

Yasargil Titanium and Phynox Aneurysm Clips

MRI SAFETY INFORMATION



MR Conditional

The **Yasargil Titanium and Phynox Aneurysm Clips** are **MR Conditional**.

Non-clinical testing demonstrated that the Yasargil Aneurysm Clip is MR Conditional. A patient with this device can be safely scanned immediately after implantation in an MR system meeting the following conditions:

- Static magnetic field of 3-Tesla or less
- **Titanium** clip - Maximum spatial gradient magnetic field of 3000 Gauss/cm (30.0 T/m) or less
- **Phynox** clip - Maximum spatial gradient magnetic field of 1,500-Gauss/cm (15.0 T/m) or less
- Maximum MR system reported, whole body averaged SAR of 4-W/kg (First Level Controlled Operating Mode)
- Do not take the aneurysm clip applicator into the MR environment. It is MR Unsafe.

Under the scan conditions defined above, the Yasargil **Titanium** Aneurysm Clip is expected to produce a maximum temperature rise of +1.8°C after 15 minutes of continuous scanning. In non-clinical testing, the image artifact caused by the device extends approximately 5 mm from the Yasargil Titanium Aneurysm Clip when imaged with a gradient echo pulse sequence and a 3-Tesla MR system.

Under the scan conditions defined above, the Yasargil **Phynox** Aneurysm Clip is expected to produce a maximum temperature rise of +2.2°C after 15 minutes of continuous scanning. In non-clinical testing, the image artifact caused by the device extends approximately 20mm from the Yasargil Phynox Aneurysm Clip when imaged with a gradient echo pulse sequence and a 3-Tesla MR system.

For MRI Safety Information, including artifact information, Warnings and Precautions see product IFU [SOP-AIC-5000566 \(TA011251-US\)](#).

NOTE: Aesculap currently markets two lines of aneurysm clips; one from a cobalt alloy that we refer to as “Phynox” and one from a titanium alloy. Phynox clips have been available since 1983 and have catalog numbers that begin with “FE”. Titanium clips have been available since 1995 and have catalog numbers that begin with “FT”.

Prior to 1985, Aesculap distributed various models of aneurysm clips manufactured from stainless steel. These aneurysm clips were identified with the letters “FD” and have not been proven safe for exposure to MRI. For this reason, **Aesculap does not recommend the use of MRI on a patient implanted with a YASARGIL aneurysm clip identified with the letters “FD”.**

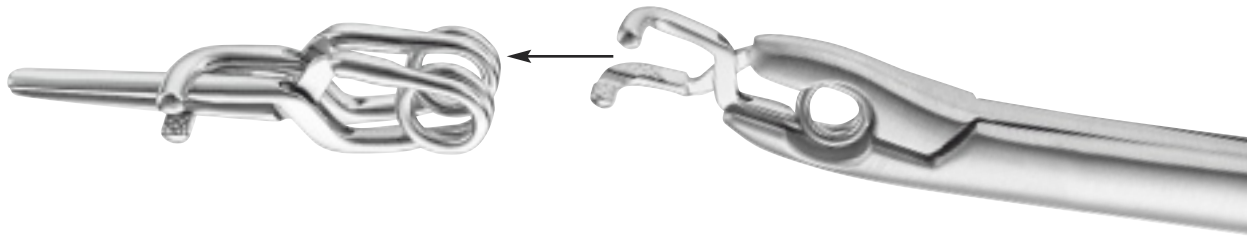
Phynox Reinforcing Clips

The Phynox Reinforcing Clip increases the closing force of Phynox Standard Aneurysm Clips by up to 40%.

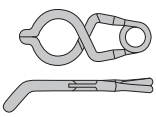
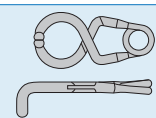
PERMANENT

Item No.

FE900K



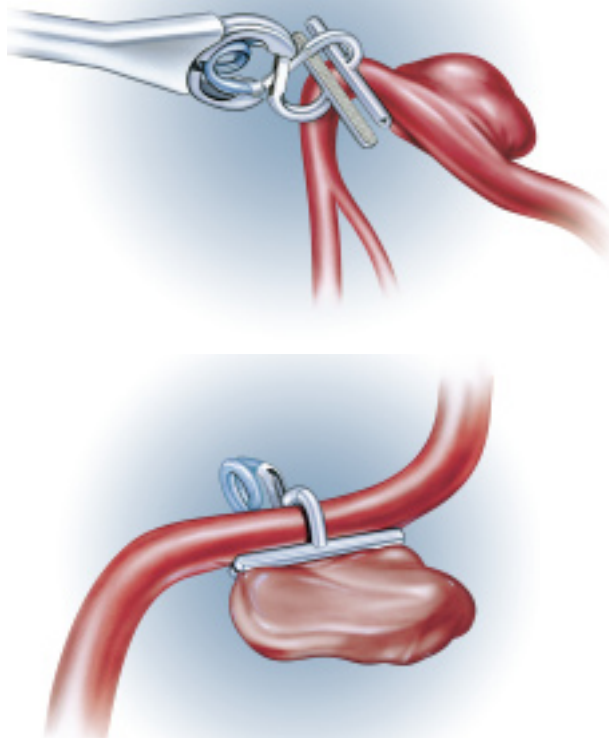
Phynox Extra Short Fenestrated Clips

Item No.	Fenestration Diameter (mm)	Jaw Length L1/L2 (mm)	Angle	Max. Opening (mm)	Closing Force N (+/- 10%)	g
FE942K 	5.0 mm	3.0/8.1	50°	6.0 mm	1.47	150
FE944K 	5.0 mm	3.0/6.4	90°	5.5 mm	1.47	150

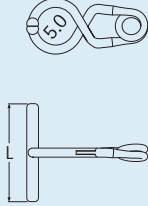



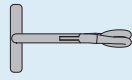
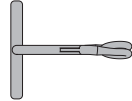
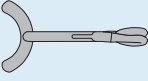
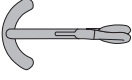
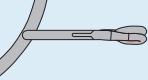

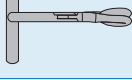
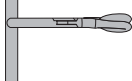
Phynox T-Bar Clips

The clip you trust, now in a unique new design

- T-Bar clip blades are oriented at a 45 or 90 degree angle to the axis of the spring plane, resulting in an innovative "T" shape
- T-Bar clip springs are identical to the springs of Yasargil standard aneurysm clips—no special applier needed
- Unique, patented design can eliminate the need for multiple stacked fenestrated clips when treating complicated aneurysms
 - Using fewer clips can lower the risk of perioperative aneurysm rupture
 - Using fewer clips can optimize your view of the aneurysm under the surgical microscope



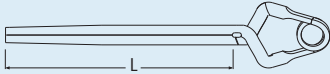



PERMANENT

Item No.		Blade length mm	Angle	Diameter of fenestration 5 mm		
				Maximum opening mm	Closing force N	Closing force g (+/- 10%)
FE852K		5.0	45°	5.5	1.47	150
FE853K		9.0	45°	5.5	1.47	150
FE854K		5.0	90°	5.5	1.47	150
FE855K		9.0	90°	5.5	1.47	150
FE856K		13.0	90°	5.5	1.77	180
FE857K		9.0	90°	5.5	1.47	150
FE858K		9.0	90°	5.5	1.47	150
FE859K		13.0	60°	5.5	1.77	180
FE860K		13.0	60°	5.5	1.77	180
FE864K		9.0	90°	5.5	1.47	150
FE865K		13.0	90°	5.5	1.77	180

Developed in cooperation with
Dr. Thomas A. Kopitnik, M.D.
Central Wyoming Neurosurgery
Casper, Wyoming, USA

Phynox Long Clips and Applying Forceps

PERMANENT

Item No.		Blade length mm	Maximum opening mm	Closing force N g (+/- 10%)	
FE861K		30	19	1.86	190
FE862K		35	21	1.96	200
FE863K		40	23	1.96	200

- Extra long clips for the treatment of giant aneurysms

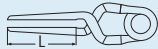
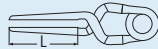


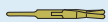



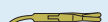



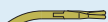



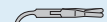



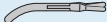

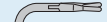

Long Clip Applying Forceps



- With "active" locking mechanism - the applier can be used with or without the lock being activated

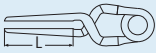
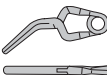
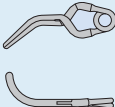



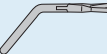
FE560K

Phynox Mini Clips

TEMPORARY						PERMANENT					
Item No.		Blade length mm	Maximum opening mm	Closing force N g (+/- 10%)		Item No.		Blade length mm	Maximum opening mm	Closing force N g (+/- 10%)	
FE681K		3.0	3.3	0.49	50	FE680K		3.0	3.3	1.08	110
FE691K		5.0	4.0	0.49	50	FE690K		5.0	4.0	1.08	110
FE683K		2.8	3.2	0.49	50	FE700K		3.0	3.3	1.08	110
FE693K		4.7	3.8	0.49	50	FE710K		5.0	4.0	1.08	110
FE721K		7.0	4.6	0.69	70	FE720K		7.0	4.6	1.08	110
FE723K		6.6	4.4	0.69	70	FE682K		2.8	3.2	1.08	110
FE725K		5.0	4.0	0.69	70	FE692K		4.7	3.8	1.08	110
						FE694K		4.0	3.6	1.08	110
						FE711K		4.0	3.6	1.08	110
						FE712K		4.7	3.8	1.08	110
						FE713K		4.0	3.6	1.08	110
						FE726K		5.2	4.0	1.08	110
						FE722K		6.6	4.4	1.08	110
						FE714K		3.9	3.5	1.08	110
						FE724K		5.0	4.0	1.08	110

Phynox Mini Clips

PERMANENT

Item No.		Blade length mm	Maximum opening mm	Closing force N g (+/- 10%)	
FE716K		5.0	3.5	1.28	130
FE807K		4.7	4.0	1.08	110
FE717K		6.3	6.0	1.28	130
FE727K		4.0	7.0	1.28	130
FE728K		7.0	5.7	1.28	130
FE806K		7.0	4.5	1.28	130