



Leading Innovation, Beyond Conventional Stents

EGIS, SEAL, ACCESSARY

ABOUT US

COMPANY INTRODUCTION

S&G Biotech is leading a medical device manufacturer, producing minimally invasive medical devices such as stents and accessories with state-of-the-art technology.

As S&G Biotech has founded and operated by experienced interventional radiologists, it derives us to value providing simpler, less invasive, and more efficient medical devices to support doctors in the clinical field.

As we think from the customers' point of view as our highest priority, we can continue to challenge ourselves to create innovative medical devices to enhance patient's health and life expectancy.

EGIS stents have obtained GMP, CE, PMDA, and ISO certification.

S&G Biotech has been able to create great progress thanks to the relentless support and trust of our valuable customers.

We will do our best effort to be committed to supplying innovative products that will contribute to health promotion and achieve customer satisfaction

S&G HISTORY

2000~2010

- 2000 • Established by Prof. Song, Hoyoung, The First Inventor of Gastrointestinal Self Expandable Nitinol Stent in the world
- 2001 • S&G's laboratory Registration
Initiation of research and development about stents
- 2002 • Dr. Kang, SungGwon became the 2nd CEO
- 2003 • Registration of the manufacturing factory
Approval of the laboratory
- 2005 • CE approval: EGIS biliary Double Bare Stent
- 2008 • CE approval extension: EGIS Pyloric, Colorectal stents, and etc.
Achieving TAA Overseas Technology License

2011~PRESENT

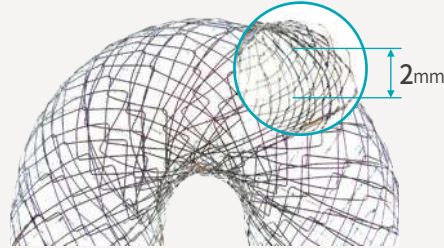
- 2011 • CE approval: EGIS Esophageal Stents, Guide Wire, and Micro Catheter
Dealership contracts in Russia, Belgium, Czech, Vietnam, and etc
- 2012 • KFDA Approval, Dealership contracts in Malaysia, Spain, Estonia, Croatia, and Indonesia
- 2013 • Approval of KFDA & ISO 13485
China CFDA approval & registration (Biliary Single Bare stent)
Japanese PMDA approval & registration (EGIS Biliary Stents)
- 2014 • Passed QMS audit & EGIS Stents launched in Japan
- 2017 • Moved to the new headquarters in Yongin city
- 2018 • Reapproval of KFDA
- 2019 • Dealership contracts In the Middle East and Italy
ISO 13485: 2016 version was approved

SPECIAL FEATURES & BENEFITS



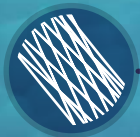
Smaller Cell Size

01. Smaller Cell Size



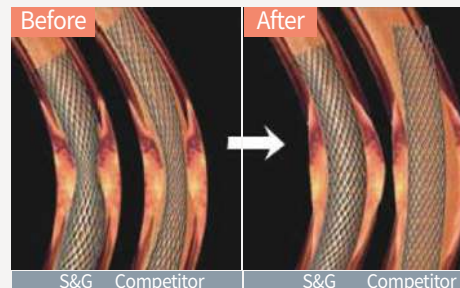
The 2mm of miniscule cell size

Biliary Stent	Single Bare Cell Size	2mm
	Double Bare Cell Size	2mm & Both 4mm
Pyloric & Colorectal Stent	Single Bare Cell Size	2.5~3.5mm
	Double Bare Cell Size	2~3mm & Both 4~6mm



Excellent Conformability

02. Excellent Conformability with Low Axial Force



Making tightly meshed stents could lead to an unwanted result, this is because Axial Force can increase. However, EGIS Double Bare Stents can maintain low Axial Force because it makes smaller mesh by overlapping two stents with relatively large mesh having low Axial Force. Thus, it provides excellent flexibility and conformability to adjust curved organs naturally.

Type	Axial Force
EGIS Biliary Single Bare Stent	0.40 ~ 0.49 N
EGIS Biliary Double Bare Stent	0.26 ~ 0.29 N
EGIS Biliary Double Covered	Stent 0.25 ~ 0.28 N

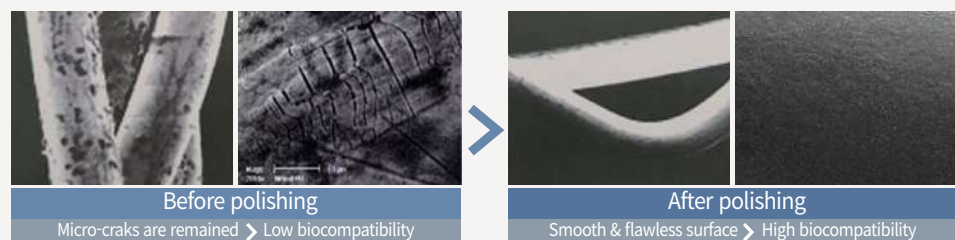
Reference: Dr. Asai Satoshi (2017), Presentation of Case Report in Kikou Conference



Polishing Process

03. Polishing process to remove micro-crack: Enhance biocompatibility

The fine cracks generated during the stent manufacturing process and the oxid film and impurities on the surface of the stent generated during the heat treatment process are removed. This increases the biocompatibility of the nitinol stent by forming a uniform oxide film.



PRODUCT LINE

S & G Biotech emphasizes developing new interventional procedures and manufacturing medical devices.

EGIS 05p

Biliary Stent
Colorectal Stent / Pyloric Stent
HERCULES SP(Colorectal, Pyloric) stent
Esophageal Stent
UREXEL Stent(SC)

SEAL 13p

Thoracic (Tapered) Limb Stent Graft
SEAL NOVUS Stent Graft Line
Bifurcated stent graft extension(EP)
/CUFF Stent Graft
Hercules Vascular Stent

ACCESSARY 17p

Radiomate Access Kit_Fluent
Radiomate II Microcatheter
EZ Guide wire
Pliant Guide Wire / Songlim Catheter
Revowave Guide Wire /
SB KNIFE

Leading Innovation,
Beyond Conventional Stents

Biliary Bare, Partial Cover, Full Cover Stent

- 01. Biliary Bare Stent
- 02. Biliary Partial Cover Stent
- 03. Biliary Full Cover Stent

01. Bare Stent



Double Bare



6mm Single Bare

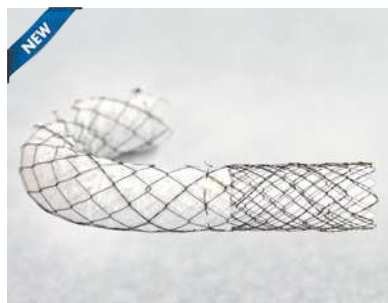


Single Bare

02. Partial Cover Stent



Double Cover



12mm Wide



Flower Partial Cover

03. Full Cover Stent



Flower



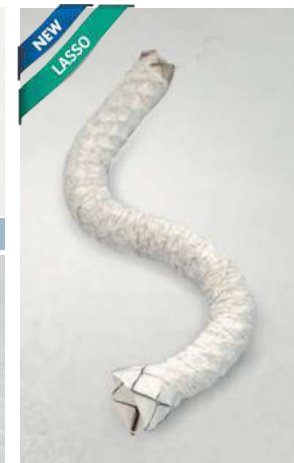
Single cover



Single F



Round Flower



Flare

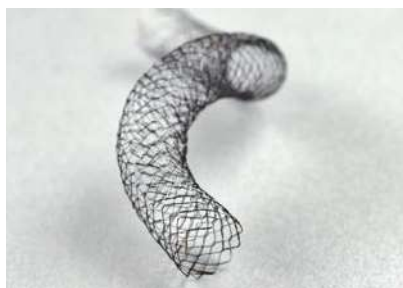


Flare valve

EGIS BILIARY

EGIS Biliary Bare / Covered Stent

Single Bare Stent / Single Covered Stent
Double Bare Stent / Double Covered Stent
F-stent



EGIS Biliary Single Bare Stent

Excellent flexibility & conformability
Smooth deployment. Sufficient radial force

Delivery System 8Fr, 500/1800mm

Ordering No. First two** : Diameter(mm) / Last two** : Length(mm)

Ordering No.		Size	
OTW	TTS	Diameter	Length
SBP****0	SBE****0	8, 10, 12	40, 50, 60, 70, 80, 90, 100, 120



EGIS Biliary Double Bare Stent

Excellent flexibility & conformability
Crossly overlapped two stents provide smaller cell size reducing the rate of tumor ingrowth.
Sufficient radial force

Delivery System 6Fr, 8Fr 500/1800mm

Ordering No. First two** : Diameter(mm) / Last two** : Length(mm)

Ordering No.		Size	
OTW	TTS	Diameter	Length
DBP****0	DBE****0	8, 10 (pink tube)	40, 50, 60, 70, 80, 90, 100, 120
		7 (blue tube)	40, 50, 60, 70, 80, 90, 100
		8, 10 (blue tube)	40, 50, 60, 70, 80, 90, 100, 120



EGIS Biliary Single Covered Stent

Covered with non-biodegradable silicone membrane
Smooth Deployment

Delivery System 6Fr, 8Fr 500/1800mm

Ordering No. First two** : Diameter(mm) / Last two** : Length(mm)

Ordering No.		Size	
OTW	TTS	Diameter	Length
SCP****0	SCE****0	6, 8, 10	40, 50, 60, 70, 80, 90, 100, 120
KSC****5	KSC****18		



EGIS Biliary Single Covered F Stent

Creative design for smooth flow of bile juice in the tubes resistant to compression due to 5 or 6 groove shape
Distal CBD optimization as pancreatic drainage is possible expansion force improvement

Delivery System 8Fr, 500/1800mm

Ordering No. First two** : Diameter(mm) / Last two** : Length(mm), Tolerance:±5%

Ordering No.		Size	
OTW	TTS	Diameter	Length
SFP****0	SFE****0	8,10	40, 50, 60, 70, 80, 90, 100, 120



EGIS Biliary Double Covered Stent

Superior silicone sleeve placed between two layers of stents
Excellent flexibility & conformability
Smaller cell size reducing the rate of tumor-ingrowth

Delivery System 8Fr, 500/1800mm

Ordering No. First two** : Diameter(mm) / Last two** : Length(mm)

Ordering No.		Size	
OTW	TTS	Diameter	Length
DCP****0	DCE****0	8, 10	40, 50, 60, 70, 80, 90, 100, 120
KDC****05	KDC****18		

Flower Biliary Full Cover Stent / Wide Stent

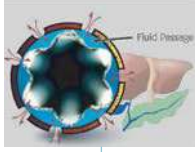





Flower Biliary Full Cover Stent
Biliary Wide Stent

EGIS Flower Biliary Full Cover Stent



Effective drainage of bile juice by side grooves
Prevent cholecystitis and pancreatitis
e-PTEE fully covered and retrieval stent

Special Features

		
Innovative design with 5~6 grooves, facilitating bile drainage	Fully covered stent with e-PTEE, designed for use in malignant & benign strictures	Sufficient radial force to push out the stricture
		
Low axial force, ensuring excellent flexibility & conformability	For easy removal, a triangle-shaped lasso is attached	To obtain anti-migration function, flared ends and grooves are made in the entire body

Delivery System 8Fr, 500/1800mm

Ordering No. First two** : Diameter(mm) / Last two** : Length(mm)

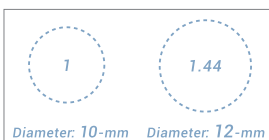
Type	Ordering No.		Size	
	OTW	TTS	Diameter	Length
Bare	BFBP****0805	BFBP****0818	8, 10	40, 50, 60, 70, 80, 90, 100, 120
Partial	BFPP****0805	BFPP****0818		
Fully Covered	BFCP****0805	BFCP****0818		
Fully Covered(원통)	BEPP****0805	BEPP****0818		

EGIS Biliary Wide Stent



Stent Diameter **12**-mm

No comparative study
Mukai T, et al. Dig Endosc 2016;28:L671-679



44%
▶ increased inner volume

Delivery System 8Fr, 500/1800mm

Ordering No. First two** : Diameter(mm) / Last two** : Length(mm)

Type	Ordering No.	Size	
		Diameter	Length
Biliary Wide Stent	DCP***0E	12	40, 50, 60, 70, 80, 90, 100

Reduce infection ratio remarkably
Excellent expandibility, conformability with double layer structure
e-PTEE covered stent with high biocompatibility
Partial bare design to prevent migration

EGIS BILIARY

Flared Fully Covered(Valve) Stent

Flared Fully Covered Stent
Flared Fully Covered Valve Stent

EGIS Flared Fully Covered Stent



New ePTFE membrane flared design
single layer system
Full covered
Lasso : Removeable

EGIS Flared Fully Covered Valve Stent



New ePTFE membrane flared valve design
single layer system
Full covered



Anti-reflux valve prevents the reflux of duodenal contents in the major papilla



Flared fully covered valve stent in the proximal part prevents migration

Delivery System 8Fr, 500/1800mm
Ordering No. First two** : Diameter(mm) / Last two** : Length(mm)

Order information					
Type	Ordering No.	Stent		Delivery System	
		Diameter	Length	Diameter	Length
Flared fully covered stent	FFP****0	8, 10	40, 50, 60, 70, 80, 90, 100, 120	2.7mm (8Fr)	500
	FFE****0				
Flared fully covered valve stent	FVP****0				1800
	FVE****0				

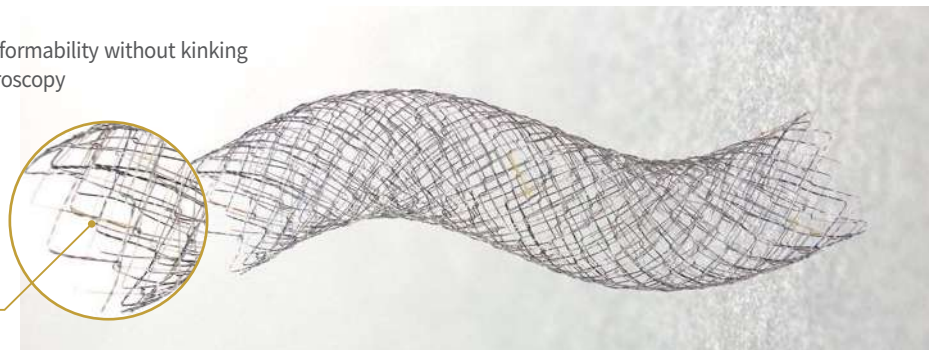
COLORECTAL STENT / PYLORIC STENT

Colorectal Stent / Pyloric Stent

Colorectal Stent
Pyloric Stent

EGIS Colorectal Stent

Sufficient radial force
Outstanding exibility and conformability without kinking
Excellent visibility under fluoroscopy



Gold Alloys Marker

Delivery System **Single Bare, Double Bare, Single Cover** : 10Fr, 80/1500/2200mm
Ordering No. First two** : Diameter(mm) / Last two** : Length(mm)

Type	Ordering No.	Size	
		Diameter	Length
Single Bare	RSB***	22, 24	60, 80, 100, 120
Double Bare	RDB***		
Single Covered	RSC***		
Double Covered	RDC****		

EGIS Pyloric Stent

Sufficient radial force
Outstanding exibility and conformability without kinking
Excellent visibility under uroscopy

EGIS Pyloric Double Bare stent



EGIS Pyloric Double Covered Stent



Delivery System : 10Fr, 1200/1800mm
Ordering No. First two** : Diameter(mm) / Last two** : Length(mm)

Type	Ordering No.		Size	
	OTW	TTS	Diameter	Length
Single Bare	SEBP****	SEBE****	18, 20	60, 80, 100, 120
Double Bare	DEBP****	DEBE****		
Single Covered	SECP****	SECE****		
Double Covered	DECP****	DECE****		

HERCULES SP(Colorectal, Pyloric) Stent

HERCULES SP Pyloric Stent (DualType)
HERCULES SP Colorectal Stent (DualType)

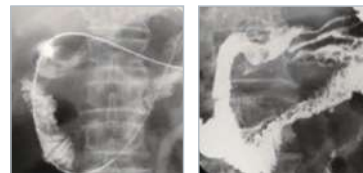
HERCULES SP Pyloric Stent (DualType)



Merit

- Polishing process for the biocompatibility
- Dual type design for low profile
- Prevent migration of stent (anti-migration structure)
- Covered fabric can prevent tumor in-growth and degradation.

Case



Ordering No.		Size		
		Diameter (mm)	Length (mm)	Delivery System
(Hercules SP Pyloric) Stent	PS-18-04	18	40	12Fr / 1200mm
	PS-18-06		60	
	PS-18-08		80	
	PS-18-10		100	

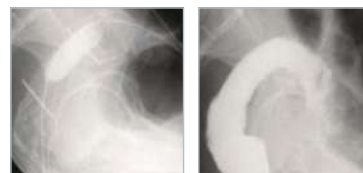
HERCULES SP Colorectal Stent (DualType)



Merit

- Polishing process for the biocompatibility
- Dual type design for low profile
- Prevent migration of stent (anti-migration structure)
- Reduced Shortening and Migration
- Superior to radial force of stent.

Case



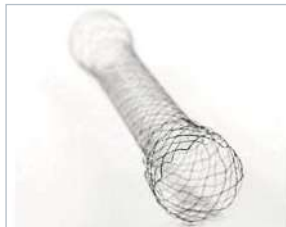
Ordering No.		Size		
		Diameter (mm)	Length (mm)	Delivery System
(Hercules SP Colorectal) Stent	RS-24-04	24	40	15Fr / 800mm
	RS-24-06		60	
	RS-24-08		80	
	RS-24-10		100	

ESOPHAGEAL STENT

Esophageal Stent

Esophageal Stent
Esophageal Anti-Reflux Stent

EGIS Esophageal Stent



Bare

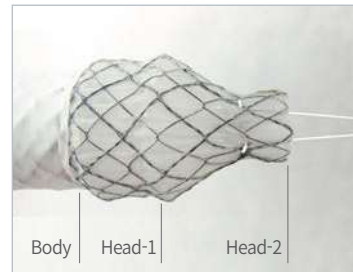


e-PTFE

EGIS Esophageal Full e-PTFE Anti Reflux Valve Stent

Body part, covered with e-PTFE : Naturally adjusting peristalsis
Double Step Shoulder : Prevent migration & reduce discomfort
Anti-Reux valve : Prevent reux , Prevent esophagitis & Aspiration pneumonia
Inward bending : Prevent tissue hyperplasia

Retrieval string ▶
: Easy removal or repositioning



Delivery System 18Fr, 70mm

Ordering No. First two** : Diameter(mm) / Last two** : Length(mm)

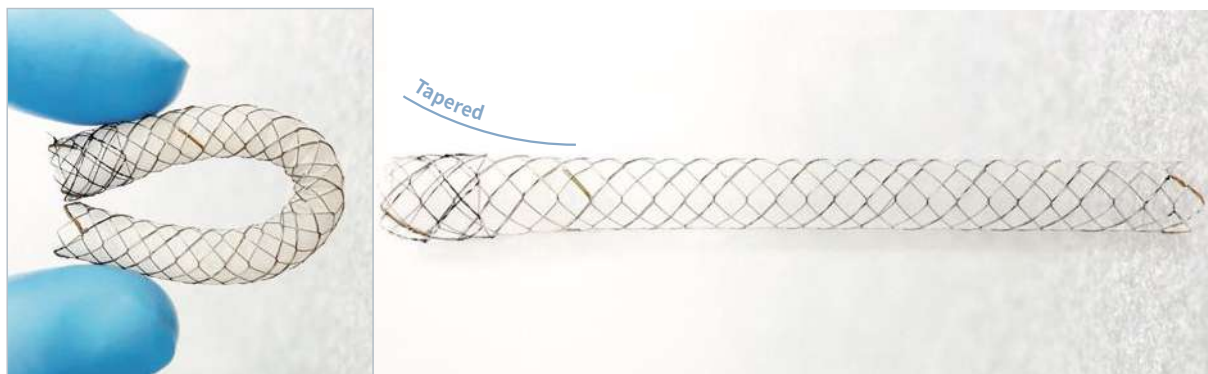
Type	Ordering No.	Diameter (mm)	Length (mm)	
			Body	Total
Bare	ESNC****0	16, 18, 20	40	90
e-PTFE covered	ESSC****0		60	110
			80	130
			100	150
e-PTFE Anti Reflux	ESSA****0		120	

UREXEL STENT(SC)

UREXEL Stent(SC)

UREXEL Stent(SC)

EGIS UREXEL Stent(SC)



EGIS Urexel Stents are used for the treatment of benign and malignant ureteral obstruction. They can be inserted both percutaneously and endoscopically.

- Covered Long term patency
- Good Flexibility
- No-ingrowth
- e-PTFE encapsulation reduces the incidence of restenosis in the treatment area

Delivery System 8Fr, 700mm

Ordering No. First two** : Diameter(mm) / Last two** : Length(mm)

Type	Ordering No.	Size	
		Diameter	Length
Tapered	USC****07	6,7,8	40, 60, 80, 100, 120, 140, 160

Case

She is a 65-year-old female patient who visited the hospital because of malignancy ureteral stricture suffering from medical procedure once every two months.

This is a KUB picture of doing f/u without additional medical procedure until 3 months after the urexel treatment.



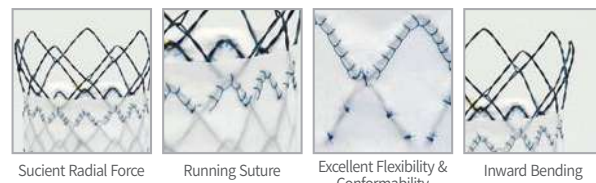
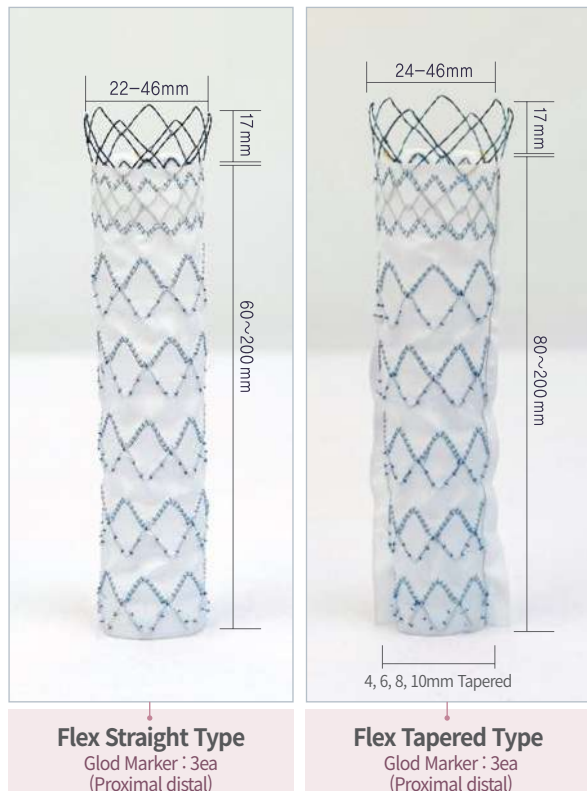
Thoracic (Tapered) Limb Stent Graft

Lower Profile of Delivery System

Flex Straight Delivery System: 15Fr, 900mm / 18Fr, 900mm / 21Fr, 900mm
 Flex Tapered (4, 6, 8, 10mm) Delivery System : 18Fr, 900mm / 21Fr, 900mm
 Ordering No. First two** : Diameter(mm) / Last two** : Length(mm)

Clinical Advantage : Enable minimally invasive procedures
 Access various patients with smaller or tortuous arteries

Profile Comparison of Delivery Systems			
Manufacturer	S&G Biotech	A	B
Outer Diameter	18Fr	21Fr	24Fr



Type	Ordering No.	Size		Delivery System Diameter(Fr) / Length(mm)
		Diameter (mm)	Length (mm)	
Flex Straight		22	60 ~ 200	15/90
		24 ~ 36		18/90
		38 ~ 46		21/90
Flex Tapered (4mm)	Limb-**-**	24 ~ 36	80, 110, 130, 150, 180, 200	18, 21/90
Flex Tapered (6mm)		26 ~ 36		
Flex Tapered (8mm)		28 ~ 36		
Flex Tapered (10mm)		30 ~ 36		
		38 ~ 46		

SEAL NOVUS Stent Graft Line

Novus Body Stent Graft
 Novus Limb Stent Graft
 Novus Flared Limb Stent Graft

SEAL NOVUS Stent Graft Line



Type	Size		
	Diameter (mm)	Length (mm)	Delivery System Diameter(Fr) / Length(mm)
SEAL NOVUS Body Stent Graft	22 - 36	50	15, 18, 21 / 550
NOVUS Limb Stent Graft	12	6, 8, 10, 12	15 / 550
NOVUS Flared Limb Stent Graft	12 - 14~24	6, 8, 10, 12	15 / 550

Bifurcated Stent Graft Extension(EP)

Bifurcated Stent Graft Extension(EP)
 CUFF Stent Graft
 SEAL Balloon Catheter

Bifurcated Stent Graft Extension(EP)



Excellent Flexibility & Conformability
 Excellent Flexibility & Conformability
 Smaller Cell Size

8Fr Low Profile Delivery System / Various Size
 Thin but surable e-PTFE graft ensures a lower profile
 Various size (Diameter: 6~12mm, Length:40~120mm)

Excellent Visibility & Sufficient Radial Force
 3 gold markers are attached to proximal & distal parts
 Self expandable Nitinol stent



Delivery System 8Fr, 900mm
 Ordering No. First two** : Diameter(mm) / Last two** : Length(mm)

Ordering No.	Size	
	Diameter (mm)	Length (mm)
Limb-**-**-B8	6, 8, 10, 12	40 ~ 120

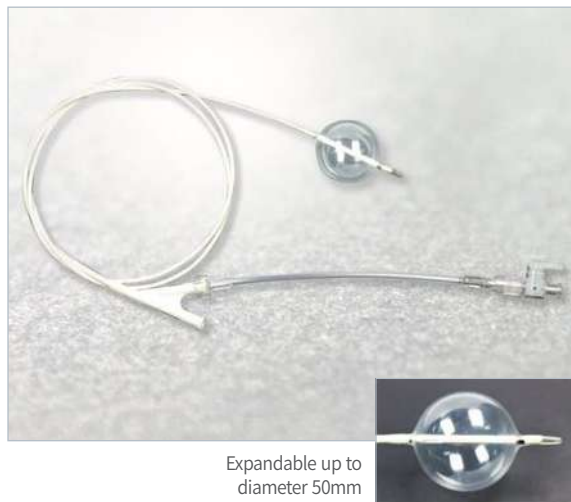
SEAL Bifurcated CUFF Stent Graft



Delivery System 15/18Fr, 550mm
 Ordering No. First two** : Diameter(mm) / Last two** : Length(mm)

Ordering No.	Size	
	Diameter (mm)	Length (mm)
CUFF - ** - 040	24, 26, 28, 30, 32, 34, 36, 38	40

SEAL Balloon Catheter



Expandable up to
 diameter 50mm

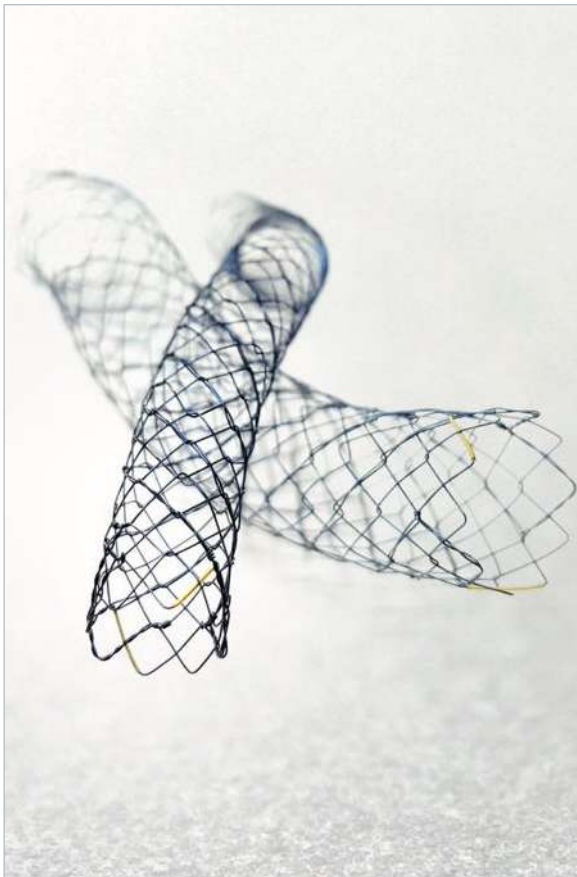
Ordering No.	Catheter		
	I.D. (mm)	O.D. (mm)	Length (mm)
SBC04100	0.75/0.60/0.96	2.68(8Fr)	100

HERCULES VASCULAR STENT

Hercules Vascular Stent

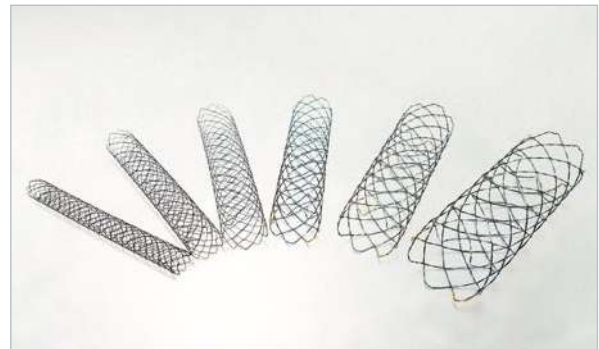
Hercules Vascular Stent

Hercules Vascular Stent



STRENGTHS

- Twist structure for sufficient radial force
- Excellent flexibility & conformability
- Radio-opaque makers with good visibility under radioscapy



Hercules Vascular stent is designed to expand the stenosis, occurred in blood vessels. The stent is a cylindrical medical device, woven with Nitinol. It has excellent radial force to push out the occluded lesion while maintaining long patency. With remarkable conformability, it can perfectly adjust the inner wall of the vessel.

Ordering No. First two** : Diameter(mm) / Last two** : Length(mm)

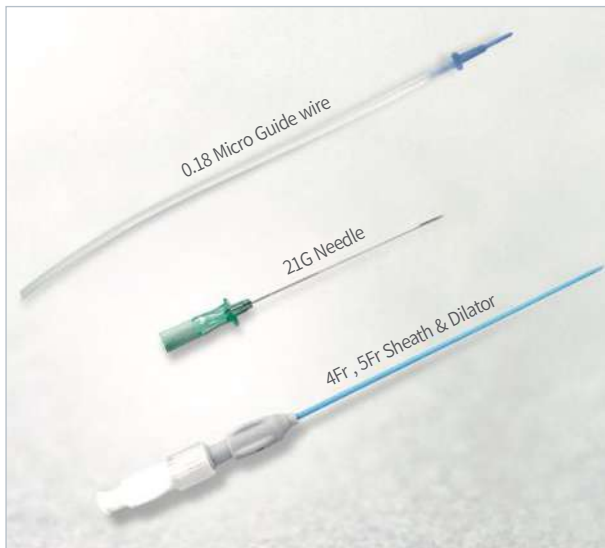
OTW	Size		Introducer	
	Diameter (mm)	Length (mm)	Length (Fr)	Usable Length (mm)
VS-JG-**-**	6 ~ 24	40, 50, 60, 70, 80, 90, 100, 120	8Fr(8 ~ 16mm), 12Fr(18 ~ 22mm)	900mm

ACCESSARY(IR)

Radiomate Access Kit_Fluent

Radiomate II Microcatheter / EZ Guide wire

Radiomate Access Kit_Fluent

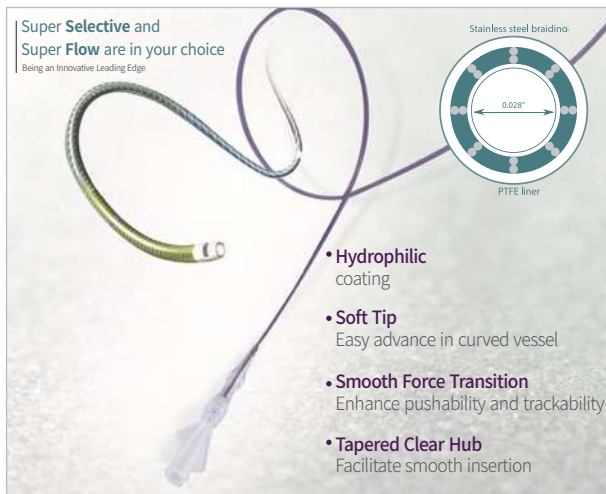


- 21g Needle with Echogenic Tip
- Gold Tip Wire
- Hydrophilic coating
- Nitinol Micro-guidewire
- Flexible wire
- Sharp needle



Ordering Information	Catheter G.W Size		
Ordering No.	Fr	Diameter (inch)	Length (mm)
RMAK0410	4	0.014	400
RMAK0510	5	0.018	

Radiomate II Microcatheter



Ordering Information		Size	
Type	Ordering No.	Diameter (Fr)	Length(mm)
Vers. II	JG-KMC-**-	1.8	1100, 1300
	JG-JMC-**-	2.1	1100, 1300, 1500
	JG-YMC-**-	2.3	1100, 1300
	JG-WMC-**-	2.7	1100, 1300

Most/Total Flexible Length 80/150mm, Hydrophilic coating Length 300mm

EZ Guidewire (Straight Type / J-Shape Type)



Ordering Information	Size	
Ordering No.	O.D (inch / mm)	Usable Length (mm)
JG-MW-**-***	0.014	1300 ~ 1900 (Interval unit: 100mm)
JG-JMW-**-***	0.016	
JG-MW-18-***	0.018	

ACCESSARY(IR)

Pliant Guide Wire / Songlim Catheter

Pliant Guide Wire (Straight Type / J-Shape Type)



J-Type	Straight-Type	O.D. (inch)	Length (mm)
PGA-35-90	PGS-35-90	0.035	900
PGA-35-150	PGS-35-150		1500

Hydrophilic coating

Unmatched lubricity consistently gets you where you need to go

Core-to-tip design

Provides optimal torque control for

Polyurethane jacket with tungsten

Provide enhanced radiopacity of entire guide wire

Nitinol alloy core

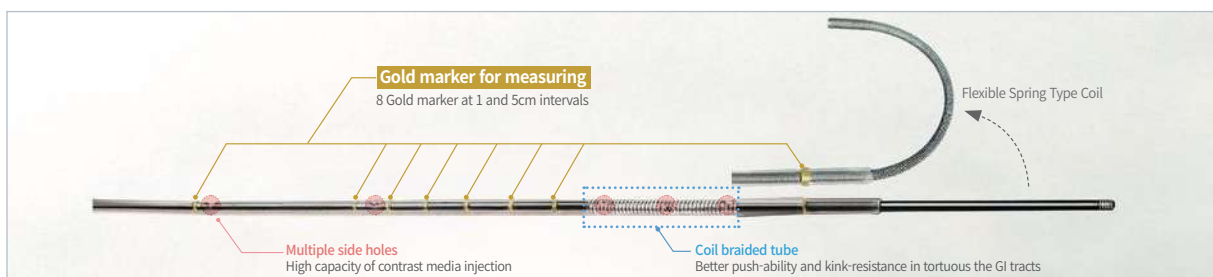
Resists kinking for easier, faster navigation through even the most tortuous vessels

Songlim Catheter



Ordering No*: Length(mm)

Ordering Information		Size	
Type	Ordering No.	Diameter	Length
Straight	SL-GEC-**0	2.5mm	800, 500, 1800

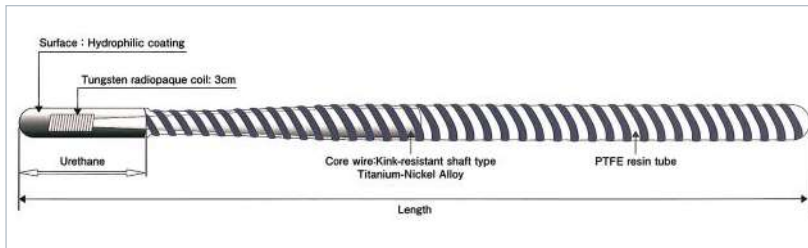


ACCESSARY(GI)

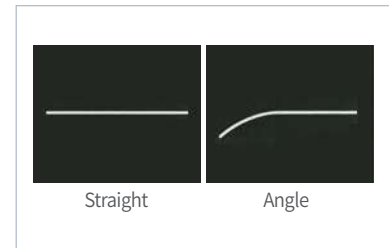
Revowave Guide Wire / SB KNIFE

Revowave Guide Wire

Structure of revowave



Shape of Tip



Ordering Information

Ordering No. First two** : Diameter 0.25/0.35 Fr , LAST two** : Length **00mm

Ordering Information	Type		Size
Ordering No.	Shaft	Hardness / Tip	Length(mm)
EWHS-3545I	0.035	HARD / STRAIGHT	4500
EWHA-3545I	0.035	HARD / ANGLE25	
EWSS-3545I	0.035	STANDARD / STRAIGHT	
EWSA-3545I	0.035	STANDARD / ANGLE25	
EWHS-2545I	0.025	HARD / STRAIGHT	
	0.025	HARD / ANGLE60	

Visibility Under the Endoscope

Vivid movements of the guidewire can be conrmed from the fine stripes.



SB Knife™

SB Knife™ Standard type(For Stomach)
& Short type(For Esophagus)



Model Number	Type	Knife Length (mm)	Opening Width (mm)	Working Length (mm)	Minimal Channal Size (mm)	Electrode insid Hook	High Frequency Current	Packaging
MD-47704	Short	6	6	1.8	2.8	-	Monopolar	1Piece/ Case
MD-47706	Standard	7	8			+		

* Sterilized with Ethylene Oxide Gas

SB Knife™ Jr type™

(For Colon and Rectum)

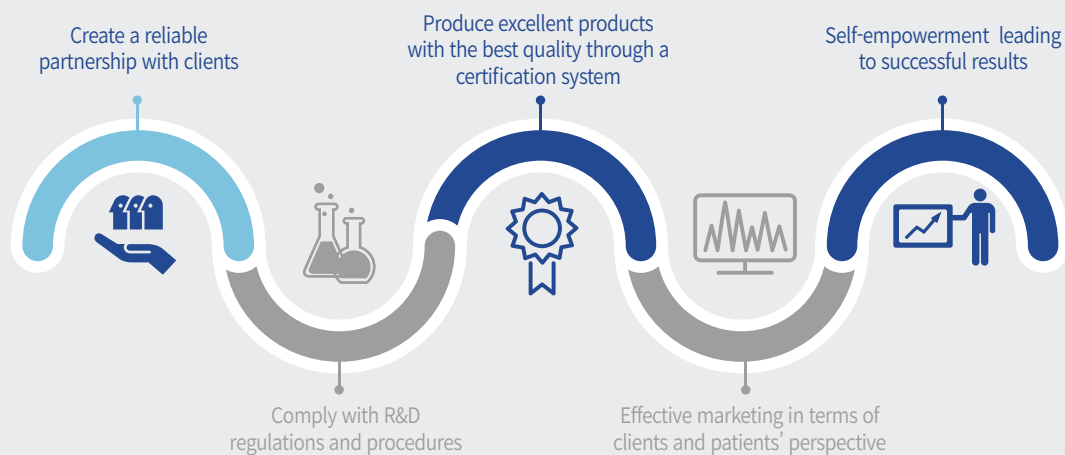


Application : Endoscopic Submucosal Dissection (ESD)

Model Number	Type	Knife Length (mm)	Opening Width (mm)	Working Length (mm)	Minimal Channal Size (mm)	Electrode insid Hook	High Frequency Current	Packaging
MD-47703W	Jr	3.5	4.5	1.95	2.8	-	Monopolar	1Piece/ Case
MD-47703L				2.30		+		

* Sterilized with Ethylene Oxide Gas

Researching & Developing the Newest Innovative Technologies and Medical Procedures
to commercialize well-made and high-quality medical device products.



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