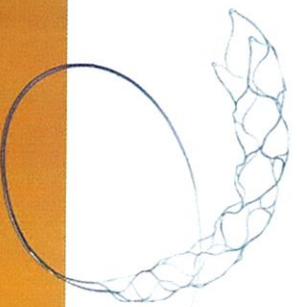


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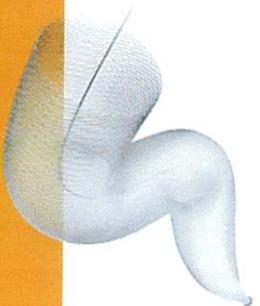
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Neurovascular interventions

EMEA product catalogue



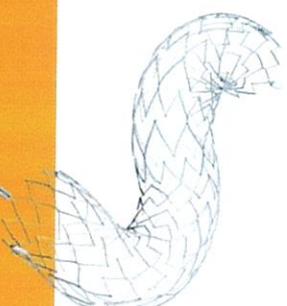
Trevor NXT
ProVue Retriever



Surpass Evolve
Flow Diverter



Target
Detachable Coils



Neuroform Atlas
Stent System



AXS Vecta
Aspiration Catheter

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Microcatheters



Access devices

Guidewires

Microcatheters

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Excelsior XT-17 Microcatheters

Excelsior 1018 Microcatheters

Excelsior XT-27 Microcatheters

Neuro Renegade Hi-Flow Microcatheter

Guide catheters

Distal access catheters

Delivery assist catheters

Long sheaths

ICAD

Accessories

Excelsior SL-10 Microcatheters

Pos. 3 ↓

↓

Product number	Product description	ID	Tip markers	Total/distal length
M0031681890	Excelsior SL-10 straight	0.0165in (0.42mm)	2	150cm/6cm
M0031681900	Excelsior SL-10 pre-shaped 45	0.0165in (0.42mm)	2	150cm/6cm
M0031681910	Excelsior SL-10 pre-shaped 90	0.0165in (0.42mm)	2	150cm/6cm
M0031681920	Excelsior SL-10 pre-shaped J	0.0165in (0.42mm)	2	150cm/6cm
M0031681930	Excelsior SL-10 pre-shaped C	0.0165in (0.42mm)	2	150cm/6cm
M0031681940	Excelsior SL-10 pre-shaped S	0.0165in (0.42mm)	2	150cm/6cm
M0031681810	Excelsior SL-10 straight	0.0165in (0.42mm)	1	150cm/6cm

Shape selection	Straight	45	90	J	C	S
Shape selection	<input checked="" type="checkbox"/>	<input type="checkbox"/>				

Microcatheter OD: 1.7F (0.60mm) distal; 2.4F (0.80mm) proximal
 Maximum guidewire diameter: 0.014in (0.36mm)
 Recommended guide catheter ID: 0.038in (1.00mm)
 Minimum guide catheter ID for parallel clearance: 0.070in (1.8mm)
 Maximum microcatheter II OD for parallel clearance: 2.9F (0.038in)

Excelsior XT-17 Microcatheters

Pos. 3

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Product number	Product description	ID	Tip markers	Total/distal length
M003C1775ST0	XT-17 standard straight	0.017in (0.43mm)	2	150cm/7.5cm
M003C1775450	XT-17 standard pre-shaped 45	0.017in (0.43mm)	2	150cm/7.5cm
M003C1775900	XT-17 standard pre-shaped 90	0.017in (0.43mm)	2	150cm/7.5cm
M003C17750J0	XT-17 standard pre-shaped J	0.017in (0.43mm)	2	150cm/7.5cm
M003C1715ST0	XT-17 flex straight	0.017in (0.43mm)	2	150cm/15cm
M003C1715450	XT-17 flex pre-shaped 45	0.017in (0.43mm)	2	150cm/15cm
M003C1715900	XT-17 flex pre-shaped 90	0.017in (0.43mm)	2	150cm/15cm
M003C17150J0	XT-17 flex pre-shaped J	0.017in (0.43mm)	2	150cm/15cm

Shape selection	Straight	45	90	J
Shape selection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Microcatheter OD: 1.7F (0.60mm) distal; 2.4F (0.80mm) proximal
 Maximum guidewire diameter: 0.014in (0.36mm)
 Recommended guide catheter ID: 0.038in (1.00mm)
 Minimum guide catheter ID for parallel clearance: 0.070in (1.8mm)
 Maximum microcatheter II OD for parallel clearance: 2.9F (0.038in)

AXS Infinity LS™

Long Sheath



Access devices

Guidewires

Microcatheters

Detachable coils

Guide catheters

Distal access catheters

Adjunctive devices

Delivery assist catheters

Long sheaths

AXS Infinity LS Long Sheath

AXS Infinity LS Plus Long Sheath

Flow diverters

Ischemic stroke devices

ICAD

Accessories

AXS Infinity LS Long Sheath

Product number	Product description	ID	OD	Distal flex segment	Length
GEN-10476-70	AXS Infinity LS - 70cm	0.088in (2.24mm)	8F (2.67mm)	9.5cm	70cm
GEN-10476-80	AXS Infinity LS - 80cm	0.088in (2.24mm)	8F (2.67mm)	9.5cm	80cm
GEN-10476-90	AXS Infinity LS - 90cm	0.088in (2.24mm)	8F (2.67mm)	9.5cm	90cm

AXS Infinity LS Plus Long Sheath

Pos. 1.



Product number	Product description	ID	OD	Distal flex segment	Length
INC-11987-70	AXS Infinity LS PLUS Long sheath - 70cm	0.091in (2.31mm)	8F (2.7mm)	14.5cm	70cm
INC-11987-80	AXS Infinity LS PLUS Long sheath - 80cm	0.091in (2.31mm)	8F (2.7mm)	14.5cm	80cm
INC-11987-90	AXS Infinity LS PLUS Long sheath - 90cm	0.091in (2.31mm)	8F (2.7mm)	14.5cm	90cm



Surpass Evolve™ Flow Diverter



Surpass Evolve Flow Diverters

Product number

Product description

Diameter x length

	Product number	Product description	Diameter x length	
Access devices	FD25012	Surpass Evolve Flow Diverter 2.50 x 12mm	2.50 x 12mm	
	FD25015	Surpass Evolve Flow Diverter 2.50 x 15mm	2.50 x 15mm	
	FD25020	Surpass Evolve Flow Diverter 2.50 x 20mm	2.50 x 20mm	
	FD32512	Surpass Evolve Flow Diverter 3.25 x 12mm	3.25 x 12mm	
	FD32515	Surpass Evolve Flow Diverter 3.25 x 15mm	3.25 x 15mm	
	FD32517	Surpass Evolve Flow Diverter 3.25 x 17mm	3.25 x 17mm	
	FD32520	Surpass Evolve Flow Diverter 3.25 x 20mm	3.25 x 20mm	
	FD32525	Surpass Evolve Flow Diverter 3.25 x 25mm	3.25 x 25mm	
	FD40012	Surpass Evolve Flow Diverter 4.00 x 12mm	4.00 x 12mm	
	FD40015	Surpass Evolve Flow Diverter 4.00 x 15mm	4.00 x 15mm	
Detachable coils	FD40017	Surpass Evolve Flow Diverter 4.00 x 17mm	4.00 x 17mm	
	FD40020	Surpass Evolve Flow Diverter 4.00 x 20mm	4.00 x 20mm	
	FD40025	Surpass Evolve Flow Diverter 4.00 x 25mm	4.00 x 25mm	
	FD40030	Surpass Evolve Flow Diverter 4.00 x 30mm	4.00 x 30mm	
	FD45012	Surpass Evolve Flow Diverter 4.50 x 12mm	4.50 x 12mm	
	FD45015	Surpass Evolve Flow Diverter 4.50 x 15mm	4.50 x 15mm	
	FD45017	Surpass Evolve Flow Diverter 4.50 x 17mm	4.50 x 17mm	
	FD45020	Surpass Evolve Flow Diverter 4.50 x 20mm	4.50 x 20mm	
	FD45025	Surpass Evolve Flow Diverter 4.50 x 25mm	4.50 x 25mm	
	FD45030	Surpass Evolve Flow Diverter 4.50 x 30mm	4.50 x 30mm	
Ischemic stroke devices	FD45040	Surpass Evolve Flow Diverter 4.50 x 40mm	4.50 x 40mm	
	FD50012	Surpass Evolve Flow Diverter 5.00 x 12mm	5.00 x 12mm	
	FD50015	Surpass Evolve Flow Diverter 5.00 x 15mm	5.00 x 15mm	
	FD50017	Surpass Evolve Flow Diverter 5.00 x 17mm	5.00 x 17mm	
	FD50020	Surpass Evolve Flow Diverter 5.00 x 20mm	5.00 x 20mm	
	FD50025	Surpass Evolve Flow Diverter 5.00 x 25mm	5.00 x 25mm	
	FD50030	Surpass Evolve Flow Diverter 5.00 x 30mm	5.00 x 30mm	
	FD50040	Surpass Evolve Flow Diverter 5.00 x 40mm	5.00 x 40mm	
	ICAD			
Accessories				

Required microcatheter ID: 0.027in (0.69mm)

Required microcatheter: Excelsior XT-27 standard straight 150cm

Box 4 ↙

↘

Aspiration Catheter

AXS Vecta

POZ-5



Product number	Product description	ID	Distal OD	Proximal OD	Length
INC-11989-115	115cm AXS Vecta 74 Aspiration Catheter	0.074in (1.88mm)	6.5F (2.11mm)	6.6F (2.21mm)	115cm
INC-11989-125	125cm AXS Vecta 74 Aspiration Catheter	0.074in (1.88mm)	6.5F (2.11mm)	6.6F (2.21mm)	125cm
INC-11989-132	132cm AXS Vecta 74 Aspiration Catheter	0.074in (1.88mm)	6.5F (2.11mm)	6.6F (2.21mm)	132cm
INC-11988-115	115cm AXS Vecta 71 Aspiration Catheter	0.071in (1.80mm)	6.3F (2.09mm)	6.5F (2.10mm)	115cm
INC-11988-125	125cm AXS Vecta 71 Aspiration Catheter	0.071in (1.80mm)	6.3F (2.09mm)	6.5F (2.10mm)	125cm
INC-11988-132	132cm AXS Vecta 71 Aspiration Catheter	0.071in (1.80mm)	6.3F (2.09mm)	6.5F (2.10mm)	132cm

AXS Vecta + Aspiration packs

Product number	Product description
AXS2PK07112500	125cm AXS Vecta 71 Aspiration Catheter +0.218in AXS Universal Aspiration Tubing
AXS2PK07113200	132cm AXS Vecta 71 Aspiration Catheter +0.218in AXS Universal Aspiration Tubing
AXS2PK07412500	125cm AXS Vecta 74 Aspiration Catheter +0.218in AXS Universal Aspiration Tubing
AXS2PK07413200	132cm AXS Vecta 74 Aspiration Catheter +0.218in AXS Universal Aspiration Tubing

Ischemic stroke devices

ICAD

Accessories

Aspiration set

Adjunctive devices
 AXS Vecta + Aspiration packs

Aspiration catheters

Ballon Guide catheters

Ischemic stroke microcatheters

Stent Retrievers

Access devices

Detachable coils

Flow diverters

This document is intended solely for the use of healthcare professionals.

A physician must always rely on his or her own professional clinical judgment when deciding whether to use a particular product when treating a particular patient. Stryker does not dispense medical advice and recommends that physicians be trained in the use of any particular product before using it in a procedure. The information presented is intended to demonstrate the breadth of Stryker product offerings. A physician must always refer to the package insert, product label and/or instructions for use before using any Stryker product. Products may not be available in all markets because product availability is subject to the regulatory and/or medical practices in individual markets. Please contact your Stryker representative if you have questions about the availability of Stryker products in your area.



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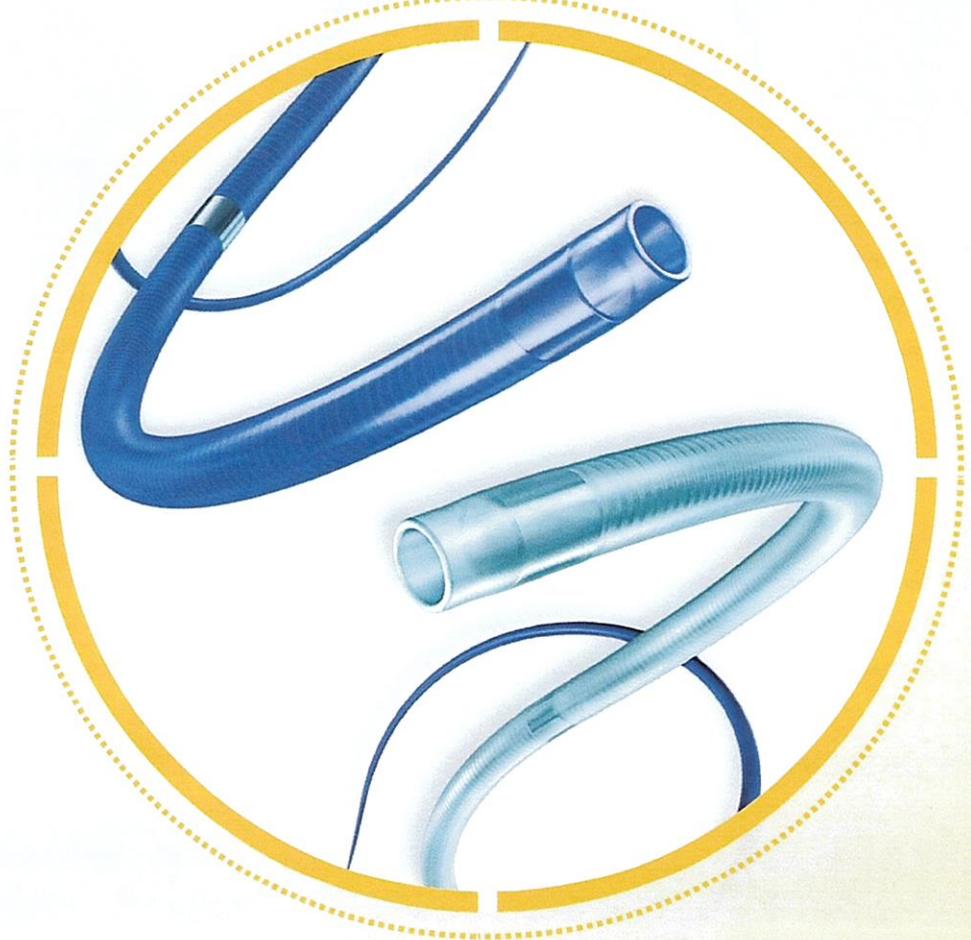
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Proven Performance

Excelsior[®]
MICROCATHERERS



stryker[®]
Neurovascular

High Performance Access and Delivery

- Excellent Versatility
- Optimized Flexibility and Trackability
- Outstanding Support
- Proven Delivery Performance

Products Features

- Thin-Wall Technology
- Lubricious Hydrolene® Outer Surface
- Smooth TFE Inner Lumen

Versatile Microcatheter Options

PO2.3

	Excelsior® SL-10®		Excelsior® 1018®	
Occlusion Coil Compatibility	10-coils	14-coils	10-coils	14-coils
	18-coils	18-fibred	18-coils	18-fibred
ID	.0165in/0.42mm		.019in/0.48mm	
OD (Dist/Prox)	1.7F/2.4F	0.56mm/0.79mm	2.0F/2.6F	0.67mm/0.87mm



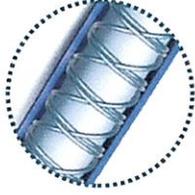
Distal Segment Construction

Stainless-steel helical-coil reinforcement provides lumen integrity. A soft, low-durometer distal segment is designed to be flexible and atraumatic.



Seamless Mid-Shaft Braid Transition

Proximal braiding transitions seamlessly into distal helical coil reinforcement to facilitate advancement within tortuous anatomy and allow smooth deployment of embolic coils.



Proximal Shaft Construction

The proximal shaft features three layers of stainless-steel braid which, along with a high-durometer proximal shaft, provides support, control, and pushability.

Exceptional Versatility

Excelsior® SL-10® Microcatheter

1.7F (0.56mm) Low Profile Distal Shaft

Excelsior SL-10 Microcatheter tip is designed with low profile to enhance access to distal vasculature and facilitates passage of the catheter tip through stent interstices.

Atraumatic Distal Tip

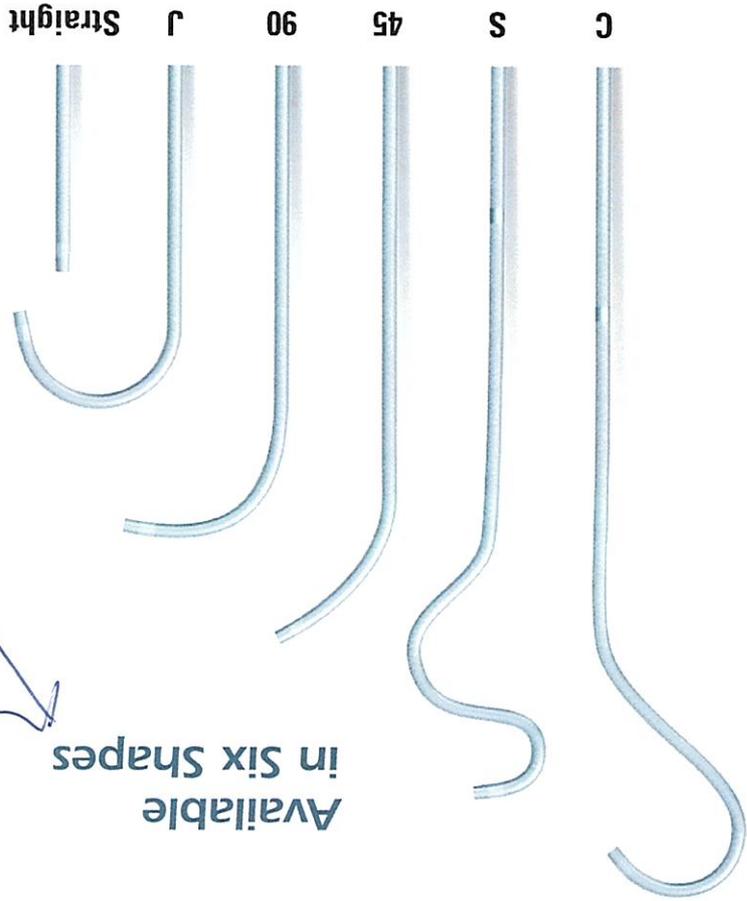
Specifically engineered for atraumatic access, the rounded, low-durometer, unbraided tip offers excellent softness and flexibility.

Large .0165in (0.42mm) Inner Lumen

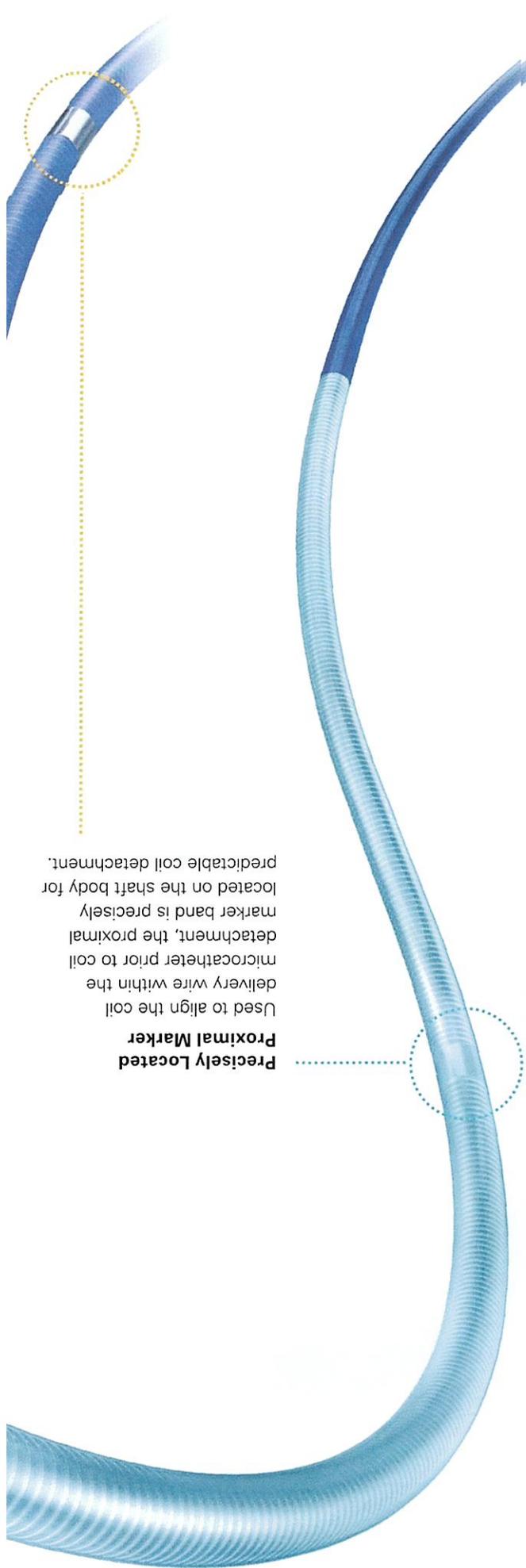
Designed for broad device compatibility, the Excelsior SL-10 Microcatheter is the first choice for Matrix®, Target®, and GDC®-10 Detachable Coils, and accommodates .010in and .014in guidewires.

Variety of Tip Shapes

Offered in well-thought and clinically relevant shapes, which provides convenience and flexibility for access.



Available in Six Shapes



Precisely Located Proximal Marker

Used to align the coil delivery wire within the microcatheter prior to coil detachment, the proximal marker band is precisely located on the shaft body for predictable coil detachment.

Broad Compatibility

Excelsior® 1018® Microcatheter

Thin-Wall Large Lumen*
Designed to provide a stable platform for coil deployment. The thin-wall large ID Excelsior 1018 Microcatheter facilitates delivery of large coils.

2.0F (0.67mm) Low Profile Distal Shaft

The Excelsior 1018 Microcatheter is engineered with a composite shaft construction for outstanding stability, pushability, and lumen integrity while having a smaller Distal OD compared to a leading competitor.**

Supportive Distal Shaft

The ultra-supportive distal shaft features stainless-steel helical-coil reinforcement providing lumen integrity. A soft, low-durometer tip is designed to be exceptionally soft and atraumatic.

Variety of Tip Shapes

Offered in six different well-thought and clinically relevant shapes, which provides convenience and flexibility for access.

Radiopaque Marker Band

Highly radiopaque, platinum marker band distally and proximally provides superb visualization.



Transparent Hub

A transparent polymer hub allows guidewires, coils, and embolic agents to be introduced under direct visualization.

* Largest in the Excel families of Microcatheter compatible with 10-coils, 14-coils, 18-coils, 18-fibered
** Prowler™ Select Plus.
Prowler is a trademark of Codman & Shurtleff, Inc.

¹² Bench tests results (n=3). Bench tests results may not necessarily be indicative of clinical performance.

Inner Diameter	0.017in	Distal OD	1.7F	Proximal OD	2.4F	Total Length	150cm	Distal Segment	Std. (7.5cm) Flex (15cm)
----------------	---------	-----------	------	-------------	------	--------------	-------	----------------	-----------------------------

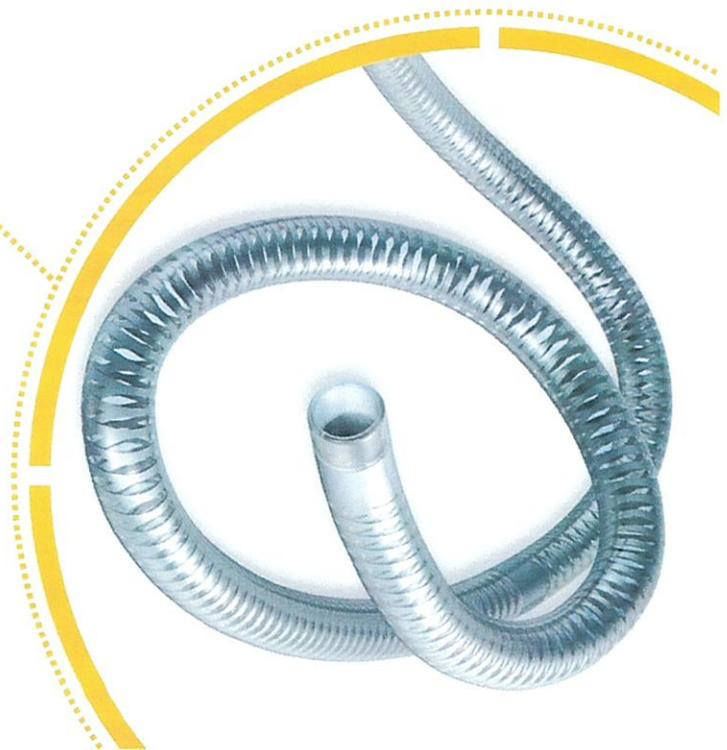
Device Specifications

Microcatheter Features

- Based on XT-27[®] Microcatheter braid technology
- Two distal segments: Standard and Flex
- Pre-shape tip options: 45, 90 and J
- Microcatheter Hub design
- Distal OD rounded and tapered
- Fluorosaver marker
- Peel-away sheath
- Packaging: 33% thinner

Microcatheter Benefits

- Smooth tracking with a stable proximal shaft¹
- Allows for lower track force through tortuous anatomy²
- Options to ease therapy deliverability and navigation
- Designed for smooth therapy delivery
- Optimized for stent strut crossing
- Minimizes radiation exposure and procedure times
- Designed to protect the distal tip during insertion
- Free up more shelf space and reduce waste



Product Features and Benefits

Excelsior[®] XT-17[™]
 MICROCATHETER
 Part 3

stryker
 Neurovascular

Stryker Neurovascular
47900 Bayside Parkway
Fremont, CA 94538



- Exercise care in handling of the microcatheter during a procedure to reduce the possibility of accidental breakage, bending or kinking.
- Use the product prior to the "Use By" date printed on the label.
- Limited testing indicates that Excelsior XT-17 Microcatheter is compatible with Dimethyl Sulfoxide (DMSO). The compatibility of Excelsior XT-17 Microcatheter with individual agents suspended in DMSO has not been established.
- Federal Law (USA) restricts this device to sale by or on the order of a physician.
- Wet dispenser tray and hydrophilically coated outer shaft of microcatheters prior to removal from packaging tray. Once the microcatheter has been wetted, do not allow to dry.
- The packaging mandrel is not intended for reuse. The packaging mandrel is not intended for use inside the human body.
- Check that all fittings are secure so that air is not introduced into guide catheter or microcatheter during continuous flush.
- In order to achieve optimal performance of Stryker Neurovascular Microcatheters and to maintain the lubricity of the HydroLene® Coating surface, it is critical that a continuous flow of appropriate flush solution be maintained between the Stryker Neurovascular Microcatheter and guide catheter, and the microcatheter and any intraluminal device. In addition, flushing aids in preventing contrast crystal formation and/or clotting on both the intraluminal device and inside the guide catheter and/or the microcatheter lumen.
- Do not position microcatheter closer than 2.54 cm (1 in) from the steam source. Damage to the microcatheter may result.
- Excessive tightening of a hemostatic valve onto the microcatheter shaft may result in damage to the microcatheter. Removing the peel away introducer without a guide wire inserted in the microcatheter lumen might result in damage to the microcatheter shaft.
- To facilitate microcatheter handling, the proximal portion of the microcatheter does not have the hydrophilic surface. Greater resistance may be encountered when this section of the microcatheter is advanced into the RHV.

- Contents supplied STERILE using an ethylene oxide (EO) process. Do not use if sterile barrier is damaged. If damage is found, call your Stryker Neurovascular representative.
- For single use only. Do not reuse, reprocess or sterilize. Reuse, reprocessing or sterilization may compromise the structural integrity of the device and/or lead to device failure which, in turn, may result in patient injury, illness or death. Reuse, reprocessing or sterilization may also create a risk of contamination of the device and/or cause patient infection or cross-infection, including, but not limited to, the transmission of infectious disease(s) from one patient to another. Contamination of the device may lead to injury, illness or death of the patient.
- After use, dispose of product and packaging in accordance with hospital, administrative and/or local government policy.
- These devices are intended for use only by physicians trained in performing endovascular procedures.
- Inspect product before use for any bends, kinks or damage. Do not use microcatheter that has been damaged. Damaged microcatheters may rupture causing vessel trauma or tip detachment during steering maneuvers.
- The shaping mandrel is not intended for use inside the human body.
- Discontinue use of microcatheter for infusion if increased resistance is noted. Resistance indicates possible blockage. Remove and replace blocked microcatheter immediately. DO NOT attempt to clear blockage by over-pressurization. Doing so may cause the microcatheter to rupture, resulting in vascular damage or patient injury.
- Do not exceed 2,070 kPa (300 psi) infusion pressure. Excessive pressure could dislodge a clot, causing thromboembolism, or could result in a ruptured microcatheter or severed tip, causing vessel injury.
- To reduce the probability of coating damage in tortuous vasculature, use a guide catheter with a minimum internal diameter as specified in Table 1 above, and is recommended for use with Stryker Neurovascular hydrophilically coated microcatheters.
- To control the proper introduction, movement, positioning and removal of the microcatheter within the vascular system, users should employ standard clinical angiographic and fluoroscopic practices and techniques throughout the interventional procedure.

CAUTIONS / PRECAUTIONS

- The accessories are not intended for use inside the human body.
- Limited testing has been performed with solutions such as contrast media, saline and suspended embolic particles. The use of these microcatheters for delivery of solutions other than the types that have been tested for compatibility is not recommended. Do not use with glue or glue mixtures.
- Carefully inspect all devices prior to use. Verify shape, size and condition are suitable for the specific procedure. Exchange microcatheters frequently during lengthy procedures that require extensive guidewire manipulation or multiple guidewire exchanges.
- Never advance or withdraw an intravascular device is determined by fluoroscopy. Movement of the microcatheter or guidewire against resistance could dislodge a clot, perforate a vessel wall, or damage microcatheter and guidewire. In severe cases, tip separation of the microcatheter or guidewire may occur.

WARNINGS

- Potential adverse events associated with the use of microcatheters or with the endovascular procedures include, but are not limited to: access site complications, allergic reaction, aneurysm perforation, aneurysm rupture, death, embolism (air, foreign body, plaque, thrombus), hematoma, hemorrhage, infection, ischemia, neurological deficits, pseudoaneurysm, stroke, transient ischemic attack, vasospasm, vessel dissection, vessel occlusion, vessel perforation, vessel rupture, vessel thrombosis

POTENTIAL ADVERSE EVENTS

None known.

CONTRAINDICATIONS

vasculature.

Stryker Neurovascular's Excelsior XT-17 Microcatheters are intended to assist in the delivery of diagnostic agents, such as contrast media, and therapeutic agents, such as occlusion coils, into the peripheral, coronary and neuro

INTENDED USE / INDICATIONS FOR USE

See package insert for complete indications, contraindications, warnings and instructions, for use.

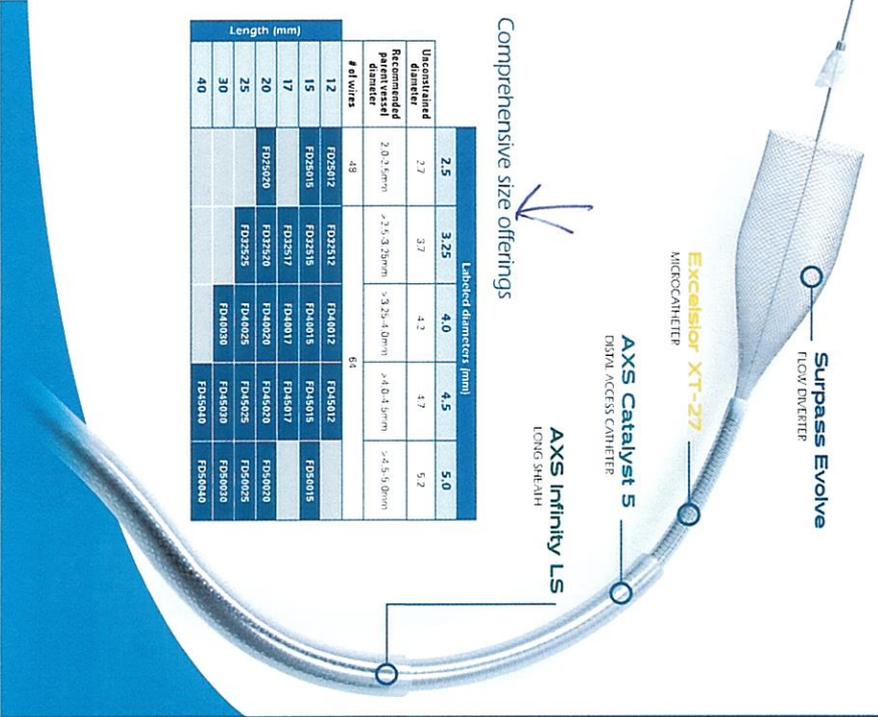
Excelsior® XT-17™ Microcatheter

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Box 4.

The evolved solution

Offering the full access solution for your flow diversion needs.



	Labeled diameters (mm)				
Uncoated diameter	2.5	3.25	4.0	4.5	5.0
Recommended Pilot diameter	2.0-2.5mm	2.5-3.0mm	3.0-3.5mm	3.5-4.0mm	4.0-4.5mm
# of wires	65				
Length (mm)	12	15	17	20	25
	FD26012	FD26015	FD26017	FD26020	FD26025
	FD26012	FD26015	FD26017	FD26020	FD26025
	FD26030	FD26035	FD26040	FD26045	FD26050
	FD26050	FD26055	FD26060	FD26065	FD26070
	FD26075	FD26080	FD26085	FD26090	FD26095
	FD26100	FD26105	FD26110	FD26115	FD26120

Surpass Evolve™ Flow Diverter
See package insert for complete indications, contraindications, warnings, and instructions for use.

INDICATIONS FOR USE
The Surpass Evolve Flow Diverter System is indicated for use for the treatment of aneurysms of the intracranial arteries of the anterior, middle, and posterior circulation of the brain.

Excelsior™ XT-27™ Microcatheter
See package insert for complete indications, contraindications, warnings, and instructions for use.

AXS Catalyst™ 5™ Distal Access Catheter
See package insert for complete indications, contraindications, warnings, and instructions for use.

AXS Infinity LS™ Long Sheath
See package insert for complete indications, contraindications, warnings, and instructions for use.

INTENDED USE / INDICATIONS FOR USE
The AXS Infinity LS Long Sheath is indicated for use for the treatment of aneurysms of the intracranial arteries of the anterior, middle, and posterior circulation of the brain.

Surpass Strainline™ Flow Diverter
See package insert for complete indications, contraindications, warnings, and instructions for use.

INDICATIONS FOR USE
The Surpass Strainline Flow Diverter System is indicated for use for the treatment of aneurysms of the intracranial arteries of the anterior, middle, and posterior circulation of the brain.

AXS Catalyst™ Distal Access Catheter
See package insert for complete indications, contraindications, warnings, and instructions for use.

INTENDED USE / INDICATIONS FOR USE
The AXS Catalyst Distal Access Catheter is indicated for use for the treatment of aneurysms of the intracranial arteries of the anterior, middle, and posterior circulation of the brain.

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Control defined.



Surpass Evolve™
FLOW DIVERTER

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Stryker Australia Pty Ltd
8 Hender Street
St Leonards, NSW 2066
Australia

USA distributor:
Stryker Neurovascular
3000 Central Expressway
Fremont, CA 94558
strykerneurovascular.com
Date of Release: April 2019
EX-EN-IL

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Surpass Evolve™ FLOW DIVERTER

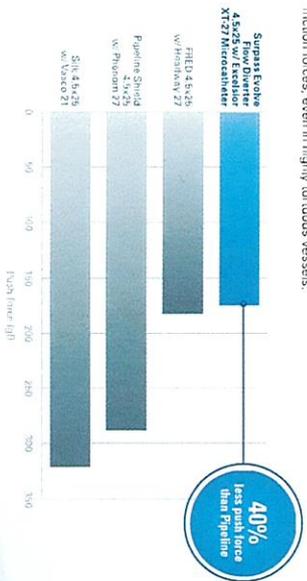
Combining years of flow diversion science, extensive physician feedback and Stryker engineering prowess, to develop a highly optimized flow diverter.

Smooth delivery

Enhanced design — The Surpass Evolve Flow Diverter delivery wire is engineered to optimize flexibility, trackability and responsiveness, allowing for a smooth and controlled user experience, start to finish.

Lower push force

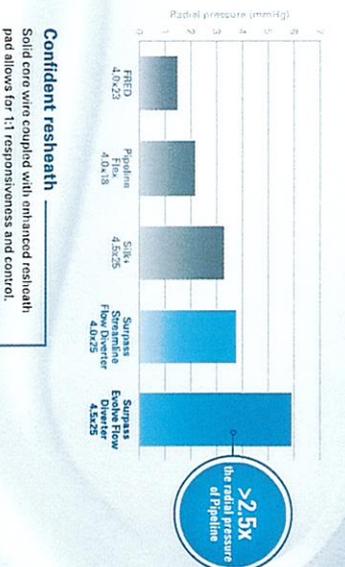
The flexibility profile of the solid core wire is designed to match anatomy and partner with Excelsior XT-27 Microcatheter Standard Straight, for lower friction forces, even in highly tortuous vessels.



Reliable deployment

Consistent opening

Engineered to maintain the radial pressure of Surpass Streamline Flow Diverter for reliable implant opening, distal to proximal.

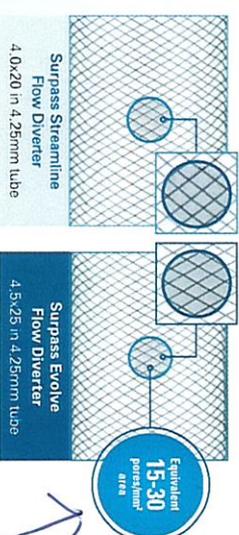


Confident reshath — Solid core wire coupled with enhanced reshath pad allows for 1:1 responsiveness and control.

Optimized diversion

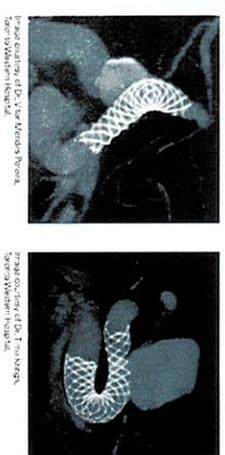
Mesh density

Despite having fewer wires, Surpass Evolve Flow Diverter maintains the high mesh density of Surpass Streamline Flow Diverter by optimizing the braid angle.



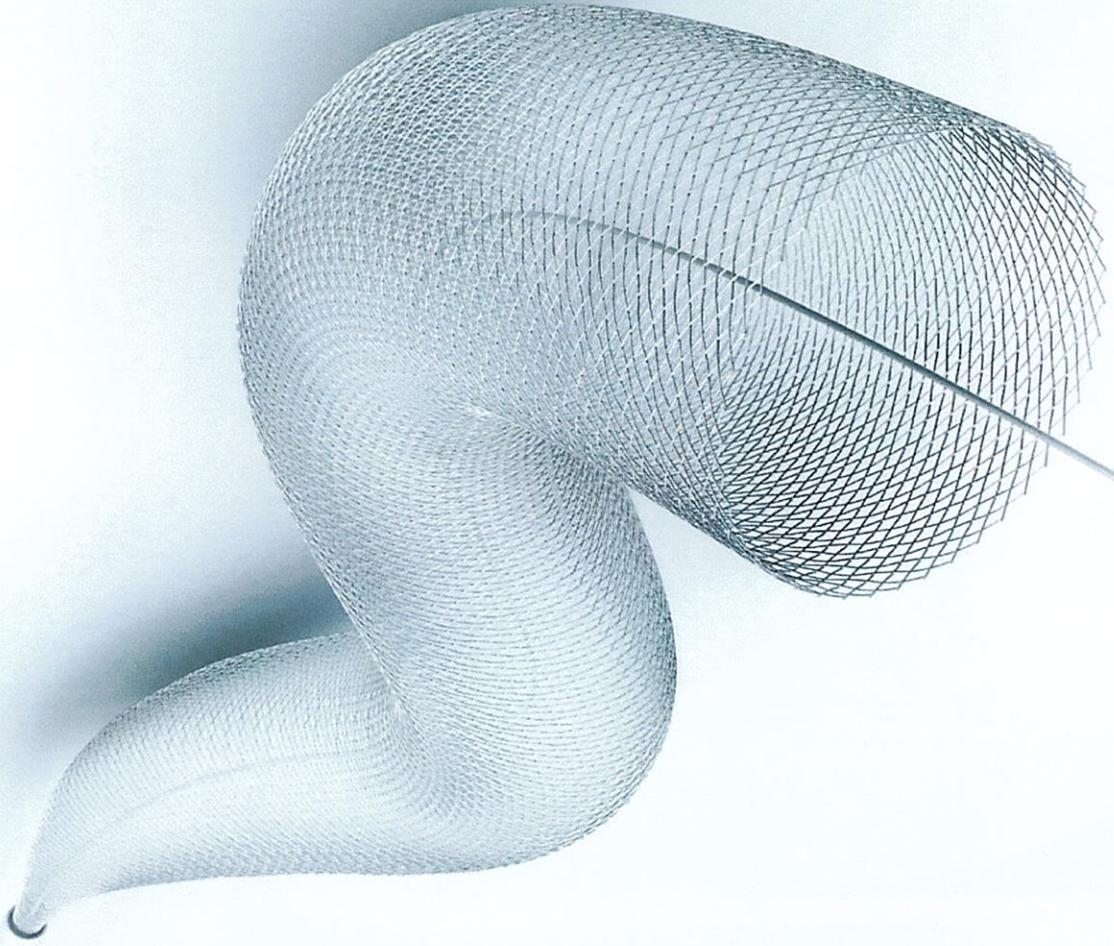
Uniform wall apposition

The higher braid angle was chosen to enhance implant opening, conformability and vessel wall apposition.



Control defined.

*Based on performance by Stryker in data on 15 vs 30 degree braid angle. Percent area calculated using wire resistance for number of critical performance.



Control defined.

Surpass Evolve™

FLOW DIVERTER

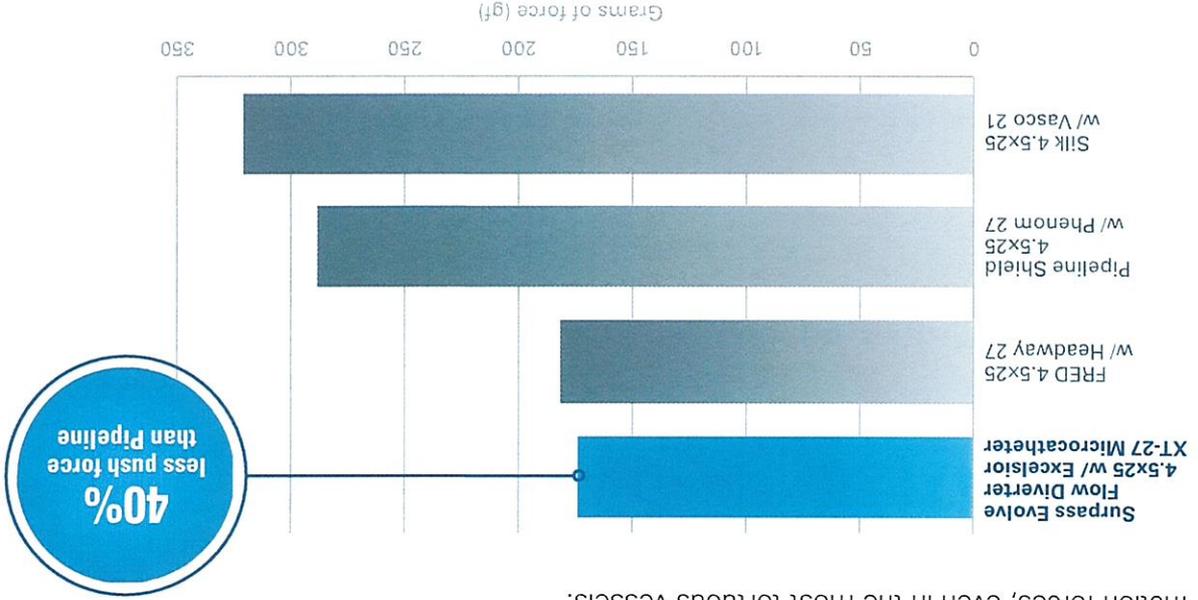
Smooth delivery

Enhanced design

The Surpass Evolve Flow Diverter delivery wire is engineered to optimize flexibility, trackability and responsiveness, allowing for a smooth and controlled user experience, start to finish.

Lower push force

The flexibility profile of the solid core wire is designed to match anatomy and partner with Excelsior™ XT-27™ Microcatheter Standard Straight, for lower friction forces, even in the most tortuous vessels.



Testing performed by Stryker. Data on file at Stryker. Bench test results may not necessarily be indicative of clinical performance.

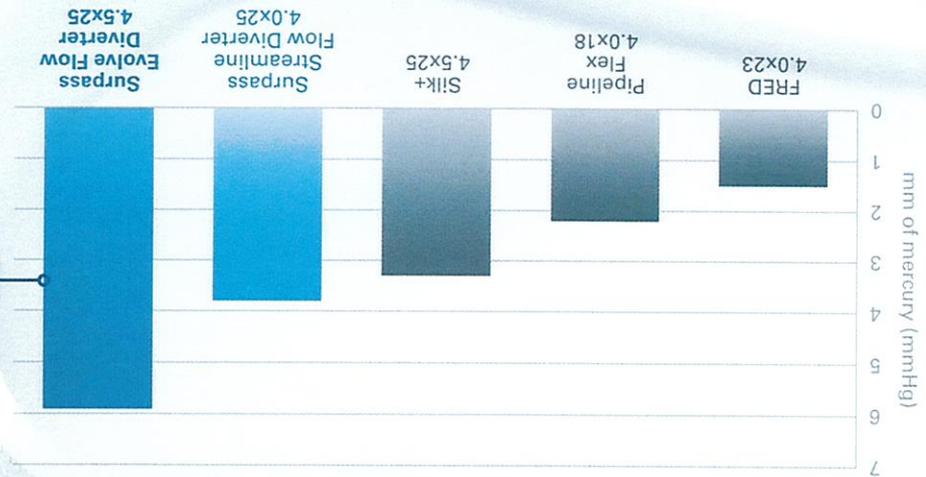
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Reliable deployment

Combining years of flow diversion science with Stryker engineering prowess, to develop a highly optimized flow diverter.

Consistent opening

Engineered to maintain the radial pressure of Surpass Streamline™ Flow Diverter for reliable implant opening, distal to proximal.



>2.5x
the radial pressure
of Pipeline

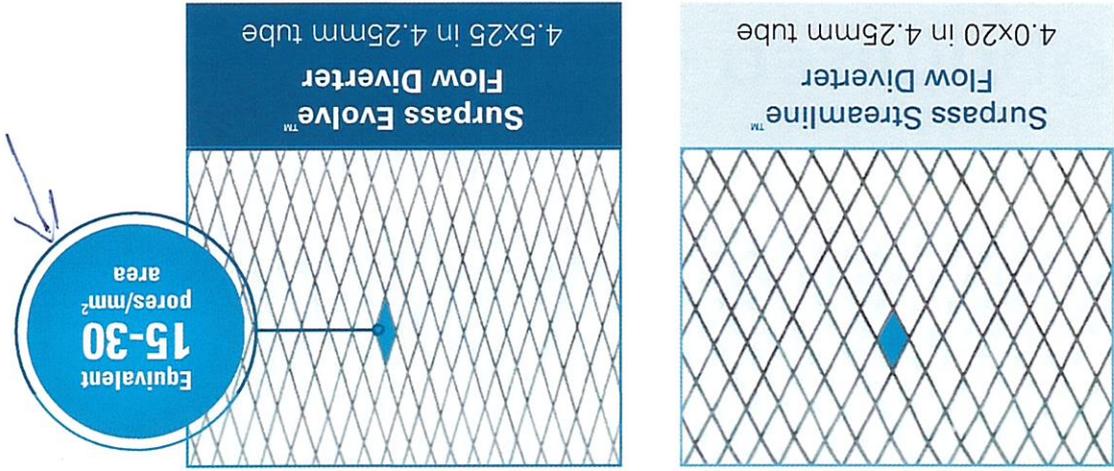
Confident resheath

Solid core wire coupled with enhanced resheath pad allows for 1:1 responsiveness and control.

Optimized diversion

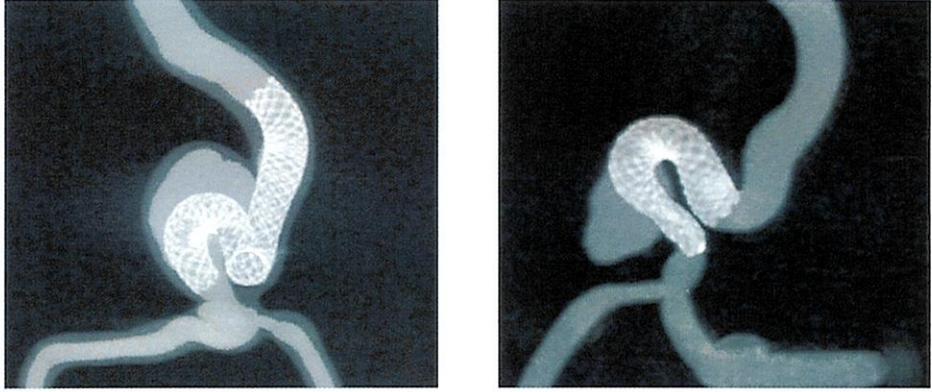
Mesh density

Despite having fewer wires, Surpass Evolve Flow Diverter maintains the high mesh density of Surpass Streamline Flow Diverter by optimizing the braid angle.



Uniform wall apposition

The higher braid angle was chosen to enhance implant opening, conformability and vessel wall apposition.



Images courtesy of Dr. Vitor Pereira, Toronto Western Hospital.

The evolved solution

Offering the full access solution for your flow diversion needs.

Surpass Evolve™
FLOW DIVERTER

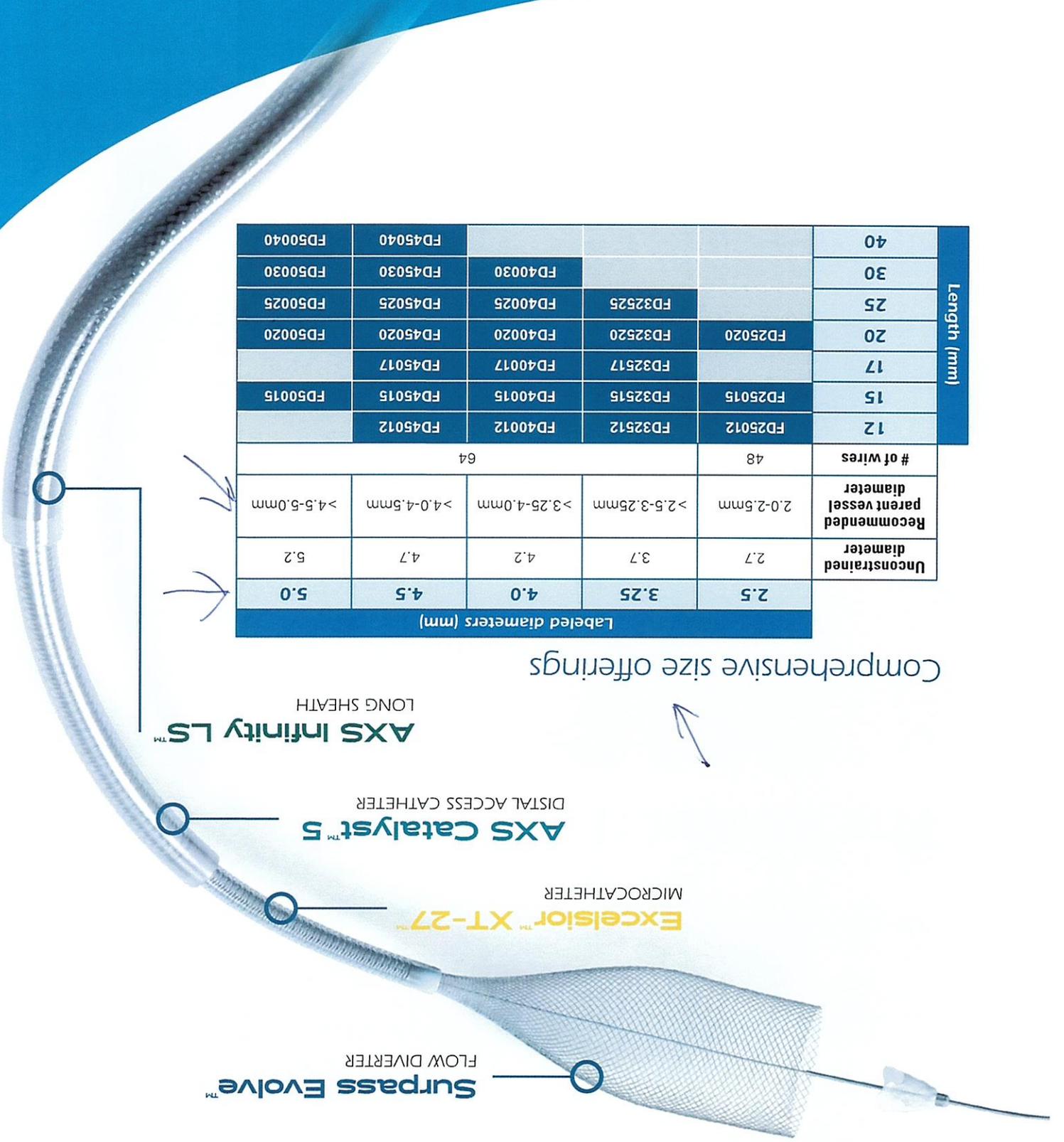
Excelsior™ XT-27™
MICROCATETER

AXS Catalyst™ 5
DISTAL ACCESS CATHETER

AXS Infinity LS™
LONG SHEATH

Comprehensive size offerings

Labeled diameters (mm)					Unconstrained diameter	Recommended parent vessel diameter	# of wires	Length (mm)
2.5	3.25	4.0	4.7	5.2	2.7	2.0-2.5mm	48	12
					3.7	>2.5-3.25mm		15
					4.2	>3.25-4.0mm		17
					4.7	>4.0-4.5mm		20
					5.2	>4.5-5.0mm		25
							64	30
								40



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strykerneurovascular.com
Date of Release: JAN/2019
EX_EN_IL



Australian Sponsor Address
Stryker Australia Pty Ltd
8 Herbert Street
St Leonards, NSW 2065
Australia

Surpass™ Evolve Flow Diverter

See package insert for complete indications, contraindications, warnings, and instructions for use.

INDICATIONS FOR USE

The Surpass Evolve Flow Diverter System is indicated for use for the treatment of saccular or fusiform intracranial aneurysms arising from a parent vessel with a diameter ≥ 2.0 mm and ≤ 5.0 mm.

Excelsior™ XT-27™ Microcatheter

See package insert for complete indications, contraindications, warnings, and instructions for use.

INTENDED USE / INDICATIONS FOR USE

Stryker Neurovascular Excelsior XT-27 Microcatheter is intended to assist in the delivery of diagnostic agents (such as contrast media), therapeutic agents, and non-liquid interventional devices (such as stents) that are indicated for use in the neurovasculature and with a catheter of 0.027 inches in inner diameter.

AXS Infinity LS™ Long Sheath

See package insert for complete indications, contraindications, warnings and instructions for use.

INTENDED USE/INDICATIONS FOR USE

The AXS Infinity LS Long Sheath is indicated for the introduction of interventional devices into the peripheral, coronary, and neuro vasculature.

Surpass Streamline™ Flow Diverter

See package insert for complete indications, contraindications, warnings and instructions for use.

INTENDED USE / INDICATIONS FOR USE

The Surpass Streamline Flow Diverter is indicated for use in the endovascular treatment of patients (18 years of age and older) with unruptured large or giant saccular wide-neck (neck width ≥ 4 mm or dome-to-neck ratio < 2) or fusiform intracranial aneurysms in the internal carotid artery from the petrous segment to the terminus arising from a parent vessel with a diameter ≥ 2.5 mm and ≤ 5.3 mm.

AXS Catalyst™ Distal Access Catheter

See package insert for complete indications, contraindications, warnings, and instructions for use.

INTENDED USE/INDICATIONS FOR USE

The AXS Catalyst Distal Access Catheter is indicated for use in facilitating the insertion and guidance of appropriately sized interventional devices into a selected blood vessel in the peripheral and neurovascular systems. It is also indicated for the removal/aspiration of soft emboli and thrombi from vessels in the peripheral and neurovasculature.

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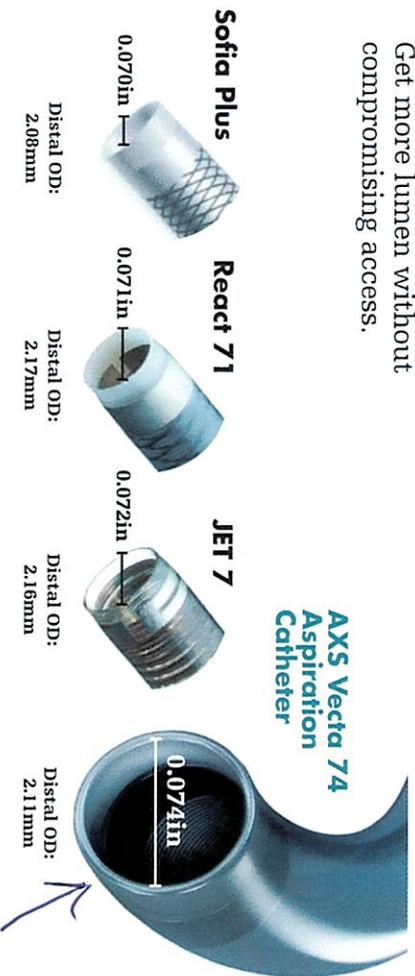
Perz-5

Making a difference **with powerful clot removal**

How you perform thrombectomy is as unique as each of your patients. That's why we're introducing the AXS Vecta Aspiration Catheter. This catheter's **extra-large lumen is designed to empower clot removal through aspiration alone or with a stent retriever.**

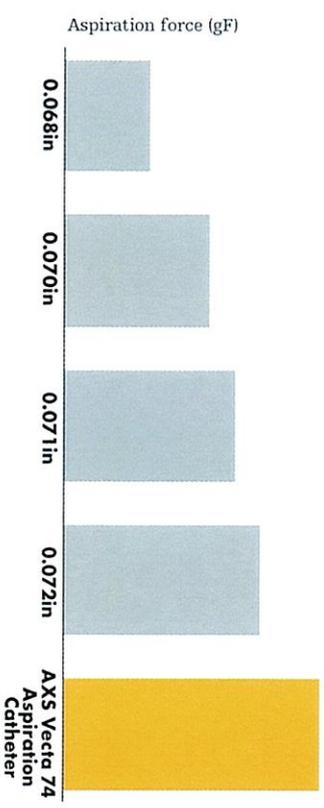
Lower profile 2.11mm distal OD¹

Get more lumen without compromising access.



Extra-large 0.074in lumen to remove clot

Up to **20% more aspiration power²** with the extra-large bore and 0.218in AXS Universal Aspiration Tubing.

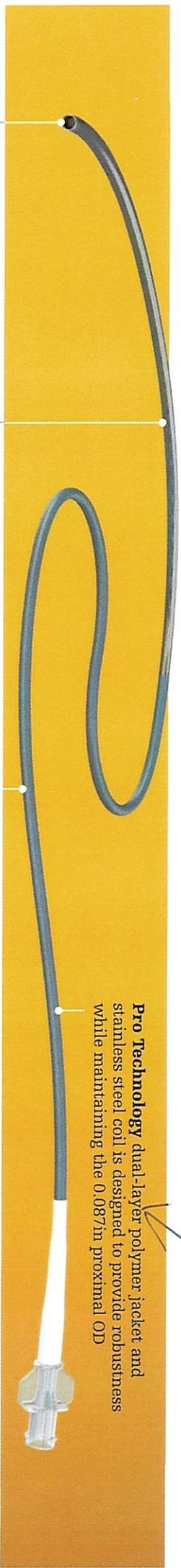


Photographs by Stryker. Images are not to scale.

1. 2.11mm distal OD is as labeled and based on nominal dimensions.

2. Aspiration power is calculated as a function of the vacuum and inner diameter.

Pro Technology dual-layer polymer jacket and stainless steel coil is designed to provide robustness while maintaining the 0.087in proximal OD



10.8cm nitinol coil flex zone with soft, rounded tip

23cm mid-shaft cross-coil for support outside the sheath

Hub-to-tip PTFE liner for smooth stent retriever interaction

AXS Vecta Intermediate Catheter

UPN	Description	ID	Distal OD	Proximal OD	Minimum compatible guide / Sheath ID	Stent retriever compatibility
INC-11989-115	115cm AXS Vecta 74 Aspiration Catheter	0.074in / 1.88mm	0.083in / 2.11mm	0.087in / 2.21mm	0.091in / 2.31mm	Yes, with full-length PTFE liner
INC-11989-125	125cm AXS Vecta 74 Aspiration Catheter	0.074in / 1.88mm	0.083in / 2.11mm	0.087in / 2.21mm	0.091in / 2.31mm	Yes, with full-length PTFE liner
INC-11989-132	132cm AXS Vecta 74 Aspiration Catheter	0.074in / 1.88mm	0.083in / 2.11mm	0.087in / 2.21mm	0.091in / 2.31mm	Yes, with full-length PTFE liner
INC-11988-115	115cm AXS Vecta 71 Aspiration Catheter	0.071in / 1.80mm	0.082in / 2.09mm	0.085in / 2.16mm	0.088in / 2.24mm	Yes, with full-length PTFE liner
INC-11988-125	125cm AXS Vecta 71 Aspiration Catheter	0.071in / 1.80mm	0.082in / 2.09mm	0.085in / 2.16mm	0.088in / 2.24mm	Yes, with full-length PTFE liner
INC-11988-132	132cm AXS Vecta 71 Aspiration Catheter	0.071in / 1.80mm	0.082in / 2.09mm	0.085in / 2.16mm	0.088in / 2.24mm	Yes, with full-length PTFE liner

AXS Vecta Aspiration Catheter

See package insert for complete indications, contraindications, warnings and instructions for use.

Intended use/indications for use

The AXS Vecta Aspiration System, including the AXS Vecta Aspiration Catheter, Aspiration Tubing Set, and VC-701 Clot Aspirator Pump, is indicated in the revascularization of patients with acute ischemic stroke secondary to intracranial large vessel occlusive disease within the internal carotid, middle cerebral – M1 and M2 segments, basilar, and vertebral arteries within 8 hours of symptom onset. Patients who are ineligible for intravenous tissue plasminogen activator (IV t-PA) or who failed IV t-PA therapy are candidates for treatment.

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A physician must always rely on his or her own professional clinical judgment when deciding whether to use a particular product when treating a particular patient. Stryker does not dispense medical advice and recommends that physicians be trained in the use of any particular product before using it in a procedure. The information presented is intended to demonstrate the breadth of Stryker product offerings. A physician must always refer to the package insert, product label and/or instructions for use before using any Stryker product. Products may not be available in all markets because product availability is subject to the regulatory and/or medical practices in individual markets. Please contact your Stryker representative if you have questions about the availability of Stryker products in your area.

Stroke Fast Pack

UPN	Description
AXS2PK07412500	125cm AXS Vecta 74 Aspiration Catheter + 0.218in AXS Universal Aspiration Tubing
AXS2PK07413200	132cm AXS Vecta 74 Aspiration Catheter + 0.218in AXS Universal Aspiration Tubing
AXS2PK07112500	125cm AXS Vecta 71 Aspiration Catheter + 0.218in AXS Universal Aspiration Tubing
AXS2PK07113200	132cm AXS Vecta 71 Aspiration Catheter + 0.218in AXS Universal Aspiration Tubing

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Stryker Neurovascular

47900 Bayside Parkway
Fremont, CA 94538

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Date of Release: NOV/2020

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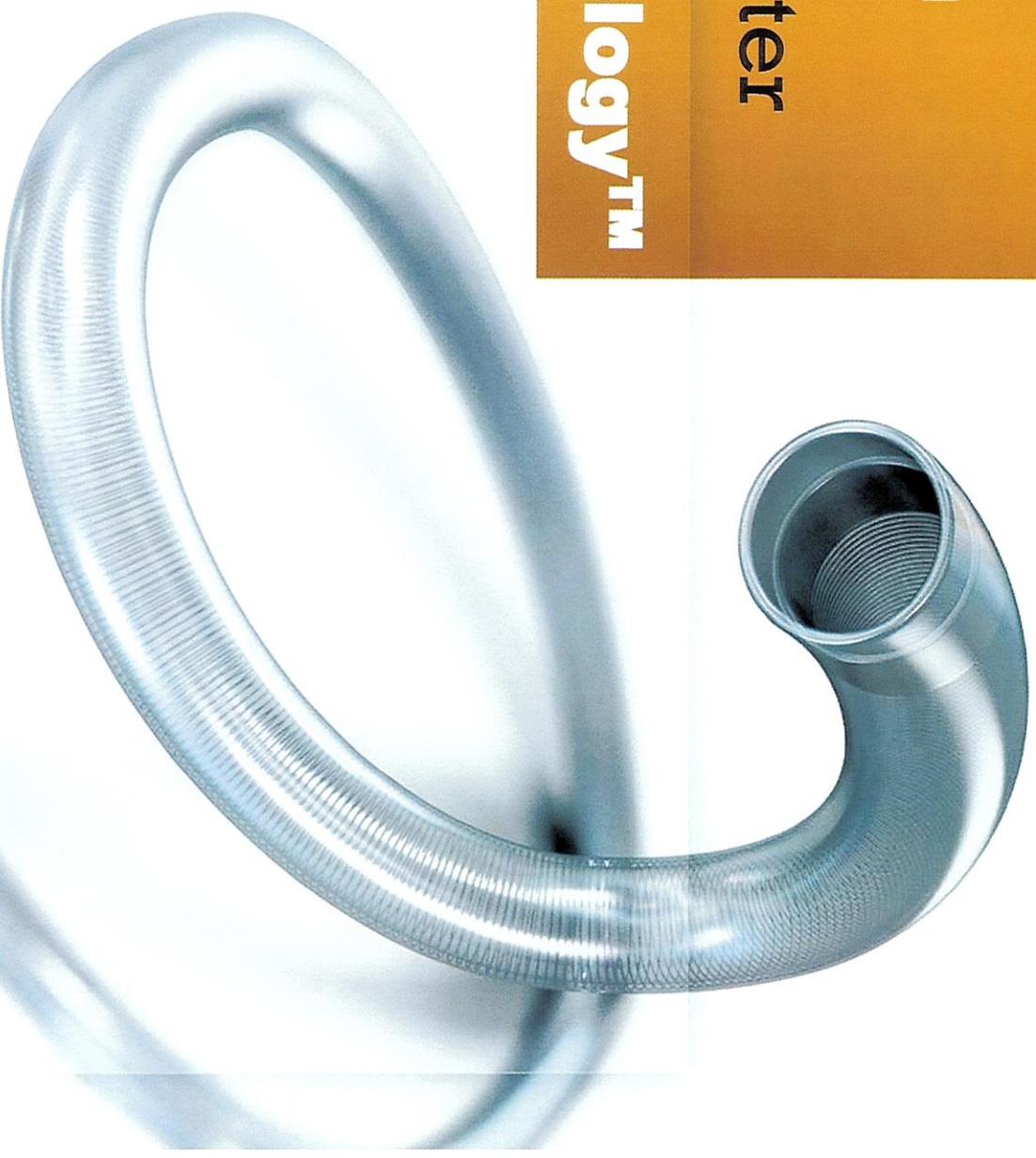
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AXXS Vecta™

Aspiration Catheter

with Pro Technology™

Technical presentation



Technology

Aspiration catheters
Specifications
Pro Technology

Powerful clot removal

Reliable navigation

Use with NXT

Preparation

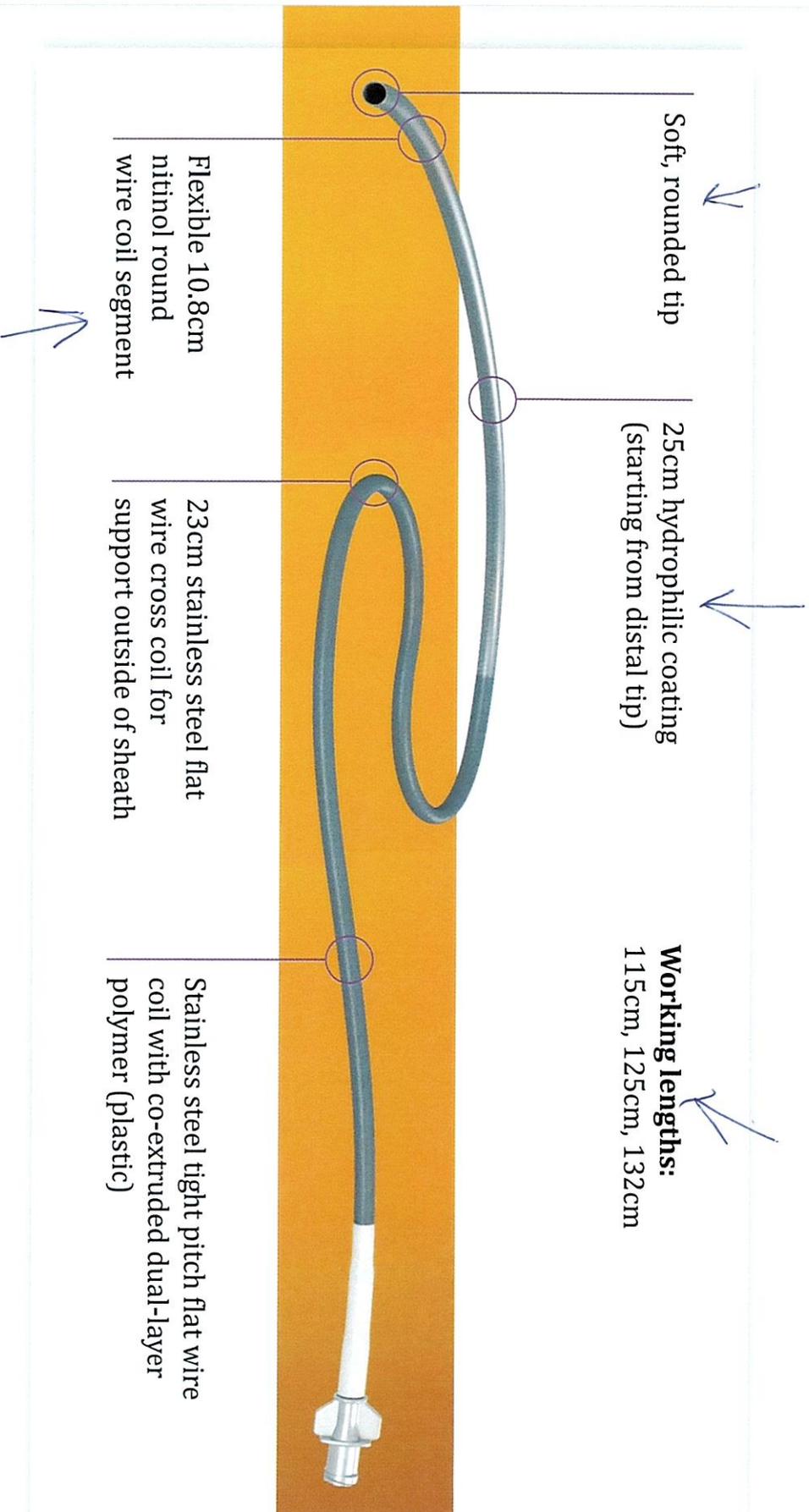
Recommended setups

Other applications

Ordering & specs

Indications

Specifications



Name	Inner diameter	Outer diameter (proximal – distal)	Length
------	----------------	------------------------------------	--------

AXS Vecta 74 Aspiration Catheter	0.074in	2.21mm – 2.11mm (0.087in – 0.083in)	115cm 125cm 132cm
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AXS Vecta 71 Aspiration Catheter	0.0715in	2.16mm – 2.08mm (0.085in – 0.082in)	115cm 125cm 132cm
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Technology

Aspiration catheters
Specifications
Pro Technology

Powerful clot removal

Reliable navigation

Use with NXT

Preparation

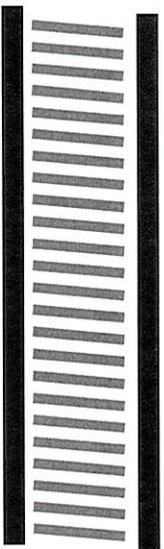
Recommended setups

Other applications

Ordering & specs

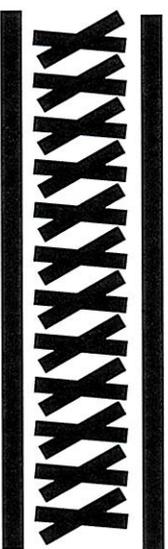
Indications

Enhanced durability with **Pro Technology™**



Distal shaft

10.8cm nitinol round coil wire to provide flexibility for distal navigation



Mid-shaft

23cm stainless steel flat wire cross coil for support outside of sheath



Pro Technology proximal shaft

Dual-layer polymer jacket to **improve resilience** while maintaining original-design pushability
Stainless steel single wind coil to keep the **same proximal OD**

<1% fracture rate under extreme-force condition testing

Technology

Powerful clot removal

Reliable navigation

Use with NXT

Preparation

Recommended setups

Other applications

Ordering & specs

Indications

Ordering and specifications

AXS Vecta Aspiration Catheter

Product number	Product description	Catheter ID		Length (cm)
		in (mm)	F (mm)	
INC-11989-115	115cm AXS Vecta 74 Aspiration Catheter	0.074in (1.88)	6.5F (2.11)	115
INC-11989-125	125cm AXS Vecta 74 Aspiration Catheter	0.074in (1.88)	6.5F (2.11)	125
INC-11989-132	132cm AXS Vecta 74 Aspiration Catheter	0.074in (1.88)	6.5F (2.11)	132
INC-11988-115	115cm AXS Vecta 71 Aspiration Catheter	0.071in (1.80)	6.3F (2.09)	115
INC-11988-125	125cm AXS Vecta 71 Aspiration Catheter	0.071in (1.80)	6.3F (2.09)	125
INC-11988-132	132cm AXS Vecta 71 Aspiration Catheter	0.071in (1.80)	6.3F (2.09)	132

Stroke Fast Pack

Product Number	Product description
AXS2PK07112500	125cm AXS Vecta 74 Aspiration Catheter +0.218in AXS Universal Aspiration Tubing
AXS2PK07113200	132cm AXS Vecta 74 Aspiration Catheter +0.218in AXS Universal Aspiration Tubing
AXS2PK07412500	125cm AXS Vecta 71 Aspiration Catheter +0.218in AXS Universal Aspiration Tubing
AXS2PK07413200	132cm AXS Vecta 71 Aspiration Catheter +0.218in AXS Universal Aspiration Tubing

AXS Infinity LS™ Plus Long Sheath

Pos. 1

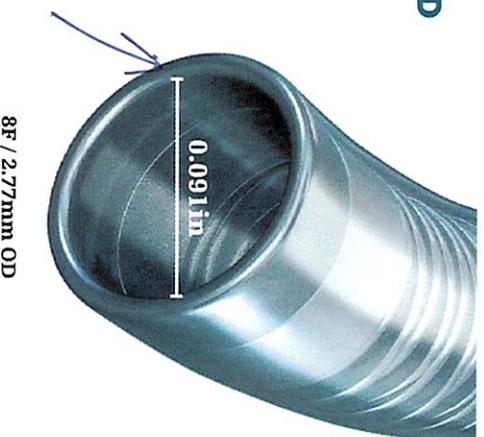
stryker

Making a difference **by supporting more options**

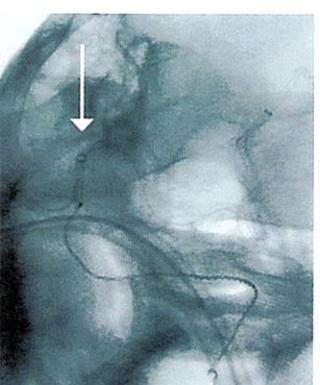
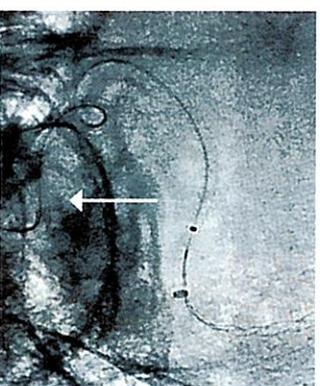
You want a long sheath that can get where you need it to go and that is able to stay in place once it's there. That's why we're introducing the 6F AXS Infinity LS Plus Long Sheath - its large 0.091in lumen helps to provide additional clearance. With its soft flex segment, the AXS Infinity LS Plus Long Sheath is designed to **go more distal to provide better arch support!**

More lumen, same 8F OD

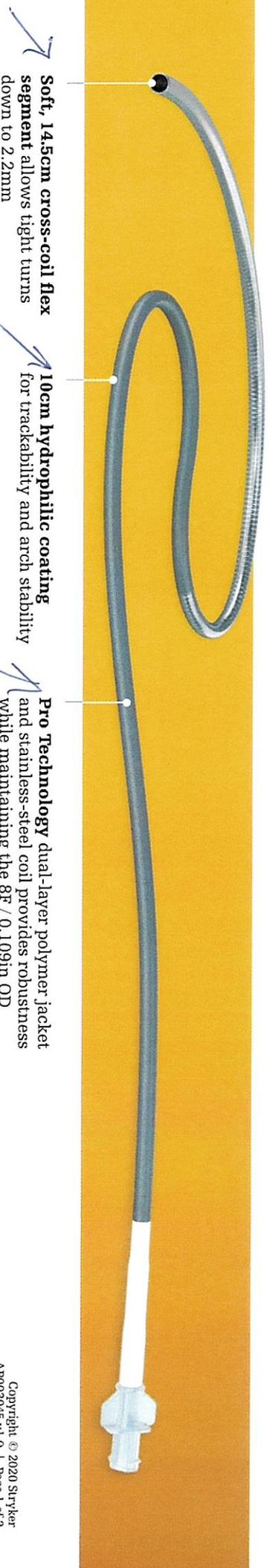
Use the AXS Vecta 74
Aspiration Catheter without
increasing your sheath size.



Take it higher for support
with the soft 14.5cm flex segment.



Photographs taken by Stryker.



Soft, 14.5cm cross-coil flex segment allows tight turns down to 2.2mm

10cm hydrophilic coating for trackability and arch stability

Pro Technology dual-layer polymer jacket and stainless-steel coil provides robustness while maintaining the 8F / 0.109in OD

AXS Infinity LS Plus Long Sheath

UPN	Description
INC-11987-70	AXS Infinity LS Plus Long Sheath, 70cm
INC-11987-80	AXS Infinity LS Plus Long Sheath, 80cm
INC-11987-90	AXS Infinity LS Plus Long Sheath, 90cm

AXS Infinity LS Plus Long Sheath

See package insert for complete indications, contraindications, warnings and instructions for use.

Indications for use

The AXS Infinity LS Plus Long Sheath is indicated for the introduction of interventional devices into the peripheral, coronary, and neuro vasculature.

Stroke Fast Pack

UPN	Description
AXS2PK07112500	125cm AXS Vecta 71 Aspiration Catheter + 0.218in AXS Universal Aspiration Tubing
AXS2PK07113200	132cm AXS Vecta 71 Aspiration Catheter + 0.218in AXS Universal Aspiration Tubing
AXS2PK07412500	125cm AXS Vecta 74 Aspiration Catheter + 0.218in AXS Universal Aspiration Tubing
AXS2PK07413200	132cm AXS Vecta 74 Aspiration Catheter + 0.218in AXS Universal Aspiration Tubing

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1. As compared to the original design AXS Infinity LS Plus Long Sheath. Bench testing is not necessarily indicative of clinical performance. N = 3 for each device. Data on file.

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Date of Release: OCT/2020

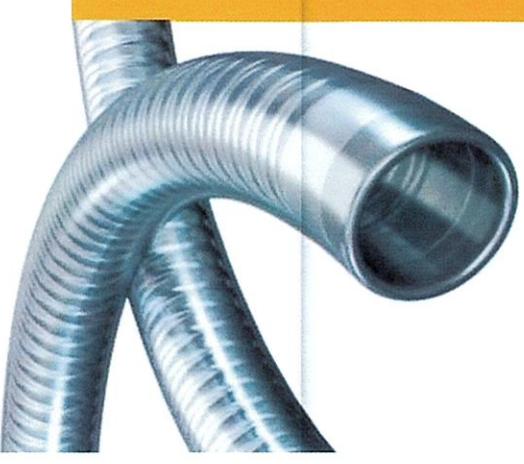
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AXS Infinity LS™ Plus

Long Sheath

Technical presentation



Technology

What's a sheath?
Key messages
Specifications
Pro Technology

Fits the AXS Vecta 74
Intermediate Catheter

Go distal for support

Reliable in tortuosity

Competitive details

Prep & accessories

Compatible products

DFU

Key product features



More options

- Additional lumen clearance for contract injections or multiple devices
- Large 0.091in lumen is designed specifically to deliver the AXS Vecta 74 Aspiration Catheter



Take it higher for support

- Long and soft distal flex zone allows the catheter to navigate further for distal support



Durable with Pro Technology™

- Dual layer polymer jacket and stainless-steel coil improves robustness while maintaining the 8F/0.109in OD

Technology

What's a sheath?
Key messages
Specifications
Pro Technology™

More options

Take it higher for support

Reliable in tortuosity

Competitive details

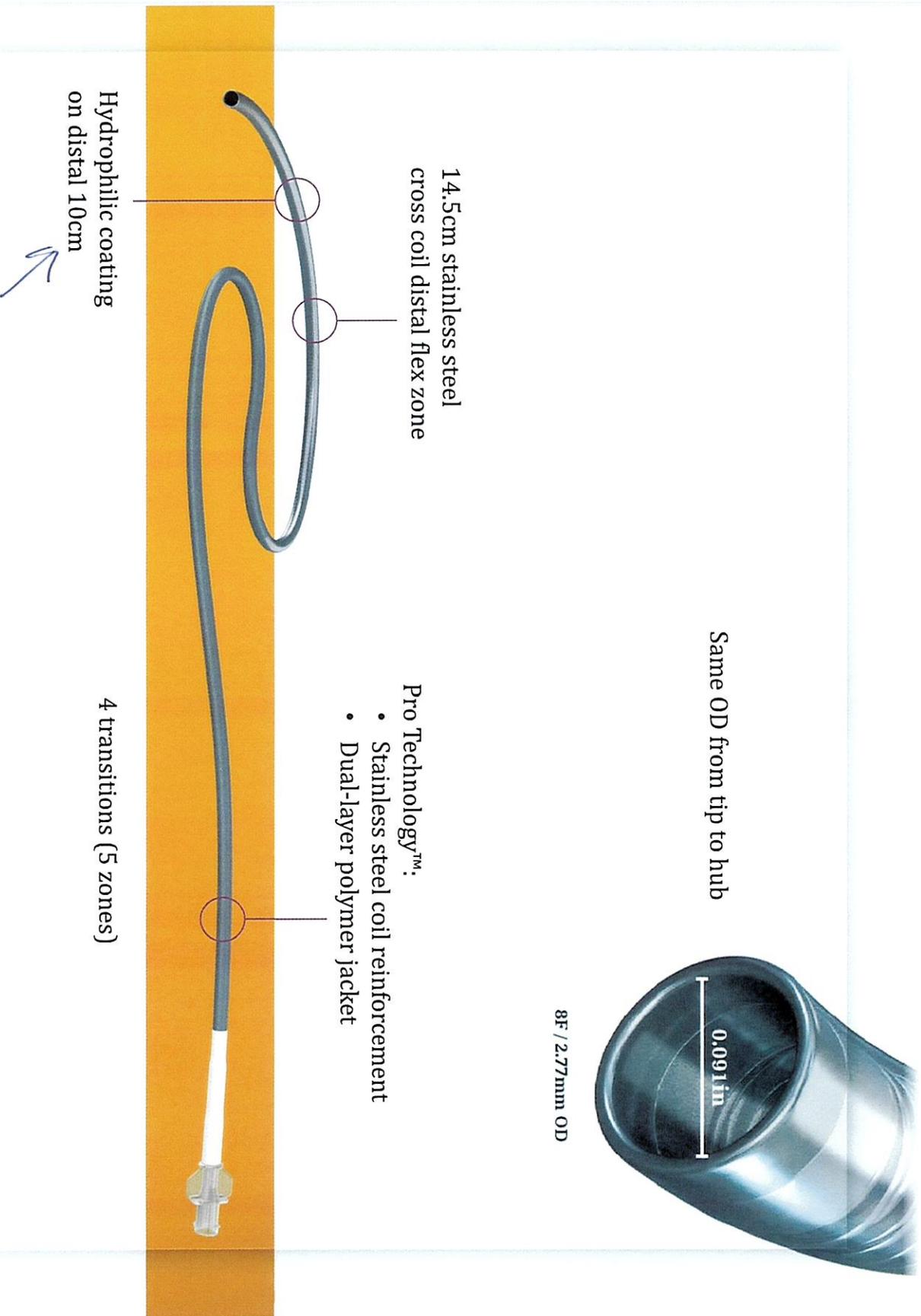
Prep & accessories

Compatible products

DFU

6F AXS Infinity LS™ Plus Long Sheath

stryker



Technology

What's a sheath?
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Sheath reinforcement



Distal shaft



Pro Technology™ proximal shaft

Single-layer polymer jacket

Stainless steel cross coil minimizes catheter prolapse, provides the support from a braid and the kink resistance of a coil

Dual-layer polymer jacket to provide kink resilience while maintaining pushability

Stainless steel single wind coil to minimize the proximal OD

Highly engineered catheter with thin walls



8F
(0,109in; 2,77mm)



8F
(0,109in; 2,77mm)

Same 8F OD with a larger 0.091in ID

2.1 Specifications

System overview

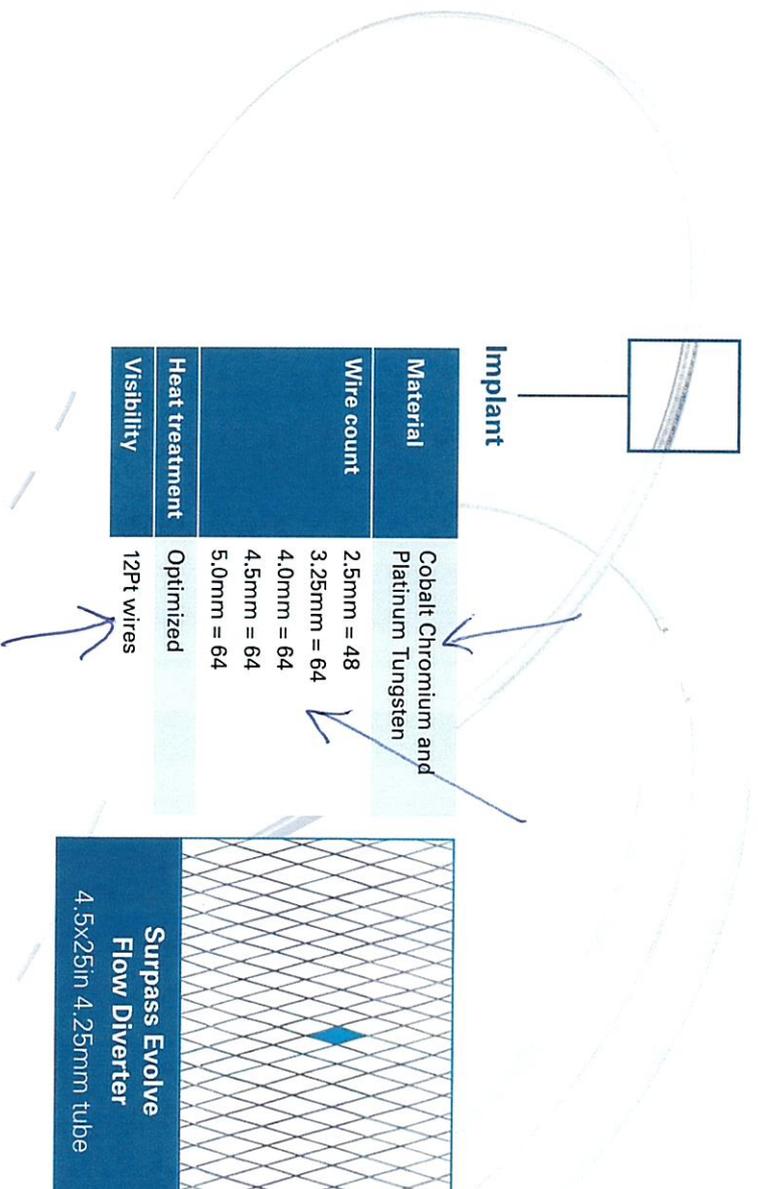
Pos. 4.

Product overview

Specifications

Sizing

Deployment tips & techniques



2.10 Specifications

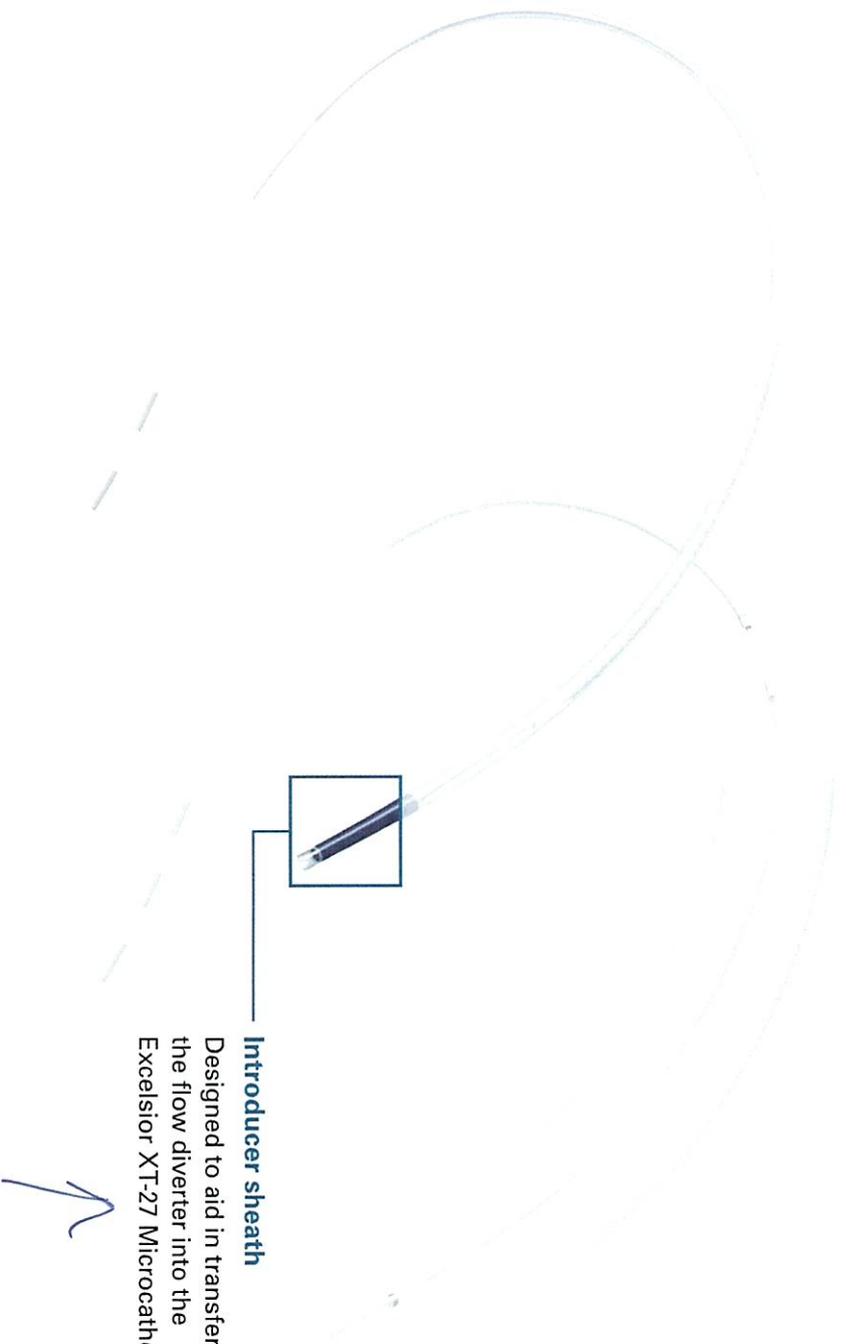
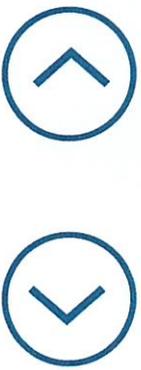
System overview

Product overview

Specifications

Sizing

Deployment tips & techniques



Introducer sheath
Designed to aid in transferring the flow diverter into the Excelsior XT-27 Microcatheter.

3.0 Sizing

Comprehensive size offerings

Product overview

Specifications

Sizing

Deployment tips & techniques

Unconstrained diameter	Labeled diameters (mm)				
	2.5	3.25	4.0	4.5	5.0
2.7	3.7	4.2	4.7	5.2	
Recommended parent vessel diameter	2.0-2.5mm	> 2.5-3.25mm	> 3.25-4.0mm	> 4.0-4.5mm	> 4.5-5.0mm
# of wires	48	64			
12	FD25012	FD32512	FD40012	FD45012	
15	FD25015	FD32515	FD40015	FD45015	FD50015
17		FD32517	FD40017	FD45017	
20	FD25020	FD32520	FD40020	FD45020	FD50020
25		FD32525	FD40025	FD45025	FD50025
30			FD40030	FD45030	FD50030
40				FD45040	FD50040
Length (mm)					



Physician requirements

The mission of the next gen Surpass™ Flow Diverter project (ultimately becoming, Surpass Evolve) was to engineer the highest performing flow diverter on the market. To achieve this, its development has been guided by robust physician feedback from around the globe. In fact, more than 100 physicians have provided input into the design of this technology. No other technology in the history of Stryker's Neurovascular division has leveraged such an extensive amount of end-user feedback.

From an implant perspective, the foundation of Surpass Evolve is Surpass Streamline™. Guided by physician feedback, Stryker engineers designed the Surpass Evolve implant to maintain what physicians like most about Surpass Streamline (the **reliable implant opening and the high mesh density braid**), while improving upon some limitations of Surpass Streamline (in particular, **deliverability of the implant and vessel wall apposition**). We believe our engineering team has achieved the "sweet spot" in product design—creating a technology that is designed to meet the needs of physicians and perform at a high level, from delivery, to deployment, to diversion.

Design overview

Let's take a deep dive into the Surpass Evolve implant and how it compares to Surpass Streamline. The key changes are as follows:

Base material: Both Surpass Streamline and Surpass Evolve implants are made of Cobalt Chromium (CoCr) wires, which are woven together to create a tubular "stocking-like" structure.

After evaluating available materials, the Stryker engineering team elected to continue with CoCr given that it is a stronger material than Nickel-Titanium (NiTi), allowing for a higher radial pressure than NiTi-based flow diverters. This was a critical design decision because radial pressure is an important contributor to reliable opening of the implant. And reliable opening is an important product benefit that physicians wanted maintained.

In addition to the CoCr wires, 12 platinum (Pt) wires are interlaced for fluoroscopic visibility. This is the same for both Surpass Streamline and Surpass Evolve.

Number of wires: Although the base material remains the same between Surpass Streamline and Surpass Evolve, the number of wires in the braid has changed. Table 2 highlights the number of wires for each diameter of Surpass Streamline (a) and Surpass Evolve (b).

Labelled diameter	Indicated vessel range	Number of wires
2mm*	2.0mm – 2.5mm	48
3mm	2.5mm – 3.5mm	72
4mm	3.4mm – 4.4mm	72
5mm	4.3mm – 5.3mm	96

Table 1a. Surpass Streamline.

Labelled diameter	Indicated vessel range	Number of wires
2.5mm*	≥2.0mm – 2.5mm	48
3.25mm	>2.5mm – 3.25mm	64
4.0mm	>3.25mm – 4.0mm	64
4.5mm	>4.0mm – 4.5mm	64
5.0mm	>4.5mm – 5.0mm	64

Table 1b. Surpass Evolve.

Reducing the number of wires from Surpass Streamline to Surpass Evolve has the benefit of making the implant more flexible. Improving implant flexibility has two main advantages. First, it makes the implant more conformable to the vasculature which will improve vessel wall apposition.

Second, improved implant flexibility will enhance deliverability of the implant allowing it to advance smoothly through the Excelsior™ XT-27™ Standard Straight Microcatheter. Deliverability will be discussed in greater detail in the delivery wire chapter.

Both vessel wall apposition and deliverability are key elements physicians wanted to see optimized.

*The Surpass Streamline 2.0mm and the Surpass Evolve 2.5mm implants will not be available in the United States and other select markets as these require an additional clinical trial and data.

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Design overview

Below, is a high-level overview of the key components of the Surpass Evolve delivery wire. We will go into detail on each of these components and how their design impacts the performance of the system.



The Surpass Evolve delivery wire is a 207cm stainless steel **core wire**. The implant is pre-loaded on the delivery wire and protected by an introducer sheath. The distal 2cm of the delivery wire, known as the **distal tip**, is radiopaque (RO).

The flow diverter is located between radiopaque **distal and proximal markers**, which signal the distal and proximal ends of the implant. The **petal** is designed to protect the distal end of the implant as it is advanced through the microcatheter. The **reshath pad** allows the user to reshath the Surpass Evolve flow diverter back into the microcatheter. The **reshath marker** provides the operator fluoroscopic visualization of the reshathing limit of the system. See Figure 1.

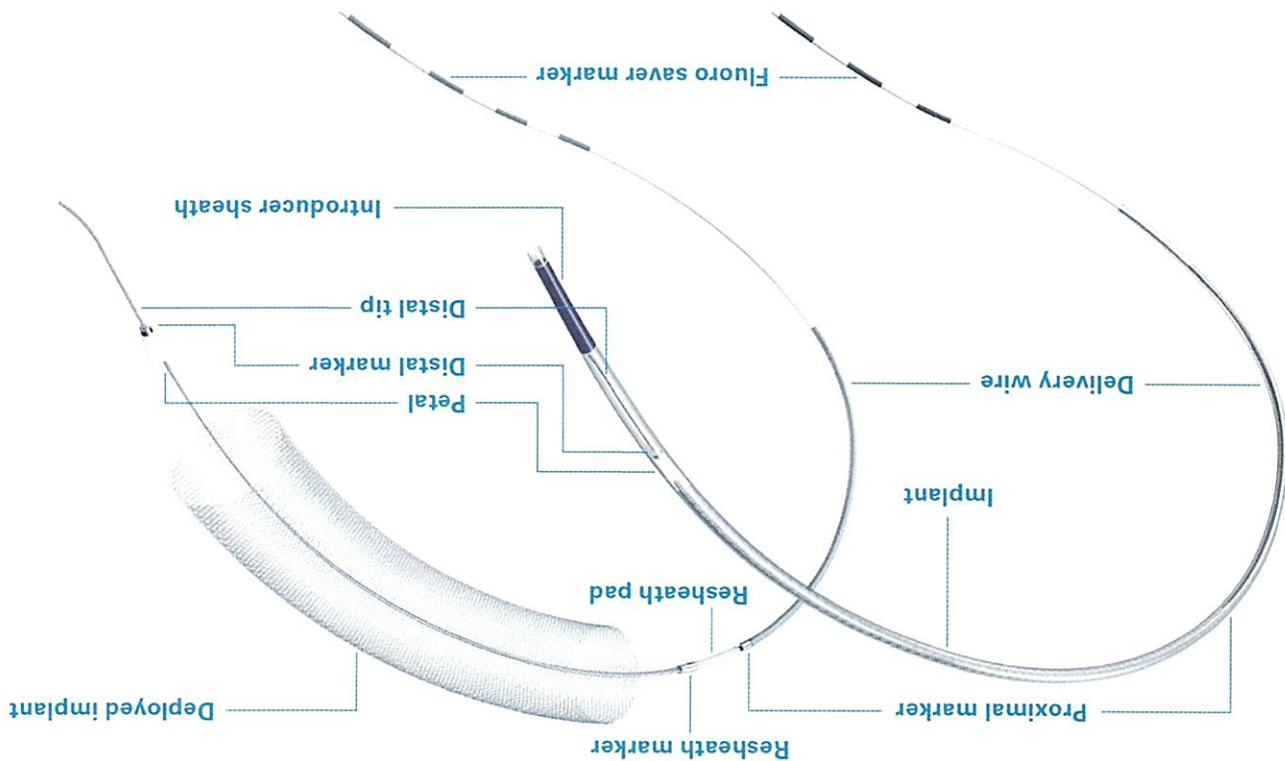
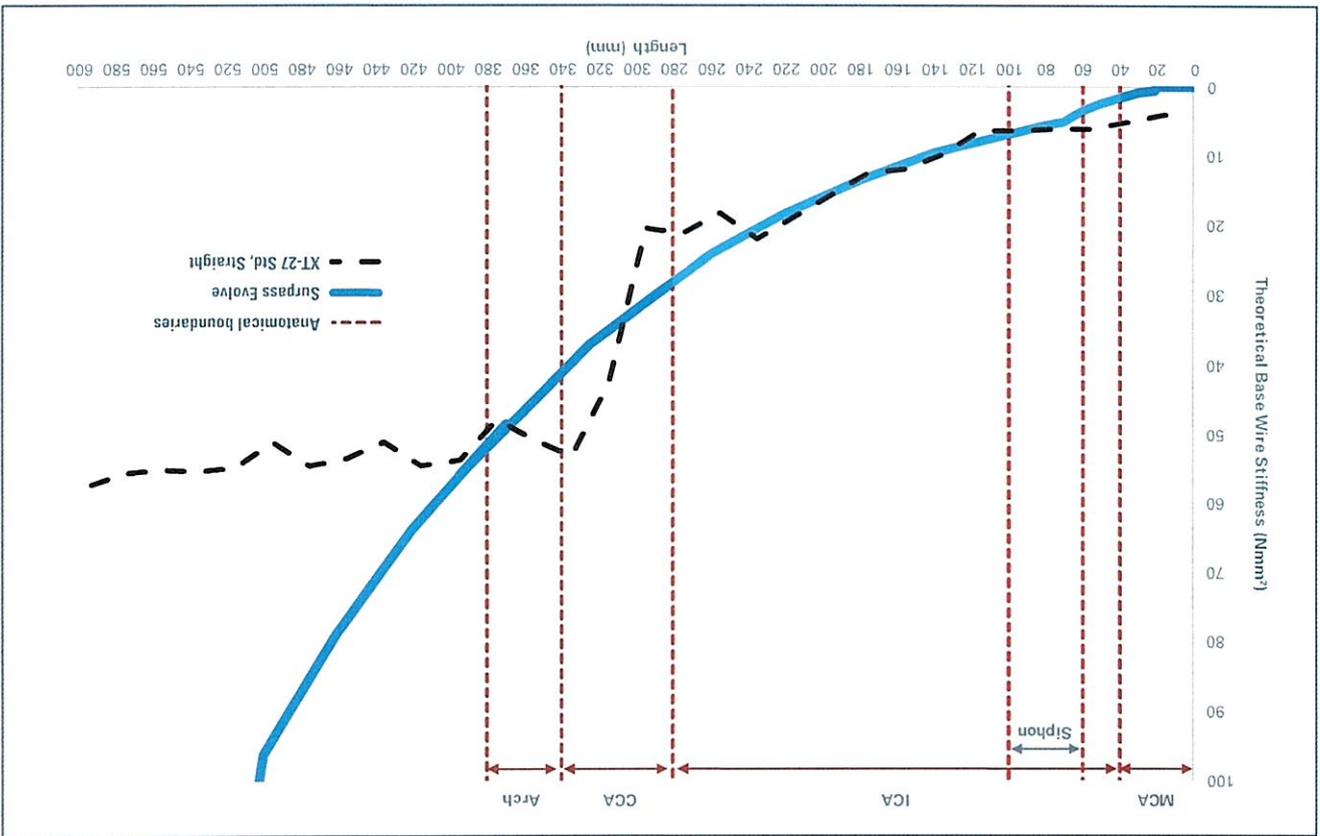


Figure 1. Surpass Evolve delivery wire.

Figure 2. Stiffness profile of XT-27 and Surpass Evolve delivery wire. Data on file with Stryker.



Core wire stiffness designed to match anatomy

Core Wire

The Surpass Evolve delivery wire is a 207cm stainless steel wire with an enhanced grind profile, designed to match the anatomy. It has a progressive grind profile – thick and supportive on the proximal end to maximize operator handling, while thin and flexible on the distal end to navigate tortuous anatomy. It has five transition zones along its length, increasing flexibility from proximal to distal. The key is the placement of the transition zones. The delivery wire is supportive where it needs to be and then flexible where it needs to be.

Through the smart placement of the transition zones (or grind profile) along the core wire, our engineers have achieved a highly trackable delivery wire, designed specifically to be used in combination with the Excelsior™ XT-27™ Standard Straight Microcatheter (XT-27). By design, the stiffness profile of the delivery wire is always similar or lower than the stiffness profile of the XT-27, in the area of tortuosity (the intracranial anatomy). See Figure 2.

Surpass Evolve™ - Flow Director System | Surpass Evolve delivery wire

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