FRED® Jr.

Flow Re-Direction Endoluminal Device

PRODUCT SIZES

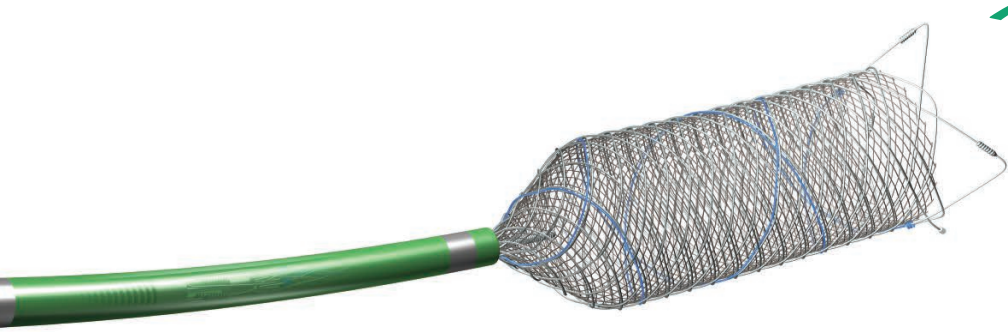
One unit per box.

Fully Open Implant Diameter	Product Code	*Working Length (mm) / Total Length (mm) at Target Vessel Diameters (mm)			Crimped Length *Inside Microcatheter (mm)*	% Foreshortening *At Fully Open Implant Diameter*
		2.0	2.5	3.0		
2.5	FREDJR2508	11 / 15	8 / 13		18	27
2.5	FREDJR2513	17 / 21	13 / 18		26	33
2.5	FREDJR2520	28 / 32	20 / 25		40	38
2.5	FREDJR2526	35 / 38	26 / 30		49	39
3.0	FREDJR3009		12 / 16	9 / 13	20	32
3.0	FREDJR3014		19 / 23	14 / 19	30	38
3.0	FREDJR3021		29 / 34	21 / 27	46	42
3.0	FREDJR3027		37 / 41	27 / 32	56	44

* Outer device total length (including flared ends) and inner device working length (marked by helical strands), constrained in vessel.

DELIVERED THROUGH:

Headway® 21 Microcatheter

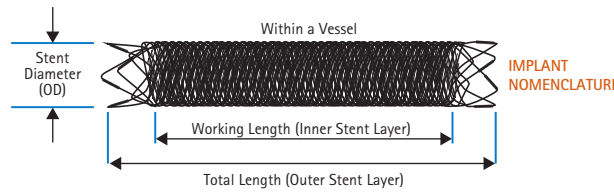


MicroVention® TERUMO

EMEA

FRED® Jr.

Flow Re-Direction Endoluminal Device



EFFECTIVE METAL SURFACE AREA

One unit per box.

Fully Open Implant Diameter	Product Code	*Effective Metal Surface Area (%) at Target Vessel Diameters (mm)		
		2.0	2.5	3.0
2.5	FREDJR2508	29	31	
2.5	FREDJR2513	30	31	
2.5	FREDJR2520	29	33	
2.5	FREDJR2526	30	32	
3.0	FREDJR3009		25	28
3.0	FREDJR3014		25	28
3.0	FREDJR3021		25	28
3.0	FREDJR3027		26	29

* Effective Metal Surface Area (%) measured for the inner stent, which provides flow diversion.

The FRED® and FRED® Jr. systems are CE Marked. The FRED Jr. system is not approved in the United States. The FRED system is limited by United States law to investigational use only.

INDICATIONS FOR USE:
The system is intended for endovascular embolization of intracranial neurovascular aneurysms. The FRED and FRED Jr. system may also be used with embolic coils for the treatment of intracranial neurovascular lesions.

CE 0297

MicroVention® TERUMO

MicroVention, Inc.
Worldwide Headquarters PH +1.714.247.8000
1311 Valencia Avenue
Tustin, CA 92780, USA
MicroVention UK Limited PH +44 (0) 191 258 6777
MicroVention Europe, S.A.R.L. PH + 33 (1) 39 21 77 46
MicroVention Deutschland Gmbh PH +49 211 210 798-0
Web **microvention.com**

FRED®

Flow Re-Direction Endoluminal Device

PRODUCT SIZES

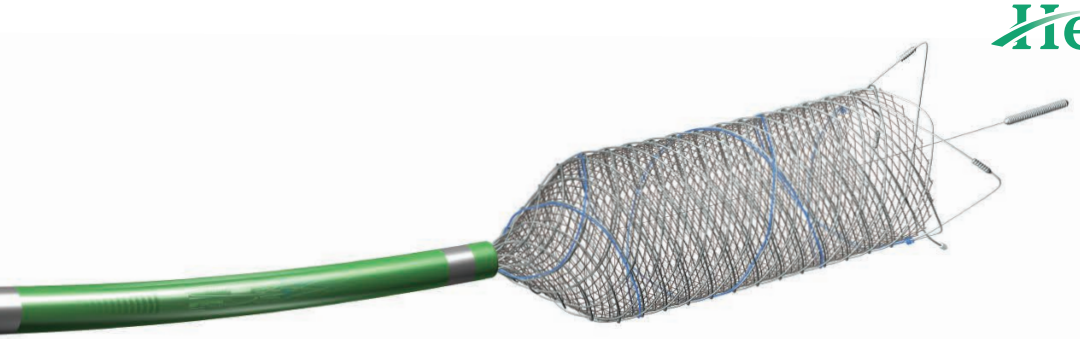
One unit per box.

Fully Open Implant Diameter	Product Code	*Working Length (mm) / Total Length (mm) at Target Vessel Diameters (mm)						Crimped Length *Inside Microcatheter (mm)*	% Foreshortening *At Fully Open Implant Diameter*
		3.0	3.5	4.0	4.5	5.0	5.5		
3.5	FRED3507	10 / 16	7 / 13					21	39
3.5	FRED3511	17 / 22	11 / 17					32	47
3.5	FRED3516	24 / 30	16 / 22					44	49
3.5	FRED3524	34 / 40	24 / 31					61	48
3.5	FRED3536	49 / 54	36 / 40					83	52
4.0	FRED4007		10 / 16	7 / 13				24	42
4.0	FRED4012		18 / 24	12 / 18				36	49
4.0	FRED4017		26 / 31	17 / 23				49	53
4.0	FRED4026		37 / 43	26 / 32				69	53
4.0	FRED4038		53 / 58	38 / 44				94	55
4.5	FRED4508			11 / 18	8 / 15			27	43
4.5	FRED4513			19 / 26	13 / 20			41	51
4.5	FRED4518			27 / 34	18 / 25			55	55
4.5	FRED4528			39 / 45	28 / 34			77	56
4.5	FRED4539			56 / 62	39 / 45			105	57
5.0	FRED5009				12 / 18	9 / 15		28	44
5.0	FRED5014				20 / 26	14 / 21		44	53
5.0	FRED5019				28 / 35	19 / 26		60	56
5.0	FRED5029				41 / 48	29 / 36		84	57
5.5	FRED5514					22 / 28	14 / 22	48	54
5.5	FRED5526					38 / 46	26 / 32	83	59

* Outer device total length (including flared ends) and inner device working length (marked by helical strands), constrained in vessel.

DELIVERED THROUGH:

Headway® 27 Microcatheter

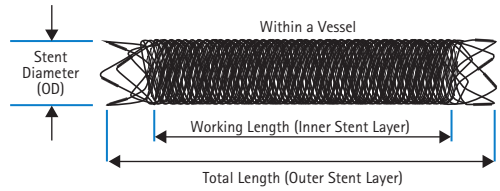


MicroVention® TERUMO

EMEA

FRED®

Flow Re-Direction Endoluminal Device



IMPLANT NOMENCLATURE

EFFECTIVE METAL SURFACE AREA

One unit per box.

Fully Open Implant Diameter	Product Code	*Effective Metal Surface Area (%) at Target Vessel Diameters (mm)					
		3.0	3.5	4.0	4.5	5.0	5.5
3.5	FRED3507	35	42				
3.5	FRED3511	34	43				
3.5	FRED3516	34	44				
3.5	FRED3524	30	38				
3.5	FRED3536	31	36				
4.0	FRED4007		32	39			
4.0	FRED4012		31	40			
4.0	FRED4017		32	42			
4.0	FRED4026		28	37			
4.0	FRED4038		28	34			
4.5	FRED4508			30	37		
4.5	FRED4513			30	40		
4.5	FRED4518			29	39		
4.5	FRED4528			26	36		
4.5	FRED4539			26	33		
5.0	FRED5009				28	33	
5.0	FRED5014				28	36	
5.0	FRED5019				28	36	
5.0	FRED5029				25	33	
5.5	FRED5514					25	34
5.5	FRED5526					25	36

* Effective Metal Surface Area (%) measured for the inner stent, which provides flow diversion.

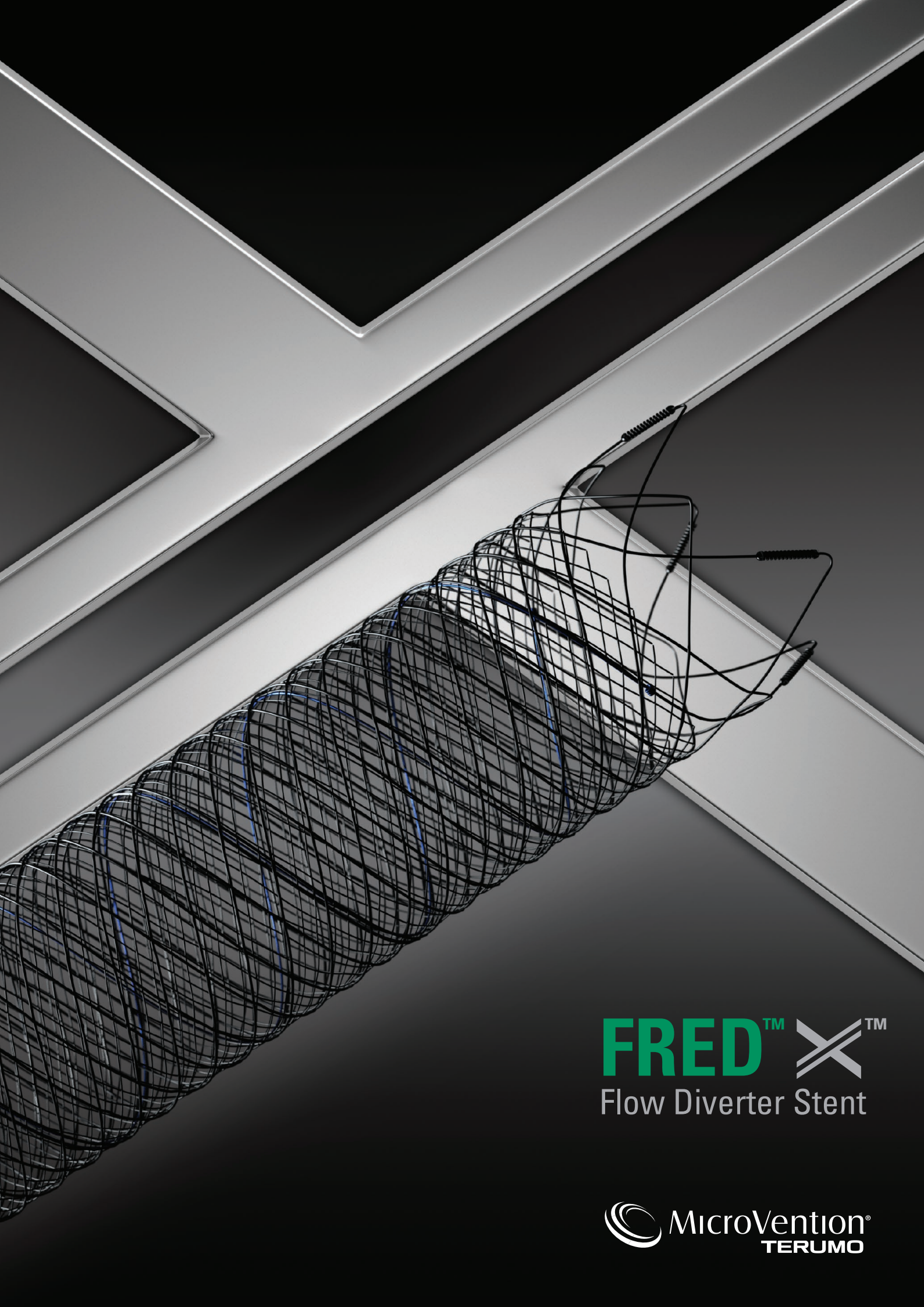
The FRED® and FRED® Jr. systems are CE Marked. The FRED Jr. system is not approved in the United States. The FRED system is limited by United States law to investigational use only.

INDICATIONS FOR USE:
The system is intended for endovascular embolization of intracranial neurovascular aneurysms. The FRED and FRED Jr. system may also be used with embolic coils for the treatment of intracranial neurovascular lesions.

CE 0297

MicroVention® TERUMO

MicroVention, Inc.
Worldwide Headquarters PH +1.714.247.8000
1311 Valencia Avenue
Tustin, CA 92780, USA
MicroVention UK Limited PH +44 (0) 191 258 6777
MicroVention Europe, S.A.R.L. PH + 33 (1) 39 21 77 46
MicroVention Deutschland Gmbh PH +49 211 210 798-0
Web **microvention.com**

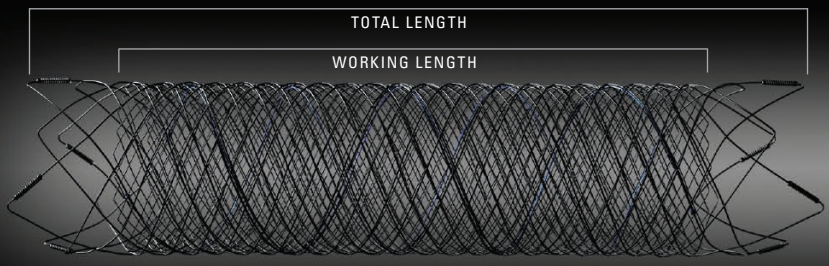


FRED™ X™

Flow Diverter Stent

MicroVention® TERUMO

FRED™ X™
Flow Diverter Stent



DEVICE	PRODUCT CODE	DEVICE SIZE (mm) *Unconstrained Diameter x Total Length*	WORKING LENGTH / TOTAL LENGTH IN DIFFERENT VESSEL DIAMETERS (mm)							
			2.0mm	2.5mm	3.0mm	3.5mm	4.0mm	4.5mm	5.0mm	5.5mm
FRED X 21	XFRED2508	2.5 x 13	11 / 15	**8 / 13**						
	XFRED2513	2.5 x 18	17 / 21	**13 / 18**						
	XFRED2520	2.5 x 25	28 / 32	**20 / 25**						
	XFRED2526	2.5 x 30	35 / 38	**26 / 30**						
	XFRED3009	3.0 x 13		12 / 16	**9 / 13**					
	XFRED3014	3.0 x 19		19 / 23	**14 / 19**					
	XFRED3021	3.0 x 27		29 / 34	**21 / 27**					
	XFRED3027	3.0 x 32		37 / 41	**27 / 32**					
FRED X 27	XFRED3507	3.5 x 13			10 / 16	**7 / 13**				
	XFRED3511	3.5 x 17			17 / 22	**11 / 17**				
	XFRED3516	3.5 x 22			24 / 30	**16 / 22**				
	XFRED3524	3.5 x 31			34 / 40	**24 / 31**				
	XFRED3536	3.5 x 40			49 / 54	**36 / 40**				
	XFRED4007	4.0 x 13				10 / 16	**7 / 13**			
	XFRED4012	4.0 x 18				18 / 24	**12 / 18**			
	XFRED4017	4.0 x 23				26 / 31	**17 / 23**			
	XFRED4026	4.0 x 32				37 / 43	**26 / 32**			
	XFRED4038	4.0 x 44				53 / 58	**38 / 44**			
	XFRED4508	4.5 x 15					11 / 18	**8 / 15**		
	XFRED4513	4.5 x 20					19 / 26	**13 / 20**		
	XFRED4518	4.5 x 25					27 / 34	**18 / 25**		
	XFRED4528	4.5 x 34					39 / 45	**28 / 34**		
	XFRED4539	4.5 x 45					56 / 62	**39 / 45**		
	XFRED5009	5.0 x 15						12 / 18	**9 / 15**	
	XFRED5014	5.0 x 21						20 / 26	**14 / 21**	
	XFRED5019	5.0 x 26						28 / 35	**19 / 26**	
	XFRED5029	5.0 x 36						41 / 48	**29 / 36**	
	XFRED5514	5.5 x 22							22 / 28	**14 / 22**
	XFRED5526	5.5 x 32							38 / 46	**26 / 32**

DEVICE	PRODUCT CODE	DISTAL ID (in)	PROXIMAL ID (in)	DISTAL OD (Fr/in)	PROXIMAL OD (Fr/in)	LENGTH (cm)
HEADWAY™ 21 and 27 Microcatheters	MC212156S	0.021	0.021	2.1 / 0.026	2.5 / 0.033	156
	MC272156S	0.027	0.027	2.6 / 0.034	3.1 / 0.041	156
SOFIA™ EX Intracranial Support Catheter	ISC5105ST	0.058	0.058	5.2 / 0.068	5.4 / 0.071	105
	ISC5115ST	0.058	0.058	5.2 / 0.068	5.4 / 0.071	115
SOFIA™ Distal Access Catheter	DA5115ST	0.055	0.055	5.1 / 0.067	5.2 / 0.068	115
	DA5125ST	0.055	0.055	5.1 / 0.067	5.2 / 0.068	125
	DA6115ST	0.070	0.070	6.2 / 0.0815	6.3 / 0.0825	115

FRED X Indications for Use: The FRED X System is intended for endovascular embolization of intracranial neurovascular aneurysms. The FRED X System may also be used with embolic coils for the treatment of intracranial neurovascular lesions.

HEADWAY Microcatheter Indications for Use: The HEADWAY Microcatheter is intended for general intravascular use, including the peripheral, coronary and neuro vasculature for the infusion of diagnostic agents, such as contrast media, and therapeutic agents, such as occlusion coils.

SOFIA EX Catheter Indications for Use: The SOFIA EX Catheter is indicated for general intravascular use, including the neuro and peripheral vasculature. The SOFIA EX Catheter can be used to facilitate introduction of diagnostic agents or therapeutic devices. The SOFIA EX Catheter is not intended for use in coronary arteries.

SOFIA Catheter Indications for Use: The SOFIA Catheter is indicated for general intravascular use, including the neuro and peripheral vasculature. The SOFIA Catheter can be used to facilitate introduction of diagnostic or therapeutic agents. The SOFIA Catheter is not intended for use in coronary arteries. Moreover, the SOFIA Catheter is intended for use in removal/aspiration of emboli and thrombi from selected blood vessels in the arterial system, including the peripheral and neuro vasculatures.

For Healthcare professional use only.

MicroVention® TERUMO

microvention.com

MicroVention Worldwide Innovation Center
35 Enterprise
Aliso Viejo, CA 92656
PH +1.714.247.8000
PH +1.800.990.8368

MicroVention UK Limited
Suite 3, The Barracks Building
10 Cliffords Fort, North Shields
Tyne and Wear, NE30 1JE
United Kingdom
PH +44 (0) 191 258 6777
F +44 (0) 191 258 5999

MicroVention Europe, SARL
30 bis, rue du Vieil Abreuvoir
78100 Saint-Germain-en-Laye
France
PH +33 (1) 39 21 77 46
F +33 (1) 39 21 16 01

MicroVention Deutschland GmbH
Hildebrandtstr. 4 F
D-40215 Düsseldorf
Germany
PH +49 211 210 798-0
F +49 211 210 798-29

CE 0297