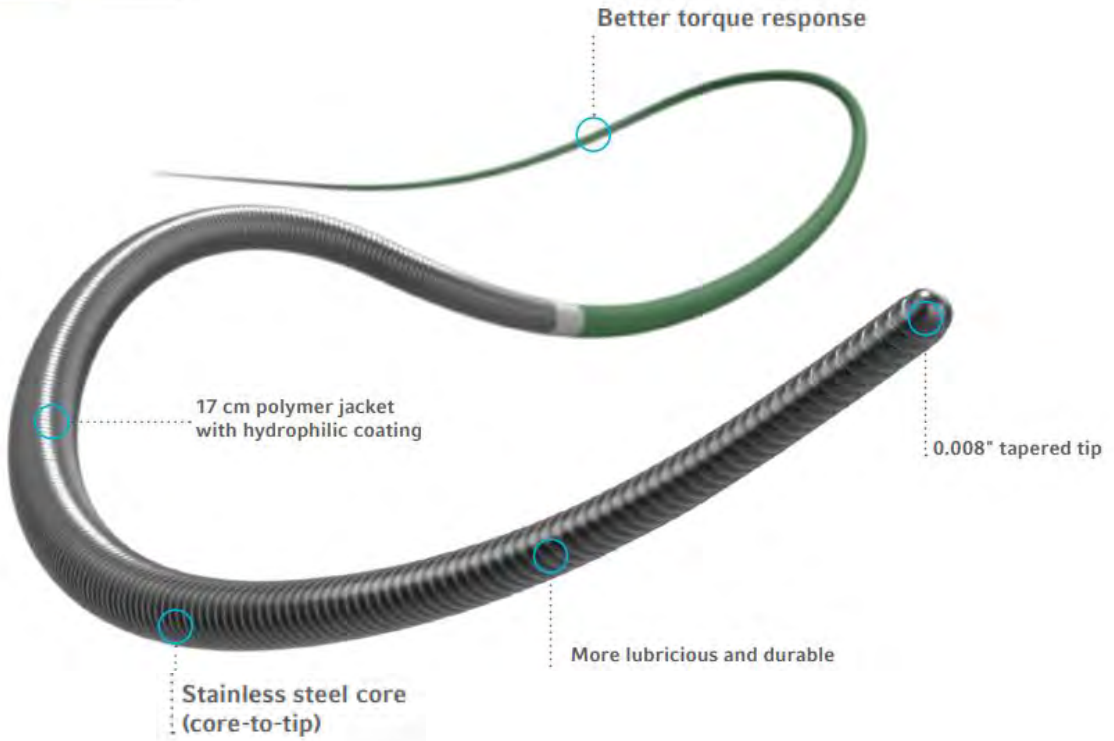


Support	Tip Load	Penetration Power
frontline navigation	0.8 g	24.7 g/mm²

Outrun Complex Lesions

The Bandit Guidewire is a low-tip load, tapered, polymer-jacketed specialty wire designed for precise wire techniques and serves as a frontline guidewire when navigating complex lesions.



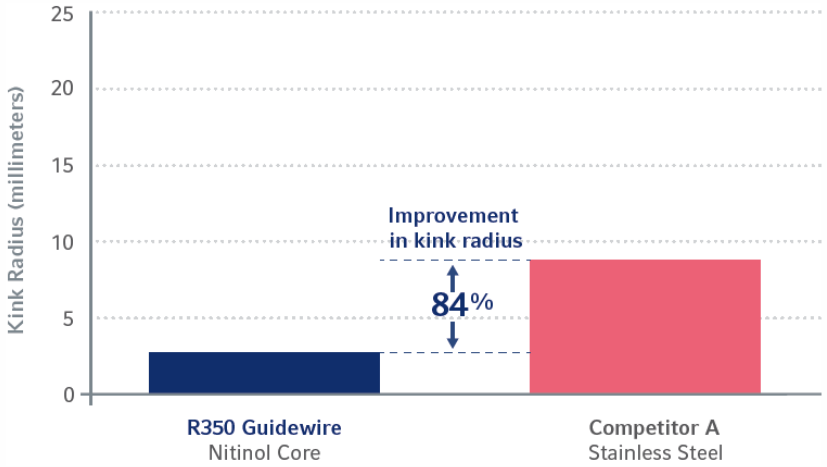


[1] All data based on bench test averages, n=5, performed by Teleflex. Bench test results may not necessarily be indicative of clinical performance. Data on file.
[2] Effective tip load range is the tip load range that a guidewire exhibits as a microcatheter is advanced from 12mm to 2mm from the distal tip of the guidewire.
[3] Penetration power refers to the tested tip load divided by the cross-sectional area of the distal tip.

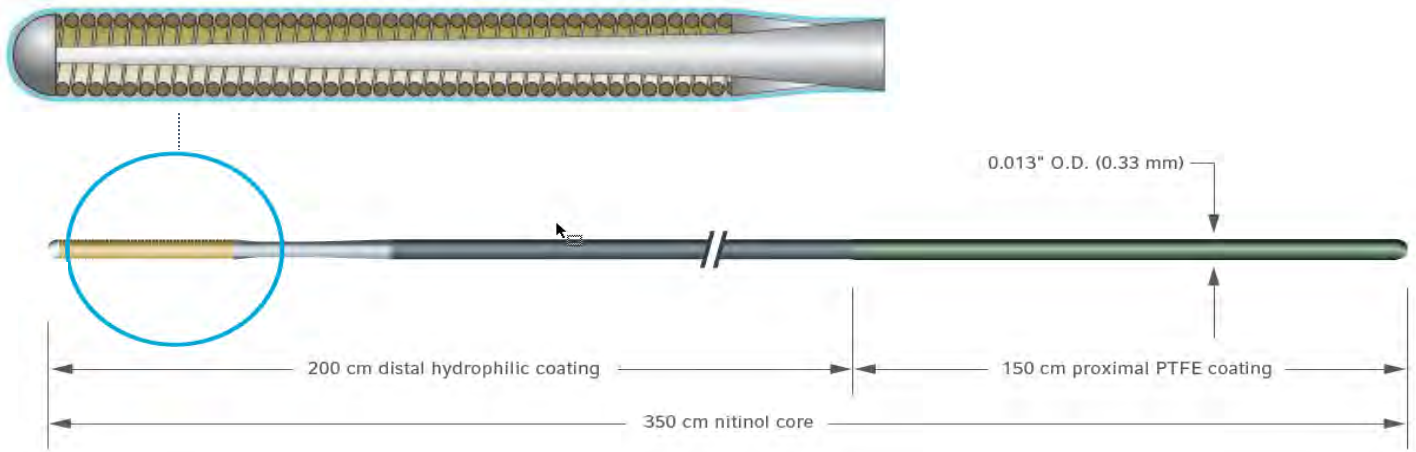
Teleflex

• R350

Nitinol Core for Improved Kink-Resistance*



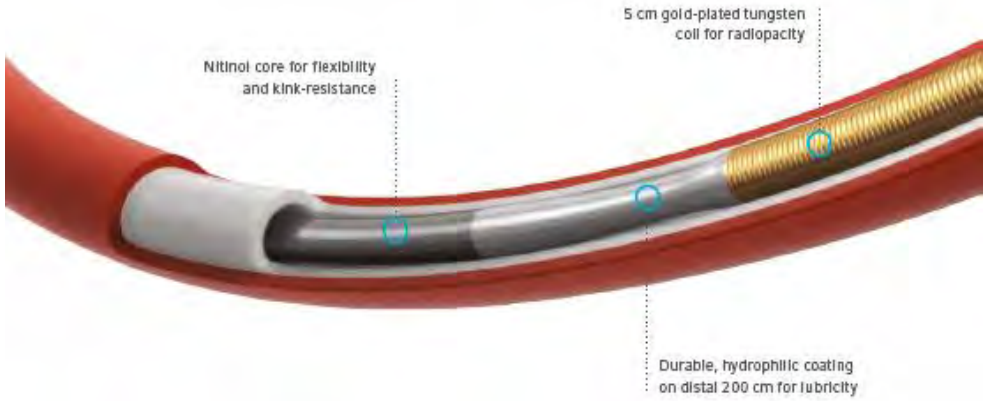
*Data on file at Teleflex. Comparative data may not be indicative of clinical performance.



Nitinol Core for Enhanced Deliverability

The R350 Guidewire combines a 350 cm length for externalization with a nitinol core for flexibility and kink-resistance, resulting in excellent deliverability during advancement through tortuous vessels.

Designed for Performance



Support

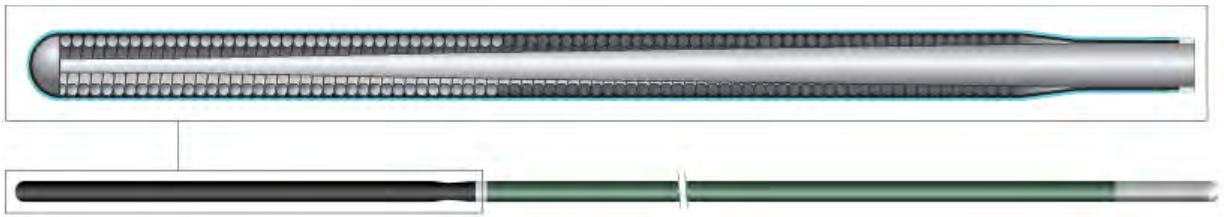
externalization

Tip Load

3 g

Teleflex

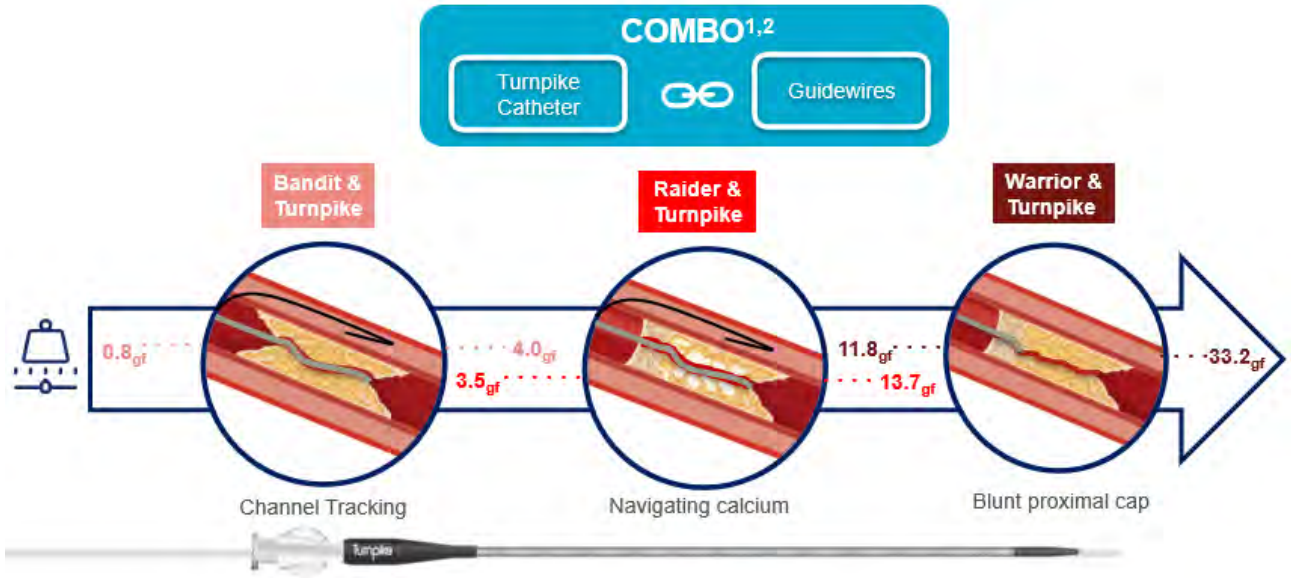
• Raider



Support	Tip Load	Penetration Power[3]
resistant lesions	4 g	54.1 g/mm²

The Clear Choice for Unclear Paths

The Raider Guidewire is a mid-tip load, non-tapered, polymer-jacketed specialty wire with a unique tip designed to meet the demands of complex lesions and precise wire techniques.

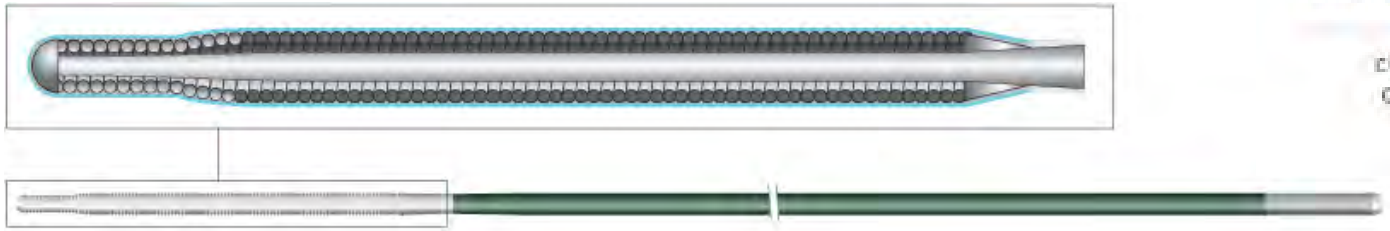


Superior tip load and penetration power

1. All data based on bench test averages, n=5, performed by Teleflex. Bench test results may not necessarily be indicative of clinical performance. Data on file
2. Effective tip load range is the tip load range that a guidewire exhibits as a microcatheter is advanced from 12mm to 2mm from the distal tip of the guidewire.
3. Penetration power refers to the tested tip load divided by the cross-sectional area of the distal tip.

Teleflex

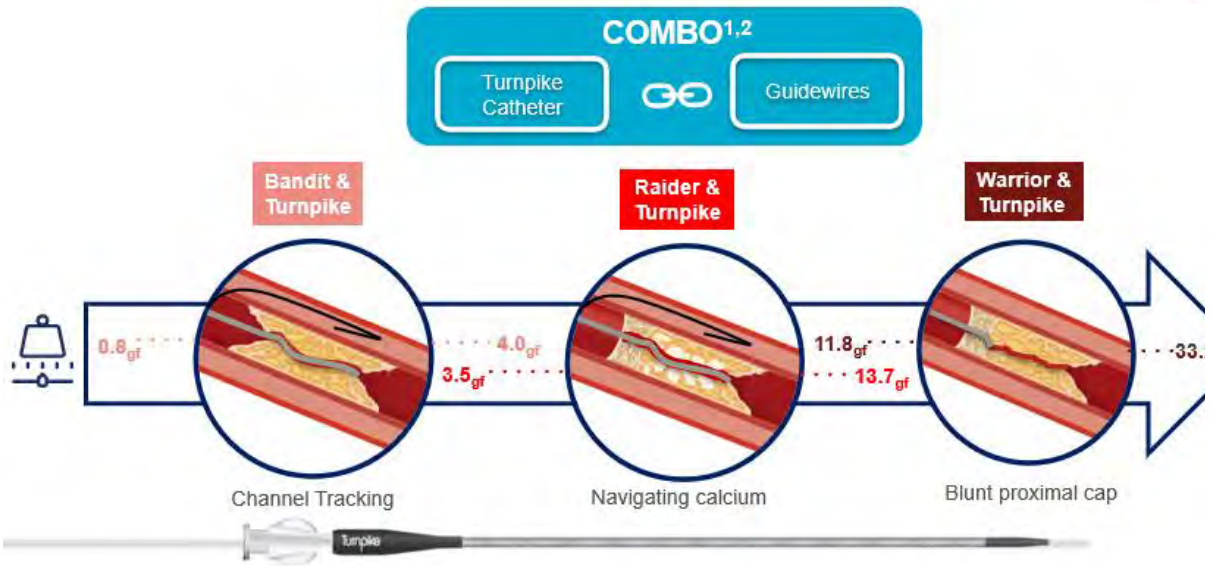
• Warrior

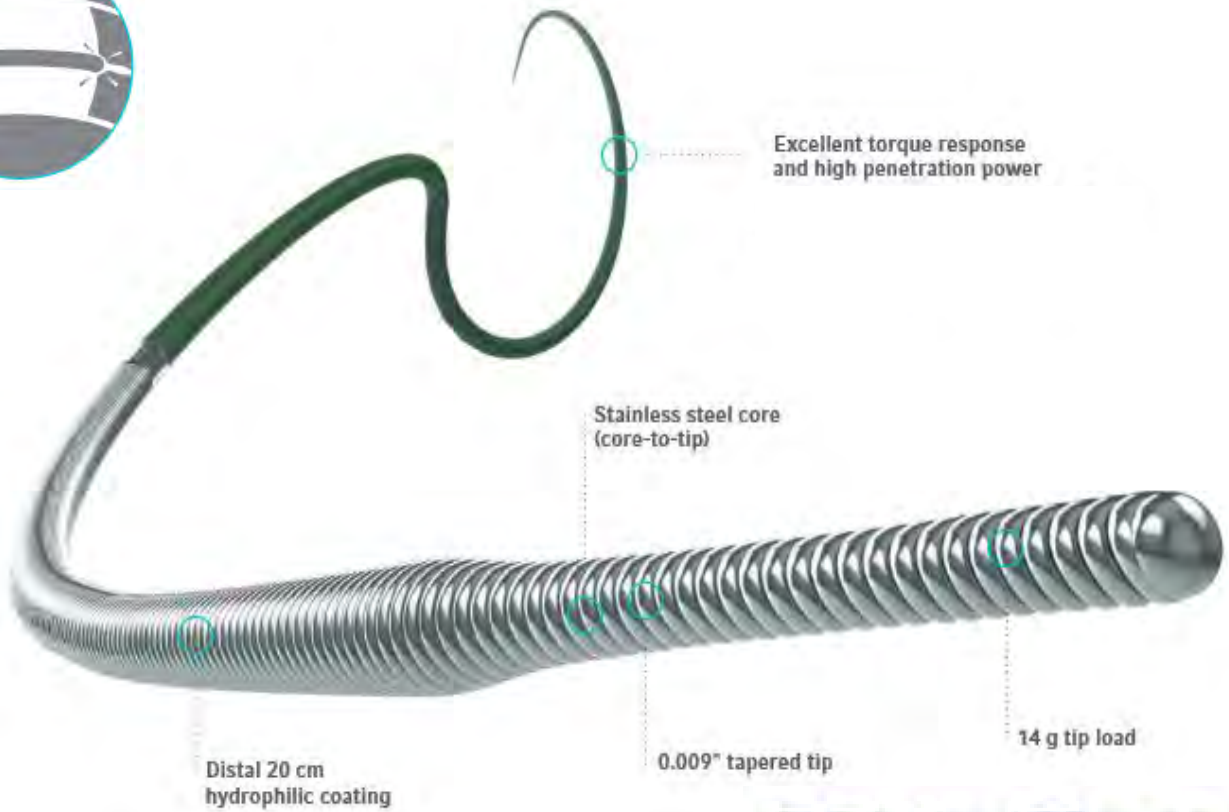


Support	Tip Load	Penetration Power[1]
challenging occlusions	14 g	341.1 g/mm²[3]

Put the Power in Your Hands

The Warrior Guidewire is designed with a 14 g tip load, so you can rise to complex challenges with power, command and control.





[1] All data based on bench test averages, n=5, performed by Teleflex. Bench test results may not necessarily be indicative of clinical performance. Data on file.
[2] Effective tip load range is the tip load range that a guidewire exhibits as a microcatheter is advanced from 12mm to 2mm from the distal tip of the guidewire.
[3] Penetration power refers to the tested tip load divided by the cross-sectional area of the distal tip.

Teleflex

Microcatheters

Single Lumen Microcatheters

APT: Elong ST, Elong TT

ASAHI: Corsair Pro, Corsair Pro XS, Caravel, Tornus

BOSTON: Crossboss, Mamba

iVASCULAR: Navitian

TELEFLEX: Turnpike, Turnpike LP, Turnpike Spiral, Turnpike Gold, Supercross FT

TERUMO: Finecross, Finecross M3

APTMedical

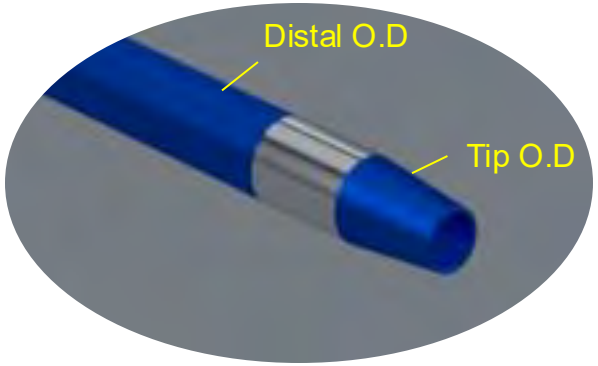
Elong™ Straight Tip

Sintec Group®
Advanced Medical Devices

1.7F Optimized design for CTO Retrograde Navigating

1.9F Designed for both CTO Antegrade and Retrograde Navigating

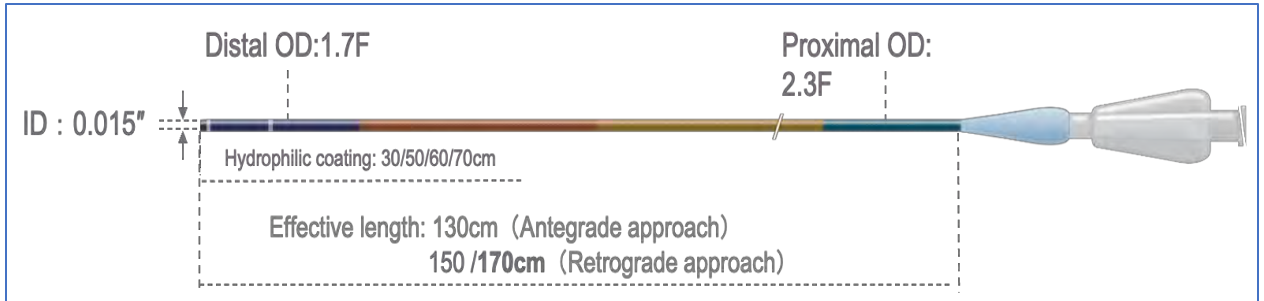
Slight tapered distal end



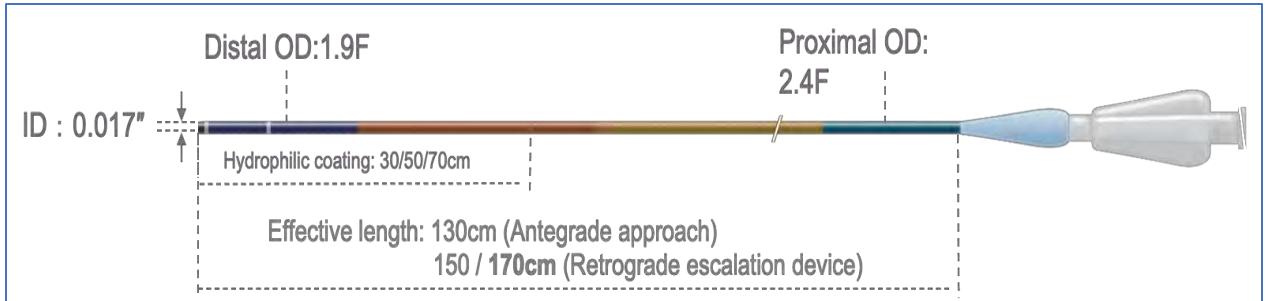
Distal O.D	Tip O.D
1.7F	1.6F
1.9F	1.5F

- **Triple-layer structure** (PTFE, braided metal mesh, Pebax);
- **Hydrophilic coating** on the distal part;
- **170 cm length** available for retrograde approach;
- Equipped with support wire, can be used as **extension wire**, compatible with all 0.014” PTCA guidewire.

1.7F

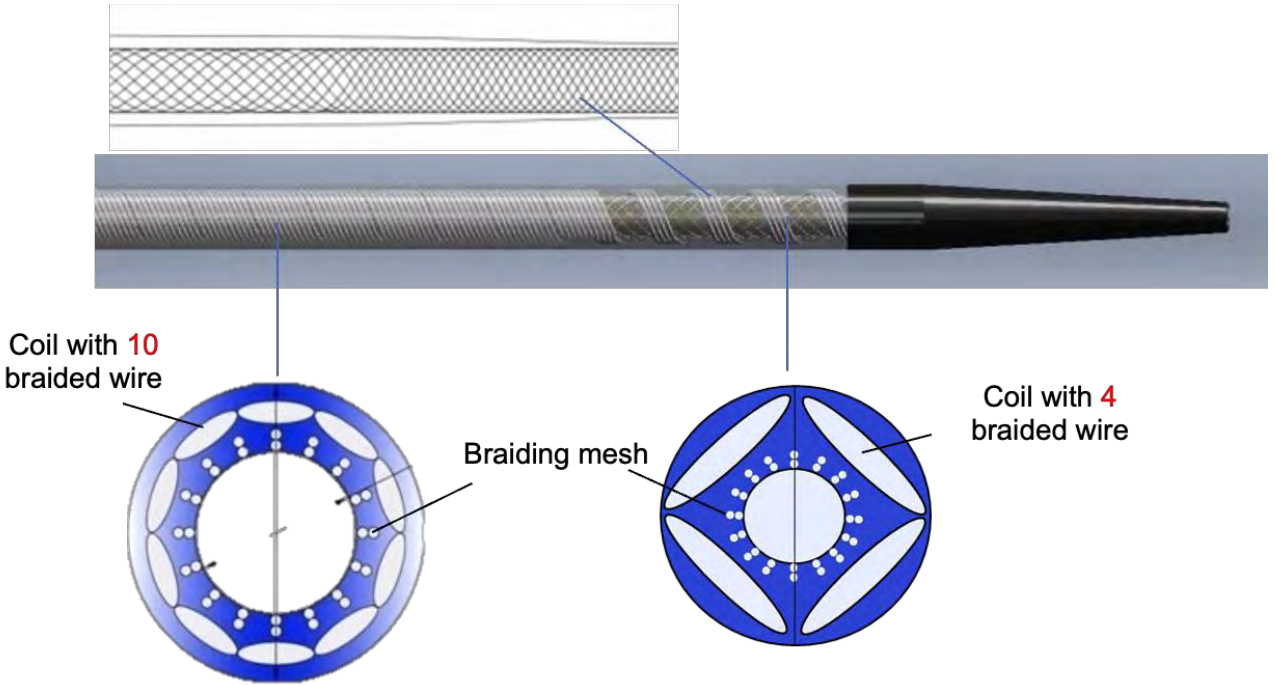


1.9F



Elong™ Tapered Tip 2.6F

Optimized design for Calcified Lesion

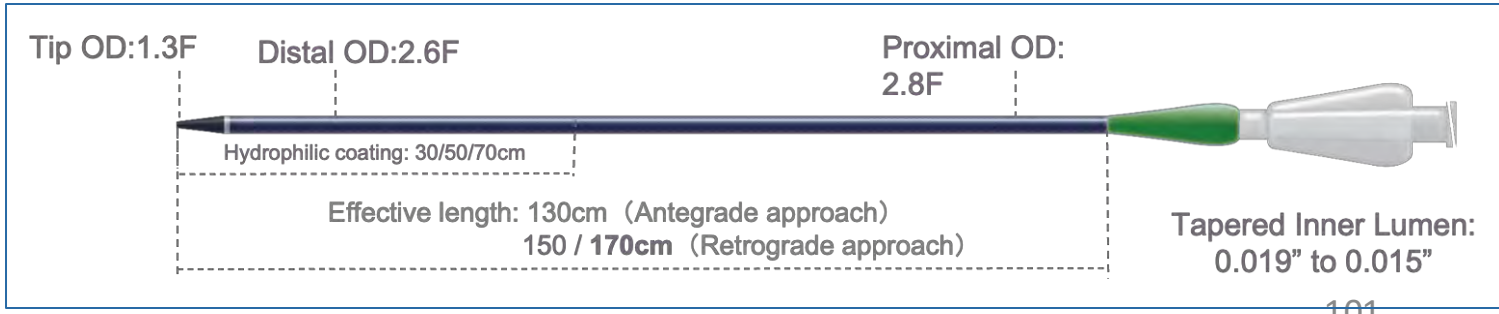


Easy to pass the “S” angle

4 Layer Structure:

- 2 Frames: 16 braiding mesh, 10 strand coil
- Meshing provides axial support, coil provides radial support and drilling capability
- **Coil dense is reduced from proximal to distal**

- Well-balanced tip stiffness maintains **superior trackability**
- 2 Frames: **Better trackability** and **enables rotating manipulation**
  - **Hydrophilic coating** on the distal part;
  - **170 cm length** available for retrograde approach;

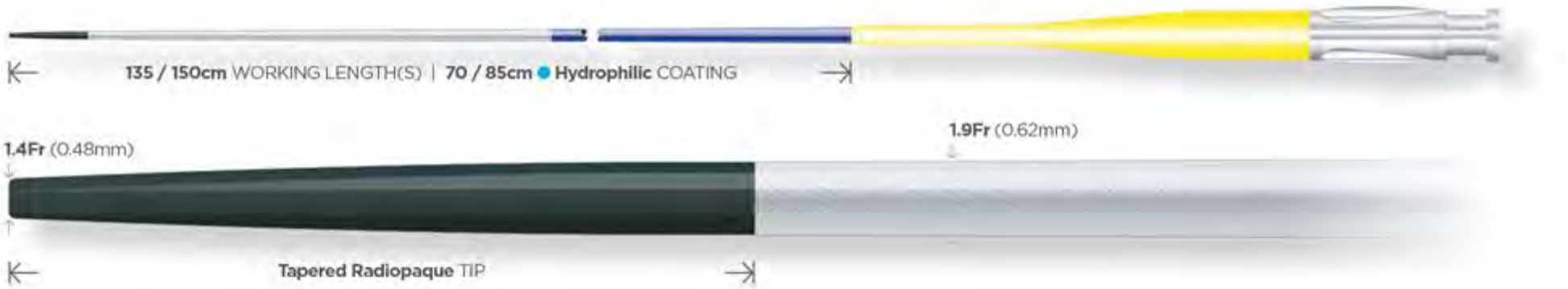


ASAHI Caravel

SPECIFICATIONS

ASAHI Caravel

TIP ENTRY PROFILE	SHAFT O.D.	GW COMPATIBLE	CONSTRUCTION
1.4Fr (0.48mm)	**Distal 1.9Fr** (0.62mm) **Proximal 2.6Fr** (0.85mm)	**0.014"** (0.36mm)	**Braided Shaft**



Low profile
1.4 Fr tip
1.9 Fr distal

Flexibility
and
Trackability

Flexible soft tip

Easy to advance
and
Shaft durability & lumen integrity

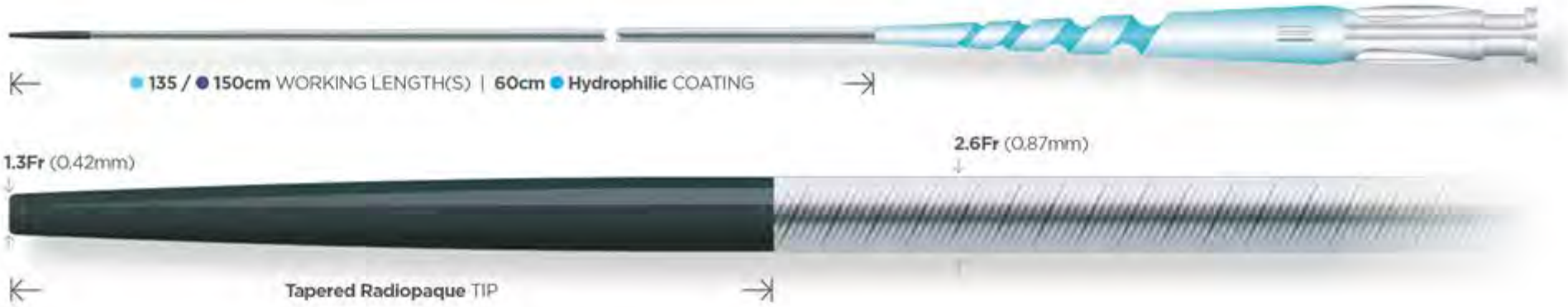
Your dreams. Woven together.
ASAHI INTECC

ASAHI Corsair Pro

SPECIFICATIONS

ASAHI Corsair Pro

TIP ENTRY PROFILE	SHAFT O.D.	GW COMPATIBLE	CONSTRUCTION
1.3Fr (0.42mm)	**Distal 2.6Fr** (0.87mm) **Proximal 2.8Fr** (0.93mm)	**0.014"** (0.36mm)	**SHINKA-Shaft**



High guidewire support

Excellent crossability

10 x Torqueable

Crossability with rotational capabilities and high guidewire support

Your dreams. Woven together.

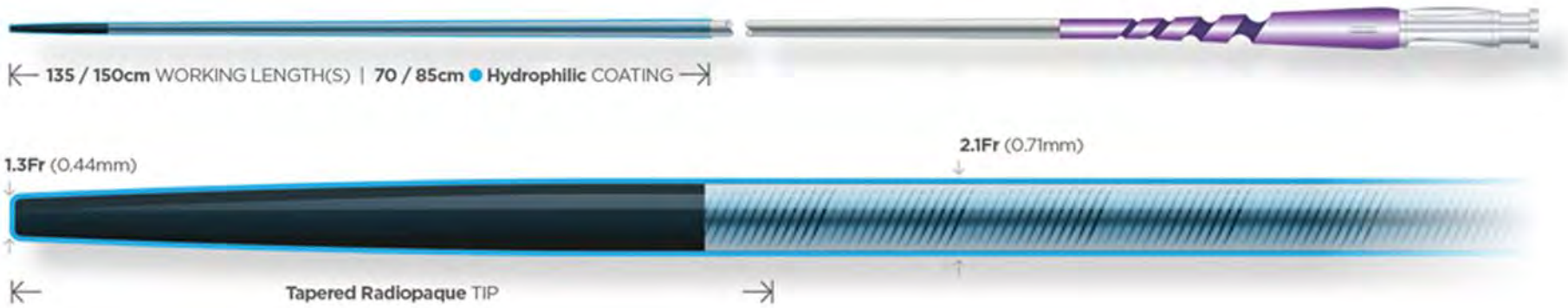
ASAHI INTECC

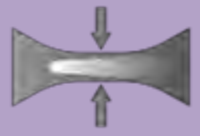
ASAHI Corsair Pro XS

SPECIFICATIONS

ASAHI Corsair Pro XS

TIP ENTRY PROFILE	SHAFT O.D.	GW COMPATIBLE	CONSTRUCTION
1.3Fr (0.44mm)	**Distal 2.1Fr** (0.71mm) **Proximal 2.9Fr** (0.95mm)	**0.014"** (0.36mm)	**SHINKA-Shaft**





Low profile
1.3 Fr tip
2.1 Fr distal

Flexibility
and
Trackability

10 x
Torqueable

Trackability in tortuous anatomies
and
Crossability within tight lesions

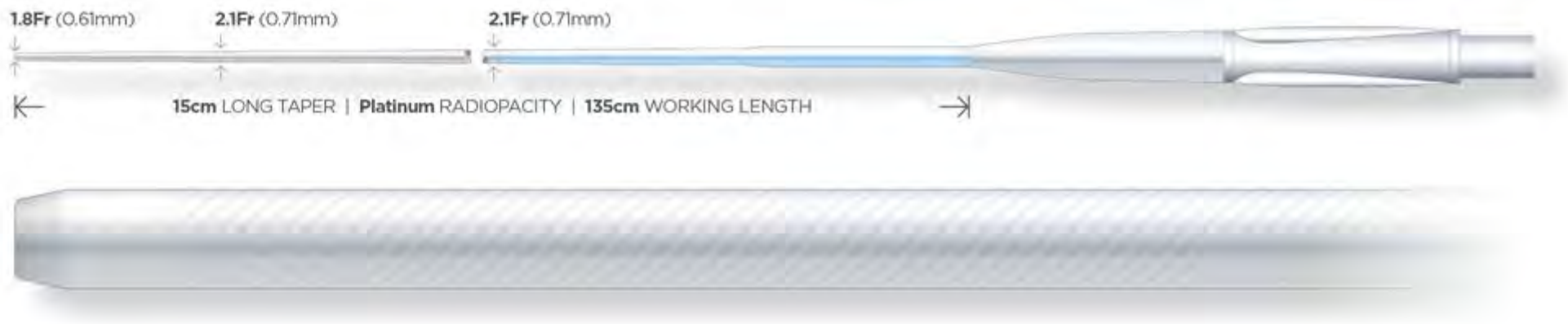
Your dreams. Woven together.
ASAHI INTECC

ASAHI Tornus

SPECIFICATIONS

Tornus

TIP ENTRY PROFILE	SHAFT O.D	GW COMPATIBLE	CONSTRUCTION
1.8Fr (0.61mm)	**2.1Fr** (0.71mm)	**0.014"** (0.36mm)	**Stainless Steel**



2.1Fr and **2.6Fr**

Full Metal Shaft

High rotation power for very calcified lesions

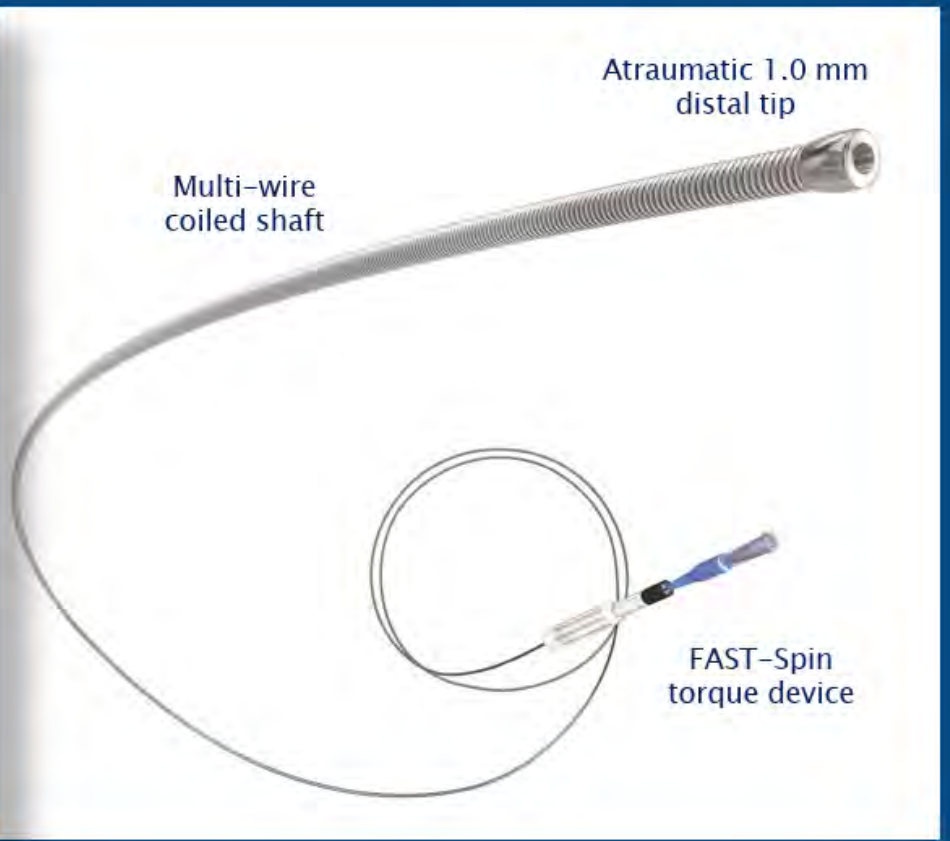
Your dreams. Woven together.

ASAHI INTECC

CROSSBOSS Features

The CrossBoss Catheter is designed to quickly and safely deliver a guidewire via true lumen or subintimal pathways in coronary arteries

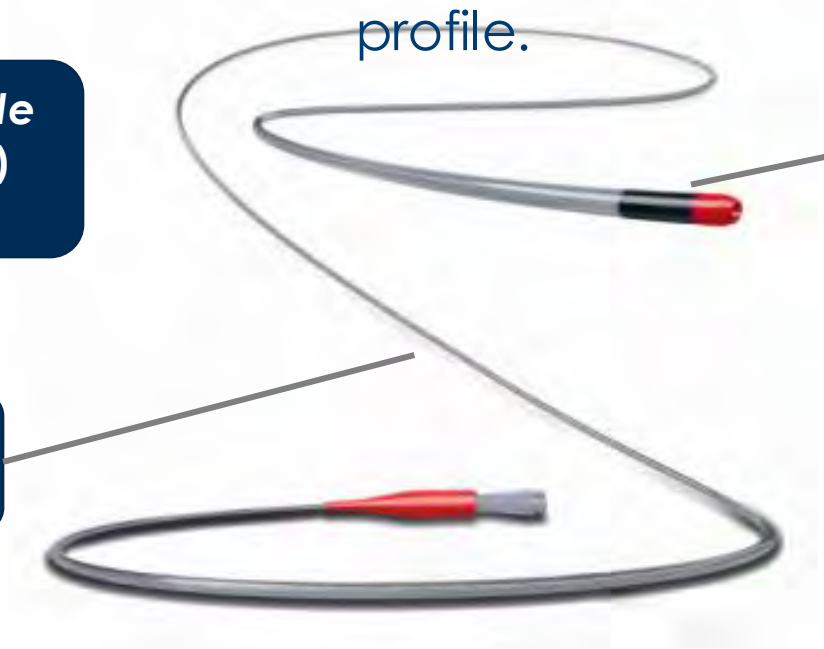
- Fast-Spin torque device allows rapid rotation of the catheter to facilitate crossing
- Multi-wire coiled shaft provides precise turn-for-turn torque response
- Atraumatic, rounded tip reduces risk of perforation
- 0.014" (0.36mm) guidewire compatible
- 6F (2.0mm) guide catheter compatible



MAMBA Family Features

With their proprietary tapered coil and integrated tip, MAMBA™ torquable microcatheters are engineered to be resilient and optimize support without compromising flexibility and profile.

Small Crossing Profile
MAMBA Flex (2.1F)
MAMBA (2.4F)



Integrated Tip

Resilient, Tapered Coil Shaft

HydroPass®: Durable & Lubricious Coating

MAMBA (135cm)

- ✓ 3 taper zones for exceptional wire penetration support
- ✓ Highly pushable and torquable

MAMBA Flex (135 & 150cm)

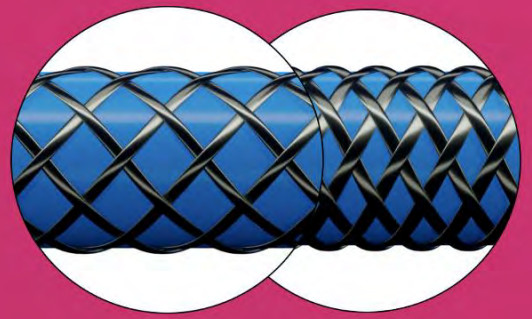
- ✓ 5 coil taper zones for enhanced flexibility, deliverability, and wire follow

navitian

Coronary microcatheter

High penetration capacity due to an optimized design
Tip profile: 1.6F / Crossing profile 1.8F

135 & 150cm



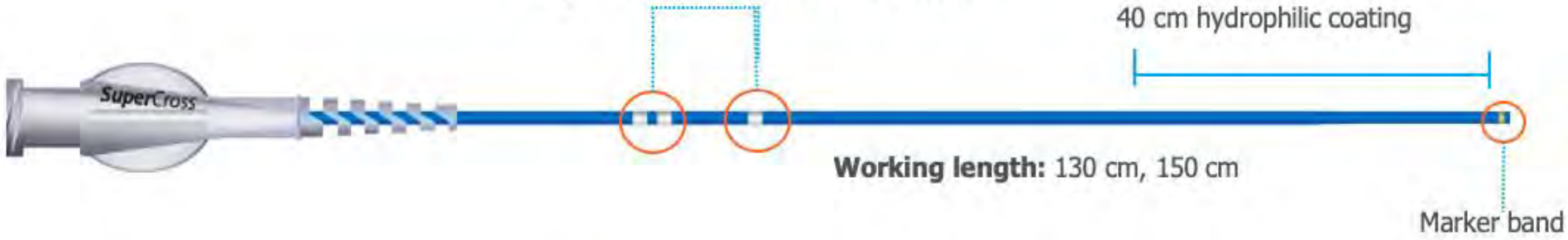
Optimal pushability due to a proprietary braiding technology

iVascular
therapies for living

Simplifying the complex

SuperCross™ FT Microcatheter

Positioning marks:
Single at 95 cm and double at 105 cm



Stainless Steel Braid
For flexibility, pushability and kink resistance

PTFE inner layer
for superb guidewire movement & delivery

Tapered distal O.D. for enhanced catheter delivery through tortuous vessels

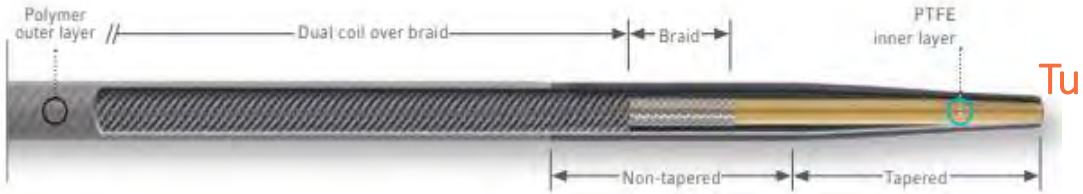
Teleflex™
Empowering the future of healthcare

Turnpike™ Microcatheter Family

MCI-2023-0514

Turnpike Catheter

Flexible, tapered tip for superior tracking

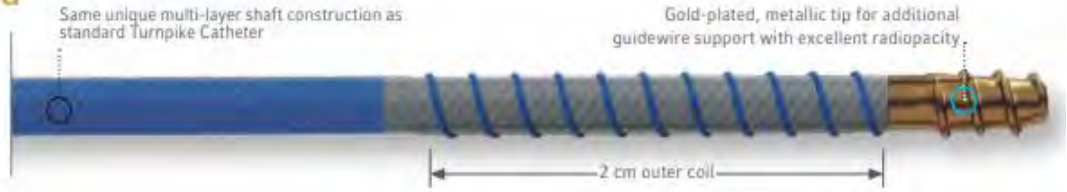


Turnpike Spiral Catheter

Distal nylon coil provides rotational assistance for impressive trackability

Turnpike Gold Catheter

Gold-plated, threaded metallic tip and distal nylon coil for enhanced advancement



Turnpike LP Catheter

Low-profile version with greater tip and distal shaft flexibility for advancement through extreme tortuosity

Turnpike Catheters offer Superior Torque Transmission

Braid
For tensile strength

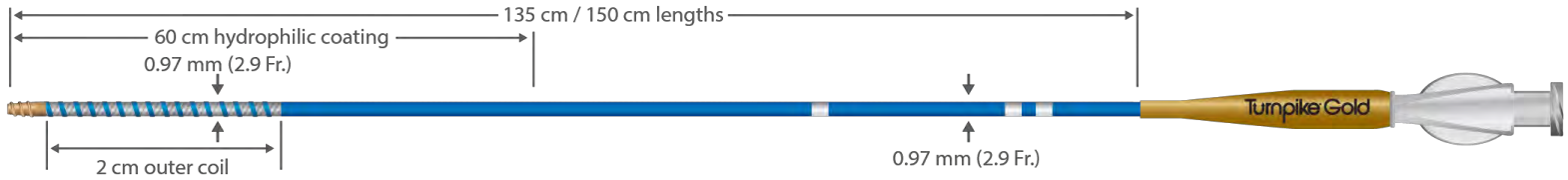
Polymer outer layer + hydrophilic coating
lubricious outer surface

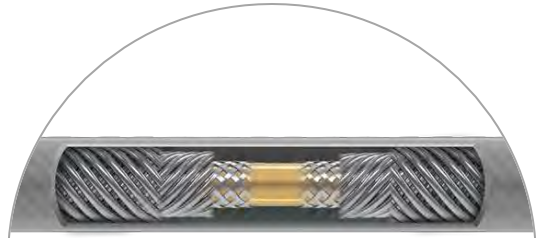
PTFE liner
Facilitates smooth guidewire movement

Dual-layer, bidirectional coil
Adds kink-resistance & torque
(single coil in distal 21 cm of LP shaft)

Teleflex

• *Turnpike Gold Catheter*

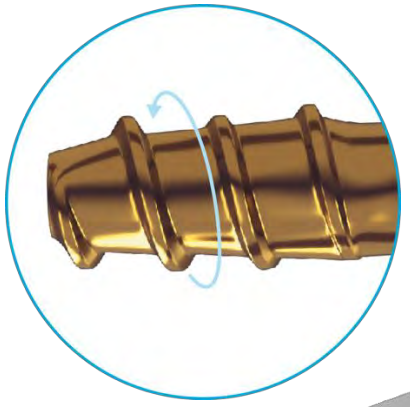




5-layer shaft construction includes dual-layer coils and a braid for an ideal combination of flexibility and torque response

Spiral shaft, threaded metal tip

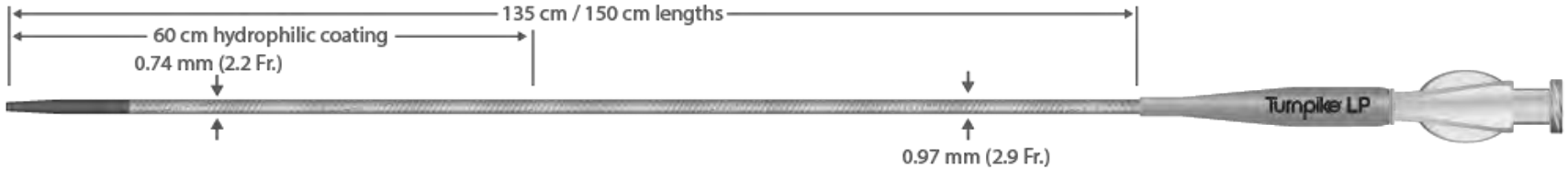
Antegrade escalation device for resistant lesions

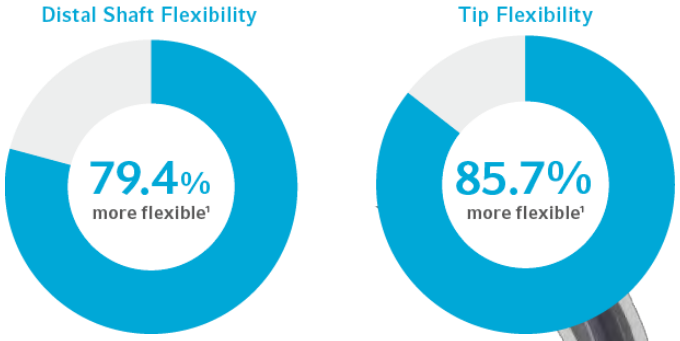


Gold-plated threads on distal tip provide leading edge rotational advancement with visibility under fluoroscopy

Teleflex

• *Turnpike LP Catheter*





Torqueable Microcatheters

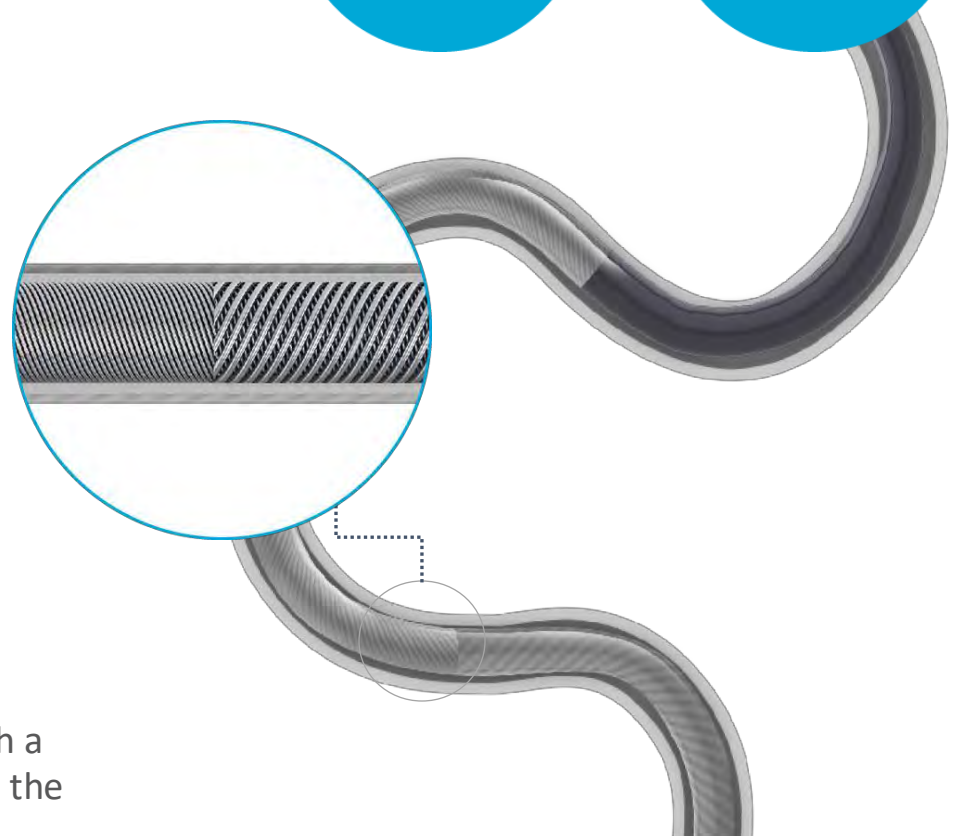
15% smaller crossing profile*

- Turnpike Catheter 2.6 Fr.
- Corsair Microcatheter 2.6 Fr.
- Turnpike LP Catheter 2.2 Fr.

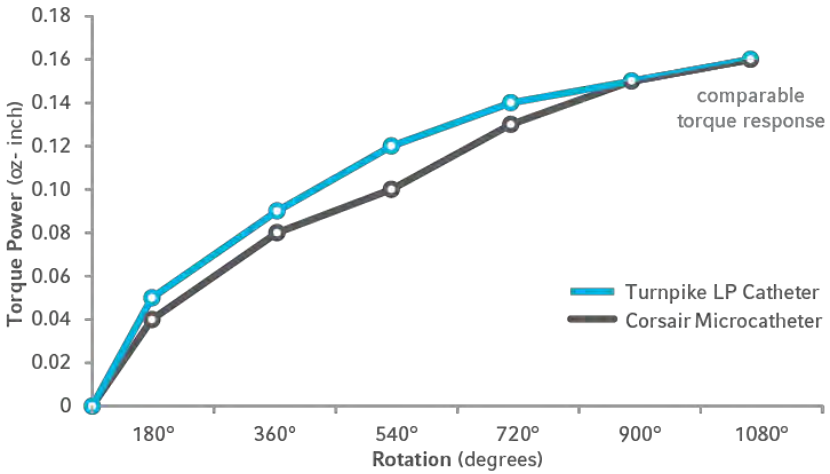
Non-Torqueable Microcatheters

- Caravel Microcatheter 1.9 Fr.
- Finecross Microcatheter 1.8 Fr.

* Based on diameter values reported on competitive websites at the time of this publication.



Clockwise Torque Response²

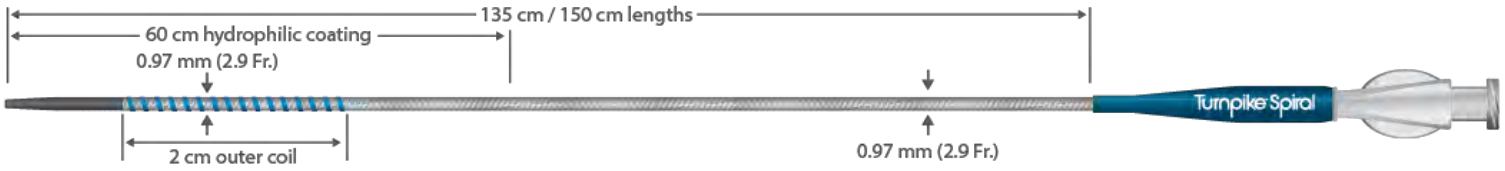


Low-profile shaft, flexible tip

Turnpike LP Catheter offers impressive torqueability with a smaller crossing profile than the Corsair Microcatheter

Teleflex

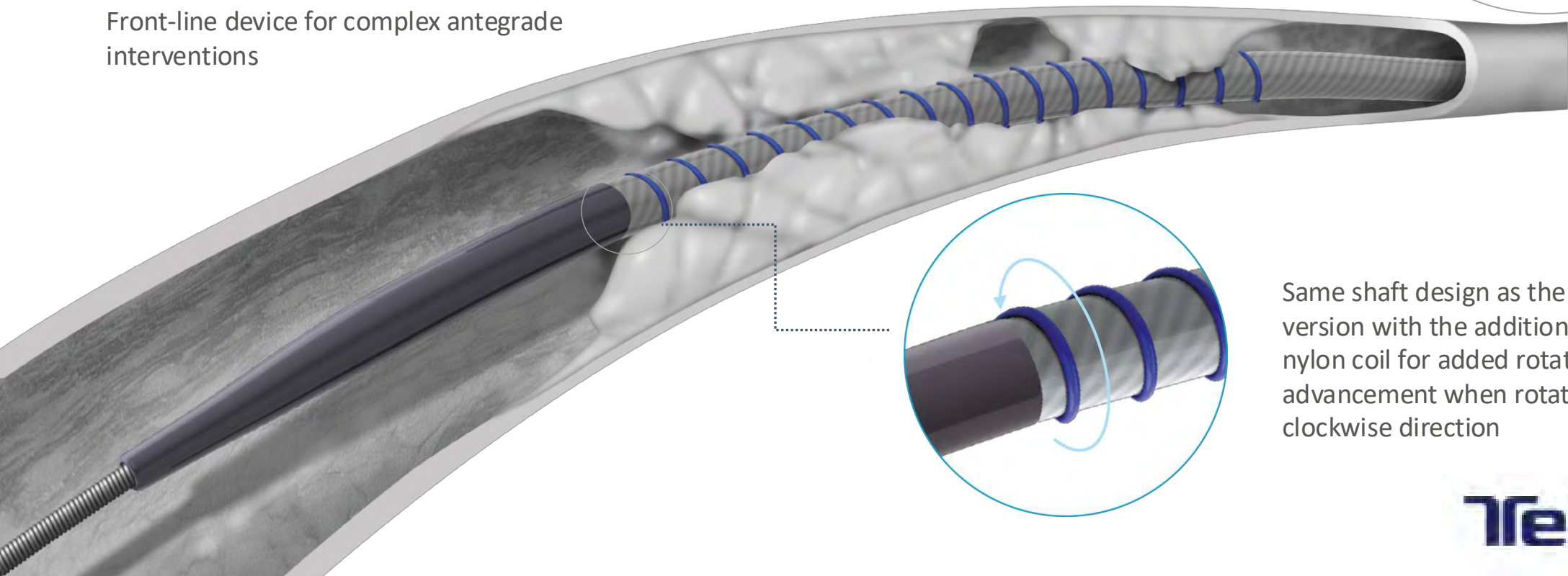
• *Turnpike Spiral Catheter*



5-layer shaft construction includes dual-layer coils and a braid for an ideal combination of flexibility and torque response

Spiral shaft, flexible tip

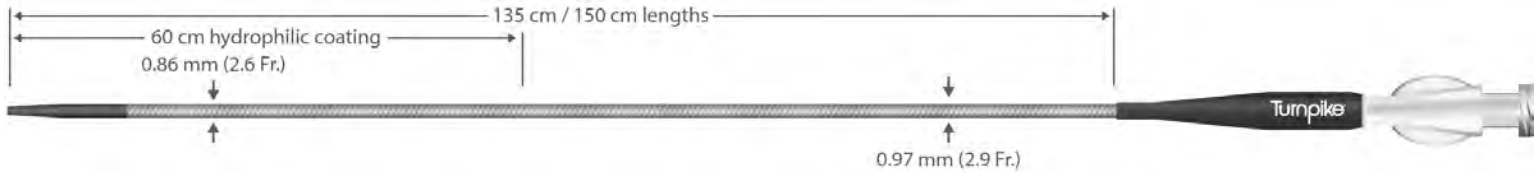
Front-line device for complex antegrade interventions



Same shaft design as the standard version with the addition of a 2 cm outer nylon coil for added rotational advancement when rotated in a clockwise direction

Teleflex

• *Turnpike Catheter*

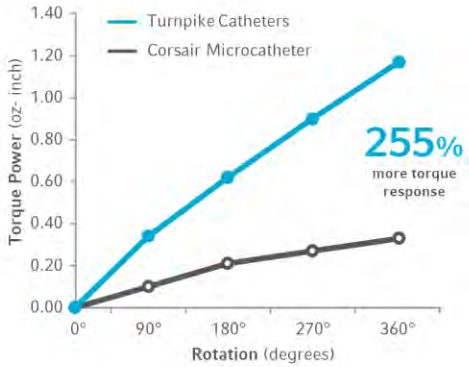


Standard version, flexible tip

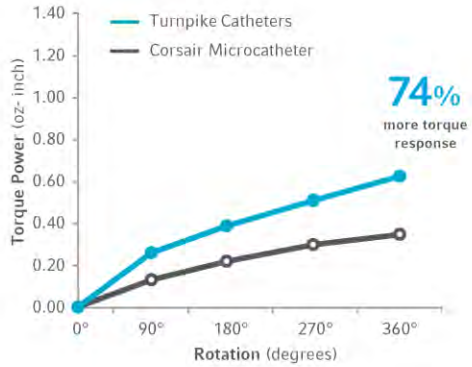
Workhorse antegrade device, as well as retrograde escalation device for increasing torque power and guidewire support[1] in resistant septal collaterals

Superior Bidirectional Torque Response*

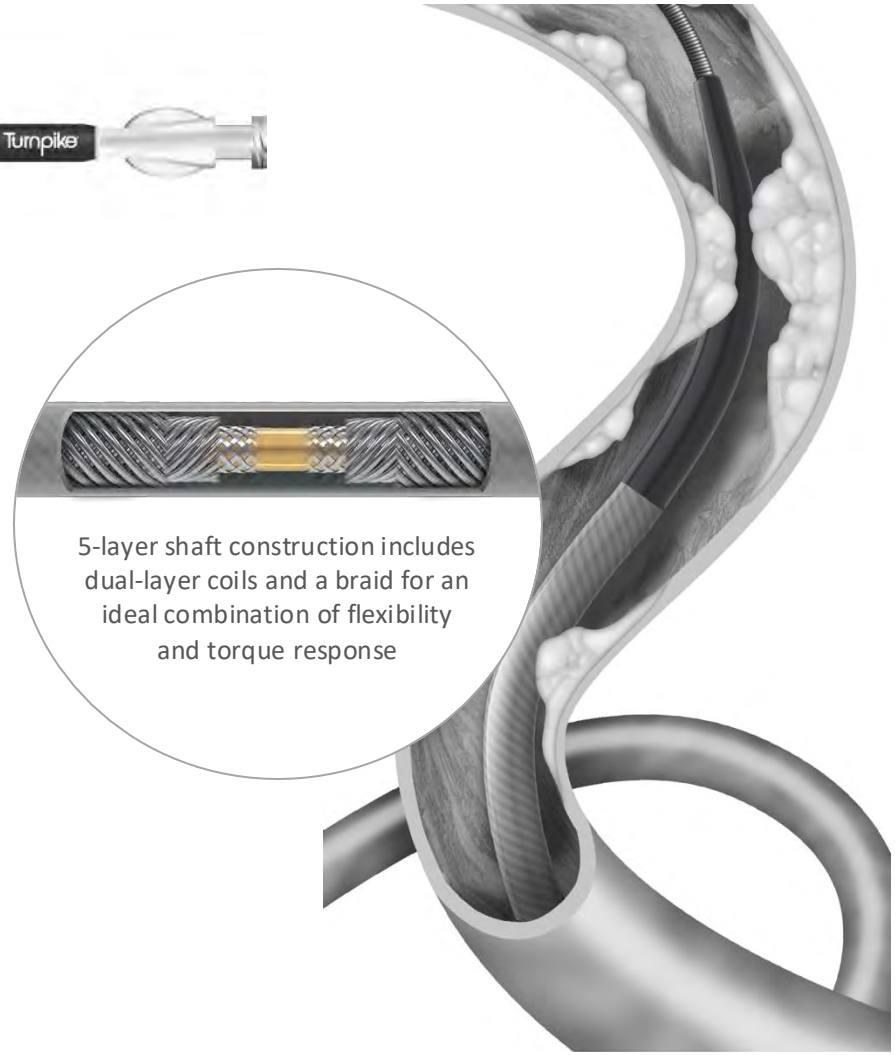
Clockwise Torque Test



Counter-Clockwise Torque Test



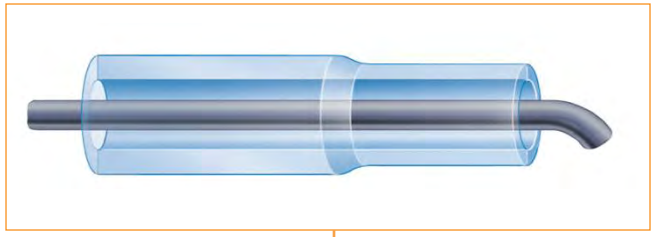
* All values based on bench test data averages, n=3, performed by Teleflex. Bench test results may not necessarily be indicative of clinical performance. Data on file.



Teleflex

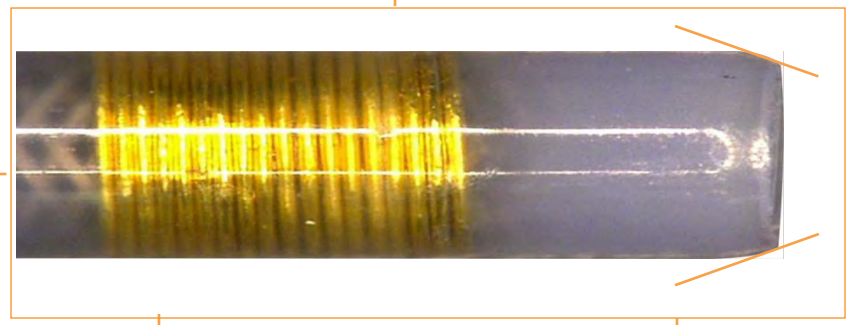
FineCross®

Single Lumen Microcatheter



Conventional tip

FineCross tip

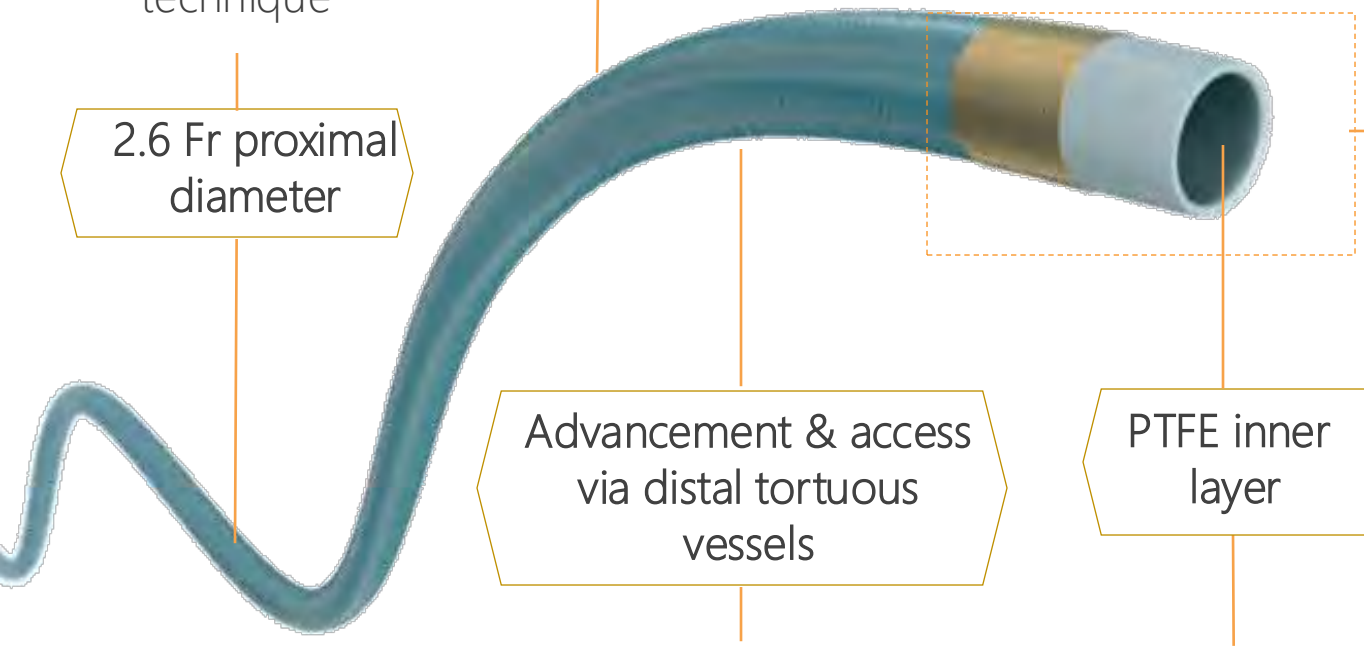


Large inner diameter

Optimal guidewire handling

Allows buddy wire technique

2.6 Fr proximal diameter



Advancement & access via distal tortuous vessels

Hydrophilic coating & flexible distal segment

PTFE inner layer

Smooth guidewire handling

Stainless steel braided shaft

Strong guidewire Support

Tapered inner & outer diameters over entire length (2.6 Fr prox to 1.8 Fr dist)

Greater lesion Crossability

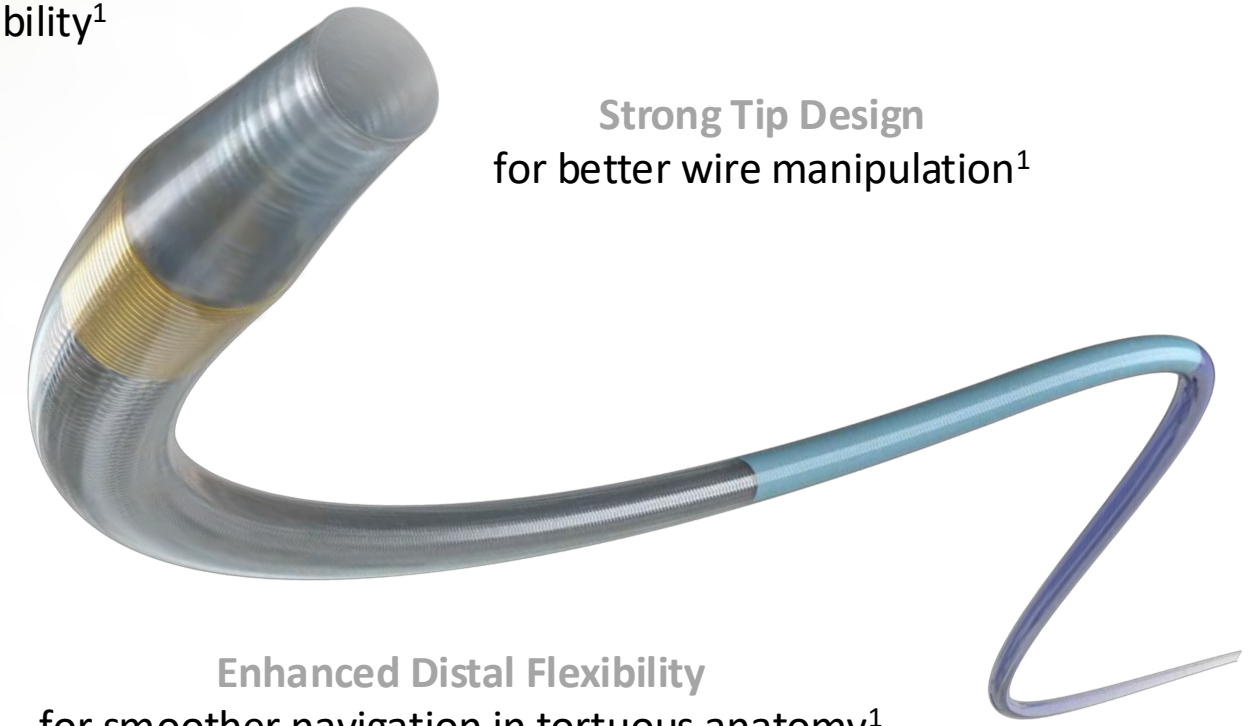
TERUMO INTERVENTIONAL SYSTEMS

Finecross™ m3 – features & benefits

Finely Tapered Tip
for high trackability[1]

Strong Tip Design
for better wire manipulation[1]

Large Tip Inner Lumen
for better selective injections and wiring ability[1]



Novel Hydrophilic Coating
for improved advancement in tight vessels and lesion crossing[1]

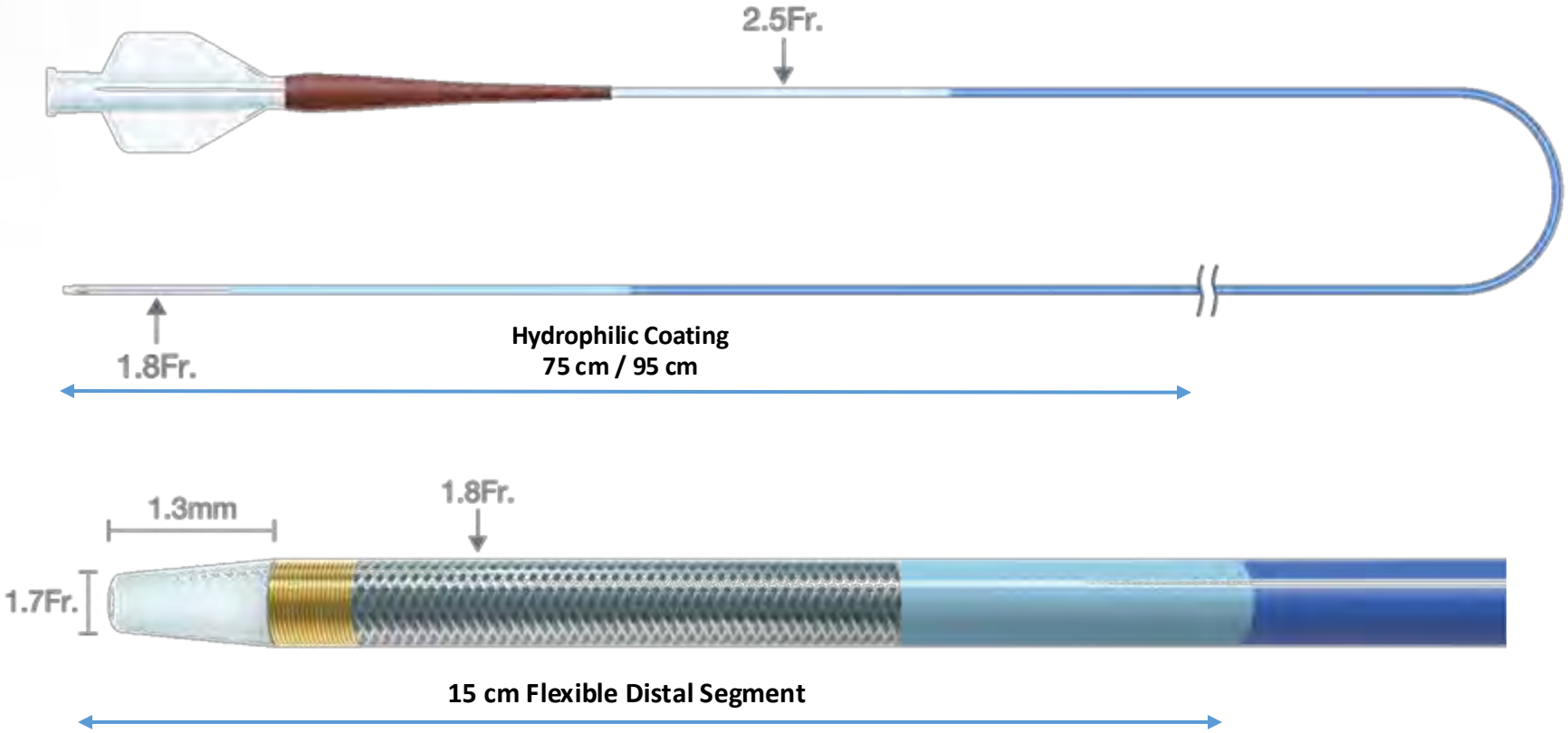
Enhanced Distal Flexibility
for smoother navigation in tortuous anatomy[1]

1 Data on File at Terumo Corporation.

TERUMO INTERVENTIONAL SYSTEMS

FINECROSS™ M3 - specifications

Shaft Braiding Stainless Steel
Shaft Coating Hydrophilic Coating
Inner Layer PTFE
Tip Inner Diameter 0.018'' / 0.45 mm
GW Compatibility 0.014'' / 0.36 mm
Usable Length 130 and 150 cm
Radiopaque Marker 0.7 mm gold marker at 1.3 mm from tip



TERUMO INTERVENTIONAL SYSTEMS

Dual Lumen Microcatheters

Rapid Exchange (RX)

Elong

NHancer RX

Sasuke

TwinPass

Over The Wire (OTW)

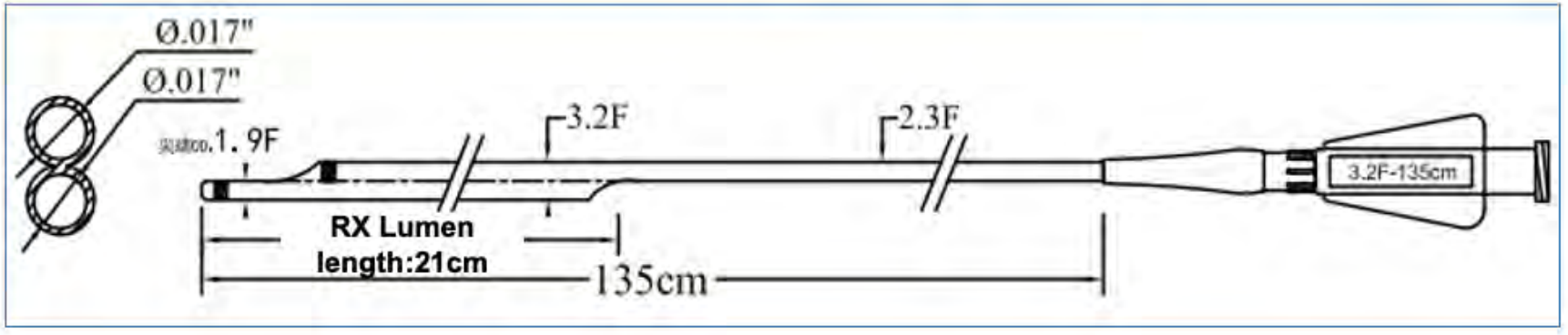
ReCross

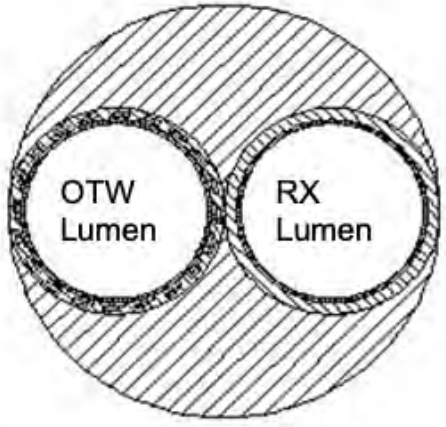
APTMedical

Elong™ Dual Lumen Microcatheter

Sintec Group®
Advanced Medical Devices

Optimal solution for complicated CTO cases with multiple devices used





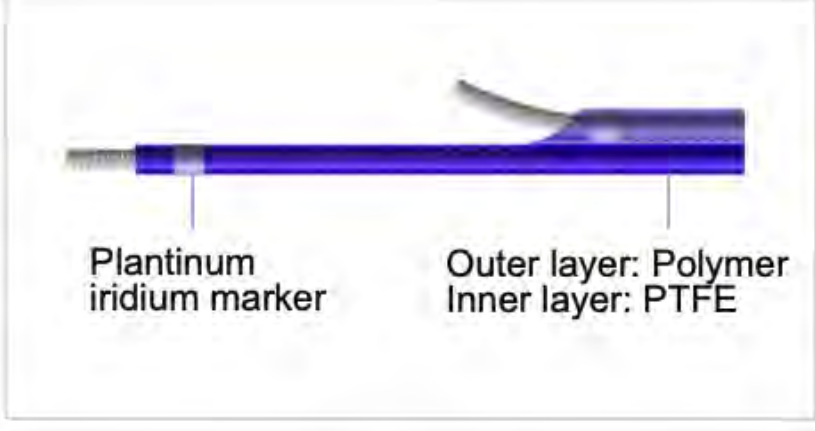
Hydrophilic coating on the distal part

Can be used for:

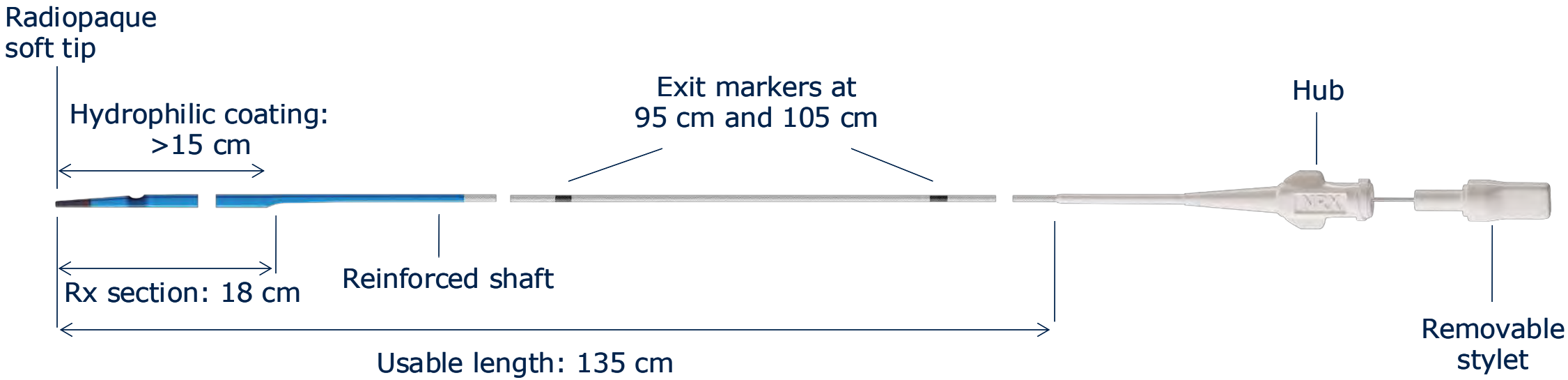
- Parallel Wire (Seesaw wiring)
- Reverse Wiring

Dual Lumen

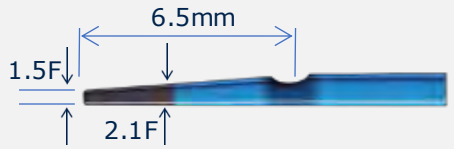
- RX lumen provides rapid exchange of devices
- OTW lumen provides support

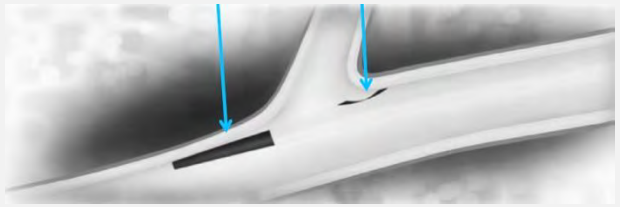


Dual Lumen RX Microcatheter



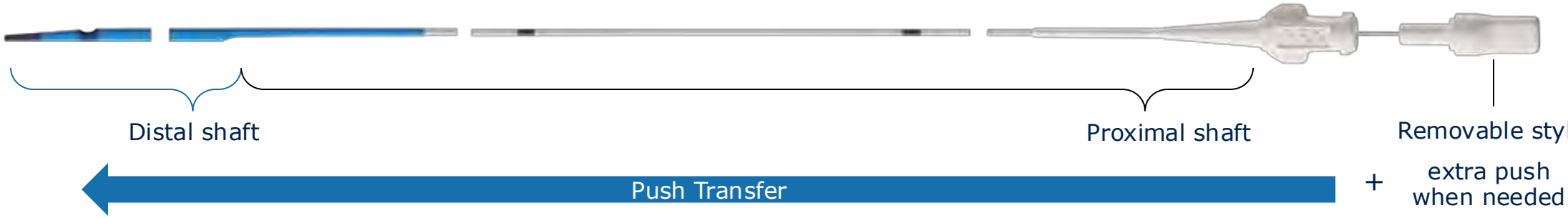
- **Radiopaque soft tip & side exit port**



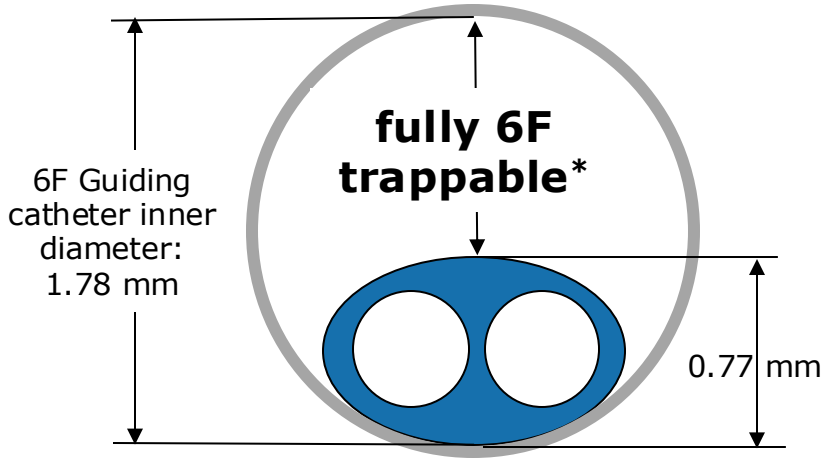


Radiopaque, soft tapered tip and true exit port visibility

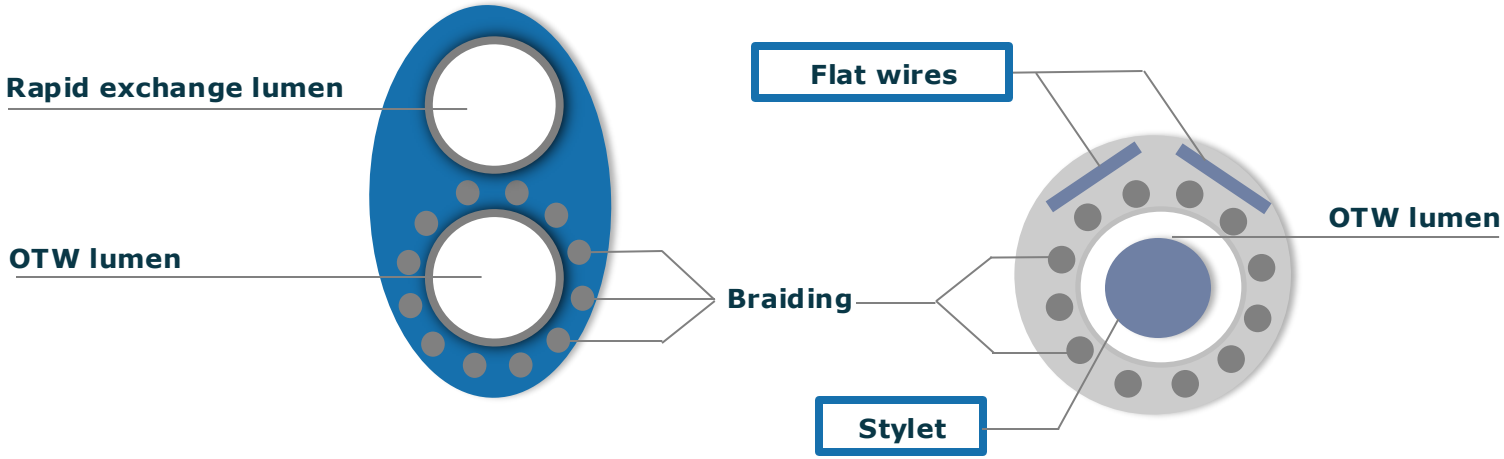
Dual Lumen RX Microcatheter



6F trappable small profile oval shaft



Reinforced oval shaft with braiding optimal push and positioning



- 121 w= width, h= height, d= diameter
- *Trappable with regular balloon in 6F. 1. IMDS data on file. 2. Adapted from Pyxaras et. al. EuroIntervention 2021;17:e966-e970

NHANCER Rx

In partnership with IMDS INTERVENTIONAL MEDICAL DEVICE SOLUTIONS

BIOTRONIK excellence for life

Dual Lumen RX Microcatheter

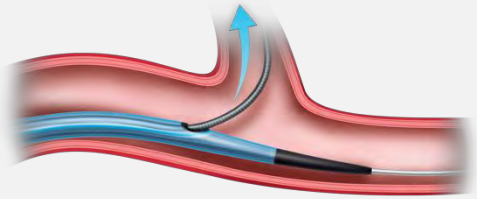
Application versatility

NHancer Rx is a versatile tool suitable for everyday complexity and select CTO applications:

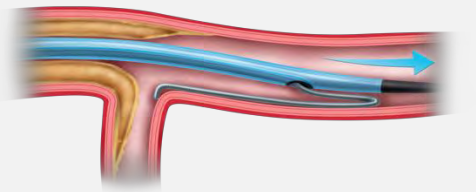
- Side branch access and protection in challenging situations
- Selective contract injection
- Wire support in select CTO applications

Everyday complexity (non-CTO applications)

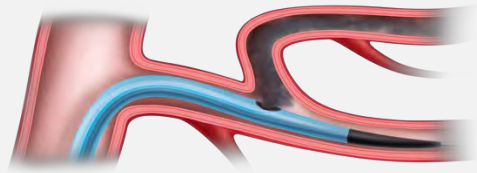
Side branch access*



Reverse wire technique

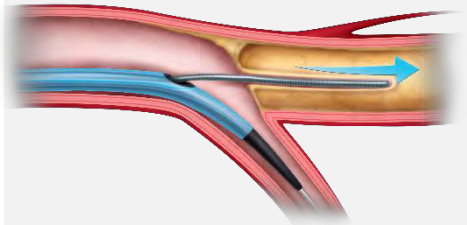


Selective contrast injection

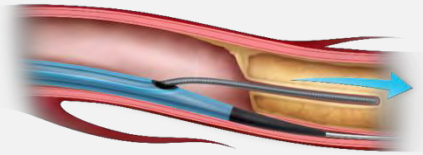


CTO applications

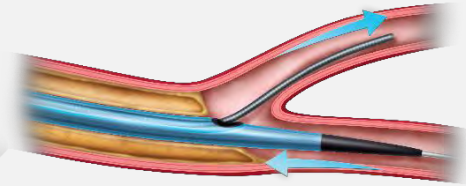
Side branch anchor



Subintimal anchor



Side branch protection



- CTO = Chronic Total Occlusion
- * Applicable also for access through stent struts.

ASAHI SASUKE

Your dreams. Woven together.
ASAHI INTECC

SPECIFICATIONS
ASAHI SASUKE

TIP ENTRY PROFILE	SHAFT O.D.	GW COMPATIBLE
1.5Fr (0.50mm)	**Distal 2.5 / 3.3Fr** (0.84 / 1.08mm) **Proximal 3.2Fr** (1.05mm)	**0.014"** (0.36mm)

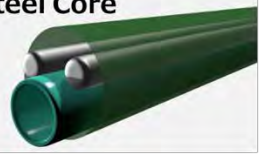
ASAHI's Double Lumen Catheter to maximize stability & control

1. 6.5mm tip to OTW

2. L³ Coating

50X

3. Double Stainless Steel Core

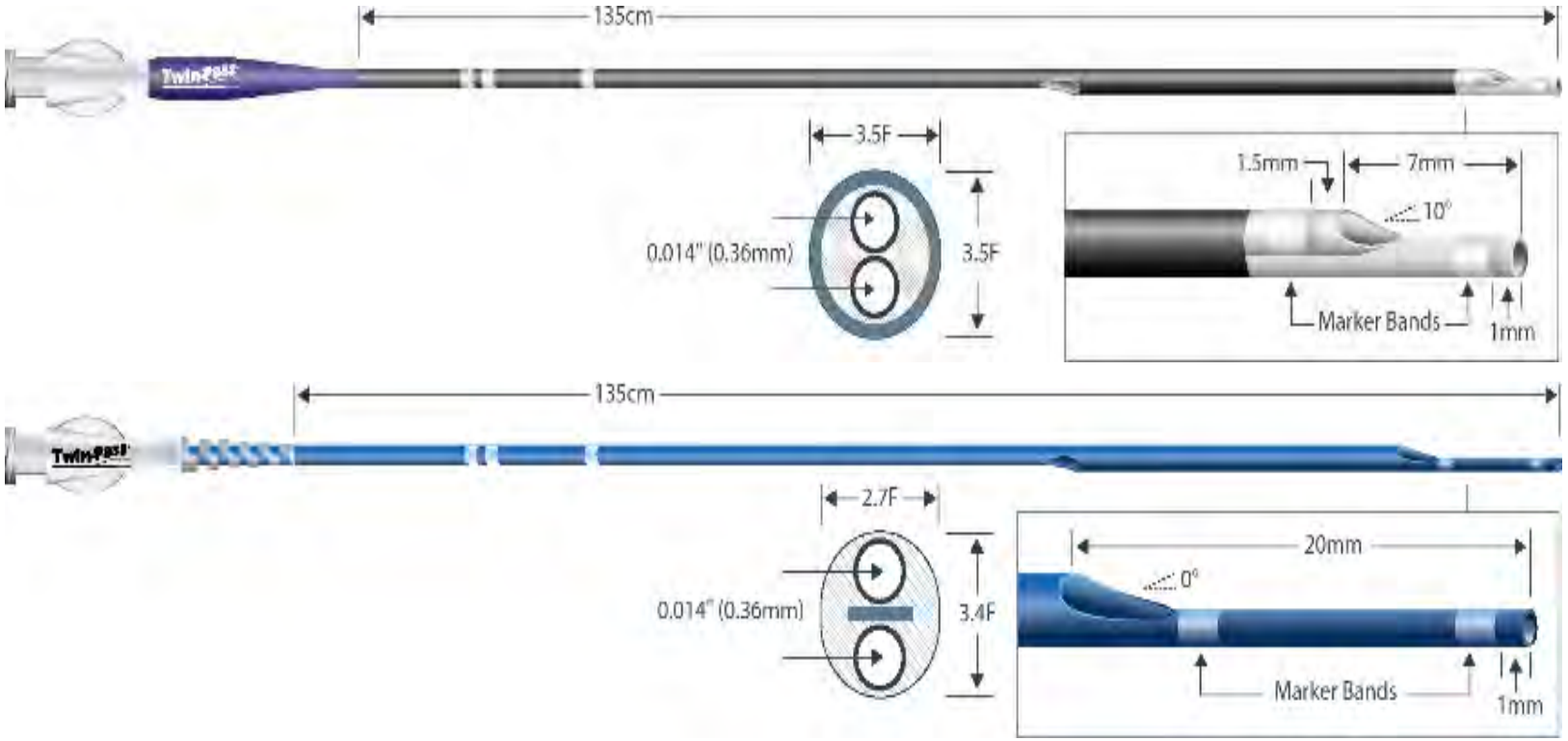


4. Oval Design

5. Visible Exit

6. Soft Tapered Tip

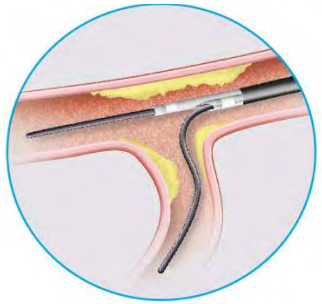
TwinPass



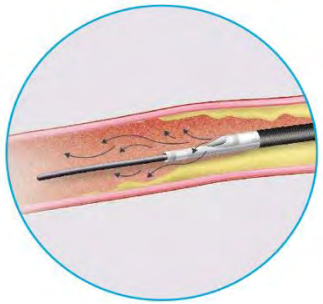
Twin-Pass Torque Catheter:
Stainless steel, braided shaft for torque response and kink resistance in tortuosity

Twin-Pass Catheter:
Conventional fluid delivery and second guidewire delivery in main vessel

Access or Delivery while maintaining Wire Position



Supportive Access for Bifurcations and Wire Exchanges



Targeted Delivery of Medication or Contrast

Teleflex

Dual Lumen OTW Microcatheter

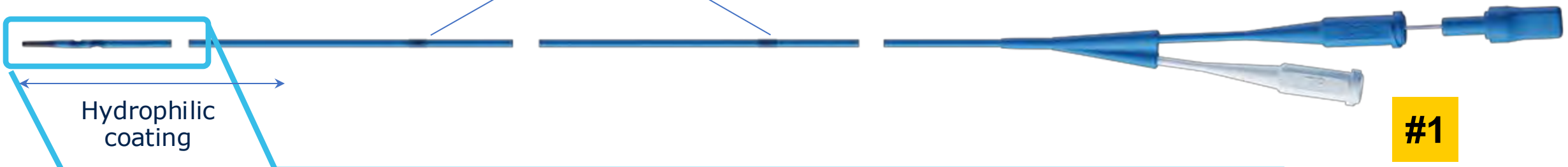
Radiopaque
a-traumatic tip

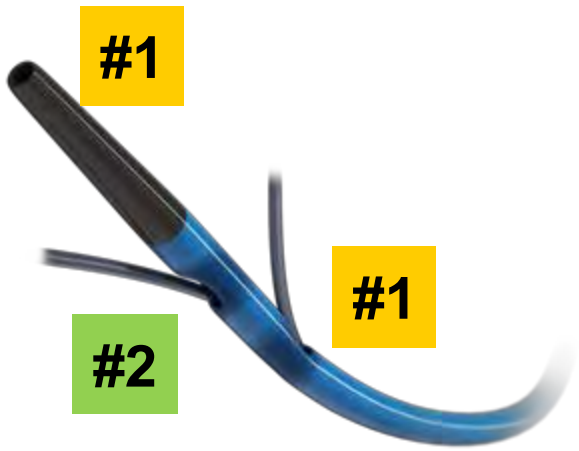
Exit marker at 95 cm and 105 cm

#2

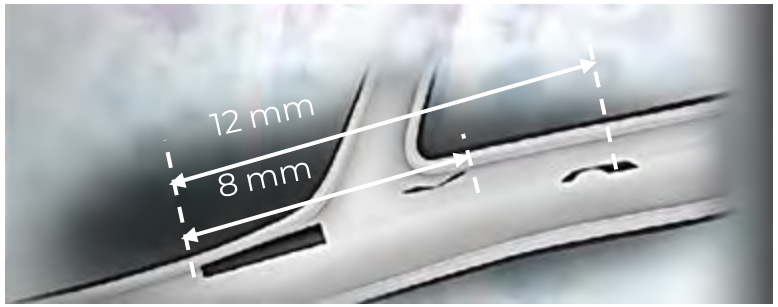
#1

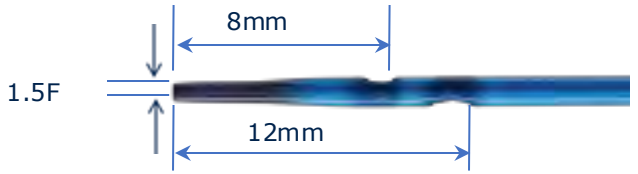
Hydrophilic
coating



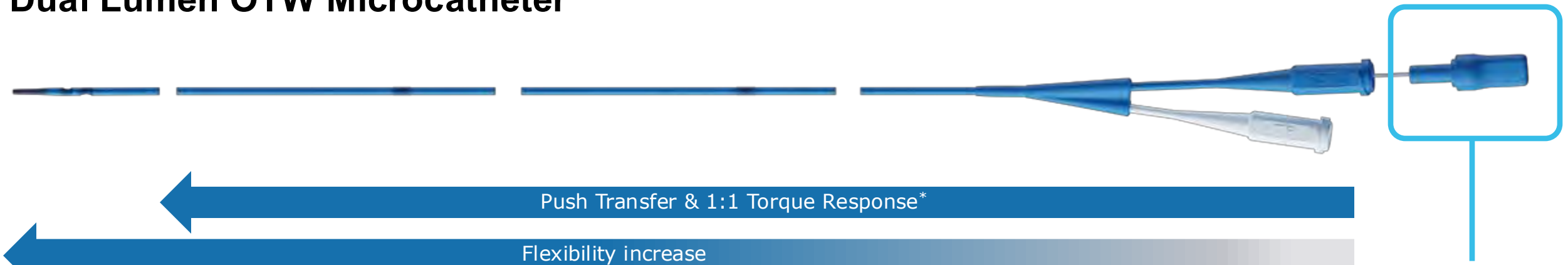


Two separate OTW lumens and 3 exit ports

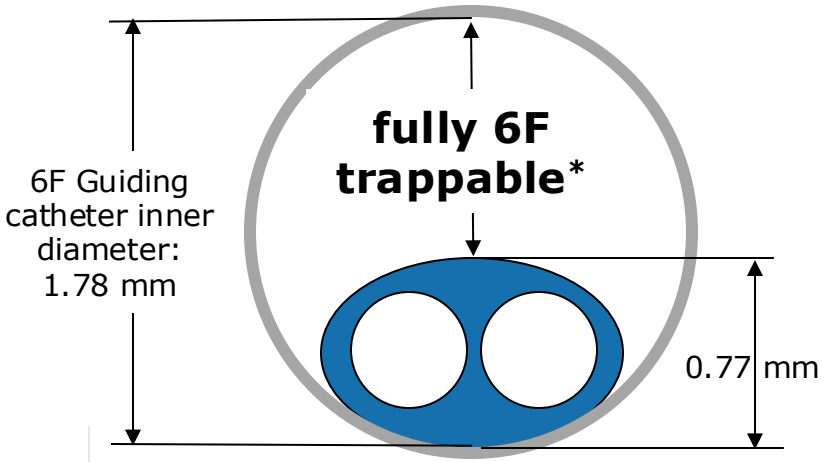




Dual Lumen OTW Microcatheter



6F trappable small profile oval shaft



Distal oval & proximal reinforced shaft

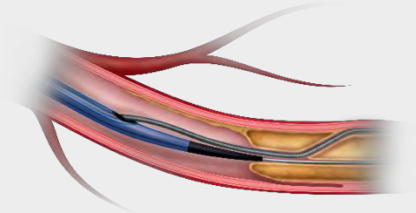
Optimal push

Dual Lumen Microcatheter

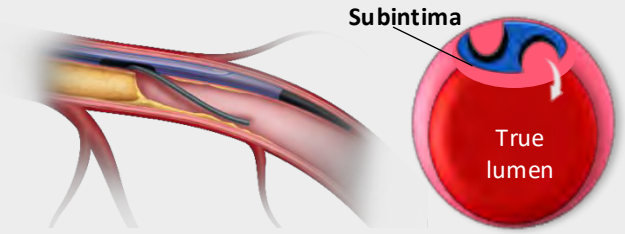
Application versatility

Unique antegrade CTO applications

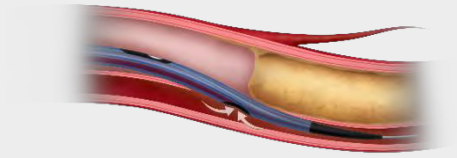
Escalation options



Antegrade Dual Access (ADA)



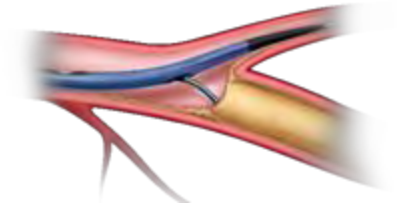
Subintimal Guidewire Redirection (SGR)*



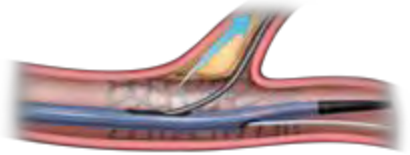
Hematoma Decompression**

- Side branch applications

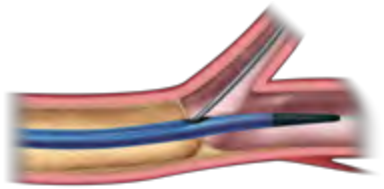
Anchor



Access#

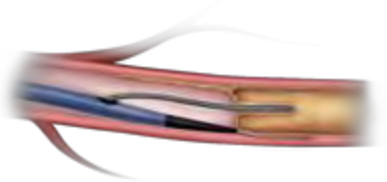


Protection

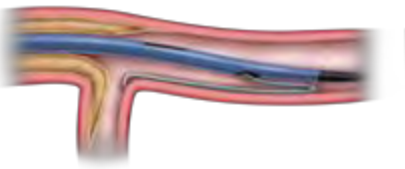


- Further applications

Subintimal anchor



Reverse wire technique



Selective contrast injection

- *Applicable in both situations of intended and unintended subintimal wire passage. ** Procedural optimization and complication management where required. # Applicable also for access without stent.

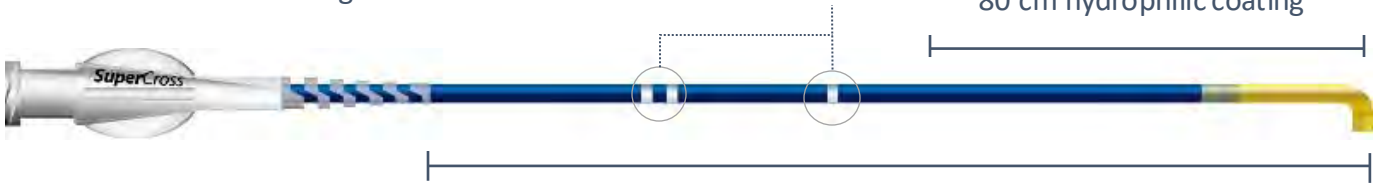
Angled Tip Microcatheters

SuperCross

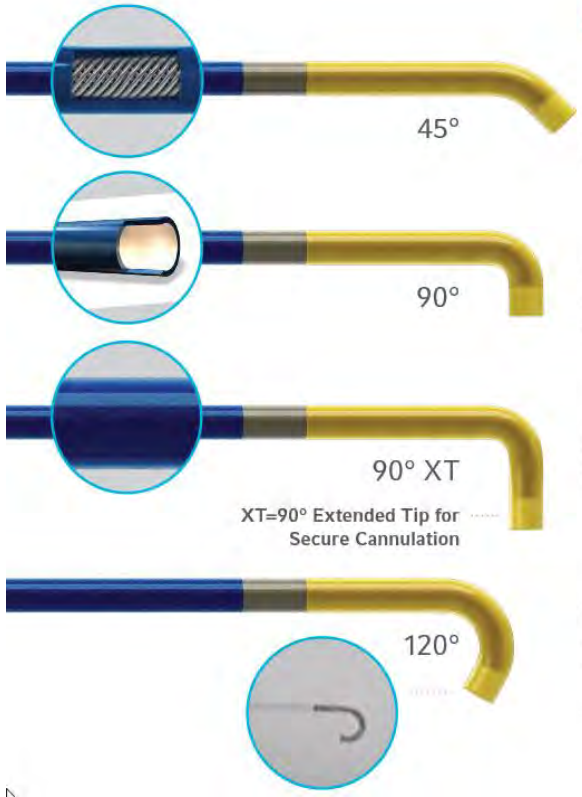
Venture

SuperCross Angled Tip Microcatheter

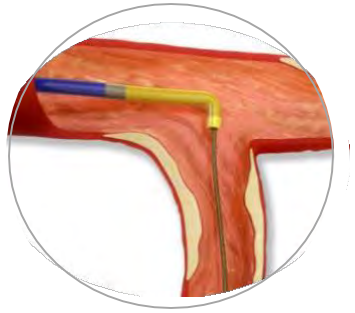
Positioning marks:
Single at 95 cm and double at 105 cm

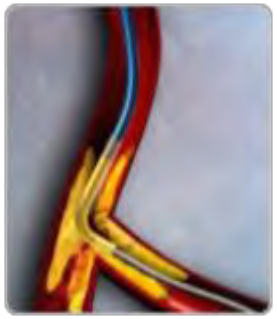


Superb Crossability on challenging Cases



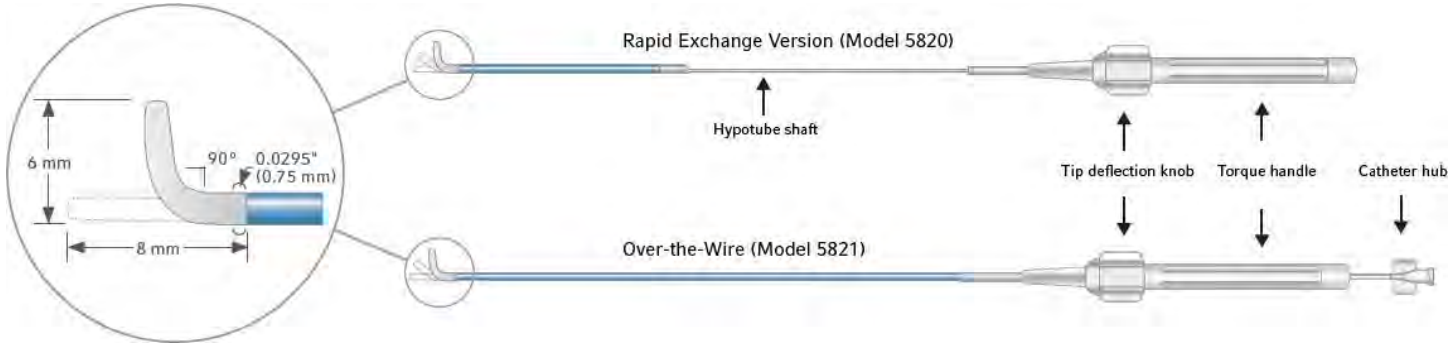
Designed to navigate and provide support for guidewires in tortuous anatomy and bifurcated vessels



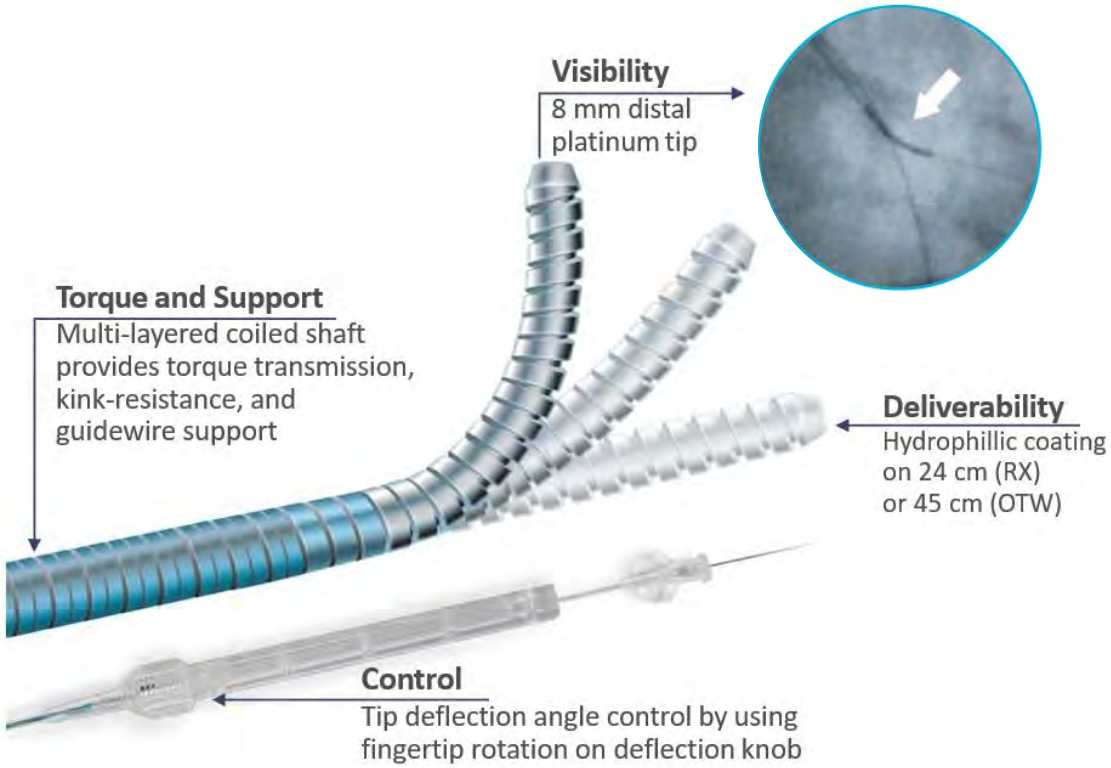


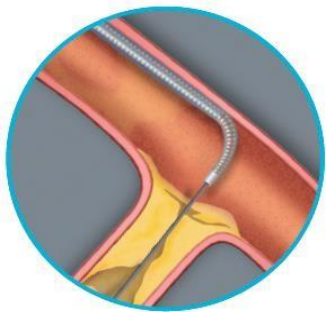
Teleflex

Venture Catheter

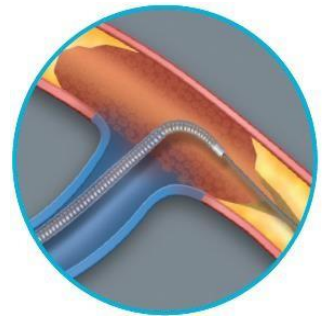


Deflectable Tip Plus Torquable Shaft Equals Excellent Steerability





Directed backup support for crossing ostial lesions



Angulated take offs and tortuous anatomy

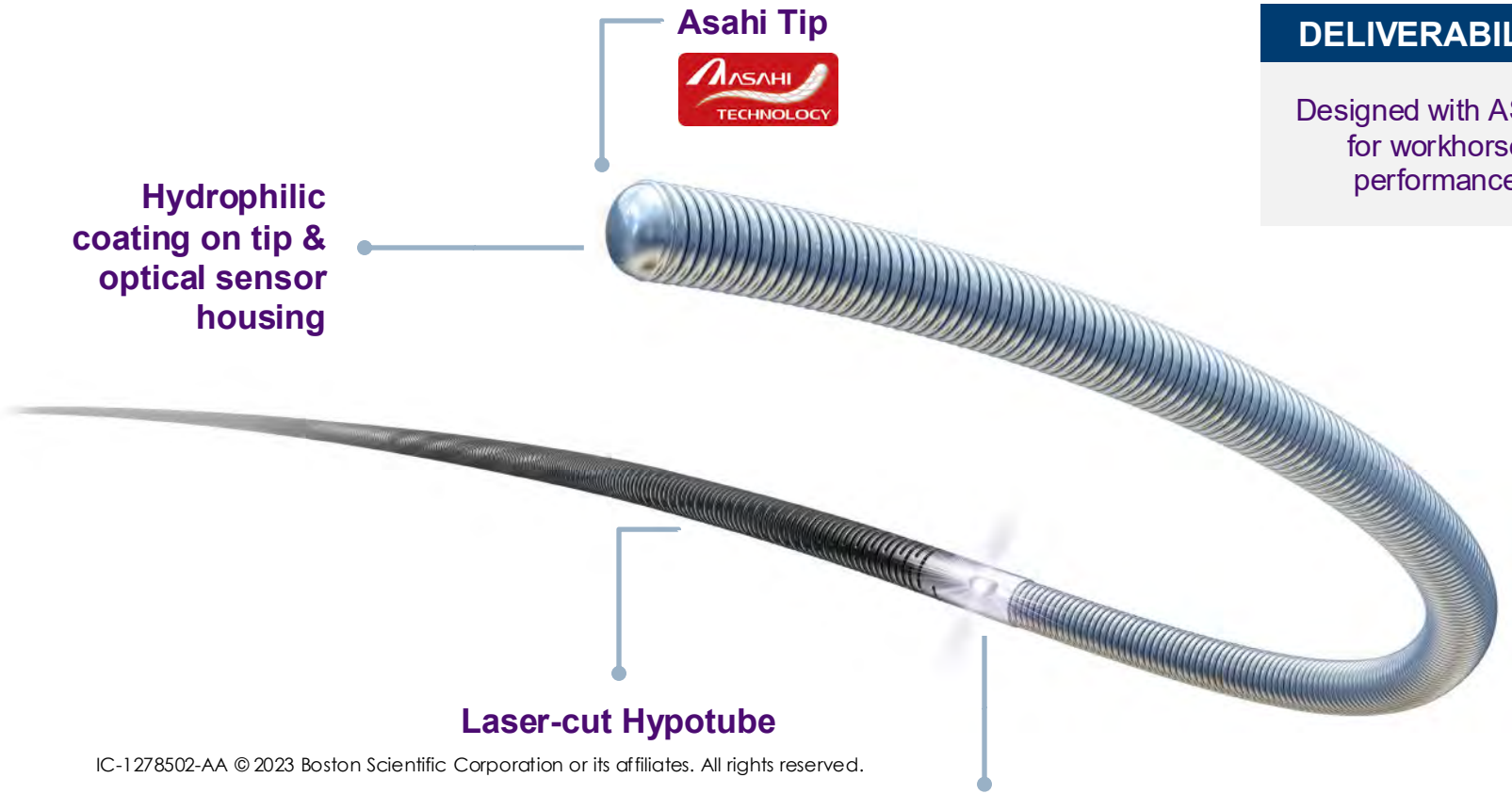
Teleflex

Physiology

COMET II Pressure Wire Features

Physiologic assessment is essential information in comprehensive stenosis assessment and treatment decisions

DELIVERABILITY	ACCURACY	USABILITY
Designed with ASAHI for workhorse performance	Zero-to-negligible drift	One wire for entire procedure



AVVIGO + Features

Automated Lesion Assessment (ALA™)

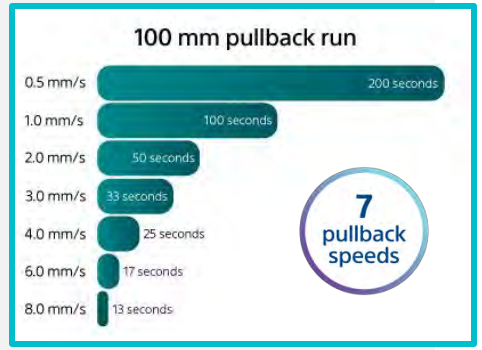
Precise Vessel Measurements[1]

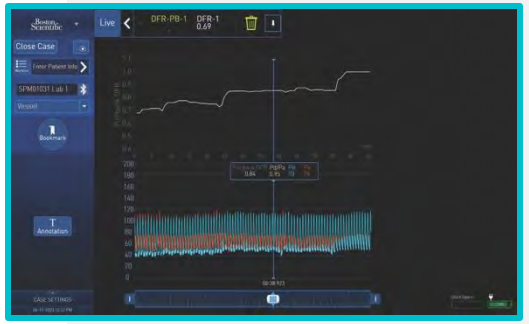
- AI-enhanced lumen and vessel borders
- Vessel profile
- Key frame markers

Fast Pullback §§

High quality images at the pullback speed you want

Automatic pullback now includes faster speeds up to 8 mm/s allowing for quicker vessel imaging





PhysioMap™

Enhanced DFR guidance*

Optimize your treatment decisions by quickly locating regions of pressure change during a pullback

Tableside Control §

Complete control from the sterile field

Operate IVUS and capture physiological measurements on your integrated system without leaving the sterile field

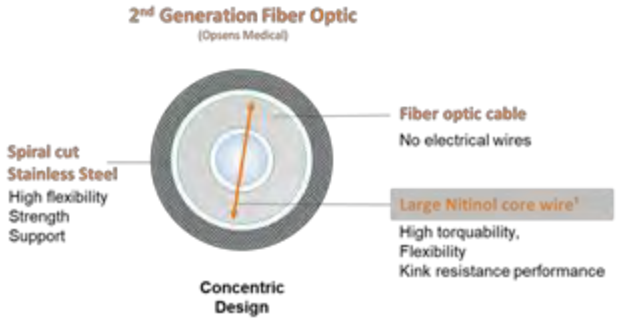
§§Fast pullback includes 0.5, 1, 2, 3, 4, 6, or 8 mm/s
*DFR or Diastolic hyperemia free ratio is a type of hyperemia free physiologic index
§Tableside controls available on integrated systems only

Images for educational purposes only and are not predictive of results in other cases.

OptoWire The best alternative in coronary physiology

PERFORMANCE

of the guidewire

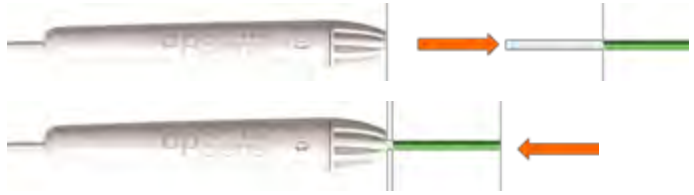


Key **design** advantages

- concentric spinning
- higher torque response
- low tip load

FREEDOM

to disconnect and reconnect



Key **connector** advantages

- Twist & lock mechanism
- No need to clean the wire
- No need to re-equalize

ACCURACY

of the sensor

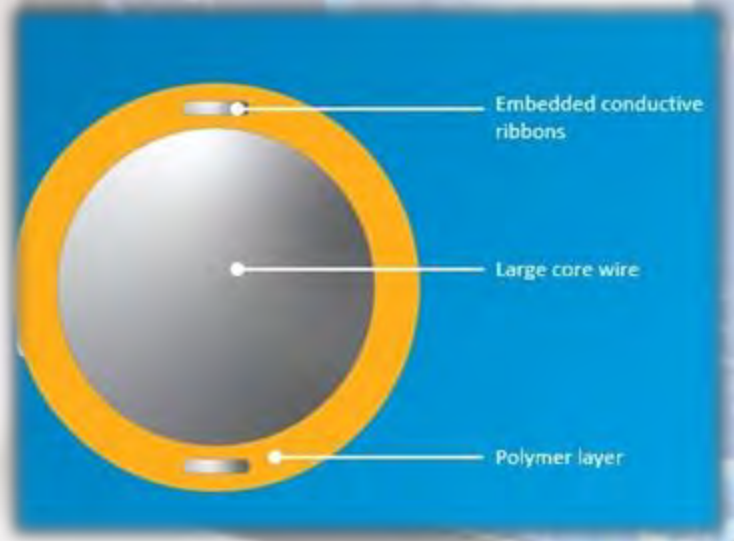
Key **sensor** advantages

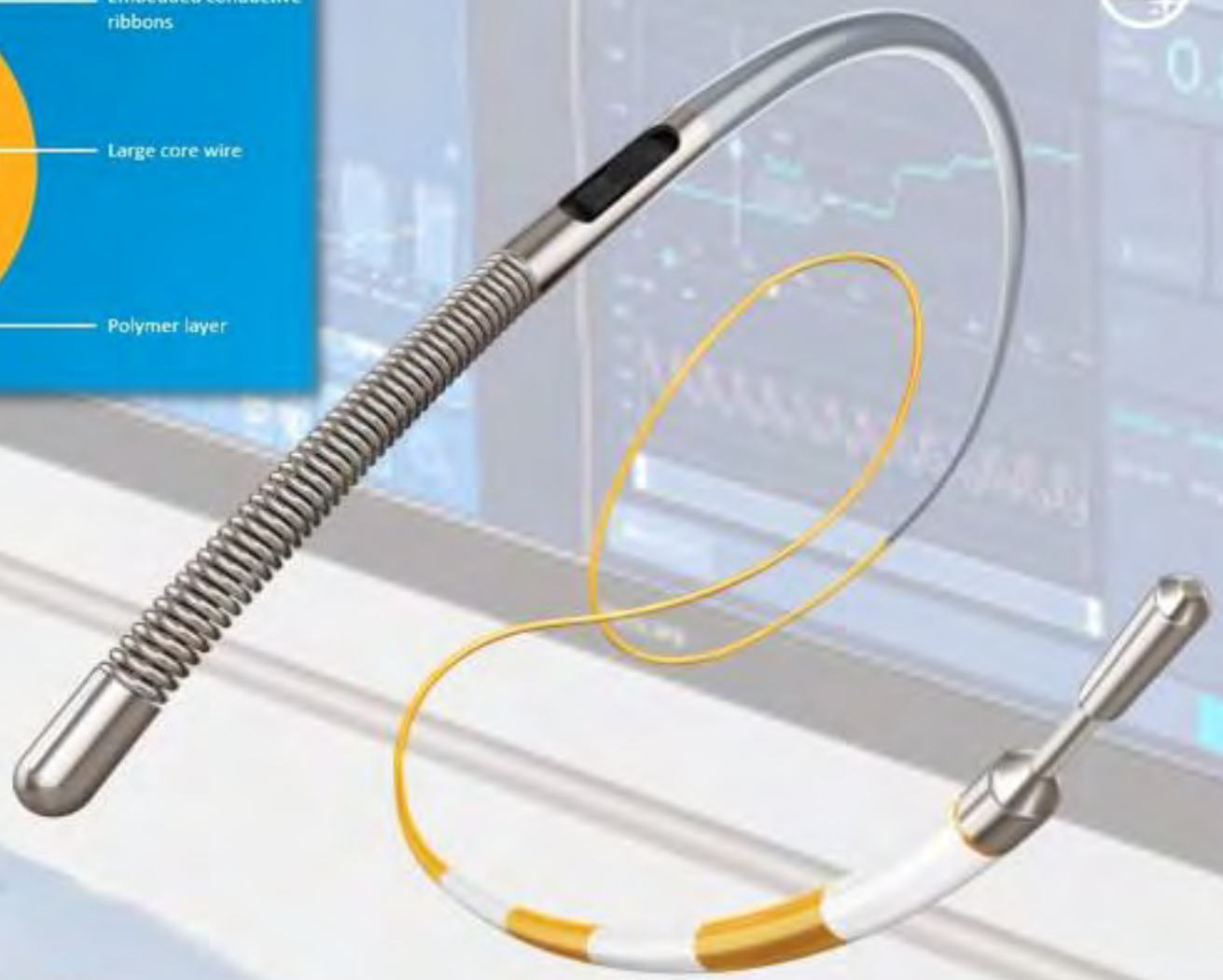
- lowest pressure drift in the industry
- Reliability
- Accuracy

opSens Medical

OmniWire

Pressure Guide Wire





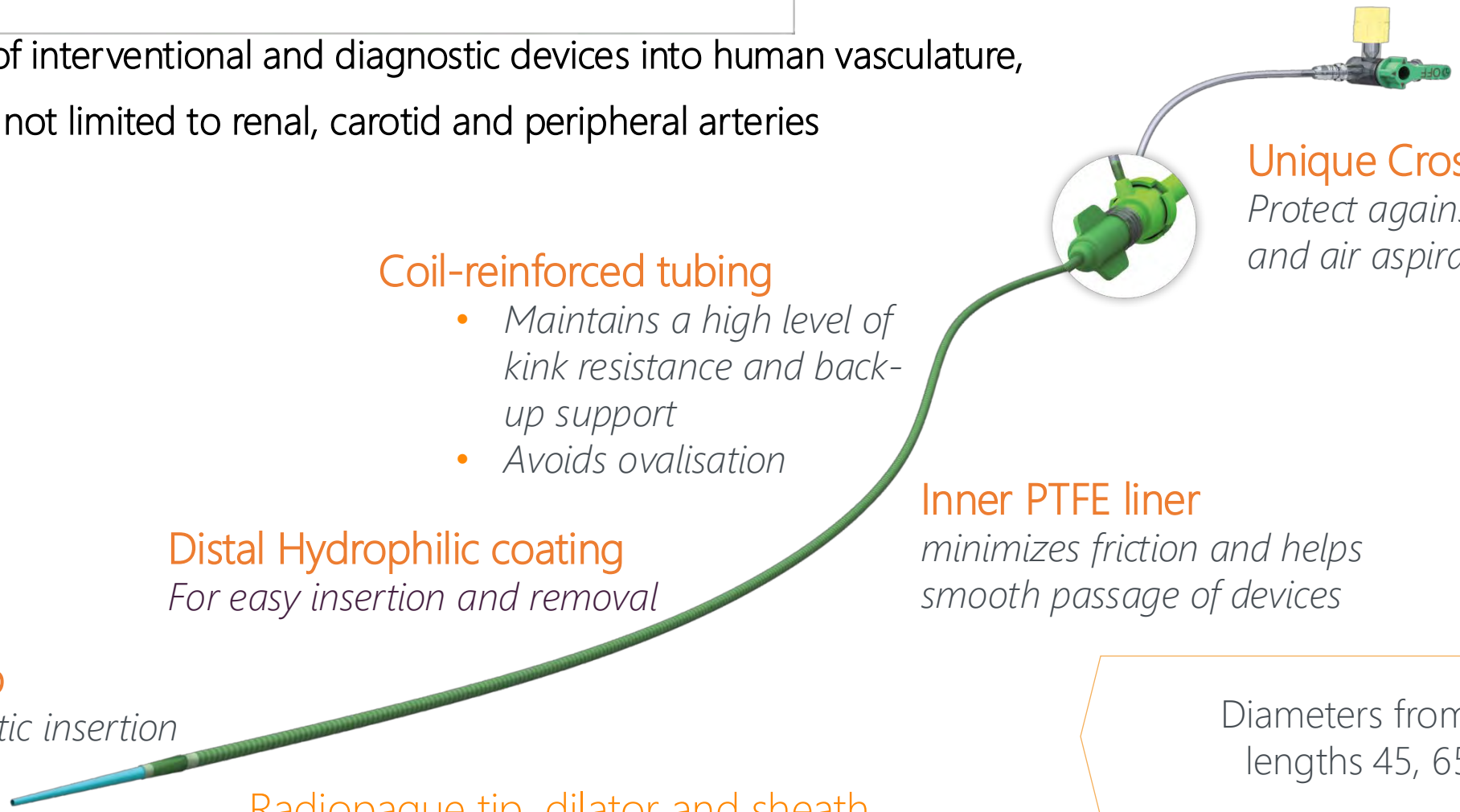
Solid core.
No compromise.

Sheaths

Destination®

TERUMO INTERVENTIONAL SYSTEMS

Introduction of interventional and diagnostic devices into human vasculature, including but not limited to renal, carotid and peripheral arteries



Unique Cross Cut Valve

Protect against blood reflux and air aspiration

Coil-reinforced tubing

- *Maintains a high level of kink resistance and back-up support*
- *Avoids ovalisation*

Inner PTFE liner

minimizes friction and helps smooth passage of devices

Distal Hydrophilic coating

For easy insertion and removal

Tapered tip

for atraumatic insertion

Radiopaque tip, dilator and sheath

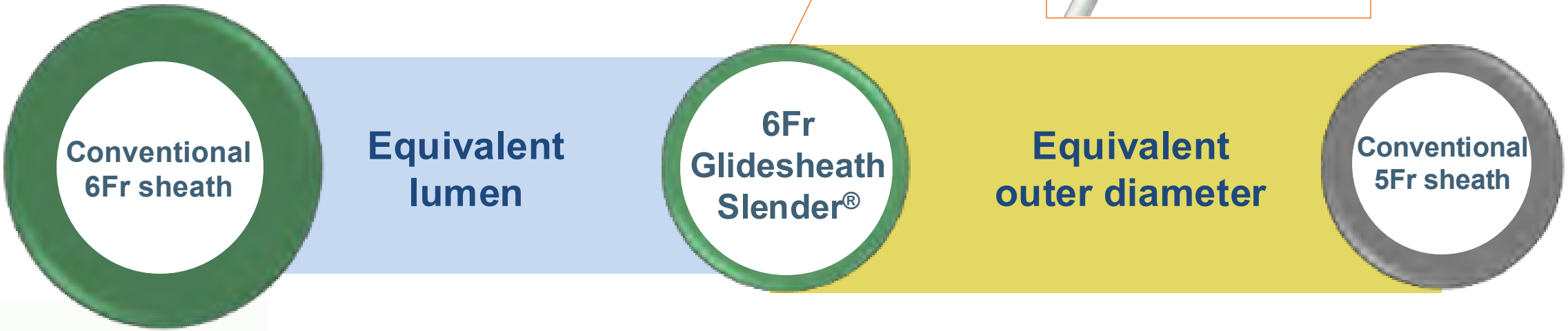
Excellent visibility for precise positioning

Diameters from 5F to 8F,
lengths 45, 65, 90 cm

Glidesheath Slender®

TERUMO INTERVENTIONAL SYSTEMS

- Outer diameter reduced by 1 Fr
- Lumen diameter maintained
- Reduced need to upsize to a larger sheath



Glidesheath Slender®

TERUMO INTERVENTIONAL SYSTEMS

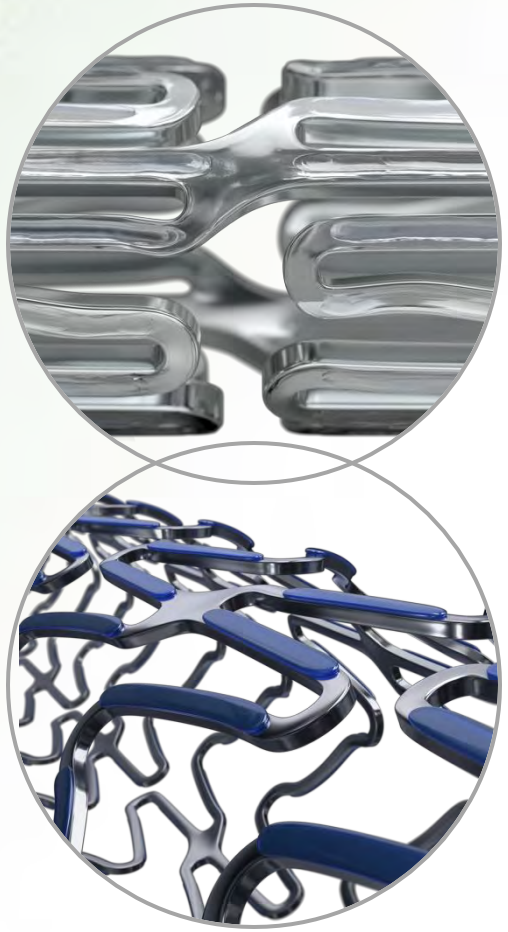
	Size	Devices	Bifurcation Treatment	CTO
For small radial artery diameter 	5F	• Balloons < 5mm • Stent < 4.55mm • Cutting balloon <2.5mm • Rotablation – 1.25mm	• Balloon angioplasty • Standard single stenting • Not kissing balloon	Parallel wire technique (antegrate CTO) • 1 microcatheter
Standard size 	6F	• All coronary balloons • All coronary stents • Cutting/Scoring balloon • OFDI/OCT/IVUS burrs ≤ 1.75mm • Thromboaspiration • Embolic protection devices	• Balloon angioplasty • Kissing balloon • Standard single stenting • T-and modified T-stenting, TAP Culotte • Not (all) kissing stents	Parallel wire technique (Antegrade CTO) • 2 microcatheters Side-branch anchoring balloon (Antegrade + Retrograde CTO) • 1microcatheter + 1 RX balloon • 1 OTW balloon + RX balloon
For complex PCI and larger devices 	7F	• All coronary balloons • All coronary stents • OFDI/OCT/IVUS • Rotablation burrs 2.0mm • Thromboaspiration • Embolic protection devices	• Single double stenting • Kissing balloon • Kissing stent • Crush, mini-crush, step crush, V-stenting	Parallel wire technique (Antegrade CTO) • 1 microcatheter + 1 OTW balloon IVUS guidance • IVUS + 1 microcatheter

F, French; CTO, Chronic Total Occlusion; OFDI, Optical Frequency Domain Imaging; OCT, Optical Coherence Tomography; IVUS, Intravascular Ultrasound; TAP technique, T And Protrusion Technique; RX, Rapid eXchange; OTW, Over The Wire

Stents

Ultimaster™ Nagomi™

Inherited Ultimaster™ DES family features to support rapid vascular repair [1]



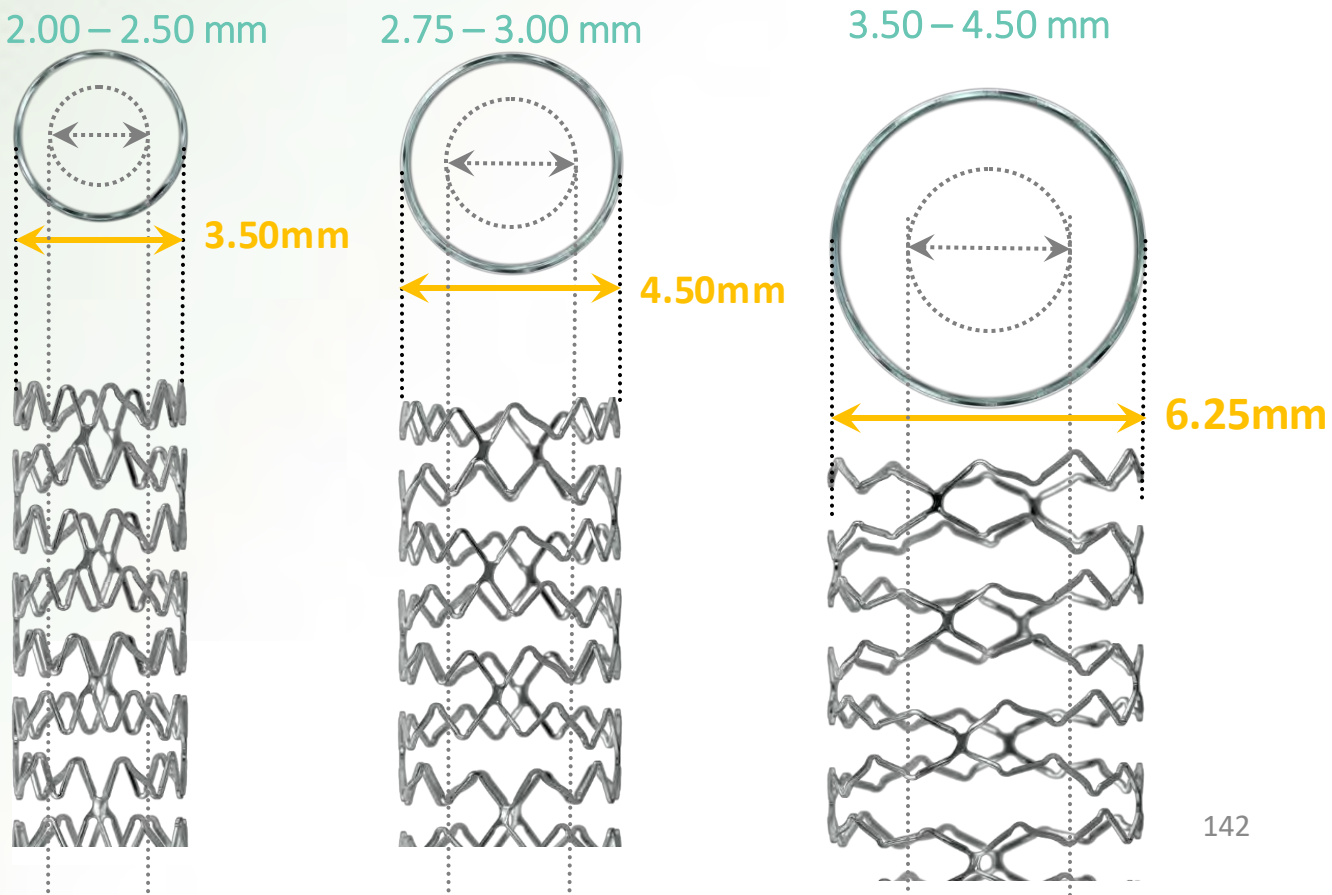
- **Flexible 80µm CoCr platform** for optimal conformability
- **Abluminal coating** allows for an optimized drug dose of **sirolimus 3.9 µg/mm of stent**[2,3]
- **Bioresorbable drug coating applied in a gradient** to reduce the risk of polymer crack and delamination[2]
- **Short-term polymer exposure** mirrors biological response, promoting **rapid vascular repair** within **3–4 months**[1,2]

1. Chevalier B et al. Circ Cardiovasc Interv 2017;10:e004801. 2. Saito N et al. Medical Devices: Evidence and Research 2016;9:33-43 | 3. Barbato E et al. EuroIntervention 2015;11:541–8 | 4. Internal test report, LMF-0000041-RAFR-001-1184 | 5. Internal test report, LMF-0000041-RAFR-001-1070 | 6. Internal test report , LMF-0000041-RAFR-001-1162

TERUMO INTERVENTIONAL SYSTEMS

Ultimaster™ Nagomi™

Excellent deliverability, large size line up and
great overexpansion capability up to 6.25 mm



- **3 platforms** specifically designed to meet the needs of each vessel size[1,2]
- **New Φ2.00 & Φ4.50mm and 44 & 50mm Lengths**[1,2,3]
- **Optimized overexpansion capability, up to 6.25mm** (for 3.50mm to 4.50mm diameter stents)[3]
- **New hydrophilic coating** for enhanced deliverability[4,5]
- **Strong clinical evidence** on more than 50'000 pts

TERUMO INTERVENTIONAL SYSTEMS

Medtronic

Engineering the extraordinary

Onyx Frontier™

Drug-Eluting Stent

Engineered **to deliver**

At least 24% more deliverable than competitive DES†1

Introducing an enhanced delivery system† featuring:

- Dual-flex balloon
- Lower crossing profile[2]
- Increased catheter flexibility[3]

†Stent delivery system updates were implemented on the 2.0-4.0 mm Onyx Frontier DES diameter.

1. Based on bench test data on file at Medtronic. [D00339634 - Test Report for DES Competitive Comparison with Frontier test methods, Rev C, 05-May-2022] May not be indicative of clinical performance. N = 5 DES of each tested: Onyx Frontier DES, Orsiro Mission DES, Resolute Onyx DES, XIENCE Skypoint DES, SYNERGY DES, Ultimaster Tansei DES.
2. Based on bench test data on file at Medtronic. [44RD21031-040047 Onyx Frontier Vs Resolute Onyx Balloon Extrusion, Version 1.0, 17-Feb-2022] May not be indicative of clinical performance.
3. Based on bench test data on file at Medtronic. [D00339634 - Test Report for DES Competitive Comparison with Frontier test methods, Rev C, 05-May-2022] May not be indicative of clinical performance. N = 7 of each DES tested.
4. Third-party modeling and analysis. [Mortier MDT-ON14-report-curved-v10-20150220_Onyx_Synergy] Data may not be indicative of clinical performance. Evaluated the following stent platforms: Resolute Onyx DES, Multi-Link 8™* BMS, SYNERGY™* DES, XIENCE Alpine™* DES, and Multi-Link 8 platform.
5. Based on bench test data on file at Medtronic. [University of Budapest Visibility Testing, V0.1, 28-Sep-2021] May not be indicative of clinical performance.
6. Roleder T, Kedhi E, Berta B, et al. Short-term stent coverage of second-generation zotarolimus-eluting durable polymer stents: Onyx one-month optical coherence tomography study. Adv Interv Cardiol. 2019;15(2):143-150.

angiolite

Drug eluting stent

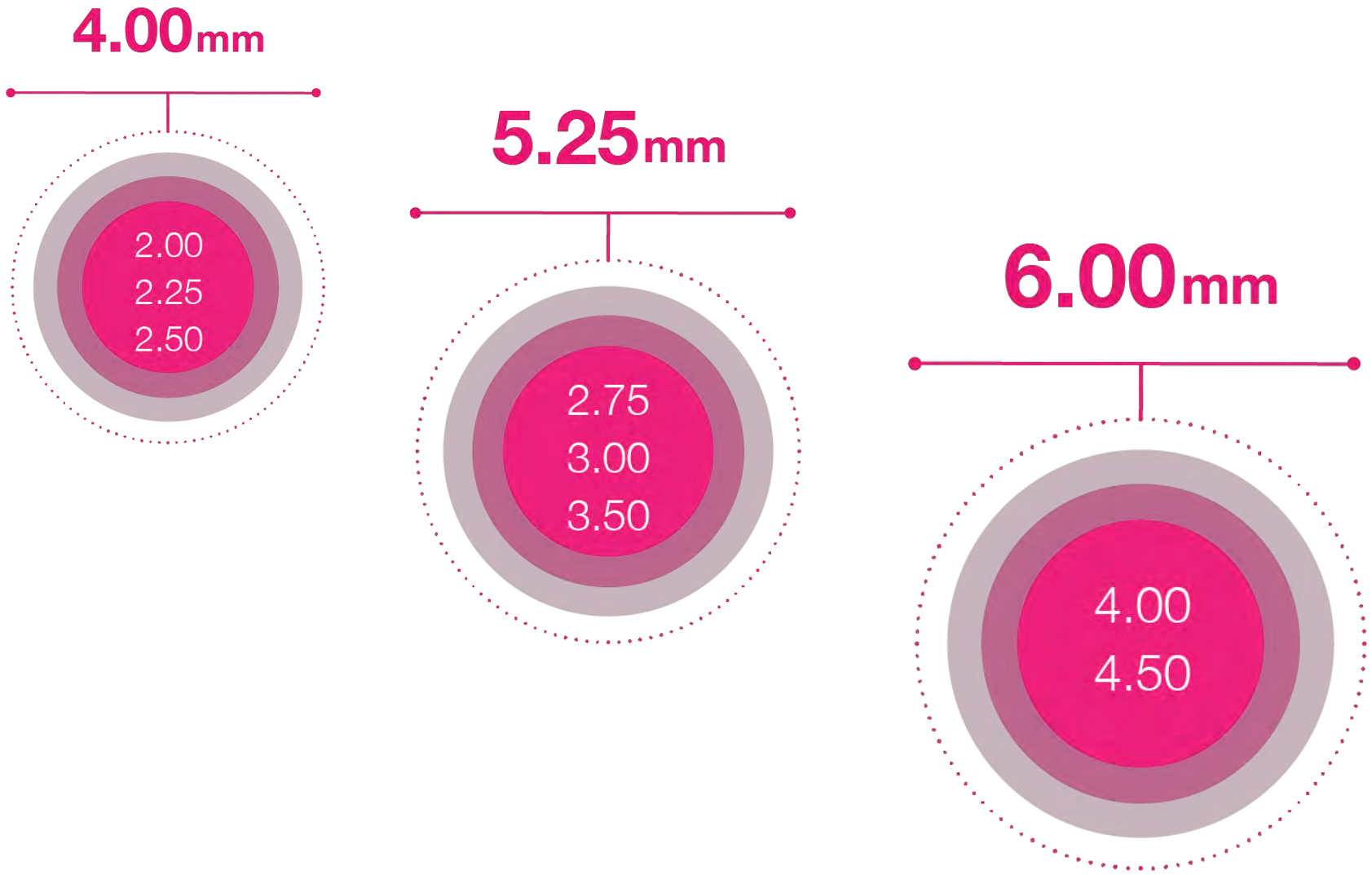
#westentbyyou

iVascular

therapies for living

Exceptional overexpansion capacity

from small to big vessels



SYNERGY XD Features

PtCr Alloy

- Radial Strength
- Radiopacity
- Conformability
- Reduced Recoil

Innovative Stent Design

- Low profile
- Balanced strength and flexibility
- Thin, rounded struts
- Abluminal, bioabsorbable polymer

Extended Lubricious Coating Length
For Increased Trackability

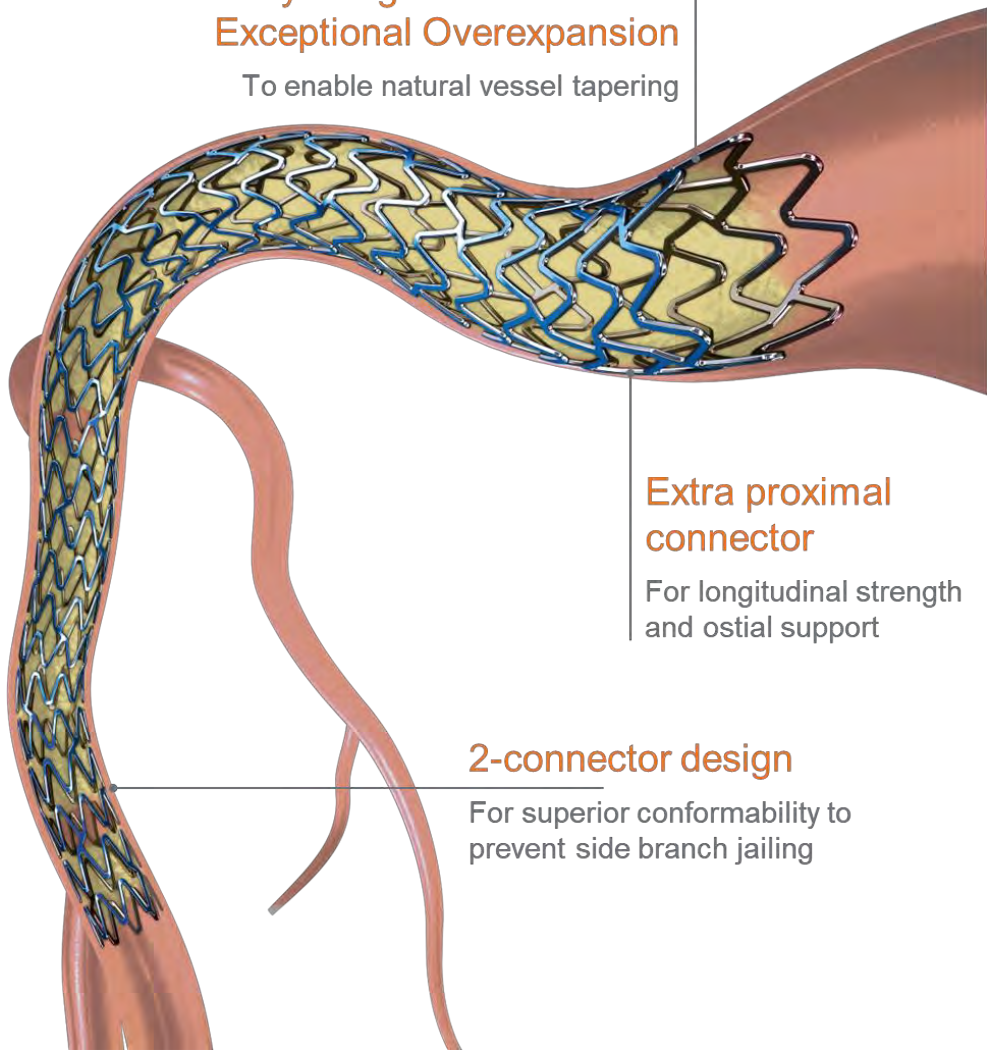
Port Moved Distal
For Increased Pushability

Extended Laser-cut Hypotube
For Increased Pushability

More Readable Hub

Intentionally designed for 5.75 mm Exceptional Overexpansion

To enable natural vessel tapering



Extra proximal connector

For longitudinal strength and ostial support

2-connector design

For superior conformability to prevent side branch jailing

SYNERGY MEGATRON Features

Purpose-built stent architecture to maximize performance for large vessel stenting[1]

12 Peak Design with Shorter Strut Length

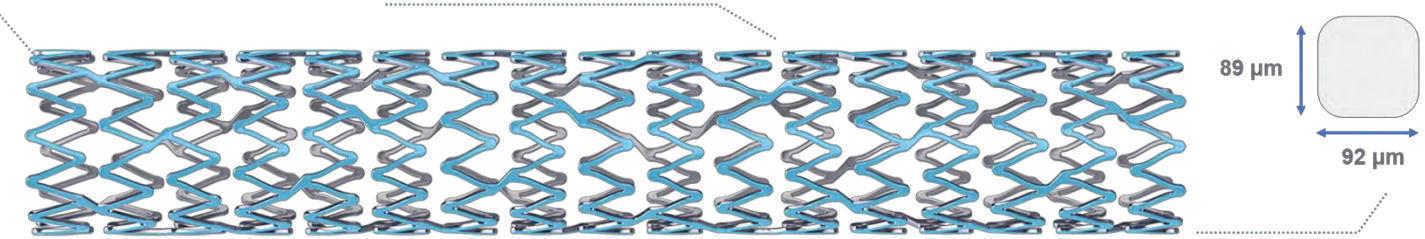
For Radial Strength, Unmatched Expansion and Uniform Vessel Scaffolding

PtCr Alloy

Specifically designed for coronary stents
For Visibility, Radial Strength, and Low Recoil

Optimized Strut Thickness and Width

For Maximum Visibility and Radial Strength

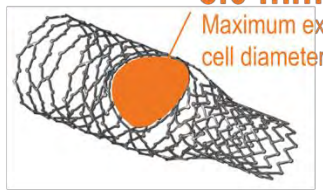


4 Connectors on Proximal Two Segments

For Exceptional Axial Strength

3 Connectors Throughout the Body

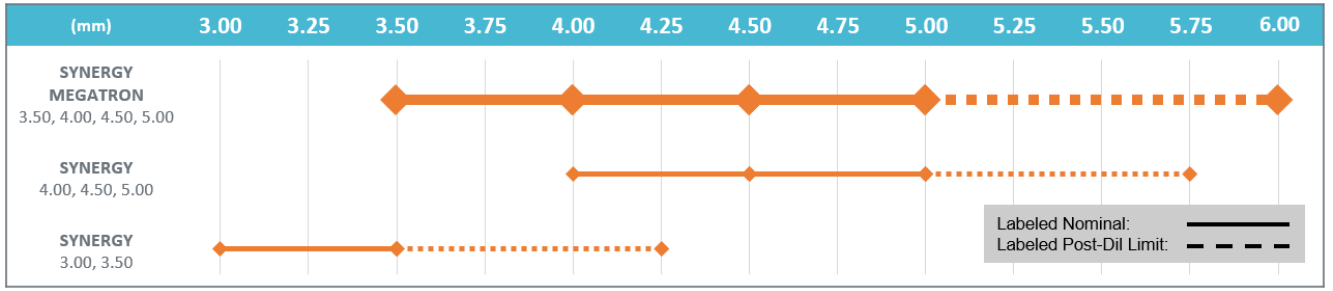
For Exceptional Axial Strength



5.0 mm
Maximum expanded cell diameter (MECD)[1]

1. Design data on file at Boston Scientific Corporation.

One model (3.5-5.0mm) with overexpansion to 6.0 mm.[3]



Orsiro Mission

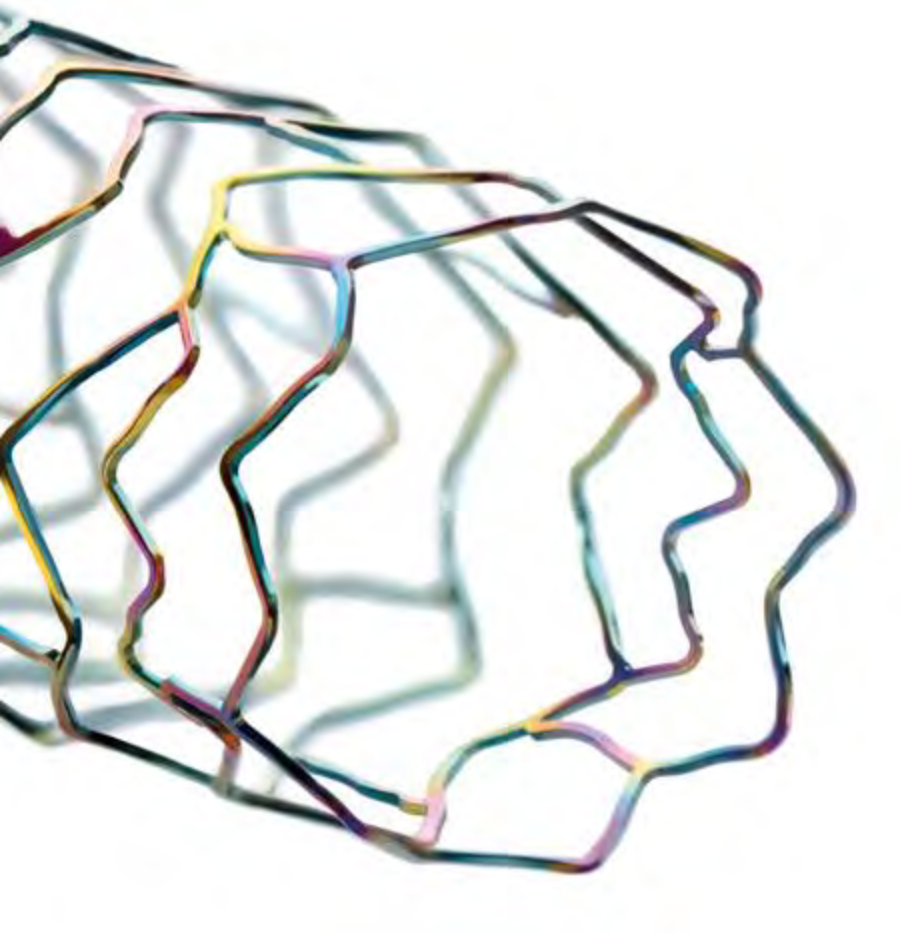
Drug Eluting Stent

BIOTRONIK
excellence for life

Orsiro Mission

Drug Eluting Stent

Early endothelialization



Ultrathin Struts

- Less flow disturbance
- Less metal to be covered
- Early vascular healing

BIOlute proBIO

Hybrid Coating

- After polymer degradation the potential cause for long-term inflammation is gone.[1]
- Controlled Sirolimus elution
- Surface passivation to improve biocompatibility[4]
- Reducing thrombogenicity[3]

Double Helix Design

- Double helical stent design for excellent flexibility during stent delivery

1. Kolandaivelu, Kumaran, et al. "Stent Thrombogenicity Early in High-Risk Interventional Settings Is Driven by Stent Design and Deployment and Protected by Polymer-Drug CoatingsClinical Perspective." *Circulation* 123.13 (2011): 1400-1409. 2. Joner, Michael, et al. "Endothelial cell recovery between comparator polymer-based drug-eluting stents." Journal of the American College of Cardiology 52.5 (2008): 333-342.

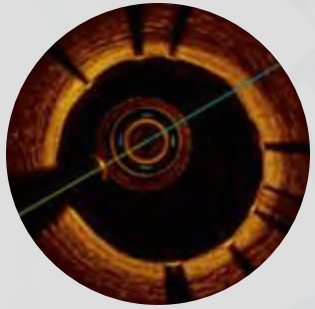
BIOTRONIK
excellence for life

Orsiro Mission

Drug Eluting Stent

Early endothelialization

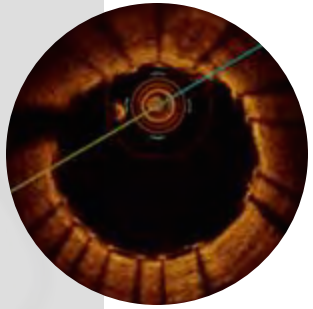
OCT data confirms early strut coverage in STEMI patients



Day 7

65%

N=467



Day 30

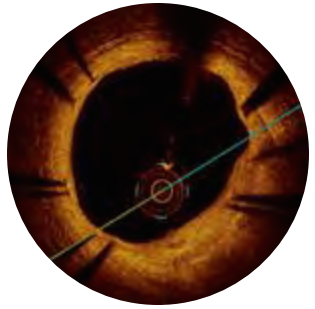
80%

N=1056

3 Months

97%

N=874



6 Months

98%

N=1130

Immature tissue coverage → **HEALING PROGRESS** → **Tissue maturation and full coverage**

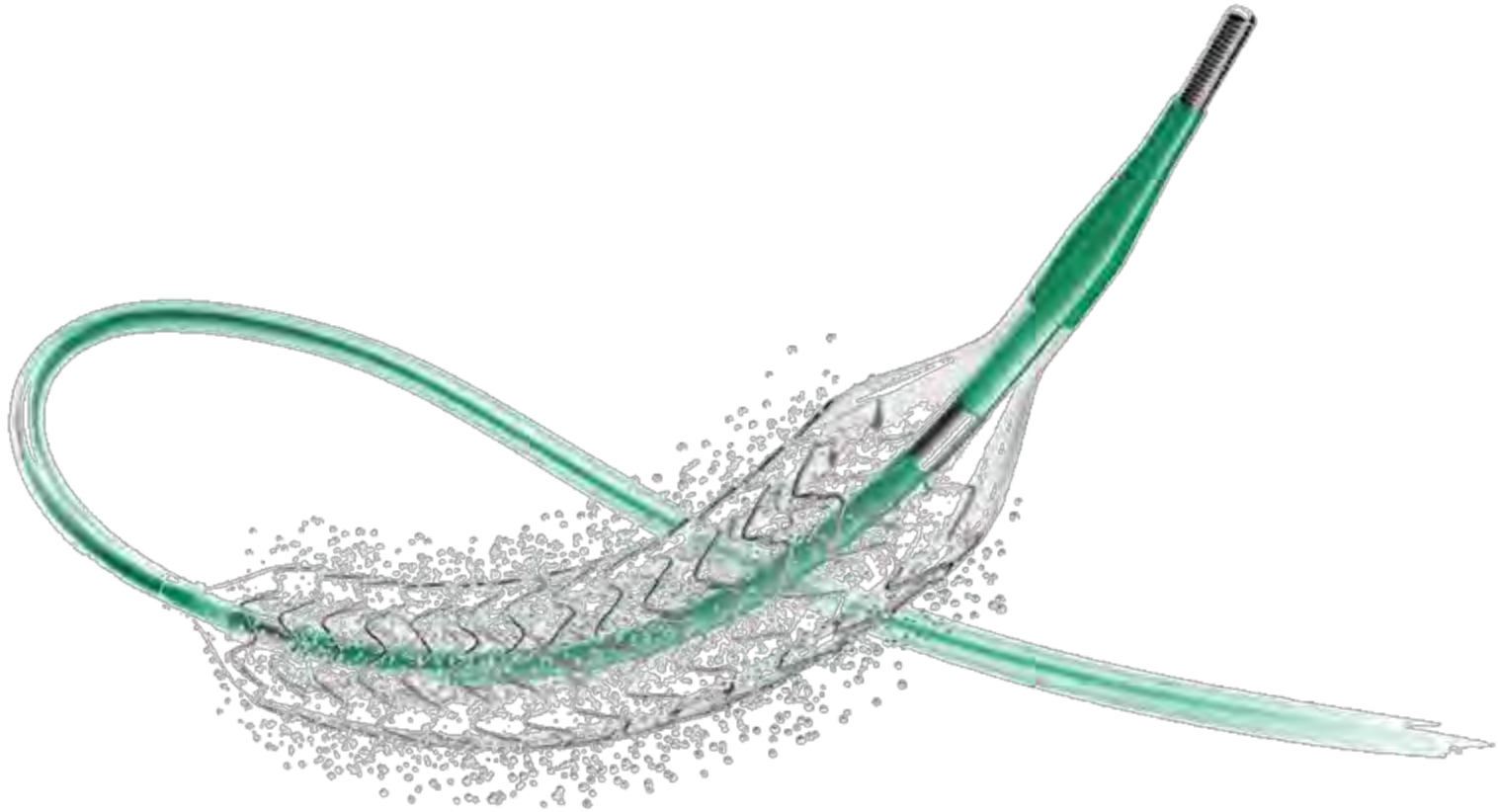
Secco et al. Time-related changes in neointimal tissue coverage of a novel Sirolimus eluting stent. Serial observations with optical coherence tomography. Cardiovascular Revascularization Medicine 17 (2016) 38–43

BIOTRONIK
excellence for life

Coroflex ISAR NEO

One of the thinnest and most flexible drug eluting stents

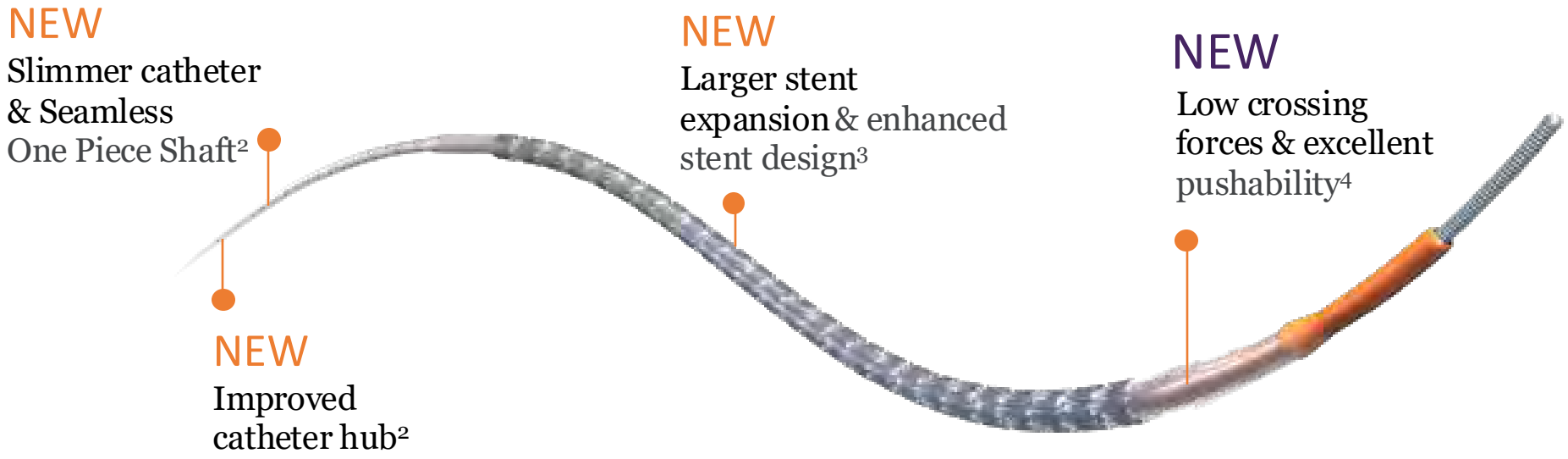
- Low TLR
- Low MACE
- Low Thrombosis



Coroflex – The stent for standard and complex lesions

DES XIENCE Skypoint™

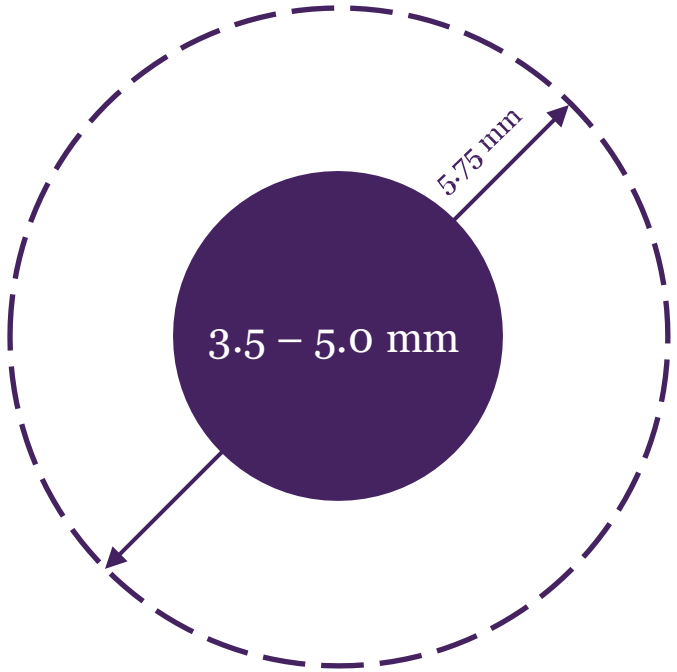
XIENCE Skypoint™ delivers the broadest expansion range in the latest generation XIENCE™, the DES that consistently delivers successful outcomes – not only in the cath lab, but far beyond.[1]



DES XIENCE Skypoint™

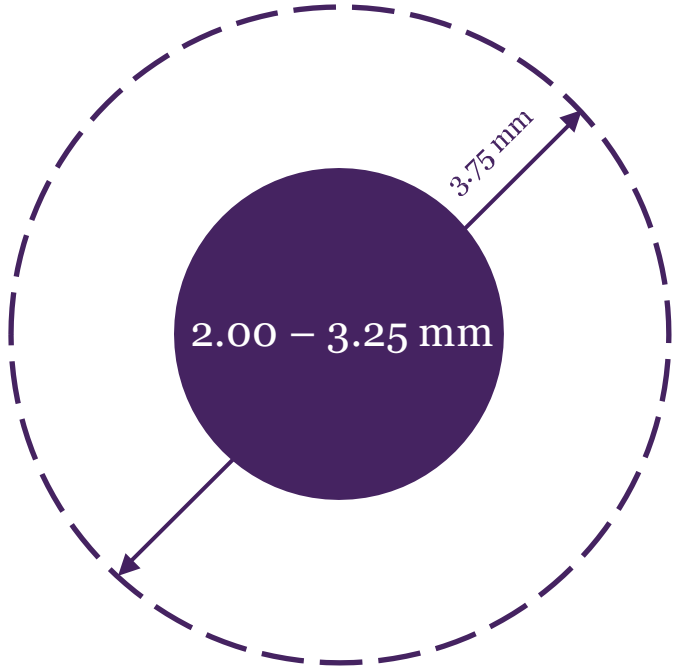
BETTER EXPANSION

MEDIUM STENT
EXPANDS TO 5.75 MM



Medium Stent Design

SMALL STENT
EXPANDS TO 3.75 MM



Small Stent Design

Data on file at Abbott.

Novel Implant Designed to Adapt to Vessel Physiology

DYNAMX

CORONARY BIOADAPTOR SYSTEM

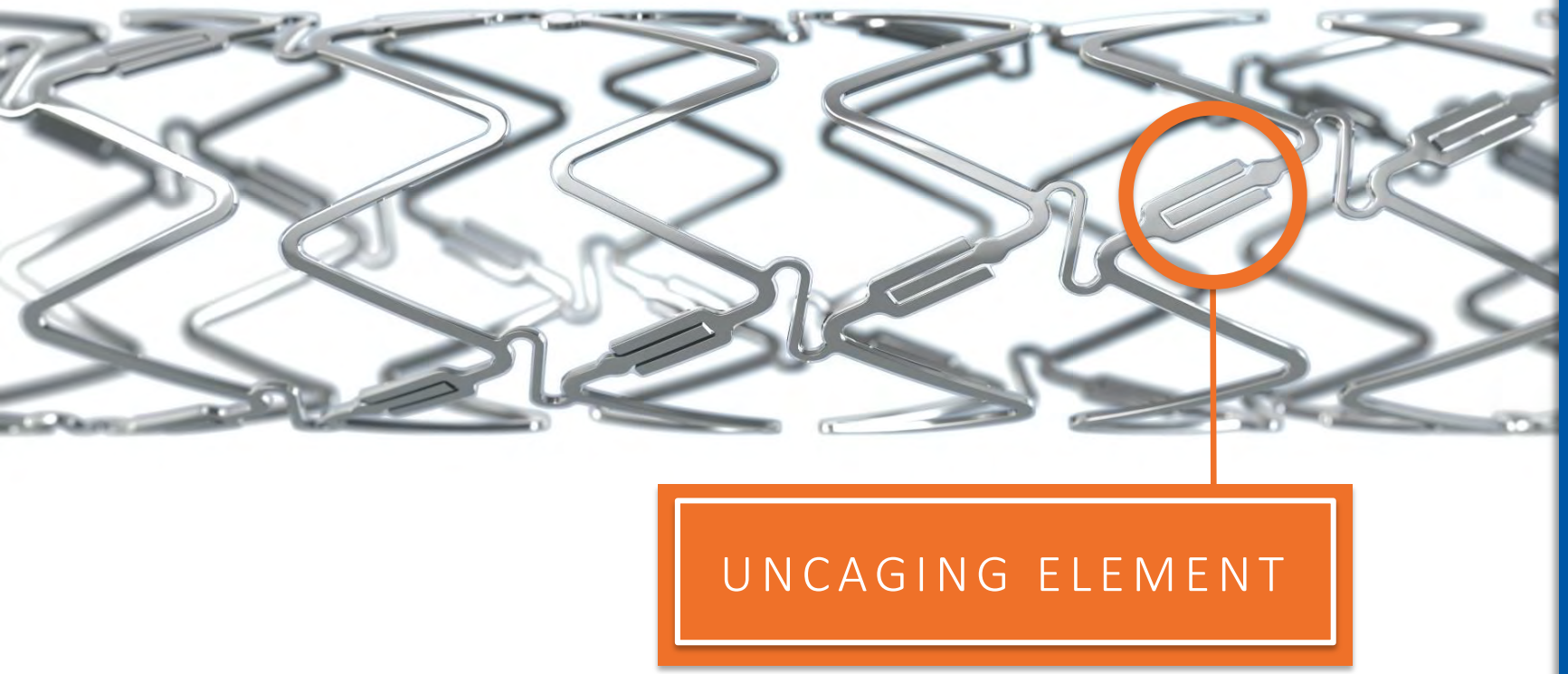
- Maintains ability for positive adaptive remodeling
- Restores vessel function
- Allows for return towards baseline angulation

Potential to reduce adverse events by adapting to vessel physiology

DynamX Coronary Bioadaptor System is CE Mark approved.
PMN 513 Rev D

DynamX Coronary Bioadaptor System

DESIGNED TO DELIVER SUPERIOR OUTCOMES



KEY FEATURES

- Novel uncaging elements
- Bioresorbable polymer coating
- Elutes low-dose Novolimus over 3 months
- Thin cobalt chromium 71µm strut[1]
- Excellent deliverability[2]
- Thin and uniform neointimal coverage[3]

1) 2.25mm – 3.0mm are 71µm thick, Data on file at Elixir Medical
2) Verheye, et al. Twelve-month clinical and imaging outcomes of the uncaging coronary DynamX Bioadaptor System. EuroIntervention 2020;16:e974-e981

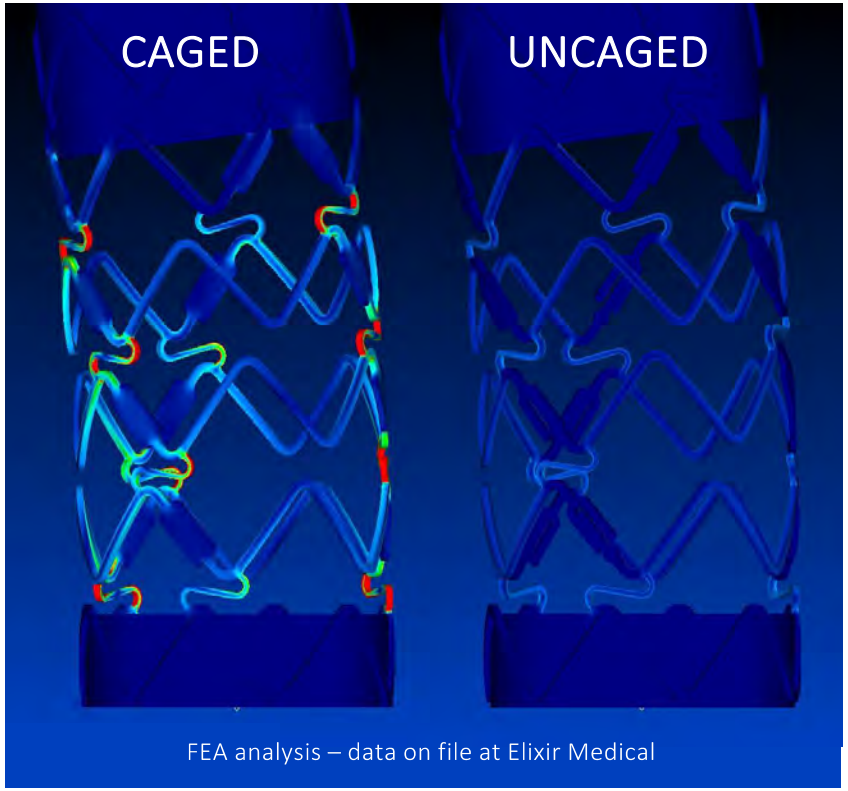
DynamX Coronary Bioadaptor System is CE Mark approved.
PMN 513 Rev E

DYNAMX

Restores Vessel Function:

Allows for Normal Vessel Pulsatility and Motion

- Coronary arteries experience significant movement with each heart beat[1]
- Movement (bending, twisting, pulsation) of a stented artery adds additional stress on the stent and on the vessel wall[2]



FEA analysis – data on file at Elixir Medical

- Uncaged DynamX Bioadapter significantly reduces stress on the implant and the vessel during normal movement[1,3]
  - DynamX uncaged: 90% reduction of maximum tensile stress in flexion
  - 70% reduction tensile stress in torsional rotation
- Lower device stress:
  - Reduces probability of fracture[4]
  - Lowers vessel stress[2]
  - May improve clinical outcomes[2]

1. Scott, A. et al. Radiology 250:2 2009; Lu, B. et al. Investigative Radiology 36:5 2001
2. Gu, L. et al. International Journal of Applied Mechanics 4:2 2012; Xu, J. et al. BioMedical Engineering Online 15:21 2016
3. Data on file at Elixir Medical . Ormiston et al. Circ Cardiovasc Interv 2014;7:Dec 24 13 [E-pub]
4. Kuramitsu et al. Circ Cardiovasc Interv. 2012;5:663-671, Kuramitsu et al. J Am Coll Cardiol Intv 2015;8:1180–1188

DynamX Coronary Bioadaptor System is CE Mark approved.
PMN 513 Rev E

DYNAMX

Freesolve

New generation **Resorbable Magnesium Scaffold**

NEW BIOmag®
Proprietary Magnesium Alloy

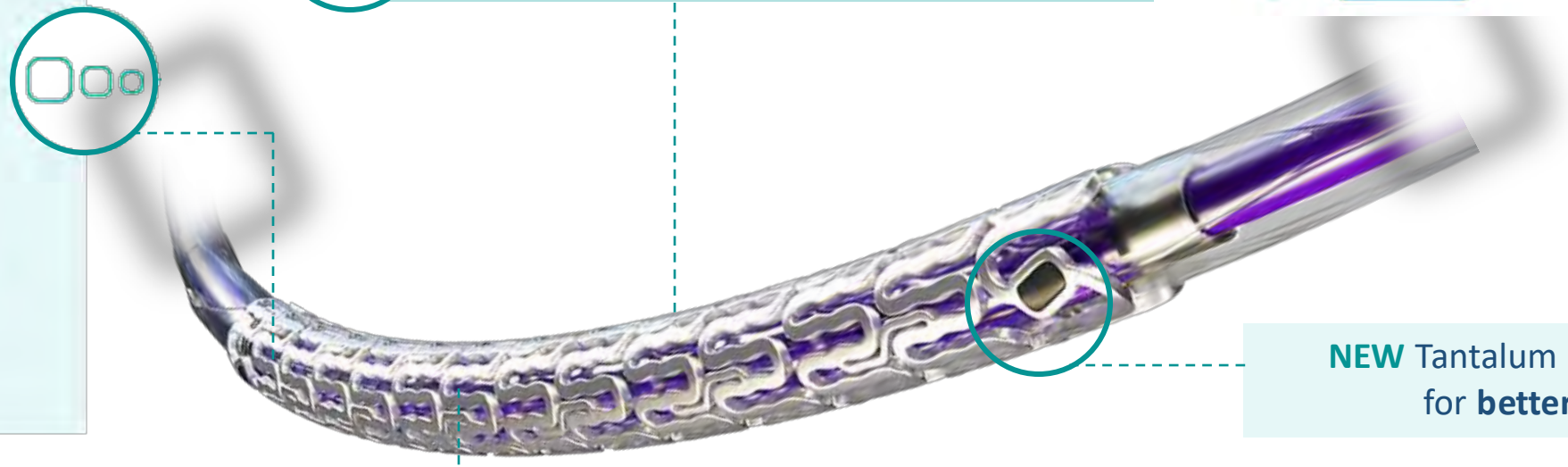
Optimal vessel support

Thin struts[6]

99 µm
150 µm
ø 2.5 mm

117 µm
150 µm
ø 3.0/3.5 mm

147 µm
150 µm
ø 4.0 mm



Predictable, homogenous resorption process[7]

BIOmag® backbone
A strong Magnesium alloy[6]

BIOlute® coating

BIOmag® core
A strong[6], uniform shape[7]

NEW Tantalum marker concept
for **better visibility**

NEW Size matrix

Diameter: 2.5, 3.0, 3.5, 4.0 mm
Lenght: 13, 18, 22, 26, 30 mm

BIOTRONIK
excellence for life

Freesolve

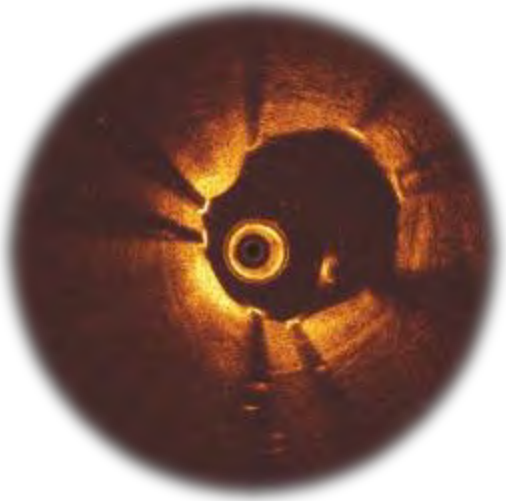
New generation **Resorbable Magnesium Scaffold**

Magnesium fully resorbed after 12 months

After approximately **12 months** the scaffold is almost completely resorbed (99.6%)[1]

PRE-PROCEDURE

POST-PROCEDURE[2]



Immediately after implantation, struts are well apposed to the vessel wall.

6M-FOLLOW UP

12M-FOLLOW UP[2]

The resorption is completed. No struts appear in OCT.

BIOTRONIK
excellence for life

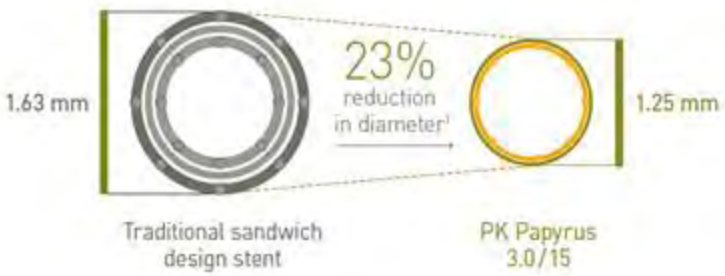
Covered Stents

BIOTRONIK
excellence for life

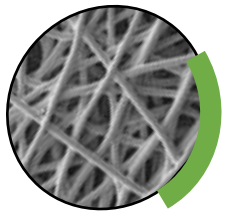
Covered Coronary Stent

Low crossing profile

23% reduction in crossing profile compared to the traditional sandwich design stent[1]



Innovative polyurethane membrane



Thin and highly elastic membrane

Covered SINGLE stent design

Achieves **greater bending flexibility**[2]

Allows for a 5F guide catheter compatibility - for main sizes – **no need for guide catheter upgrade** (ø 2.5-4.0 mm).

Seal perforations with confidence

Polytetrafluoroethylene Covered Stent = PTFE-CS; Polyurethane Covered Stents = , PL-CS

1. Compared to Graftmaster Coronary Stent Graft System 2.8/16 (BIOTRONIK data on file, based on specifications); 2. Compared to Graftmaster Coronary Stent Graft System 2.8/16 (BIOTRONIK data on file, IIB data 2020); 3. Hernandez-Enriquez M, Lairez O, Campelo-Parada F, et al. Outcomes after use of covered stents to treat coronary artery perforations. Comparison of old and new-generation covered stents. J Interv Cardiol. 2018; 1–7. doi: 10.1111/joic.12525; 4. Population is representative of real-world interventional practice and was not a randomized prospective clinical trial. PK Papyrus and proBIO are trademarks or registered trademarks of the BIOTRONIK Group of Companies. Jostent and Graftmaster are trademarks or registered trademarks of the Abbott Group of Companies.

Imaging

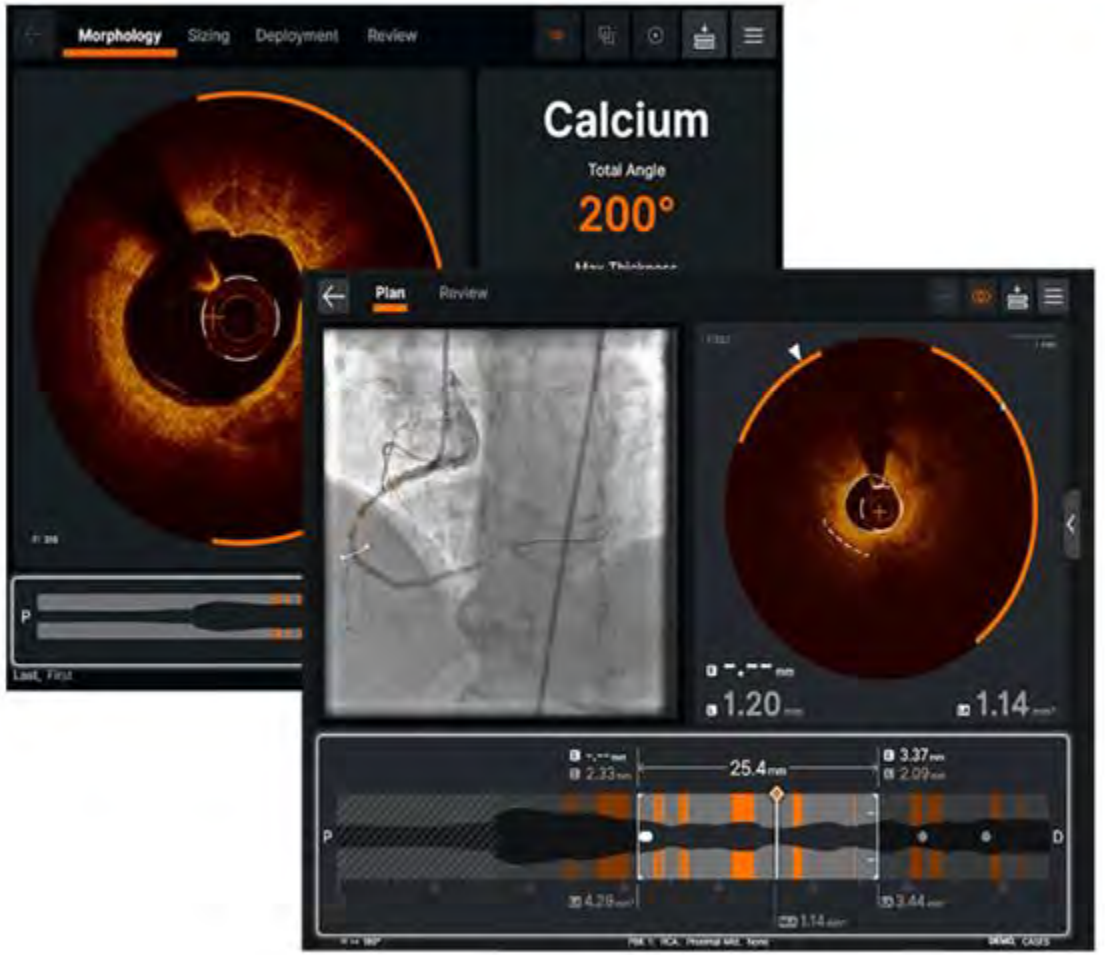
Ultreon™ Software

See Simply. Act Decisively.

Make fast, accurate clinical decisions with the help of AI[2]

The artificial intelligence (AI) in Ultreon™ Software gives you:

- **Calcium assessment**
  - Calcium presence in target vessel
  - Calcium arc on a given frame
  - Calcium thickness on a given frame
- **External Elastic Lamina (EEL) Assessment**
  - EEL presence
  - EEL diameter



Abbott

AVVIGO + Features

Automated Lesion Assessment (ALA™)

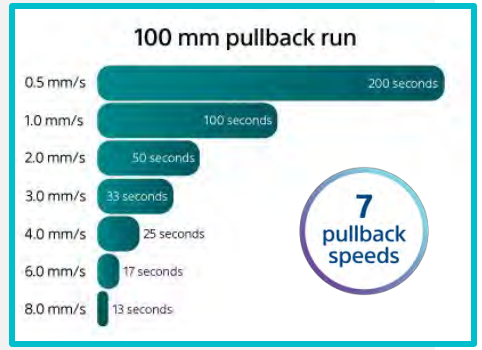
Precise Vessel Measurements[1]

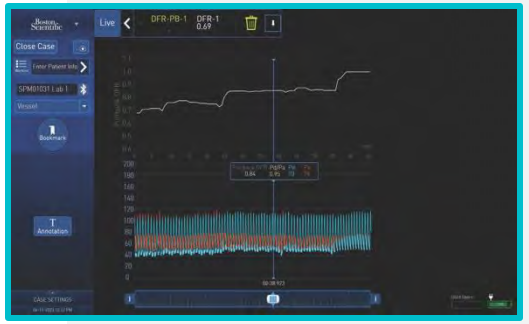
- AI-enhanced lumen and vessel borders
- Vessel profile
- Key frame markers

Fast Pullback §§

High quality images at the pullback speed you want

Automatic pullback now includes faster speeds up to 8 mm/s allowing for quicker vessel imaging





PhysioMap™

Enhanced DFR guidance*

Optimize your treatment decisions by quickly locating regions of pressure change during a pullback

Tableside Control §

Complete control from the sterile field

Operate IVUS and capture physiological measurements on your integrated system without leaving the sterile field

§§Fast pullback includes 0.5, 1, 2, 3, 4, 6, or 8 mm/s
*DFR or Diastolic hyperemia free ratio is a type of hyperemia free physiologic index
§Tableside controls available on integrated systems only

Images for educational purposes only and are not predictive of results in other cases.

Opticross™ HD 60 MhZ Features

High definition imaging catheters with clear images and exceptional deliverability to guide confident treatment decisions

Exceptional Deliverability

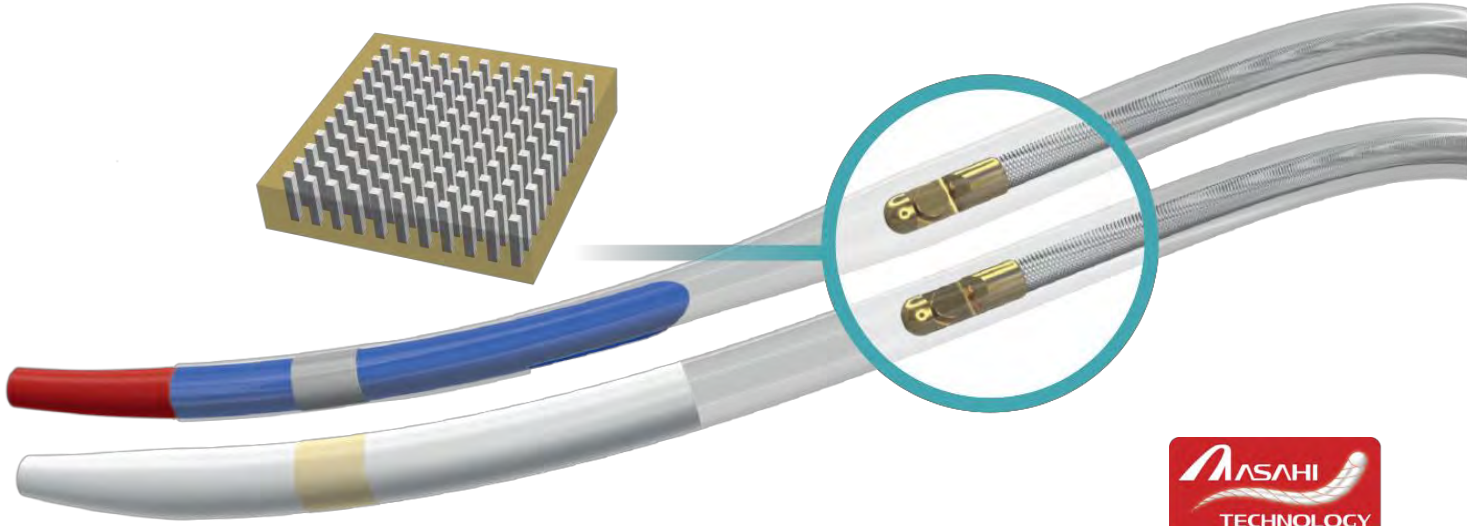
Well-balanced engineering design

5F and 6F Compatible

Assist in more cases

Advanced 60 MHz Composite Transducer

Precise image with 6 mm depth for small to large vessel assessment

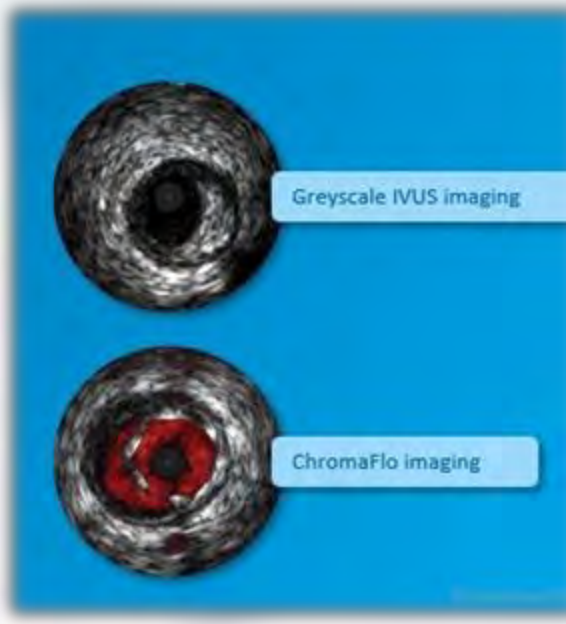


Case images courtesy of Dr. Claudia COSGROVE, St George's Hospital, London, UK.
Images for educational purposes only and are not predictive of results in other cases

Eagle Eye Platinum
Eagle Eye Platinum Short Tip

RX Digital IVUS Catheters

The trusted IVUS catheters



MCS

Impella CP® with SmartAssist®

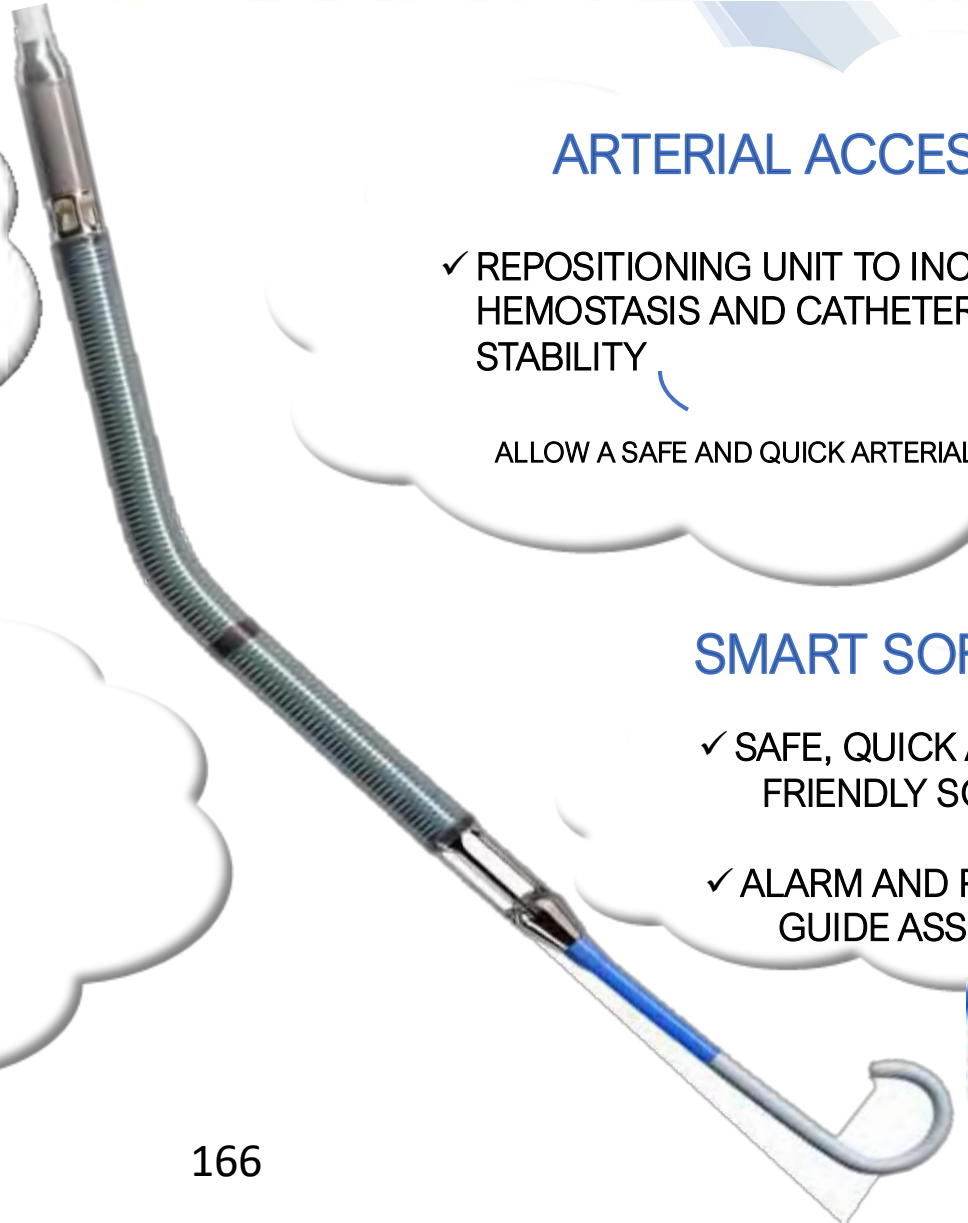
CARDIAC PUMP

- ✓ INCREASE HEMODYNAMIC SUPPORT
- ✓ PEAK FLOW UP TO A 4.3 L/MIN
- ✓ NO MORE UFH IN THE CIRCUIT

ARTERIAL ACCESS

- ✓ REPOSITIONING UNIT TO INCREASE HEMOSTASIS AND CATHETER STABILITY

ALLOW A SAFE AND QUICK ARTERIAL REACCESS



ADVANCED METRICS

- ✓ SMART METRICS FOR REAL TIME EVALUATION OF HEART FUNCTION
- ✓ WEANING TRENDS TO IMPROVE MCS DESCALATION

SMART SOFTWARE

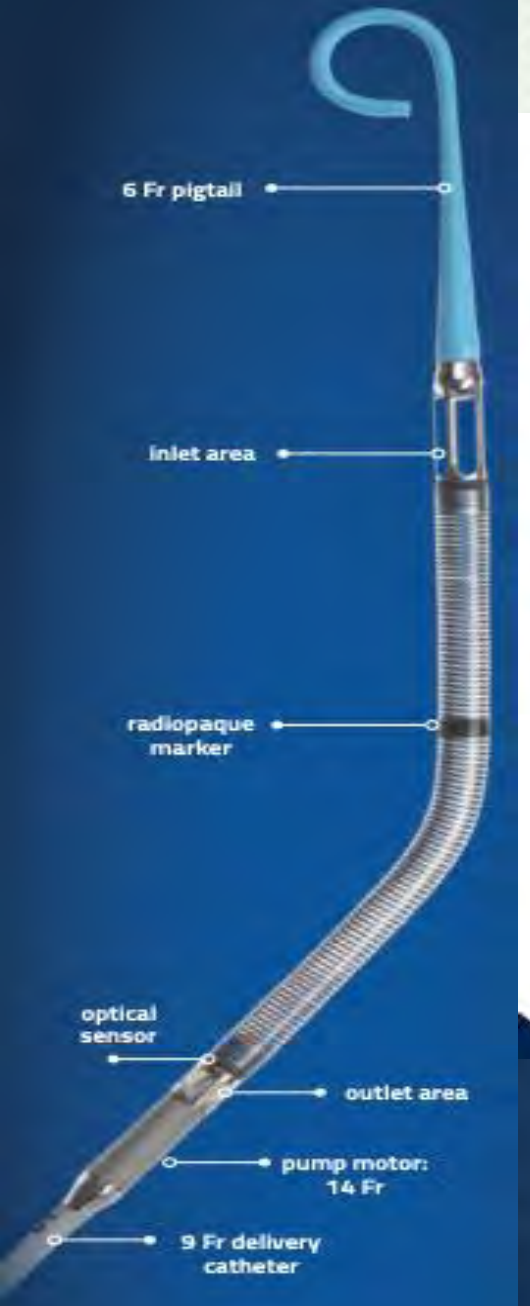
- ✓ SAFE, QUICK AND USER-FRIENDLY SOFTWARE
- ✓ ALARM AND PROBLEMS GUIDE ASSISTANCE

ABIOMED

Recovering hearts. Saving Lives.™

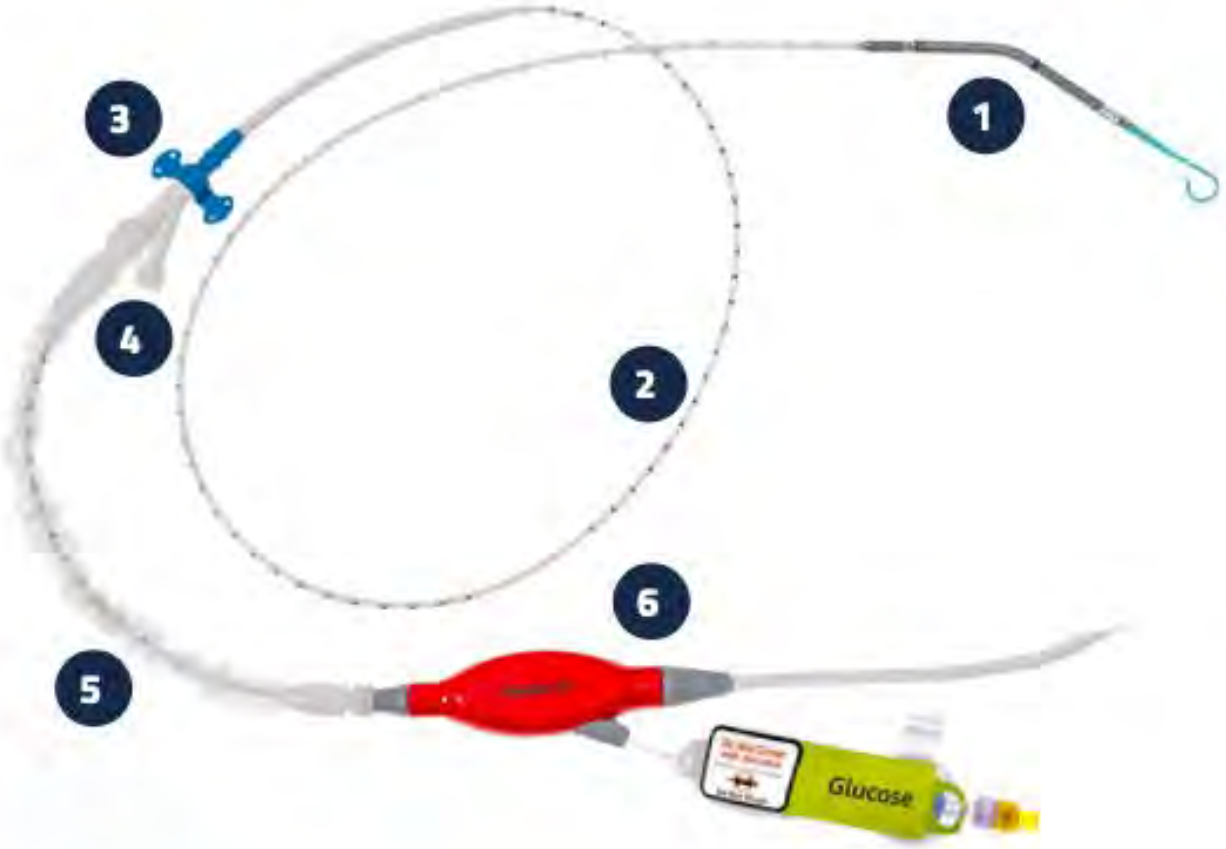
166

Impella CP® with SmartAssist®



Overview

1. Impella CP with SmartAssist
2. Catheter Shaft
3. StatLock® Suture Pad
4. Reaccess Sheath
5. Anticontamination Sleeve
6. Impella Plug with Sidearm

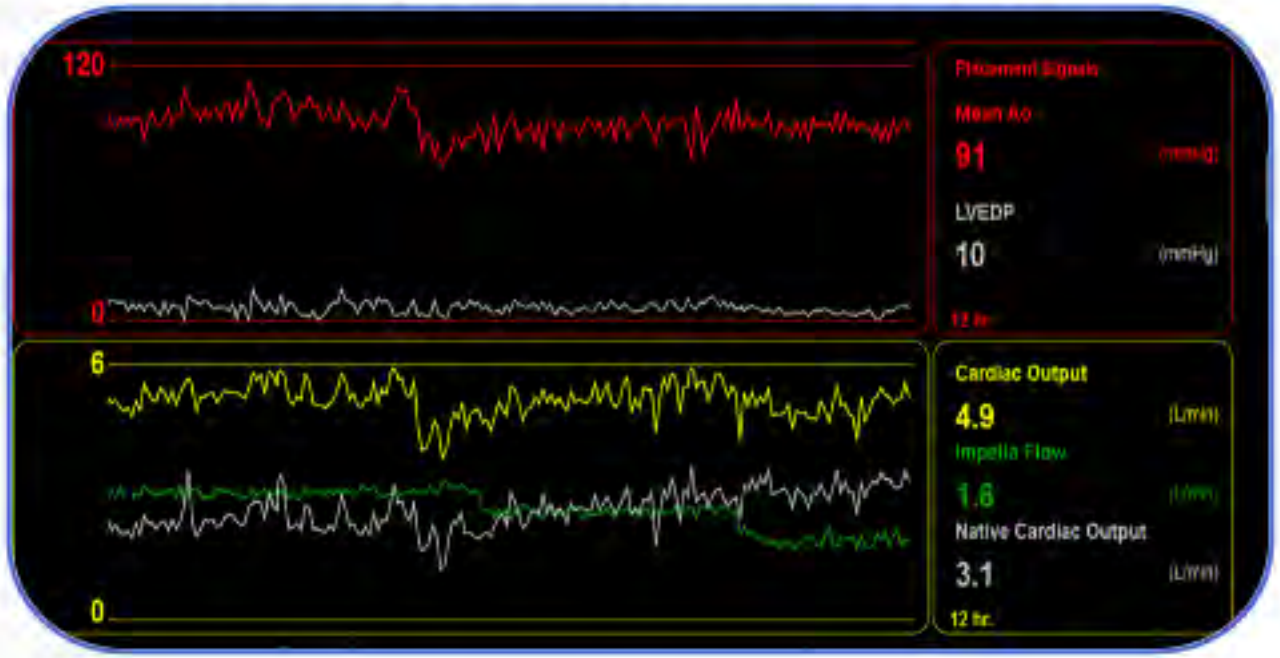


Peak Flow: 4.3L/min
Maximum Mean: 3.7 L/min
Speed Range: 0 to 46,000 rpm
Interventional Length: 92-98cm

ABIOMED®
Recovering hearts. Saving lives.

SmartAssist – Intelligently Manage
Guidance for Successful Weaning

Trends screen – Weaning Guidance



FDA Approved, PMA Supplement, 2018

Metrics are for informational purposes and are not intended for diagnostic use. Values must be verified independently using an approved diagnostic device and must not be used for patient monitoring

ABIOMED®

Recovering hearts. Saving lives.

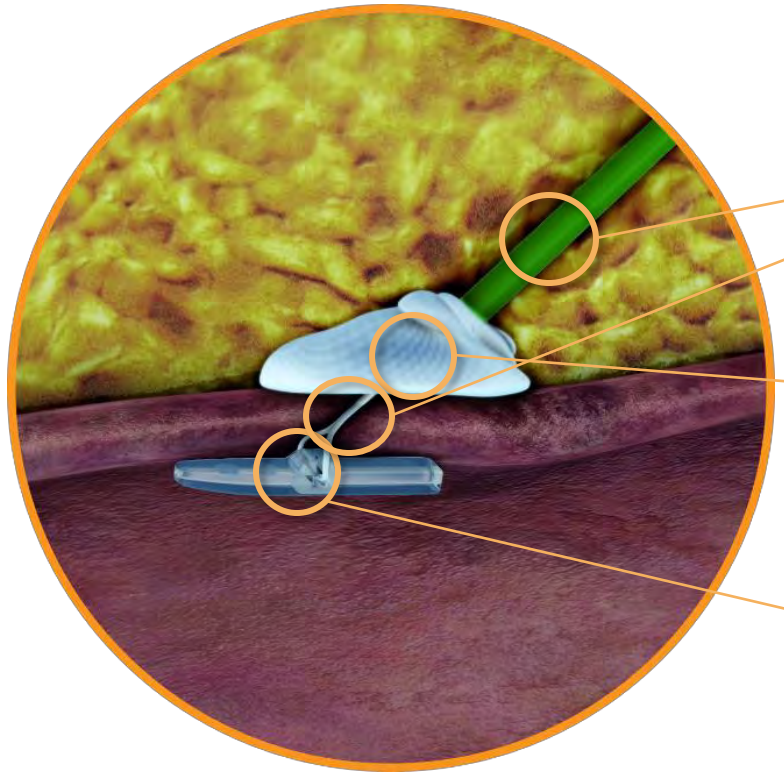
Closure Devices

Angio-Seal™

TERUMO INTERVENTIONAL SYSTEMS

Hemostasis is achieved primarily by **mechanical** means (like a sandwich)

All components are completely **bio-absorbable** within 60-90 days by hydrolysis[1]



Suture	Binds anchor and collagen together to form the seal
Collagen	Placed on top of the arteriotomy in the tissue tract
Anchor	Low profile, placed against the inside of the vessel wall

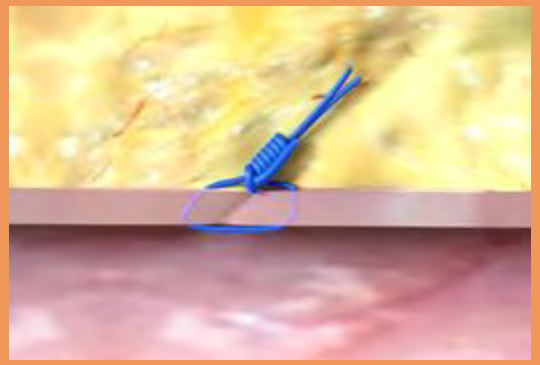
1. Nash JE, Evans DG. The Angio-Seal hemostatic puncture closure device. Herz. 1999;24(8):597-606.

Built upon the Perclose™ Legacy

REDESIGNED.

Perclose™ ProStyle™ SMCR System is the next generation Perclose™ device redesigned with higher tensile-strength needles, enhanced usability, and a more intuitive deployment experience compared to earlier Perclose™ generations.[1,2]

REPAIR.



Perclose™ devices achieve immediate and durable hemostasis via suture-mediated repair giving confidence of a secure close[1], while preserving access sites for immediate re-access[1], and enabling primary intention healing to begin.[3]

RECOVER.

The Perclose™ ProStyle™ SMCR System can enhance the patient experience by providing earlier patient mobilization, shortened hospital length of stay[4,5], and a reduced risk of access site-related complications.[6,7]

1. Perclose™ ProStyle™ SMCR System – Instructions for Use (IFU). Refer to IFU for additional information. 2. Data on file at Abbott. 3. Primary intention healing occurs where vessel wall edges are brought together, adjacent to each other. This can be achieved with suture, stitches, staples and clips. Advances in Skin & Wound Care: Healing by Intention. Salcido, Richard. 2017. 4. Based on arterial access data. 5. Bhatt, Deepak L. et al. Successful "Pre-Closure" of 7Fr and 8Fr Femoral Arteriotomies With a 6Fr Suture-Based Device (The Multicenter Interventional Closer Registry). American Journal of Cardiology Vol 89. March 2002. 6. Perclose ProGlide™ Versus Surgical Closure Outcomes – Real World Evidence. Schneider, Darren B; Krajcer, Zvonimir; et al. LINC 2018. 7. The Use of the Perclose ProGlide™ Suture Mediated Closure (SMC) Device for Venous Access-Site Closure up to 24F Sheaths. Kar, Saibal; Hermiller, James; et al. CRT 2018.