



# Product Catalogue

---

Endovascular Products



## **Managing circulatory disease by innovation**

With more than a 60-year history of pioneering products to treat millions of patients, Cordis is a worldwide leader in the development and manufacturing of interventional cardiovascular technology. Cordis established a legacy of high-quality and minimally-invasive cardiovascular products; and has built a robust global footprint with operations in more than 60 countries around the world.

# Table of contents

<b>TRADEMARKS</b> .....	6	.014" Guidewire Compatibility		<b>Diagnostic Guidewires - EMERALD™</b>	
<b>STENTS</b>		AVIATOR™ Plus .....	34	Amplatz .....	81
<b>Balloon Expandable Stents</b>		SLEEK™ RX .....	34	Amplatz Super Stiff .....	81
<b>Pre-mounted Balloon Expandable Stents</b>		SLEEK™ OTW .....	35	Rosen Heavy Duty .....	81
.035" over-the-wire system		<b>VASCULAR CLOSURE &amp; COMPRESSION DEVICES</b>		Fixed-Core Guidewires .....	82
PALMAZ GENESIS™ on OPTA™ PRO (MEDIUM) .....	10	ZEPHYR™ Vascular Compression Device .....	38	Fixed-Core Exchange Guidewires .....	83
PALMAZ GENESIS™ on OPTA™ PRO (LARGE) .....	11	MYNX CONTROL™ Vascular Closure Device .....	38	Movable-core Guidewires .....	83
.018" over-the-wire system		MYNXGRIP™ Vascular Closure Device .....	39		
PALMAZ GENESIS™ on SLALOM™ .....	13	EXOSEAL™ Vascular Closure Device .....	39	<b>Hydrophilic Coated Guidewires</b>	
PALMAZ BLUE™ 0.18 .....	14	<b>CTO CATHETERS</b>		AQUATRACK™ .....	84
.014" Rapid Exchange System		OUTBACK™ ELITE Re-Entry Catheter .....	42	<b>Steerable Guidewires</b>	
PALMAZ BLUE™ 0.14 .....	15	<b>GUIDING CATHETERS</b>		STORQ™ .....	85
<b>Self-Expanding Stents</b>		General Information .....	45	SV WIRE .....	85
.035" Stent Delivery system		VISTA BRITE TIP™ .....	47-49	ATW™ .....	86
S.M.A.R.T.™ Flex .....	18	VISTA BRITE TIP™ IG .....	47-49	ATW™ ECO PACS .....	86
S.M.A.R.T. CONTROL™ .....	20	<b>DIAGNOSTIC CATHETERS</b>		ATW™ MARKER WIRE .....	86
S.M.A.R.T. CONTROL™ LARGE .....	21	General Information .....	53	STABILIZER™ .....	86
LONG S.M.A.R.T.™ .....	22	Flush Catheters .....	54	<b>EMBOLI PROTECTION DEVICE</b>	
.014" Stent Delivery system		<b>Selective Catheters</b>		General Information .....	89
PRECISE PRO RX™ .....	23	Multipurpose Catheters .....	60	ANGIOGUARD™ RX components .....	91
<b>ABDOMINAL AORTIC ANEURYSM</b>		Visceral Catheters .....	62	Ordering information .....	92
INCRAFT™ AAA Stent Graft System .....	26	Cerebral Catheters .....	65	<b>VENOUS PRODUCTS</b>	
<b>PTA BALLOONS</b>		<b>Calibration Catheters</b>		Retrievable Vena Cava Filter	
General Information .....	28	SUPERTORQUE™ MB .....	70	OPTEASE™ .....	96
.035" Guidewire Compatibility		<b>CATHETER SHEATH INTRODUCERS</b>		<b>ACCESSORIES</b>	
SABER™ .035" .....	30	General Information .....	74	High-pressure Injector Lines .....	100
POWERFLEX™ Pro .....	31	General Information .....	74	High-pressure Rotating Adaptors .....	101
.018" Guidewire Compatibility		AVANTI™+ .....	75	Control Syringes .....	103
SABER™ .018" .....	32	BRITE TIP™ .....	76	Angiographic Needles .....	104
		Obturator .....	77		
		Vessel Dilators .....	77		
		<b>GUIDEWIRES</b>			
		General Information .....	79		

# Alphabetical Index

<b>A</b>	Accessories.....	99	<b>G</b>	Guidewires (Steerable).....	85	Sheath Introducers.....	74	
	Adaptors (Rotating).....	101		Guidewires (Diagnostic).....	81	SLEEK™ RX.....	34	
	ANGIOGUARD™ RX.....	91		Guiding Catheters.....	45	SLEEK™ OTW.....	35	
	Angiographic Needles.....	104	<b>H</b>	High-Pressure Rotating Adaptors.....	101	S.M.A.R.T.™ (Long).....	22	
	Angiographic Vessel Dilator (Venous).....	96		High-Pressure Injector Lines.....	100	S.M.A.R.T. CONTROL™.....	20	
	AQUATRACK™.....	84	<b>I</b>	INCRRAFT™ AAA Stent Graft System.....	26	S.M.A.R.T. CONTROL™ (Large).....	21	
	ATW™.....	86		Inflation Systems.....	102	S.M.A.R.T.™ Flex.....	18	
	ATW™ Marker Wire.....	86		Introducer Sheaths.....	74	STABILIZER™.....	86	
	AVANTI™+ Sheath Introducer.....	75	<b>M</b>	Marker Band Catheters.....	70	Steerable Guidewires.....	85	
	AVIATOR™ Plus.....	34		Micro-Guide Catheter (CTO Catheters).....	43	Stents.....	10	
<b>B</b>	Balloons.....	28		Multipurpose Catheters (Diagnostic).....	60	STORQ™.....	85	
	Balloon Expandable Stents.....	9		MYNX™.....	38	SUPERTORQUE™ 4F - 5F - 6F.....	56	
	BRITE TIP™ Sheath Introducers.....	76		MYNX CONTROL™ Vascular Closure Device.....	38	SUPERTORQUE™ MB.....	70	
<b>C</b>	Calibration Catheters (Diagnostic).....	70		MYNXGRIP™ Vascular Closure Device.....	39	SV WIRE.....	85	
	Capture Sheath (ANGIOGUARD™ RX).....	91	<b>N</b>	Needles.....	104	Syringes.....	103	
	Catheter Sheath Introducers.....	34	<b>O</b>	Obturers (CSI).....	77	<b>T</b>	TEMPO™ 4F & 5F.....	56
	Catheter Extensions.....	102		OPTEASE™ retrievable Vena Cava Filter.....	96		TEMPO AQUA™ 4F & 5F.....	65
	Cerebral Catheters (Diagnostic).....	65		OUTBACK™ Elite Re-Entry Catheter (CTO Catheter).....	42	<b>V</b>	Vena Cava Filters.....	96
	Control Syringes.....	103	<b>P</b>	PALMAZ BLUE™.....	12		Venous Products.....	96
	CSI.....	74		POWERFLEX™ Pro.....	31		Vessel Dilators (CSI).....	77
	CTO Catheters.....	42		PRECISE PRO RX™.....	23		Visceral Catheters (Diagnostic).....	62
<b>D</b>	Delivery Sheath (ANGIOGUARD™ RX).....	91		Pre-mounted Balloon Expandable Stents.....	10		VISTA BRITE TIP™.....	47
	Diagnostic Catheters.....	53		Pre-mounted Palmaz BLUE™.....	14		VISTA BRITE TIP™ IG.....	47
	Diagnostic Guidewires.....	81		Pre-mounted Palmaz Genesis™.....	10	<b>Z</b>	ZEPHYR™ Vascular Compression Device.....	38
	Distal Protection Device (ANGIOGUARD™ RX).....	91		PTA Balloons.....	28			
	DURALYN.....	29	<b>R</b>	Retrieval Vena Cava Filter.....	96			
<b>E</b>	Emboli Protection Device (ANGIOGUARD™ RX).....	91	<b>S</b>	SABER™ .035.....	30			
	EMERALD™ Guidewires.....	81		SABER™ .018.....	32			
	EXOSEAL™.....	39		Selective Catheters (Diagnostic).....	60			
<b>F</b>	Filter Device (ANGIOGUARD™ RX).....	91		Self Expanding Stents.....	18			
	Filter (Vena Cava Filter).....	96						
	Flush Catheters (Diagnostic).....	54						

# Trademarks

Cordis trademarks used in this catalogue are:

**CORDIS™**

**ANGIOGUARD™**

**AQUATRACK™**

**ATW™**

**ATW™ MARKER WIRE**

**AVANTI™**

**AVIATOR™**

**BRITE TIP™**

**DURALYN™**

**EMERALD™**

**EXOSEAL™**

**INCRAFT™**

**MYNXGRIP™**

**MYNX CONTROL™**

**NESTING™**

**OPTEASE™**

**OUTBACK™**

**PALMAZ BLUE™**

**PALMAZ GENESIS™**

**POWERFLEX™ Pro**

**PRECISE PRO RX™**

**SABER™**

**SLEEK™**

**SLX™**

**S.M.A.R.T. CONTROL™**

**S.M.A.R.T.™ Flex**

**STABILIZER™**

**STORQ™**

**SUPERTORQUE™**

**TEMPO™**

**TEMPO AQUA™**

**VISTA BRITE TIP™**

CORDIS, the Cordis LOGO, and the trademarks listed above are trademarks of Cordis and may be registered in the US and/or in other countries. All other marks are the property of their respective owners.

# Stents

## Balloon Expandable Stents .....9

- Pre-mounted Balloon Expandable Stents
- Unmounted Balloon Expandable Stents

## Self-Expanding Stents .....19



# Stents

Balloon Expandable

### Pre-mounted Balloon Expandable Stents

#### .035" Over-the-Wire System

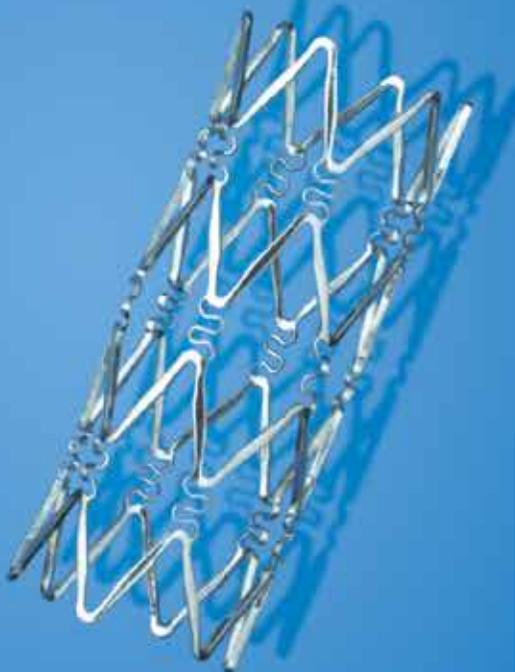
PALMAZ GENESIS™ on OPTA™ PRO (Medium) Stent .....	10
PALMAZ GENESIS™ on OPTA™ PRO (Large) Stent .....	11

#### 0.18" Over-the-Wire System

PALMAZ GENESIS™ Stent on SLALOM™ Balloon .....	13
PALMAZ BLUE™ 0.18 Stent .....	14

#### 0.14" Rapid Exchange System

PALMAZ BLUE™ 0.14 Stent .....	15
-------------------------------	----



# Stents

Balloon Expandable

## PALMAZ GENESIS™ Peripheral Stent

### Stainless steel

- One piece laser cut stainless steel slotted tube (no welds)
- Closed-cell Design

Furthermore FlexSegments and Cordis Nesting+ technology ensure :

- Predeployed flexibility
- A minimum foreshortening
- Improved scaffolding in a bend
- Smooth transition from stent to balloon

The PALMAZ GENESIS™ Peripheral Stent family offers a complete range of lengths and diameters in combination with pre-mounted and standalone configurations.

## PALMAZ BLUE™ Peripheral Stent

### Cobalt Chromium L605

The PALMAZ BLUE™ Peripheral Stent utilises advanced technology, L605 Cobalt Chromium, with a proven design to offer:

- Increased radiopacity
  - Low profiles
  - Superior flexibility and deliverability
- ...while not trading off radial strength and vessel scaffolding

The PALMAZ BLUE™ Stent incorporates the PALMAZ™ and PALMAZ GENESIS™ Peripheral Stents heritage:

- Closed cell design
- One-piece laser-cut slotted tube (no welds)
- Optimised FlexSegments for flexibility, deliverability and reduced foreshortening
- Nesting technology for smooth transition from stent to balloon

# Stents

Pre-mounted Balloon Expandable

## PALMAZ GENESIS™ Peripheral Stent on OPTA™ PRO Balloon (Medium)

### .035" over-the-wire Stent system

#### Stainless steel

- One piece laser cut stainless steel slotted tube (no welds)
- Closed-cell Design
- Laser cut slotted tube for device integrity (no welds)
- "S" shaped FlexSegments for reduced foreshortening, pre-deployed flexibility and improved scaffolding in a bend
- High radial Strength
- Lengths of delivery system : 80 and 135 cm
- Low profile .035" stent delivery system
- Metal introducer tube included in the package
- Recommended inflation pressure : 8 atm

Unexpanded Stent Length (mm)	Expanded Stent Length (mm)	Balloon Ø x Length (mm x mm)	Sheath Compatibility (F)	Guiding Compatibility (F)	Catalogue Number Length of delivery system	
					80 cm	135 cm
12	11	5 x 15	6	8 (.088")	PG1250PPS	PG1250PPX
12	11	7 x 15	6	8 (.088")	PG1270PPS	PG1270PPX
12	11	8 x 15	6	8 (.088")	PG1280PPS	PG1280PPX
15	14	4 x 17	6	8 (.088")	PG1540PPS	
15	14	5 x 17	6	8 (.088")	PG1550PPS	
15	14	6 x 17	6	8 (.088")	PG1560PPS	
15	14	7 x 17	6	8 (.088")	PG1570PPS	
15	14	8 x 17	6	8 (.088")	PG1580PPS	PG1580PPX
18	17	4 x 20	6	8 (.088")	PG1840PPS	
18	17	5 x 20	6	8 (.088")	PG1850PPS	PG1850PPX
18	17	6 x 20	6	8 (.088")	PG1860PPS	PG1860PPX
18	17	7 x 20	6	8 (.088")	PG1870PPS	PG1870PPX
18	17	8 x 20	6	8 (.088")	PG1880PPS	PG1880PPX
24	23	4 x 25	6	8 (.088")	PG2440PPS	
24	23	5 x 25	6	8 (.088")	PG2450PPS	
24	23	6 x 25	6	8 (.088")	PG2460PPS	PG2460PPX
24	23	7 x 25	6	8 (.088")	PG2470PPS	PG2470PPX
24	23	8 x 25	6	8 (.088")	PG2480PPS	PG2480PPX

# Stents

Pre-mounted Balloon Expandable

## PALMAZ GENESIS™ Peripheral Stent on OPTA™ PRO Balloon (Large)

### .035" over-the-wire Stent system

#### Stainless steel

- One piece laser cut stainless steel slotted tube (no welds)
- Closed-cell Design
- Laser cut slotted tube for device integrity (no welds)
- "N" shaped FlexSegments for reduced foreshortening, pre-deployed flexibility and improved scaffolding in a bend
- High radial Strength
- Lengths of delivery system: 80 and 135 cm
- Low profile .035" stent delivery system
- Metal introducer tube included in the package
- Recommended inflation pressure: 8 atm

Unexpanded Stent Length (mm)	Expanded Stent Length (mm)	Balloon Ø x Length (mm x mm)	Sheath Compatibility (F)	Guiding Compatibility (F)	Catalogue Number Length of delivery system	
					80 cm	135 cm
19	17	9 x 20	7	9 (.098")	PG1990PPS	PG1990PPX
19	16	10 x 20	7	9 (.098")	PG1910PPS	PG1910PPX
25	22	9 x 26	7	9 (.098")	PG2590PPS	PG2590PPX
25	22	10 x 26	7	9 (.098")		PG2510PPX
29	27	6 x 30	6	8 (.088")	PG2960PPS	PG2960PPX
29	26	7 x 30	6	8 (.088")	PG2970PPS	PG2970PPX
29	26	8 x 30	7	9 (.098")		PG2980PPX
29	25	9 x 30	7	9 (.098")	PG2990PPS	PG2990PPX
29	24	10 x 30	7	9 (.098")	PG2910PPS	PG2910PPX
39	39	5 x 40	6	8 (.088")	PG3950PPS	PG3950PPX
39	38	6 x 40	6	8 (.088")	PG3960PPS	PG3960PPX
39	36	7 x 40	6	8 (.088")		PG3970PPX
39	36	8 x 40	7	9 (.098")	PG3980PPS	PG3980PPX
39	35	9 x 40	7	9 (.098")	PG3990PPS	PG3990PPX
39	32	10 x 40	7	9 (.098")	PG3910PPS	PG3910PPX
59	59	5 x 60	6	8 (.088")	PG5950PPS	PG5950PPX
59	59	6 x 60	6	8 (.088")	PG5960PPS	PG5960PPX
59	57	7 x 60	6.5	8 (.088")	PG5970PPS	PG5970PPX

Continued

# Stents

Pre-mounted Balloon Expandable

## PALMAZ GENESIS™ Peripheral Stent on OPTA™ PRO Balloon (Large) Continued

Unexpanded Stent Length (mm)	Expanded Stent Length (mm)	Balloon Ø x Length (mm x mm)	Sheath Compatibility (F)	Guiding Compatibility (F)	Catalogue Number	
					Length of delivery system 80 cm	Length of delivery system 135 cm
59	56	8 x 60	7	9 (.098")	PG5980PPS	PG5980PPX
59	53	9 x 60	7	9 (.098")	PG5990PPS	PG5990PPX
59	53	10 x 60	7	9 (.098")	PG5910PPS	PG5910PPX
79	79	6 x 80	6	8 (.088")	PG7960PPS	PG7960PPX
79	78	7 x 80	6.5	8 (.088")	PG7970PPS	PG7970PPX
79	76	8 x 80	7	9 (.098")	PG7980PPS	PG7980PPX
79	75	9 x 80	7	9 (.098")	PG7990PPS	PG7990PPX
79	73	10 x 80	7	9 (.098")	PG7910PPS	

# Stents

Pre-mounted Balloon Expandable

## PALMAZ GENESIS™ Peripheral Stent on SLALOM™ Balloon

### .018" over-the-wire Stent system

#### Stainless steel

- One piece laser cut stainless steel slotted tube (no welds)
- Closed-cell Design
- Laser cut slotted tube for device integrity (no welds)
- "S" shaped FlexSegments for reduced foreshortening, pre-deployed flexibility and improved scaffolding in a bend
- High radial Strength
- Lengths of delivery system: 80 and 135 cm
- Low Profile .018" stent delivery system
- Metal introducer tube included in the package
- Recommended inflation pressure:
  - 12 atm: 3-4 mm Ø
  - 10 atm: 5-6-7 mm Ø
  - 8 atm: 8 mm Ø

Unexpanded Stent Length (mm)	Expanded Stent Length (mm)	Balloon Ø x Length (mm x mm)	Sheath Compatibility (F)	Guiding Compatibility (F)	Catalogue Number Length of delivery system 135 cm
18	18	3 x 20	5	7 (.078")	PG1830PSX
18	18	8 x 19	6	8 (.088")	PG1880PSX
24	24	3 x 25	5	7 (.078")	PG2430PSX
24	24	8 x 25	6	8 (.088")	PG2480PSX
39	37	7 x 40	6	7 (.078")	PG3970PSX
39	34	8 x 40	6	8 (.088")	PG3980PSX

# Stents

Pre-mounted Balloon Expandable

## PALMAZ BLUE™ .018 Peripheral Stent .018" over-the-wire Stent system L605 Cobalt Chromium on SLALOM™ Balloon

- Laser cut L605 cobalt chromium slotted tube for device integrity (no welds)
- Closed cell design
- Optimised FlexSegments for flexibility, deliverability and reduced foreshortening
- Increased radiopacity
- High radial strength
- Lengths of delivery system: 80 and 135cm
- Low profile .018" stent delivery system
- Metal introducer included in package
- Recommended inflation pressure:  
12 atm: 4mm Ø;  
10 atm: 5-7mm Ø

Unexpanded Stent Length (mm)	Expanded Stent Length (mm)	Balloon Ø x Length (mm x mm)	Sheath Compatibility (F)	Guiding Compatibility (F)	Catalogue Number Length of delivery system	
					80 cm	135 cm
12	12	4 x 15	5	6 (.070")	PB1240PSS	
12	11	5 x 15	5	6 (.070")	PB1250PSS	PB1250PSX
12	10	6 x 15	5	6 (.070")	PB1260PSS	PB1260PSX
12	11	7 x 15	5	6 (.070")	PB1270PSS	
15	15	4 x 17	5	6 (.070")	PB1540PSS	
15	14	5 x 17	5	6 (.070")	PB1550PSS	PB1550PSX
15	14	6 x 17	5	6 (.070")	PB1560PSS	PB1560PSX
15	14	7 x 17	5	6 (.070")	PB1570PSS	
18	17	4 x 20	5	6 (.070")	PB1840PSS	
18	18	5 x 20	5	6 (.070")	PB1850PSS	PB1850PSX
18	17	6 x 20	5	6 (.070")	PB1860PSS	PB1860PSX
18	18	7 x 20	5	6 (.070")	PB1870PSS	PB1870PSX
24	23	4 x 25	5	6 (.070")	PB2440PSS	
24	24	5 x 25	5	6 (.070")	PB2450PSS	PB2450PSX
24	23	6 x 25	5	6 (.070")	PB2460PSS	PB2460PSX
24	24	7 x 25	5	6 (.070")	PB2470PSS	PB2470PSX

# Stents

Pre-mounted Balloon Expandable

## PALMAZ BLUE™ .014 Peripheral Stent .014" Rapid Exchange System L605 Cobalt Chromium on AVIATOR™ Plus Balloon

- Laser cut L605 cobalt chromium slotted tube for device integrity (no welds)
- Closed cell design
- Optimised FlexSegments for flexibility, deliverability and reduced foreshortening
- Increased radiopacity
- High radial strength
- Lengths of delivery system: 80 and 142 cm
- Low profile .014" stent delivery system
- Metal introducer included in package
- Recommended inflation pressure: 10 atm

Unexpanded Stent Length (mm)	Expanded Stent Length (mm)	Balloon Ø x Length (mm x mm)	Sheath Compatibility (F)	Guiding Compatibility (F)	Catalogue Number Length of delivery system	
					80 cm	142 cm
12	12	4 x 15	4	6 (.070")	PB1240PPS	PB1240PPX
12	11	5 x 15	5	6 (.070")		PB1250PPX
12	10	6 x 15	5	6 (.070")	PB1260PPS	PB1260PPX
12	11	7 x 15	5	6 (.070")	PB1270PPS	PB1270PPX
15	15	4 x 17	4	6 (.070")	PB1540PPS	PB1540PPX
15	14	5 x 17	5	6 (.070")	PB1550PPS	PB1550PPX
15	14	6 x 17	5	6 (.070")	PB1560PPS	PB1560PPX
15	14	7 x 17	5	6 (.070")	PB1570PPS	PB1570PPX
18	17	4 x 20	4	6 (.070")	PB1840PPS	PB1840PPX
18	18	5 x 20	5	6 (.070")	PB1850PPS	PB1850PPX
18	17	6 x 20	5	6 (.070")	PB1860PPS	PB1860PPX
18	17	7 x 20	5	6 (.070")	PB1870PPS	PB1870PPX
24	23	4 x 25	4	6 (.070")		PB2440PPX
24	24	5 x 25	5	6 (.070")		PB2450PPX
24	23	6 x 25	5	6 (.070")	PB2460PPS	PB2460PPX
24	23	7 x 25	5	6 (.070")		PB2470PPX

# Stents

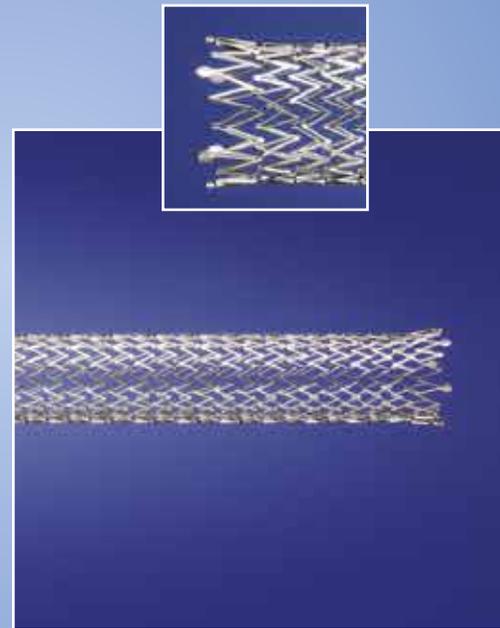
Self-Expanding

## 0.35" Stent Delivery System

S.M.A.R.T.™ Flex Vascular Stent System .....	18
S.M.A.R.T. CONTROL™ Nitinol Stent System .....	20
S.M.A.R.T. CONTROL™ Large Nitinol Stent System .....	21
Long S.M.A.R.T.™ Nitinol Stent System .....	22

## 0.14" Stent Delivery System

PRECISE PRO RX™ Nitinol Stent System .....	23
--	----



# Stents

Self-Expanding

## S.M.A.R.T.™ Flex

Vascular Stent System

S.M.A.R.T.™ Flex Vascular Stent System is one of our self-expanding stent. Its fully connected design is intended to reduce stretching at deployment, facilitating accurate placement.

The radiopaque markers help facilitate accurate placement and the simple delivery system offers an easy deployment.

The S.M.A.R.T.™ Flex Vascular Stent System unique design offers:

- Excellent fracture resistance due to helical strut bands and diameter-specific design
- Wide range portfolio of sizes for treating both longer and small-diameter lesions
- Built upon the PALMAZ™ Stent heritage with a tissue-to-metal ratio of 80% to 90% and high radial strength
- Placement accuracy is supported by low deployment forces and fully connected architecture
- High flexibility as a result of multiple flex bridges
- Superior longitudinal stability from fully connected design and scaffolding\*

## S.M.A.R.T.™ CONTROL.

Nitinol Stent System

S.M.A.R.T.™ CONTROL Nitinol Stent System is a one piece laser cut, self-expanding Nitinol stent combining a unique micromesh design with a multi segmental construction:

The unique S.M.A.R.T.™ CONTROL Nitinol Stent System design offers:

- Crush recoverable flexibility in the most challenging vasculature
- Optimal wall apposition and contourability
- Reduced foreshortening for accurate placement
- High radial resistive force
- A large portfolio of lengths and diameters
- Accuracy in stent placement
- Ease of use

## PRECISE PRO RX™

Nitinol Stent System

### Carotid indications

The PRECISE PRO RX™ Nitinol Stent System is a one piece laser cut, Self Expanding Nitinol Stent combining a unique micromesh design with a multisegmental design construction:

The PRECISE PRO RX™ Carotid stent system design offers:

- Plaque scaffolding for uniform coverage
- Accurate stent placement facilitated by PTFE coated support member
- Proven results in clinical trials

\* Data on file, Cordis Corporation

# Stents

Self-Expanding

## S.M.A.R.T.™ Flex .035" Vascular Stent System

- Type: Fully connected yet flexible stent design
- Material: Nitinol, with radiopaque tantalum markers on stent ends
- Maximum Guidewire: 0.035"
- Stent Lengths: 20 - 200 mm
- Sheath Compatibility: 6F
- Stent Diameters: 5-8 mm for use in the superficial femoral arteries and proximal popliteal arteries (Stent diameter should be 0.5-1.5 mm greater than vessel diameter)  
9-10 mm for use in the common and external iliac arteries
- (stent diameter should be 0.5-1.5mm greater than vessel diameter)
- Stent Delivery System Working Lengths: 80 cm (S suffix) and 120 cm (M suffix)

Stent Diameter (mm)	Stent Length (mm)	Recommended Lumen Size (mm)	Recommended Sheath Introducer Size	Catalogue Number Length of delivery system	
				80 cm	120 cm
5	30	3.5-4.5	6	SF05030SV	SF05030MV
5	40	3.5-4.5	6	SF05040SV	SF05040MV
5	60	3.5-4.5	6	SF05060SV	SF05060MV
5	80	3.5-4.5	6	SF05080SV	SF05080MV
5	100	3.5-4.5	6	SF05100SV	SF05100MV
5	120	3.5-4.5	6	SF05120SV	SF05120MV
5	150	3.5-4.5	6	SF05150SV	SF05150MV
6	30	4.5-5.5	6	SF06030SV	SF06030MV
6	40	4.5-5.5	6	SF06040SV	SF06040MV
6	60	4.5-5.5	6	SF06060SV	SF06060MV
6	80	4.5-5.5	6	SF06080SV	SF06080MV
6	100	4.5-5.5	6	SF06100SV	SF06100MV
6	120	4.5-5.5	6	SF06120SV	SF06120MV
6	150	4.5-5.5	6	SF06150SV	SF06150MV

## S.M.A.R.T.™ Flex

Stent Diameter (mm)	Stent Length (mm)	Recommended Lumen Size (mm)	Recommended Sheath Introducer Size	Catalogue Number Length of delivery system	
				80 cm	120 cm
7	30	5.5-6.5	6	SF07030SV	SF07030MV
7	40	5.5-6.5	6	SF07040SV	SF07040MV
7	60	5.5-6.5	6	SF07060SV	SF07060MV
7	80	5.5-6.5	6	SF07080SV	SF07080MV
7	100	5.5-6.5	6	SF07100SV	SF07100MV
7	120	5.5-6.5	6	SF07120SV	SF07120MV
7	150	5.5-6.5	6	SF07150SV	SF07150MV
7	200	5.5-6.5	6	SF07200SV	SF07200MV
8	30	6.5-7.5	6	SF08030SV	SF08030MV
8	40	6.5-7.5	6	SF08040SV	SF08040MV
8	60	6.5-7.5	6	SF08060SV	SF08060MV
8	80	6.5-7.5	6	SF08080SV	SF08080MV
8	100	6.5-7.5	6	SF08100SV	SF08100MV
8	120	6.5-7.5	6	SF08120SV	SF08120MV
8	150	6.5-7.5	6		SF08150MV
8	200	6.5-7.5	6	SF08200SV	SF08200MV
10	100	8.5-9.5	6		

## S.M.A.R.T. CONTROL™ .035" Stent Delivery System Nitinol

- Laser cut from a Nitinol hypo tube (no welds)
- Micromesh design
- Multisegmental construction
- High radial resistive strength
- Crush recoverable
- Delivery system with coil construction and dual action deployment system
- 6 tantalum MicroMarkers at each end of the stent
- Recommended guidewire: .035"
- Lengths of delivery system: 80 and 120 cm
- Recommended introducer size: 6F
- Recommended Guiding catheter: 8 F

Stent Configuration Stent Ø x Length (mm)	Unconstrained Stent Ø (mm)	Unconstrained Stent Length (mm)	Min/Max Vessel Ø (mm)	Catalogue Number Length of delivery system	
				80 cm	120 cm
6 x 20	6	20	4-5	C06020SV	
6 x 30	6	30	4-5	C06030SV	C06030MV
6 x 40	6	40	4-5	C06040SV	C06040MV
6 x 60	6	60	4-5	C06060SV	C06060MV
6 x 80	6	80	4-5	C06080SV	C06080MV
6 x 100	6	100	4-5	C06100SV	C06100MV
7 x 20	7	20	5-6	C07020SV	
7 x 30	7	30	5-6	C07030SV	C07030MV
7 x 40	7	40	5-6	C07040SV	C07040MV
7 x 60	7	60	5-6	C07060SV	C07060MV
7 x 80	7	80	5-6	C07080SV	C07080MV
7 x 100	7	100	5-6	C07100SV	C07100MV
8 x 20	8	20	6-7	C08020SV	
8 x 30	8	30	6-7	C08030SV	C08030MV
8 x 40	8	40	6-7	C08040SV	C08040MV
8 x 60	8	60	6-7	C08060SV	C08060MV
8 x 80	8	80	6-7	C08080SV	C08080MV
8 x 100	8	100	6-7	C08100SV	C08100MV

## S.M.A.R.T. CONTROL™ Stent Delivery System

Stent Configuration Stent Ø x Length (mm)	Unconstrained Stent Ø (mm)	Unconstrained Stent Length (mm)	Min/Max Vessel Ø (mm)	Catalogue Number Length of delivery system	
				80 cm	120 cm
9 x 20	9	20	7-8	C09020SV	
9 x 30	9	30	7-8	C09030SV	C09030MV
9 x 40	9	40	7-8	C09040SV	C09040MV
9 x 60	9	60	7-8	C09060SV	C09060MV
9 x 80	9	80	7-8	C09080SV	C09080MV
10 x 20	10	20	8-9	C10020SV	
10 x 30	10	30	8-9	C10030SV	C10030MV
10 x 40	10	40	8-9	C10040SV	C10040MV
10 x 60	10	60	8-9	C10060SV	C10060MV
10 x 80	10	80	8-9	C10080SV	C10080MV

## S.M.A.R.T. CONTROL™ Large 12 x 14 mm Stent Delivery System

- Recommended guidewire: .035"
- Recommended introducer size: 7F
- Recommended Guiding catheter: 9 F

Stent Configuration Stent Ø x Length (mm)	Unconstrained Stent Ø (mm)	Unconstrained Stent Length (mm)	Min/Max Vessel Ø (mm)	Catalogue Number Length of delivery system	
				80 cm	120 cm
12 x 30	12	30	10-11	C12030SV	
12 x 40	12	40	10-11	C12040SV	C12040MV
12 x 60	12	60	10-11	C12060SV	C12060MV
12 x 80	12	80	10-11	C12080SV	C12080MV
14 x 30	14	30	12-13	C14030SV	
14 x 40	14	40	12-13	C14040SV	C14040MV
14 x 60	14	60	12-13	C14060SV	C14060MV
14 x 80	14	80	12-13	C14080SV	C14080MV

## Long S.M.A.R.T.™ .035" Stent Delivery System Nitinol

- Laser cut from a Nitinol Hypotube (no welds)
- Micromesh design
- Multisegmental construction
- High radial resistive strength
- Crush recoverable
- 6 tantalum MicroMarkers at each end of stent
- Recommended guidewire: .035"
- Recommended introducer size: 6F
- Recommended guiding catheter: 8F
- The pin-and-pull delivery system

Stent Configuration Stent Ø x Length (mm)	Expanded Stent Ø (mm)	Expanded Stent Length (mm)	Min/Max Vessel Ø (mm)	Catalogue Number Length of delivery system 80 cm	Catalogue Number Length of delivery system 120 cm
6 x 120	6	120	4-5	C06120SV	C06120MV
7 x 120	7	120	5-6	C07120SV	C07120MV
8 x 120	8	120	5-6	C08120SV	C08120MV
6 x 150	6	150	4-5	C06150SV	C06150MV
7 x 150	7	150	5-6	C07150SV	C07150MV
8 x 150	8	150	5-6	C08150SV	C08150MV

## PRECISE PRO RX™

### .014" Stent Delivery System (Carotid Stent System)

#### Nitinol

- Laser cut from a Nitinol hypotube (no Welds)
- Micromesh design
- Multi segmental construction
- High radial resistive strength
- 8% maximum foreshortening (for all sizes)
- Crush-recoverable
- Carotid indication
- Length of delivery system: 135 cm
- Distal outer diameter:
  - 5F (5-8 mm)
  - 6F (9-10 mm)
- Recommended guiding catheter: 7F (5-8 mm Ø)  
8F (9-10 mm Ø)
- Recommended introducer size: 5F (5-8 mm Ø)  
6F (9-10 mm Ø)
- Guidewire compatibility: .014"
- Recommended Embolic Protection Device: ANGIOGUARD™ RX Emboli Capture Guidewire System

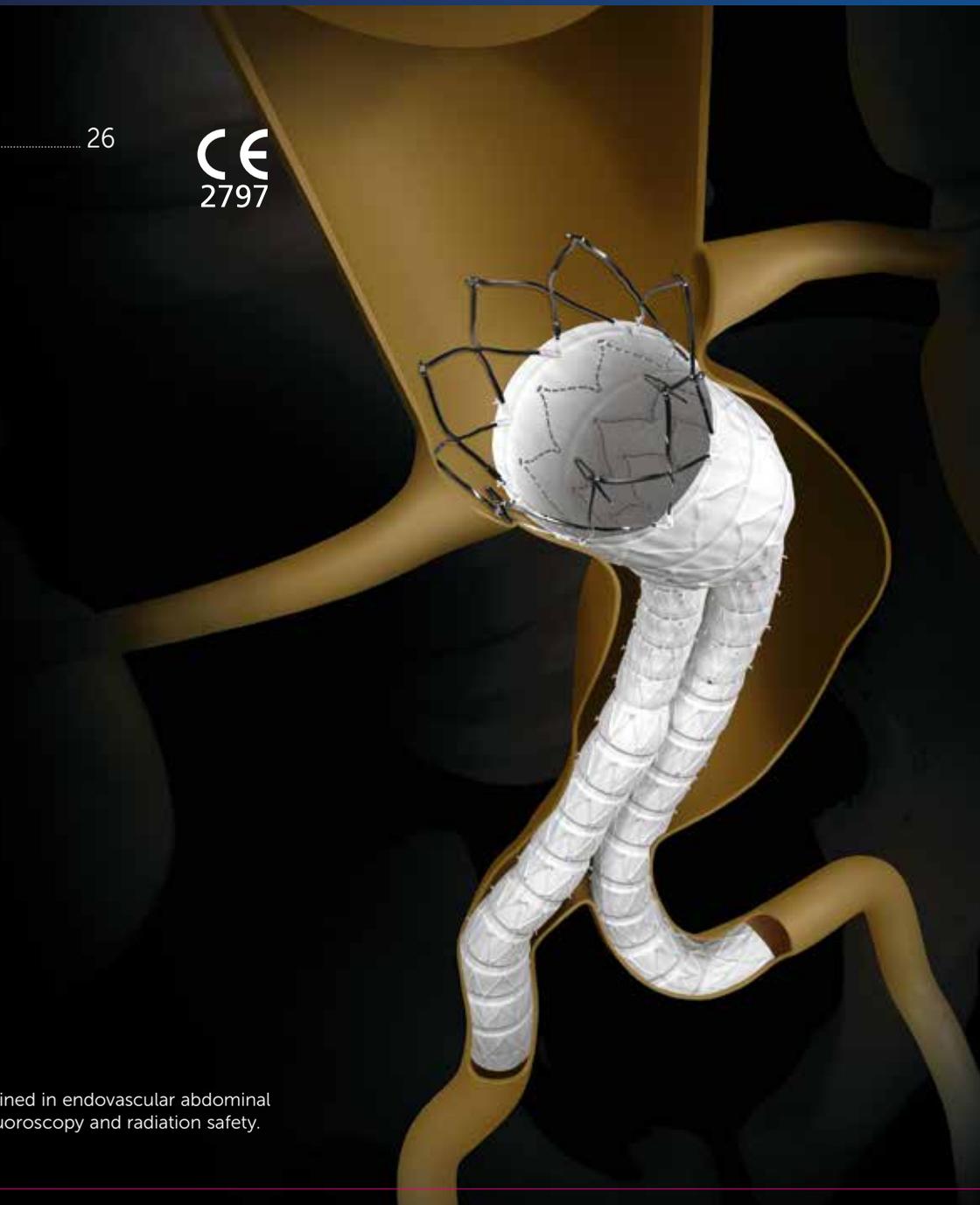
Stent Configuration Stent Ø x Length (mm)	Unconstrained Stent Ø (mm)	Unconstrained Stent Length (mm)	Min/Max vessel diameter (mm)	Catalogue Number Length of delivery system 135 cm
5 x 20	5	20	3-4	PC0520XCE
5 x 30	5	30	3-4	PC0530XCE
5 x 40	5	40	3-4	PC0540XCE
6 x 20	6	20	4-5	PC0620XCE
6 x 30	6	30	4-5	PC0630XCE
6 x 40	6	40	4-5	PC0640XCE
7 x 20	7	20	5-6	PC0720XCE
7 x 30	7	30	5-6	PC0730XCE
7 x 40	7	40	5-6	PC0740XCE
8 x 20	8	20	6-7	PC0820XCE
8 x 30	8	30	6-7	PC0830XCE
8 x 40	8	40	6-7	PC0840XCE
9 x 20	9	20	7-8	PC0920XCE
9 x 30	9	30	7-8	PC0930XCE
9 x 40	9	40	7-8	PC0940XCE
10 x 30	10	30	8-9	PC1030XCE
10 x 40	10	40	8-9	PC1040XCE



# Abdominal Aortic Aneurysm

INCRAFT™ AAA Stent Graft System ..... 26

CE  
2797



The use of the INCRAFT™ AAA Stent Graft System requires that physicians be trained in endovascular abdominal aortic aneurysm repair techniques, including experience with high resolution fluoroscopy and radiation safety. Cordis will provide training specific to the INCRAFT™ AAA Stent Graft System.

# Abdominal Aortic Aneurysm

## INCRAFT™ AAA Stent Graft System

The INCRAFT™ AAA Stent Graft System from Cordis is an advanced Endovascular Aneurysm Repair (EVAR) technology designed for the treatment of infrarenal abdominal aortic aneurysms. The 3-piece modular design addresses limitations of current endografts by combining unique features, such as real-time, in-situ device customization. Most importantly, for the first time, these features are delivered through a flexible, ultra-low profile system (14 Fr. OD)\*. The INCRAFT™ AAA Stent Graft System is backed by excellent clinical outcomes shown in the Innovation and Inspiration 5-year results. The studies demonstrate good safety, efficacy, and very low aneurysm-related deaths, with a high proportion of patients having challenging anatomy\*\*.

\* 16F outer diameter for the 34 mm aortic bifurcate.

Aortic Bifurcate

Product Code	AB Size (mm)	Treatment Range (mm)	Delivery System ID (F)	Delivery System OD (F)	Ipsi Length (mm)	Contra Length (mm)
AB2298	22	17.0 – 19.9	13	14	94	86
AB2698	26	20.0 – 22.9	13	14	94	86
AB3098	30	23.0 – 26.9	13	14	94	86
AB3498	34	27.0 – 31.0	15	16	94	86

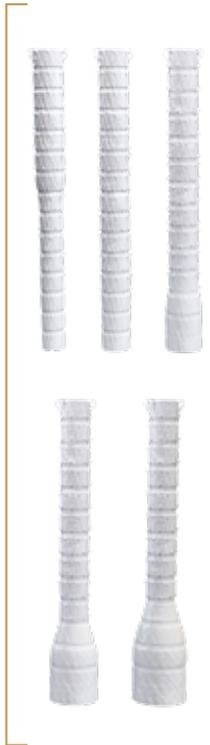
Aortic Extension

Product Code	AE Size (mm)	Treatment Range (mm)	Delivery System ID (F)	Delivery System OD (F)	Ipsi Length (mm)
AE2204	22	17.0 – 19.9	13	14	42
AE2604	26	20.0 – 22.9	13	14	42
AE3004	30	23.0 – 26.9	13	14	42
AE3404	34	27.0 – 31.0	15	16	42



Iliac Limb / Limb Extension

Product Code	IL Size (mm)	Treatment Range (mm)	IL Length (mm)	Delivery System OD (F)	Ipsi Length (mm)	Contra Length (mm)
IL1008	10	7.0 – 8.9	82	12	128 – 156	128 – 147
IL1010	10	7.0 – 8.9	101	12	147 – 175	147 – 166
IL1012	10	7.0 – 8.9	120	12	166 – 194	166 – 185
IL1014	10	7.0 – 8.9	138	12	184 – 212	184 – 203
IL1308	13	9.0 – 10.9	82	12	128 – 156	128 – 147
IL1310	13	9.0 – 10.9	101	12	147 – 175	147 – 166
IL1312	13	9.0 – 10.9	120	12	166 – 194	166 – 185
IL1314	13	9.0 – 10.9	138	12	184 – 212	184 – 203
IL1608	16	11.0 – 13.9	82	12	128 – 156	128 – 147
IL1610	16	11.0 – 13.9	101	12	147 – 175	147 – 166
IL1612	16	11.0 – 13.9	120	12	166 – 194	166 – 185
IL1614	16	11.0 – 13.9	138	12	184 – 212	184 – 203
IL2008	20	14.0 – 17.9	82	12	128 – 156	128 – 147
IL2010	20	14.0 – 17.9	101	12	147 – 175	147 – 166
IL2012	20	14.0 – 17.9	120	12	166 – 194	166 – 185
IL2014	20	14.0 – 17.9	138	12	184 – 212	184 – 203
IL2410	24	18.0 – 22.0	101	13	147 – 175	147 – 166
IL2412	24	18.0 – 22.0	120	13	166 – 194	166 – 185
IL2414	24	18.0 – 22.0	138	13	184 – 212	184 – 203



The use of the INCRAFT™ AAA Stent Graft System requires that physicians be trained in endovascular abdominal aortic aneurysm repair techniques, including experience with high resolution fluoroscopy and radiation safety. Cordis will provide training specific to the INCRAFT™ AAA Stent Graft System.

\*\* J Vasc Surg 2020;:-1-7.

# PTA Catheters

<b>General Information</b> .....	28
<b>.035" Guidewire Compatibility</b>	
SABER™ .035" PTA Catheter .....	30
POWERFLEX™ Pro PTA Catheter .....	31
<b>.018" Guidewire Compatibility</b>	
SABER™ .018" PTA Catheter .....	32
<b>.014" Guidewire Compatibility</b>	
AVIATOR™ Plus PTA Catheter .....	34
SLEEK™ PTA Catheter .....	34
SLEEK™ OTW PTA Catheter .....	35



# PTA Catheters

## .035" Guidewire Compatibility

### **SABER™ .035" PTA Catheter**

*For lower extremity vessels*

- Broad size matrix
- Low profile tapered tip
- Hydrophilic coating on the balloon and proximal end of the shaft
- RBP up to 24atm
- Balloon length up to 300mm

### **POWERFLEX™ Pro PTA Catheter**

*For lower extremity vessels*

- Wide range of lengths and diameters
- Fast deflation time\*
- Excellent profile and atraumatic flexible tip

## .018" Guidewire Compatibility

### **SABER™ .018" PTA Catheter**

*For all the leg needs*

- Wide range of sizes
- Designed with excellent crossability
- Hydrophilic coating on the balloon and proximal end of the shaft
- Fast deflation time

## .014" Guidewire Compatibility

### **AVIATOR™ Plus PTA Catheter**

*For carotid and renal needs*

- Ultra low profile balloon
- Shaft designed for excellent pushability
- Smooth tip-to-wire transition

### **SLEEK™ RX PTA Catheter**

*For infra-popliteal needs*

- Low profile rapid exchange 0,014" PTA system
- Long balloon lengths (up to 220 mm)
- Smooth tip-to-wire transition

### **SLEEK™ OTW PTA Catheter**

*For infra-popliteal needs*

- Low profile over-the-wire 0,014" PTA system
- Long balloon lengths (up to 220 mm)
- Smooth tip-to-wire transition

# PTA Catheters

## General information

Cordis offers a complete system of PTA balloon catheters providing solutions for the widest possible range of procedures. In addition to featuring Cordis' renowned quality, each balloon incorporates a specific set of characteristics that optimises the outcomes of the applications it is designed for.

All Cordis PTA balloons are made out of material alloys with superior characteristics:

- High puncture resistance: ideal for stent placement or post-dilatation of stent as well as for dilating hard lesions
- Versatile high-strength balloon material: enables us to provide you with a complete range of products with different profiles and pressure capabilities
- Great flexibility: balloon conforms to tortuous vessels and crosses difficult-to-reach lesions
- Low crossing profiles and exceptional rewrap characteristics: ideal for primary and secondary profiles
- Soft material: friendly to the vessel wall and creating smoother transitions
- Reputable durability: enabling you to use the same balloon several times during the same procedure while keeping the same secondary profile, hence creating substantial savings for the hospital and contributing to the safety of the patient.

Product	Type	Guidewire Compatibility (inch)	Balloon Diameter (mm)	Rated Burst Pressure (atm)	Balloon Material	Shaft Construction	Balloon Type Code
SABER™ .035"	Over-The-Wire	.035	3-12	12-24	Nylon 12: Grilamid L25	Dual-Lumen	480
POWERFLEX™ Pro	Over-The-Wire	.035	3-12	8-18	DURALYN™ *	Dual-Lumen	440
SABER™ .018"	Over-The-Wire	.018	2-10	10, 18	DURALYN™ *	Coaxial	480
SLEEK™	Rapid Exchange	.014	2-4		up to 16	Nylon	RX Dual-Lumen
425							
SLEEK™ OTW	Over-The-Wire	.014	1.25-5	up to 16	Nylon	Coaxial	426
AVIATOR™ Plus	Rapid Exchange	.014	4-7		up to 14	DURALYN™ *	RX Coaxial 424

\* Vestamid L2140: Nylon 12

# PTA Catheters

.035" Guidewire Compatibility

## SABER™ .035"

### Versatile over-the-wire PTA Catheter

- 0.035" PTA Balloon
- Dual Lumen shaft
- Tapered Tip
- RBP up to 24atm
- Extensive size matrix
- One piece hub
- Dual layer hydrophilic coating on the balloon and proximal part of the shaft



Balloon OD x Length (mm x cm)	Rated Burst Pressure (atm)	Recommended CSI Fit (F)	Catalogue * Number	Shaft Length (cm)		
				40	80	135
3 x 2	24	5	48003002	P	N	R
3 x 4	24	5	48003004	P	N	R
3 x 6	24	5	48003006	P	N	R
3 x 8	22	5	48003008	P	N	R
3 x 10	22	5	48003010	P	N	R
3 x 12	22	5	48003012		N	R
3 x 15	22	5	48003015		N	R
3 x 20	22	5	48003020		N	R
3 x 25	20	5	48003025		N	R
3 x 30	20	5	48003030		N	R
4 x 2	22	5	48004002	P	N	R
4 x 4	22	5	48004004	P	N	R
4 x 6	22	5	48004006	P	N	R
4 x 8	22	5	48004008	P	N	R
4 x 10	22	5	48004010	P	N	R
4 x 12	22	5	48004012		N	R
4 x 15	22	5	48004015		N	R
4 x 20	22	5	48004020		N	R
4 x 25	20	5	48004025		N	R
4 x 30	20	5	48004030		N	R
5 x 2	22	5	48005002	P	N	R
5 x 4	22	5	48005004	P	N	R
5 x 6	22	5	48005006	P	N	R
5 x 8	22	5	48005008	P	N	R
5 x 10	22	5	48005010	P	N	R
5 x 12	20	5	48005012	P	N	R
5 x 15	20	5	48005015		N	R
5 x 20	20	5	48005020		N	R

Balloon OD x Length (mm x cm)	Rated Burst Pressure (atm)	Recommended CSI Fit (F)	Catalogue * Number	Shaft Length (cm)		
				40	80	135
5 x 25	18	5	48005025		N	R
5 x 30	18	5	48005030		N	R
6 x 2	18	5	48006002	P	N	R
6 x 4	18	5	48006004	P	N	R
6 x 6	17	5	48006006	P	N	R
6 x 8	17	5	48006008	P	N	R
6 x 10	17	5	48006010	P	N	R
6 x 12	17	5	48006012	P	N	R
6 x 15	17	5	48006015		N	R
6 x 20	17	6	48006020		N	R
6 x 25	17	6	48006025		N	R
6 x 30	17	6	48006030		N	R
7 x 2	18	5	48007002	P	N	R
7 x 4	18	5	48007004	P	N	R
7 x 6	16	5	48007006	P	N	R
7 x 8	16	5	48007008	P	N	R
7 x 10	16	6	48007010	P	N	R
7 x 12	14	6	48007012		N	R
7 x 15	14	6	48007015			R
7 x 20	14	6	48007020			R
7 x 25	14	6	48007025			R
7 x 30	14	6	48007030			R
8 x 2	16	6	48008002	P	N	R
8 x 4	16	6	48008004	P	N	R
8 x 6	16	6	48008006	P	N	R
8 x 8	16	6	48008008	P	N	R
8 x 10	16	6	48008010	P	N	R
9 x 2	13	6	48009002	P	N	R
9 x 4	13	6	48009004	P	N	R
9 x 6	13	6	48009006	P	N	R
9 x 8	13	6	48009008	P	N	R
9 x 10	13	6	48009010	P	N	R
10 x 2	14	7	48010002	P	N	R
10 x 4	14	7	48010004	P	N	R
10 x 6	14	7	48010006	P	N	R
10 x 8	14	7	48010008	P	N	R
10 x 10	14	7	48010010	P	N	R
12 x 2	12	7	48012002	P	N	R
12 x 4	12	7	48012004	P	N	R

\* Add to the catalogue number the suffix corresponding to the shaft length you need: 48003002P

# PTA Catheters

.035" Guidewire Compatibility

## POWERFLEX™ Pro

### Versatile over-the-wire PTA Catheter

- 0.035" PTA Balloon
- Dual Lumen shaft
- Atraumatic Tip
- RBP up to 18 ATM
- Extended product range
- One piece hub
- Inner and outer (30cm distal) MDX coating



Balloon OD x Length (mm x cm)	Rated Burst Pressure (atm)	Recommended CSI Fit (F)	Catalogue * Number	Shaft Length (cm)	
				80	135
3 x 2	18	5	4400302	S	
3 x 4	18	5	4400304	S	X
3 x 6	18	5	4400306	S	X
3 x 8	18	5	4400308	S	X
3 x 10	18	5	4400310	S	X
3 x 12	18	5	4400312	S	X
3 x 15	18	5	4400315	S	X
3 x 22	18	5	4400322	S	X
4 x 2	18	5	4400402	S	X
4 x 4	18	5	4400404	S	X
4 x 6	18	5	4400406	S	X
4 x 8	18	5	4400408	S	X
4 x 10	18	5	4400410	S	X
4 x 12	18	5	4400412	S	X
4 x 15	18	5	4400415	S	X
4 x 22	18	5	4400422	S	X
5 x 2	15	5	4400502	S	X
5 x 3	15	5	4400503	S	
5 x 4	15	5	4400504	S	X
5 x 6	15	5	4400506	S	X
5 x 8	15	5	4400508	S	X
5 x 10	15	5	4400510	S	X
5 x 12	15	5	4400512	S	X
5 x 15	15	5	4400515	S	X
5 x 22	15	5	4400522	S	X
6 x 2	15	5	4400602	S	X
6 x 3	15	5	4400603	S	
6 x 4	15	5	4400604	S	X
6 x 6	15	5	4400606	S	X
6 x 8	15	5	4400608	S	X
6 x 10	15	5	4400610	S	X

Balloon OD x Length (mm x cm)	Rated Burst Pressure (atm)	Recommended CSI Fit (F)	Catalogue * Number	Shaft Length (cm)	
				80	135
6 x 12	15	5	4400612	S	X
6 x 15	15	5	4400615	S	X
6 x 22	15	5	4400622	S	X
7 x 2	15	5	4400702	S	X
7 x 3	15	5	4400703	S	
7 x 4	15	5	4400704	S	X
7 x 6	12	5	4400706	S	X
7 x 8	12	5	4400708	S	X
7 x 10	12	6	4400710	S	X
8 x 2	12	5	4400802	S	X
8 x 3	12	5	4400803	S	
8 x 4	12	5	4400804	S	X
8 x 6	12	5	4400806	S	X
8 x 8	12	5	4400808	S	X
8 x 10	12	6	4400810	S	X
9 x 2	12	6	4400902	S	X
9 x 3	12	6	4400903	S	
9 x 4	12	6	4400904	S	X
9 x 6	12	6	4400906	S	X
9 x 8	12	7	4400908	S	X
9 x 10	12	7	4400910	S	X
10 x 2	12	6	4401002	S	X
10 x 3	12	6	4401003	S	
10 x 4	12	6	4401004	S	X
10 x 6	12	7	4401006	S	X
10 x 8	12	7	4401008	S	X
10 x 10	12	7	4401010	S	X
12 x 2	8	7	4401202	S	X
12 x 3	8	7	4401203	S	
12 x 4	8	7	4401204	S	X
12 x 6	8	7	4401206	S	X

\* Add to the catalogue number the suffix corresponding to the shaft length you need: 4400302S

# PTA Catheters

.018" Guidewire Compatibility

## SABER™ .018"

### Low profile PTA Catheter

- Coaxial shaft 3.9F / 4.7F
- RBP: 18 ATM
- Dual layer hydrophilic coating on the balloon and proximal part of the shaft
- Over-the-Wire



Balloon OD x Length (mm x cm)	Rated Burst Pressure (atm)	Recommended Sheath Fit (F)	Catalogue * Number	Shaft Length (cm)	
				90	150
2 x 2	18	4	48002002	S	X
2 x 3	18	4	48002003	S	X
2 x 4	18	4	48002004	S	X
2 x 6	18	4	48002006	S	X
2 x 8	18	4	48002008	S	X
2 x 10	18	4	48002010	S	X
2 x 15	18	4	48002015	S	X
2 x 20	18	4	48002020	S	X
2 x 25	18	4	48002025	S	X
2 x 30	18	4	48002030	S	X
2.5 x 2	18	4	48002502	S	X
2.5 x 3	18	4	48002503	S	X
2.5 x 4	18	4	48002504	S	X
2.5 x 6	18	4	48002506	S	X
2.5 x 8	18	4	48002508	S	X
2.5 x 10	18	4	48002510	S	X
2.5 x 15	18	4	48002515	S	X
2.5 x 20	18	4	48002520	S	X
2.5 x 25	18	4	48002525	S	X
2.5 x 30	18	4	48002530	S	X
3 x 2	18	4	48003002	S	X
3 x 3	18	4	48003003	S	X

Balloon OD x Length (mm x cm)	Rated Burst Pressure (atm)	Recommended Sheath Fit (F)	Catalogue * Number	Shaft Length (cm)	
				90	150
3 x 4	18	4	48003004	S	X
3 x 6	18	4	48003006	S	X
3 x 8	18	4	48003008	S	X
3 x 10	18	4	48003010	S	X
3 x 15	14	4	48003015	S	X
3 x 20	14	4	48003020	S	X
3 x 25	14	4	48003025	S	X
3 x 30	14	4	48003030	S	X
3.5 x 2	18	4	48003502		X
3.5 x 3	18	4	48003503	S	X
3.5 x 4	18	4	48003504	S	X
3.5 x 6	18	4	48003506	S	X
3.5 x 8	18	4	48003508	S	X
3.5 x 10	18	4	48003510	S	X
3.5 x 15	14	4	48003515	S	X
3.5 x 20	14	4	48003520	S	X
3.5 x 25	14	4	48003525	S	X
3.5 x 30	14	4	48003530	S	X
4 x 2	18	4	48004002	S	X
4 x 3	18	4	48004003	S	X
4 x 4	18	4	48004004	S	X
4 x 6	18	4	48004006	S	X

\* Add to the catalogue number the suffix corresponding to the shaft length you need: 48002002S

# PTA Catheters

.018" Guidewire Compatibility

## SABER™ .018"

### Low profile PTA Catheter

- Coaxial shaft 3.9F / 4.7F
- RBP: 18 ATM
- Dual layer hydrophilic coating on the balloon and proximal part of the shaft
- Over-the-Wire



Balloon OD x Length (mm x cm)	Rated Burst Pressure (atm)	Recommended Sheath Fit (F)	Catalogue * Number	Shaft Length (cm)	
				90	150
4 x 8	18	4	48004008	S	X
4 x 10	18	4	48004010	S	X
4 x 15	14	4	48004015	S	X
4 x 20	14	4	48004020	S	X
4 x 25	14	4	48004025	S	X
4 x 30	14	4	48004030	S	X
5 x 2	16	4	48005002	S	X
5 x 3	16	4	48005003		X
5 x 4	16	4	48005004	S	X
5 x 6	16	4	48005006	S	X
5 x 8	16	4	48005008	S	X
5 x 10	16	4	48005010	S	X
5 x 15	14	5	48005015	S	X
5 x 20	14	5	48005020	S	X
5 x 25	14	5	48005025	S	X
5 x 30	14	5	48005030	S	X
6 x 2	16	4	48006002	S	X
6 x 3	16	4	48006003	S	
6 x 4	16	4	48006004	S	X
6 x 6	16	4	48006006	S	X
6 x 8	16	5	48006008	S	X
6 x 10	16	5	48006010	S	X
6 x 15	14	5	48006015	S	X

Balloon OD x Length (mm x cm)	Rated Burst Pressure (atm)	Recommended Sheath Fit (F)	Catalogue * Number	Shaft Length (cm)	
				90	150
6 x 20	14	5	48006020	S	X
6 x 25	14	6	48006025	S	X
6 x 30	14	6	48006030	S	X
7 x 2	14	4	48007002	S	X
7 x 3	14	4	48007003	S	X
7 x 4	14	4	48007004	S	X
7 x 6	14	5	48007006	S	X
7 x 8	14	5	48007008	S	X
7 x 10	14	5	48007010	S	X
8 x 2	12	4	48008002	S	X
8 x 4	12	4	48008004	S	X
8 x 6	12	5	48008006	S	X
8 x 8	12	5	48008008		X
8 x 10	12	5	48008010	S	X
9 x 2	10	5	48009002	S	
9 x 4	10	5	48009004	S	
9 x 6	10	5	48009006	S	
10 x 2	10	5	48010002	S	
10 x 3	10	5	48010003	S	
10 x 4	10	5	48010004	S	
10 x 8	10	6	48010008	S	
10 x 10	10	6	48010010	S	

\* Add to the ordering number the suffix corresponding to the shaft length you need: 48002002S

# PTA Catheters

.014" Guidewire Compatibility

## AVIATOR™ Plus

### .014" rapid exchange PTA Catheter

- Coaxial rapid exchange shaft
  - 3.3F distally (25cm length)
  - 3.3F proximal with stiffening wire
- High rated burst pressure (14-12 atm)



Balloon OD x Length (mm x cm)	Rated Burst Pressure (atm)	Sheath Fit (F)	Guiding Catheter Fit (F)	Catalogue * Number	Shaft Length (cm) 142
4 x 1.5	14	4	6	424-4015	W
4 x 2	14	4	6	424-4020	W
4 x 3	14	4	6	424-4030	W
4 x 4	14	4	6	424-4040	W
4.5 x 1.5	14	4	6	424-4515	W
4.5 x 2	14	4	6	424-4520	W
4.5 x 3	14	4	6	424-4530	W
4.5 x 4	14	4	6	424-4540	W
5 x 1.5	14	4	6	424-5015	W
5 x 2	14	4	6	424-5020	W
5 x 3	14	4	6	424-5030	W
5 x 4	14	4	6	424-5040	W
5.5 x 1.5	14	4	6	424-5515	W
5.5 x 2	14	4	6	424-5520	W
5.5 x 3	14	4	6	424-5530	W
5.5 x 4	14	4	6	424-5540	W
6 x 1.5	14	4	6	424-6015	W
6 x 2	14	4	6	424-6020	W
6 x 3	14	4	6	424-6030	W
6 x 4	14	4	6	424-6040	W
7 x 1.5	12	4	6	424-7015	W
7 x 2	12	4	6	424-7020	W
7 x 3	12	4	6	424-7030	W
7 x 4	12	4	7	424-7040	W

## SLEEK™ RX

### .014" rapid exchange PTA Catheter

- Dual-lumen rapid exchange shaft
- High rated burst pressure (16-15 atm)
- Long balloon lengths (6-22cm)

Balloon OD x Length (mm x cm)	Rated Burst Pressure (atm)	Recommended Sheath Fit (F)	Catalogue * Number	Shaft Length (cm) 150
2 X 4	16	4	425-2004	X
2 x 12	15	4	425-2012	X
2 x 15	15	4	425-2015	X
2 x 22	15	4	425-2022	X
2.5 x 4	16	4	425-2504	X
2.5 x 6	16	4	425-2506	X
2.5 x 12	15	4	425-2512	X
2.5 x 15	15	4	425-2515	X
2.5 x 22	15	4	425-2522	X
3 x 4	16	4	425-3004	X
3 x 6	16	4	425-3006	X
3 x 12	15	4	425-3012	X
3 x 15	15	4	425-3015	X
3 x 22	15	4	425-3022	X
3.5 x 4	16	4	425-3504	X
3.5 x 6	16	4	425-3506	X
3.5 x 12	15	4	425-3512	X
3.5 x 15	15	4	425-3515	X
3.5 x 22	15	4	425-3522	X
4 x 4	16	4	425-4004	X
4 x 6	16	4	425-4006	X
4 x 12	15	4	425-4012	X
4 x 15	15	4	425-4015	X
4 x 22	15	4	425-4022	X

\* Add to the catalogue number the suffix corresponding to the shaft length you need: 425-2004X

# PTA Catheters

.014" Guidewire Compatibility

## SLEEK™ OTW

### .014" Over-The-Wire PTA Catheter

- Coaxial
- High rated burst pressure (up to 16atm)
- Long Balloon lengths (1.5-28cm)

Balloon OD x Length (mm x cm)	Rated Burst Pressure (atm)	Recommended Sheath Fit (F)	Catalogue Number
1.25 x 1.5	14	4	4261201X
1.5 x 4	16	4	4261504X
1.5 x 8	16	4	4261508X
1.5 x 10	16	4	4261510X
2 x 2	16	4	4262002X
2 x 4	16	4	4262004X
2 x 8	15	4	4262008X
2 x 10	15	4	4262010X
2 x 12	15	4	4262012X
2 x 15	15	4	4262015X
2 x 22	15	4	4262022X
2 x 28	15	4	4262028X
2.5 x 2	16	4	4262502X
2.5 x 4	16	4	4262504X
2.5 x 8	15	4	4262508X
2.5 x 10	15	4	4262510X
2.5 x 12	15	4	4262512X
2.5 x 15	15	4	4262515X
2.5 x 22	15	4	4262522X
2.5 x 28	15	4	4262528X

Balloon OD x Length (mm x cm)	Rated Burst Pressure (atm)	Recommended Sheath Fit (F)	Catalogue Number
3 x 2	16	4	4263002X
3 x 4	16	4	4263004X
3 x 8	15	4	4263008X
3 x 10	15	4	4263010X
3 x 12	15	4	4263012X
3 x 15	15	4	4263015X
3 x 22	15	4	4263022X
3 x 28	15	4	4263028X
3.5 x 2	16	4	4263502X
3.5 x 4	16	4	4263504X
3.5 x 8	15	4	4263508X
3.5 x 10	15	4	4263510X
3.5 x 15	15	4	4263515X
3.5 x 22	15	4	4263522X
3.5 x 28	15	4	4263528X
4 x 2	16	4	4264002X
4 x 4	16	4	4264004X
4 x 8	15	4	4264008X
4 x 10	15	4	4264010X
4 x 15	15	4	4264015X
4 x 22	15	4	4264022X
4 x 28	15	4	4264028X
5 x 2	14	4	4265002X
5 x 4	14	4	4265004X
5 x 8	13	4	4265008X
5 x 10	13	4	4265010X
5 x 15	10	4	4265015X
5 x 22	10	4	4265022X
5 x 28	10	4	4265028X



# Vascular Closure and compression devices

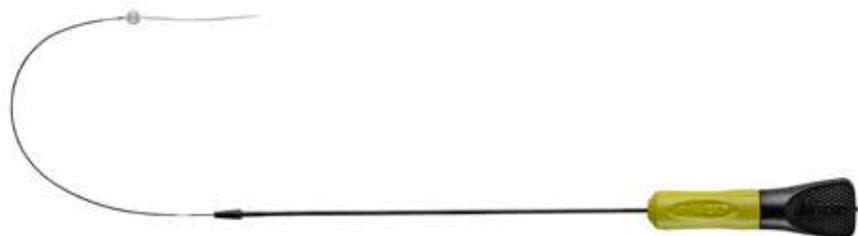
ZEPHYR™ Vascular Compression Device .....	42
MYNX CONTROL™ Vascular Closure Device.....	42
MYNXGRIP™ Vascular Closure Device.....	43
EXOSEAL™ Vascular Closure Device.....	43



ZEPHYR™ VCD



MYNX CONTROL™ VCD



MYNXGRIP™ VCD



EXOSEAL™ VCD

# Vascular Closure and compression devices

## ZEPHYR™ Vascular Compression Device

The ZEPHYR™ Vascular Compression Band is designed to provide security, comfort, and simplicity. This band is uniquely universal with its standard syringe compatibility and multiple access site versatility.

### SOFT FLEXIBLE BAND

Compliant elastomeric band for patient comfort and firm compression balloon for patent hemostasis

### INTERCHANGEABLE SYRINGE CONNECTION

Easy to use: universally compatible with standard luer syringes

### DOUBLE BONDED RADIAL BALLOON

The ZEPHYR™ VCD band helps clinicians achieve patent hemostasis with firm downward pressure and clear visualization of the puncture site.

ZEPHYR is manufactured by Advanced Vascular Dynamics and distributed by Cordis.



PRODUCT CODE	LENGTH	UNITS
190 0100 20	One size fits all (up to 30 cm with the extender)	50 sterile eaches / box*

\* 1 IFU per box to minimize environmental impact

## MYNX CONTROL™ Vascular Closure Device

MYNX CONTROL™ VCD integrates active extravascular sealing and resorbability properties with a next-generation delivery system to maximize predictability, safety, and ease of use in sealing 5-7F femoral arterial access sites.

### Featuring:

A next-generation deployment system designed for predictability and ease of use with a 2-button design to simplify procedural steps

A sheath catch that is compatible with the procedural sheath

A tension indicator that provides visual confirmation of device position for proper sealant deployment

Available in 5F as well as 6/7F sizes

MYNX™ Family of Vascular Closure Devices has been clinically proven to reduce surgical complications, expedite recovery, shorten hospital stays, and increase patient comfort<sup>(1-5)</sup>.

<sup>1</sup> Pruski MJ Jr et al. MynxGrip for closure of antegrade puncture after peripheral interventions with same-day discharge. *Vasc Endovasc Surg.* 2017 Feb;51(2):67-71.

<sup>2</sup> Baker NC et al. Active versus passive anchoring vascular closure devices following percutaneous coronary intervention: a safety and efficacy comparative analysis. *J Interv Cardiol.* 2016 Feb; 29(1): 108-112.

<sup>3</sup> Hutchings D et al. Success, safety, and efficacy of the Mynx femoral closure device in a real-world cohort: single-center experience. *J Invasive Cardiol.* 2016 Mar;28(3):104-108.

<sup>4</sup> Noor S et al. Successful reduction of surgeries secondary to arterial access site complications: a retrospective review at a single center with an extravascular closure device. *Vasc Endovascular Surg.* 2010 Jul;44(5):345-349.

<sup>5</sup> Fargen KM et al. A prospective randomized single-blind trial of patient comfort following vessel closure: extravascular synthetic sealant closure provides less pain than a self-tightening suture.



SIZE	EMEA ORDER NUMBER	SHEATH CATCH COLOR	QTY PER BOX
5F	MX5060 E	Gray	10
6F / 7F	MX6760 E	Green	10

# Vascular Closure Devices

## MYNXGRIP™ Vascular Closure Device

Built on the proven Mynx platform, the MYNXGRIP™ Vascular Closure Device offers the security of mechanical closure combined with the safety of an extravascular sealant. The MYNXGRIP™ Vascular Closure Device offers a patient-friendly closure option with no sutures, clamping, or metal implants and dissolves within 30 days leaving nothing behind but a healed artery.

### THE SEALANT

The sealant in the MYNXGRIP™ Vascular Closure Device consists of Polyethylene Glycol (PEG), a water-soluble, bio-inert, non-thrombogenic polymer, and is comprised of two configurations of PEG, the Grip Tip and the sealant.

### GRIP TECHNOLOGY

Once the sealant enters the tissue tract, the body's temperature and pH level cause the Grip Tip to soften and securely adhere to the vessel wall, effectively gripping the artery and providing active closure. The sealant's porous structure absorbs blood and subcutaneous fluids. The sealant swells three to four times its original size, filling the tissue tract. The sealant actively adheres to the artery while expanding and filling the tissue tract, providing a durable hemostasis and a platform for natural healing.

## EXOSEAL™ Vascular Closure Device

The EXOSEAL™ Vascular Closure Device is a sterile, single use device consisting of a Poly Glycolic Acid (PGA) Plug in combination with a Delivery Shaft. The Plug is fully enclosed within the Delivery Shaft. Running the length of the Delivery Shaft is an Indicator system that provides a means of positioning the Plug, relative to the vessel wall. When the Plug is in the correct position the Delivery Shaft is retracted, depositing the Plug on top of the arteriotomy site.

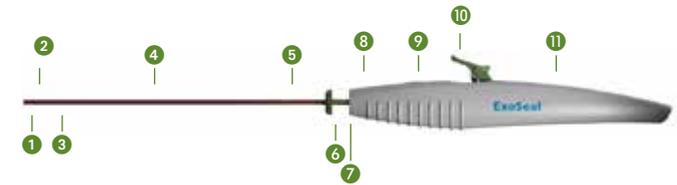
Combining safety and ease-of-use, the Cordis EXOSEAL™ Vascular Closure Device means a more confident close and improved patient outcomes.

Easy-to-Use Functionality  
Safe\* Bioabsorbable Technology  
Precise Extravascular surface  
Excellent Clinical Results

\*Clinical data from the 'ECLIPSE Trial' indicates safety in terms of vascular injury, access site-related bleeding, infection or nerve injury, new ipsilateral lower extremity ischemia or SAE.



SIZE	EMEA ORDER NUMBER	SHEATH CATCH COLOR	QTY PER BOX
5F	MX5021	Gray	10
6F / 7F	MX6721	Green	10



- 1 Indicator Wire
- 2 Plug
- 3 Bleed-back Port
- 4 Delivery Shaft
- 5 Marker Band
- 6 Indicator Wire Cowling
- 7 Sheath Adapter
- 8 Bleed-back Indicator
- 9 Indicator Window
- 10 Plug Deployment Button
- 11 Handle Assembly

CSI's FRENCH SIZE	CATALOGUE NUMBER	DESCRIPTION
5F	EX500CE	EXOSEAL™ - to be used with a 5 F sheath introducer up to 12 cm
6F	EX600CE	EXOSEAL™ - to be used with a 6 F sheath introducer up to 12 cm
7F	EX700CE	EXOSEAL™ - to be used with a 7 F sheath introducer up to 12 cm



# CTO Catheters

OUTBACK™ Elite Re-entry Catheter.....42



# CTO Catheters

## **OUTBACK™ Elite Re-Entry Catheter**

The OUTBACK™ Elite Re-entry Catheter enables re-entry of a guidewire from the subintimal space back into true lumen of the vessel:

- Available in 120 and 80cm shaft lengths
- Highly visible “L” and “T” markers orient the re-entry cannula toward the true lumen easily, eliminating the need for additional visualization equipment.
- Helps reduce time under fluoroscopy: on an average it takes less than 10 minutes to gain re-entry thus helping in reducing radiation exposure time and may help increase procedure volume.
- Braided catheter shaft provides effective torque control and helps easy and quick positioning of the OUTBACK™ Elite Re-entry Catheter towards the target re-entry site.

# CTO Catheters

## OUTBACK™ Elite Re-Entry Catheter

- Unique Re-Entry technology
- Highly visible "L" and "T" markers
- Helps reduce time under fluoroscopy
- Braided catheter shaft

Product name	Usable Length (cm)	Sheath Compatibility (F)	Crossing Profile (F)	Catalogue Number
OUTBACK™ Elite Re-Entry catheter	80	6	5.9	OTB59080A
OUTBACK™ Elite Re-Entry catheter	120	6	5.9	OTB59120A

## Recommended OUTBACK™ Elite Catheter compatible .014" guidewires (300 cm)

Wires with solder joints are not recommended for use with OUTBACK™ Elite Catheter

Product name	Total length (cm)	Tip Flexibility	Tip Shape	Catalogue Number
ATW™ All Track Wire	300	Floppy	Straight	595-X014
ATW™ All Track Wire	300	Floppy	J	595-Y014
ATW™ Guidewire	195	Floppy	Straight	595-014
ATW™ Guidewire	195	Floppy	J	595-J014

*Packaged one per box. Order in quantities of one each*

STABILIZER™ Plus Guidewire	300	Supersoft	Straight	507-114X
STABILIZER™ Plus Guidewire	300	Supersoft	J	507-114Y
STABILIZER™ Support Guidewire	180	Supersoft	Straight	507-180S
STABILIZER™ Extra Support Guidewire	180	Supersoft	Straight	527-180E

*Packaged five per box. Order in quantities of five each*

# Guiding Catheters

<b>General Information</b> .....	45
VISTA BRITE TIP™ Guiding Catheters .....	47-49
VISTA BRITE TIP™ IG Guiding Catheters .....	47-49



# Guiding Catheters

## **VISTA BRITE TIP™ Guiding Catheters**

Guiding catheters have extra large lumen and are available in different shapes for precise placement.

Cordis has also introduced the extra large lumen 6F .070"ID VISTA BRITE TIP™ Guiding Catheters.

It provides value to physicians by having a larger lumen while maintaining the 6F OD and performance characteristics of the VISTA BRITE TIP™ Guiding Catheters.

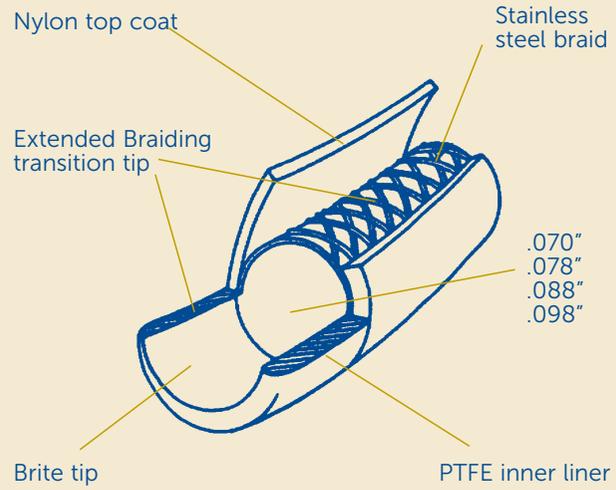
## **VISTA BRITE TIP™ IG Guiding Catheters**

Combines the guiding qualities and handling of the VISTA BRITE TIP™ Guiding Catheters with the sheath introducer advantages of the AVANTI™+ Catheter Sheath Introducer in one unique device.

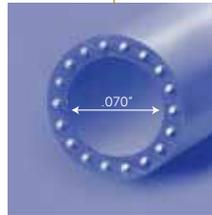
# Guiding Catheters

General Information

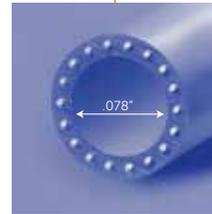
## Extended Braiding



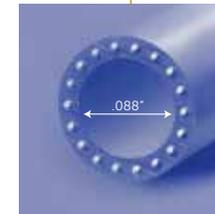
6F .070" GC



7F .078" GC



8F .088" GC



9F .098" GC



• Lengths: 55 cm/90 cm/95 cm/125 cm

• 1 unit per package.

# Guiding Catheters

## VISTA BRITE TIP™ Guiding Catheters

- Braided shaft
- Extra large lumen
- Very suitable for tortuous vessels
- Reliable tip shape memory
- Highly radiopaque distal tip
- Different shapes available

## VISTA BRITE TIP™ IG Guiding Catheters

- Hybrid between a guiding catheter and a sheath introducer
- Braided shaft
- Sheathless insertion possible-allows for smaller puncture size
- Unique SLIX valve for uncompromised valve hemostasis
- Extra large lumen
- Very suitable for tortuous vessels
- Reliable tip shape memory
- Highly radiopaque distal tip
- Different shapes available
- Package includes a vessel dilator

Length (cm)	6F .070"		7F .078"		8F .088"		9F .098"	
	Vista Brite Tip™	Vista Brite Tip™	Vista Brite Tip™ IG	Vista Brite Tip™	Vista Brite Tip™ IG	Vista Brite Tip™	Vista Brite Tip™ IG	
<b>Straight (str)</b>								
55	670-280-55	778-280-55		588-843P	403-8553S	598-943P		
90	670-280-90	778-280-90		588-844P		598-944P		
95					403-8953S			
<b>Multipurpose (MPA)</b>								
55	670-270-55		403-7553M	588-840P	403-8553M			
90	670-270-90	778-270-90		588-842P		598-942P		
95					403-8953M			403-9953M
125	SM7406							
<b>Multipurpose (MPC)</b>								
95				588-8206		598-9206		
<b>Multipurpose (MPD)</b>								
95				588-8207				
<b>Hockey stick (HS)</b>								
55	670-278-55	778-278-55	403-7553H	588-841P	403-8553H			

# Guiding Catheters

Length (cm)	6F .070"		7F .078"		8F .088"		9F .098"	
	Vista Brite Tip™	Vista Brite Tip™	Vista Brite Tip™	Vista Brite Tip™ IG	Vista Brite Tip™	Vista Brite Tip™ IG	Vista Brite Tip™	Vista Brite Tip™ IG
<b>Renal Curve I Small (RDC I)</b>								
55	670-210-55	778-210-55	403-7553R		588-845P	403-8553R		
<b>Renal Curve Adult (RDC II)</b>								
55	670-212-55	778-212-55	403-7553A		588-846P	403-8553A		
<b>J-Curve (J)</b>								
55	670-214-55	778-214-55						
<b>Contralateral I (CONTRA I)</b>								
55		778-222-55	403-7553C		588-857P	403-8553C		
<b>Contralateral II (CONTRA II)</b>								
55		778-224-55			588-858P			
<b>Vertebral (VTBL)</b>								
90		778-216-90			588-847P			

# Guiding Catheters

Length (cm)	6F .070"		7F .078"		8F .088"		9F .098"	
	Vista Brite Tip™	Vista Brite Tip™	Vista Brite Tip™	Vista Brite Tip™ IG	Vista Brite Tip™	Vista Brite Tip™ IG	Vista Brite Tip™	Vista Brite Tip™ IG
<b>Modified Cerebral Burke (CBL)</b>								
90	670-218-90	778-250-90			588-848P			
95						403-8953B		
<b>Headhunter (H1)</b>								
95					588-8202			
<b>Judkins right 4 (JR4)</b>								
55	670-082-55							
<b>Internal Mammary (IM)</b>								
55	670-190-55							
<b>Saad Right</b>								
90					SM7571			
<b>Saad Left</b>								
90					SM7572			
<b>Saad Left 2</b>								
90					SM7573			

# Diagnostic Catheters

<b>General Information</b> .....	53
<b>Flush Catheters</b> .....	54
• Digital subtraction angiography set	
<b>Selective Catheters</b> .....	58
• Multipurpose	
• Visceral	
• Cerebral	
<b>Calibration Catheters</b> .....	68

