



MAKING THE REVOLUTIONARY ROUTINE.

JOTEC® | **E-nside® TAAA**
Multibranch Stent Graft System

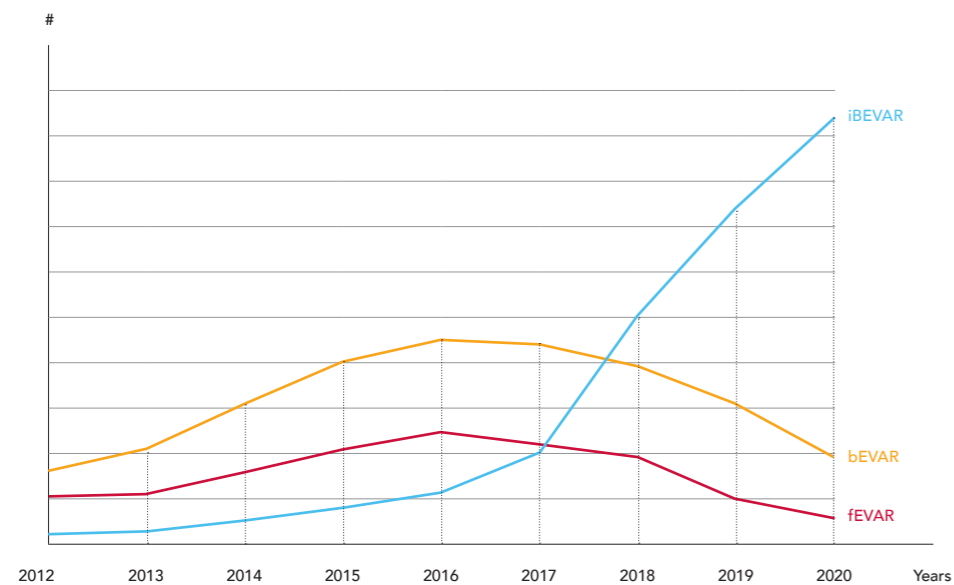


CryoLife®
Life Restoring Technologies®

Innovation at its core

Thoracoabdominal aortic aneurysms (TAAA) are still a major challenge for vascular physicians to deal with. Since the first customised branched endograft that was implanted in 2001, the technology has been evolving to treat patients with varied anatomies and complex pathologies. For the past 9 years E-xtra DESIGN ENGINEERING service has provided physicians with patient specific solutions for complex endovascular thoracoabdominal repairs: with more than 2200 projects for complex TAAA pathologies (and over 5000 customised solutions overall) made available for the treating physicians, a deep understanding of endovascular thoracoabdominal repair was developed.

E-nside is the result of years of experience in facing the challenges of the TAAA space and was born to respond to the unmet needs and challenges still present in this space.

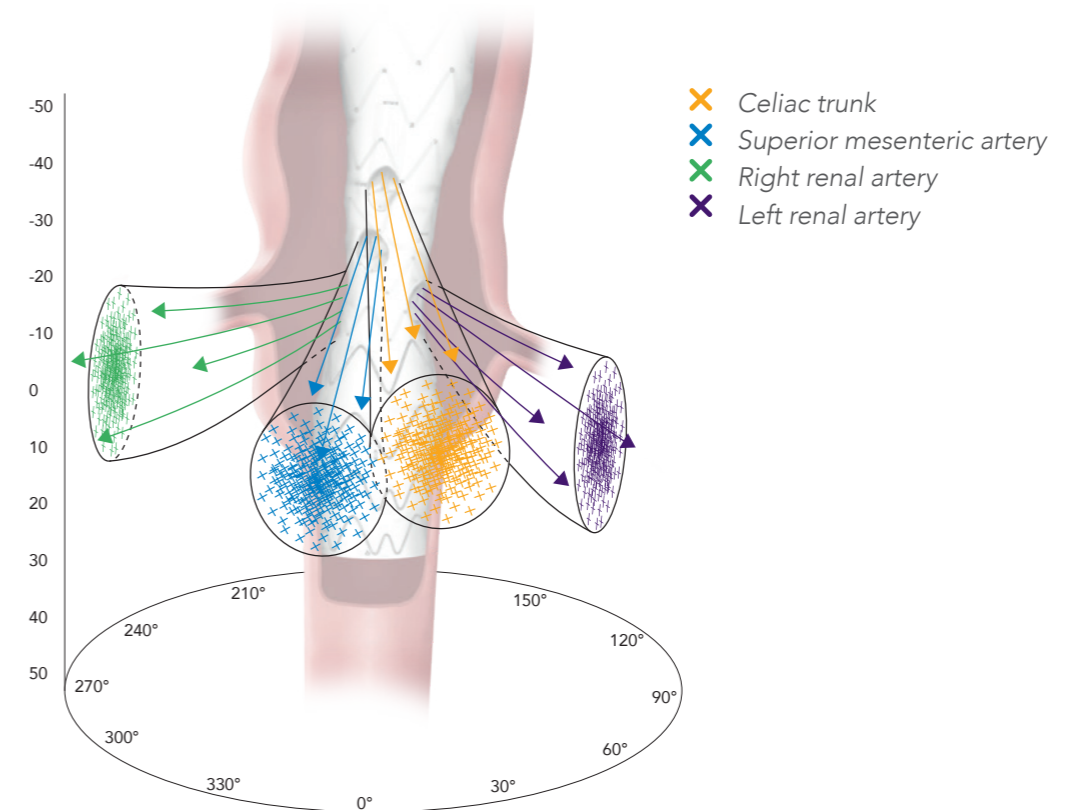


E-nside is the first **PRE-CANNULATED**, inner branch based, off the shelf solution for thoracoabdominal aneurysms accessible on the market.

Being available as an **OFF-THE-SHELF**, it's designed to treat both elective and emergency cases with a consistent approach.

The inner branch technology (iBevar) that E-nside is based on enables the treatment of varied anatomies with a **CONSISTENT APPROACH**. Internal tunnels can be used in narrow, kinked anatomies¹ as well as large, dilated aneurysms.²

Pre-cannulation is designed to **MINIMIZE** flouroscopy and implantation **TIME** as well as contrast media necessary to finalize the procedure.



Distances and angles of CT, RRA and LRA in relation to SMA derived from over 300 CT scans analysed to maximise the applicability of the device.

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1 M. Youssef et. al (2018) - A Multicenter Experience With a New Fenestrated-Branched Device for Endovascular Repair of Thoracoabdominal Aortic Aneurysms, Journal of endovascular therapy, DOI: 10.1177/1526602817752147

2 A.Katsargyris et.al (2018) - Early Experience with the Use of Inner Branches in Endovascular Repair of Complex Abdominal and Thoraco- abdominal Aortic Aneurysms, European Journal of vascular and endovascular surgery, DOI: 10.1016/j.ejvs.2018.01.024

3 V. Bilman, T. Cambiaghi, A. Grandi, N. Carta, G. Melissano, R. Chiesa, L. Bertoglio (2020) - Anatomical feasibility of a new off-the-shelf inner branch stent graft (E-nside) for endovascular treatment of thoraco-abdominal aneurysms, European Journal of Cardio-Thoracic Surgery, Volume 58, Issue 6, Pages 1296-1303, <https://doi.org/10.1093/ejcts/ezaa276>

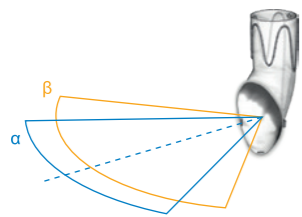
Different anatomies. A consistent approach

Thoracoabdominal aneurysms are a complex disease and unique to each patient's anatomy. A consistent approach can be a powerful tool to simplify this variability. Inner branch technology (iBEVAR) has the potential to bring greater predictability to both decision making and treatment.

Inner branch technology (iBEVAR) is designed to introduce benefits such as:

ENLARGED, ELLIPTICAL OUTLETS

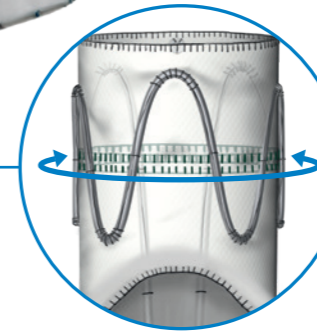
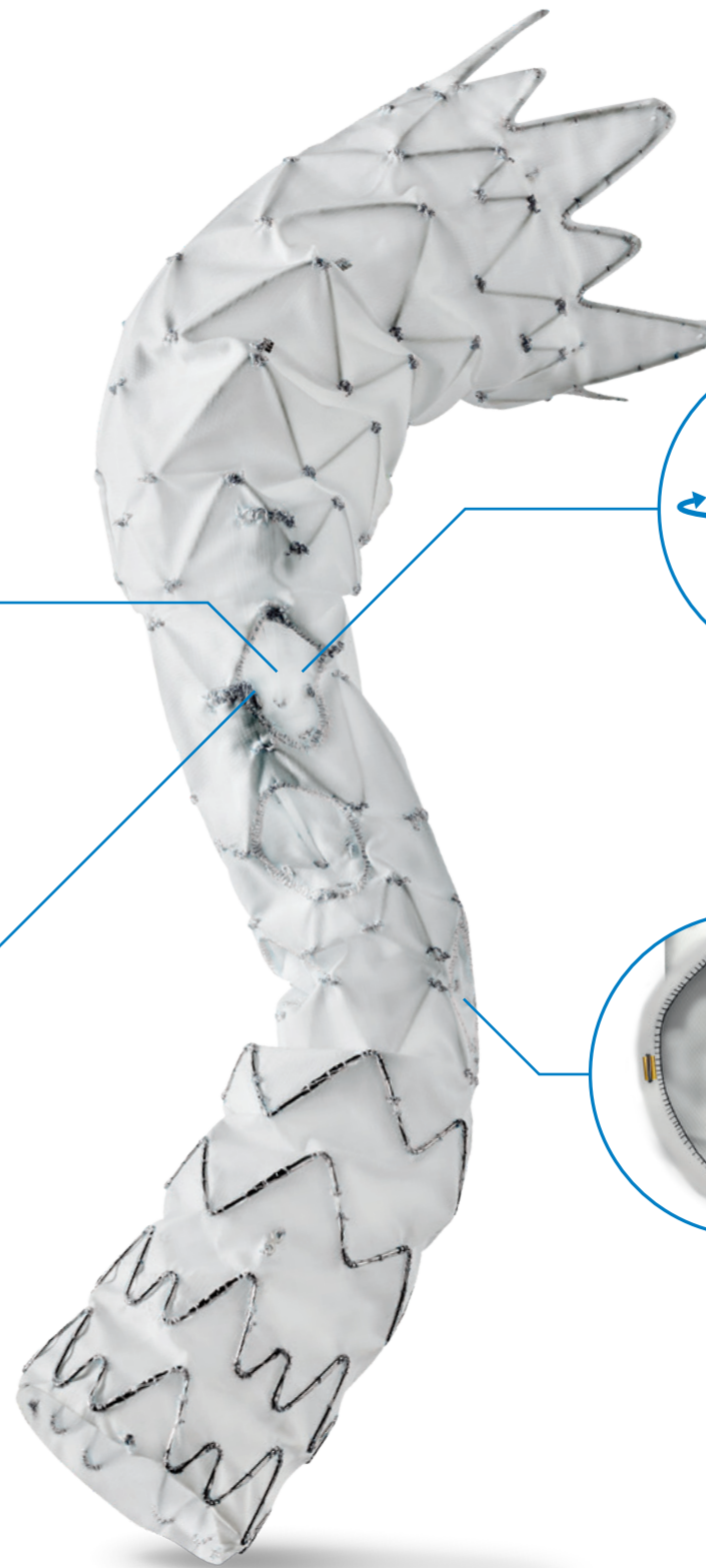
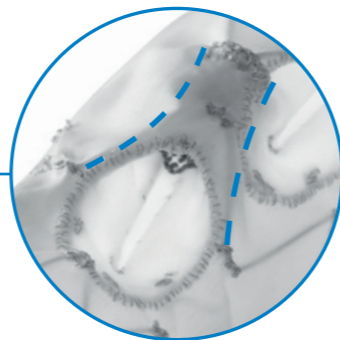
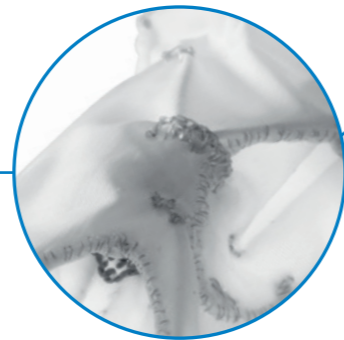
Re-designed oval-shaped outlets to allow for greater flexibility of the bridging stents.



CT/SMA: $\alpha = 50^\circ$
RRA/LRA: $\beta = 70^\circ$

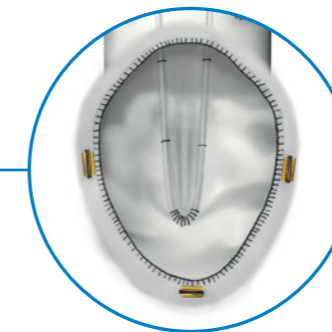
FIXATION SEAM

The proximal fixation of the inner branches allows longitudinal stability and support during cannulation of the target vessels.



MIGRATION REDUCTION

A thin 0.1 mm PET thread added inside each inner branch designed to enhance the friction of any bridging stent to help minimize migration.



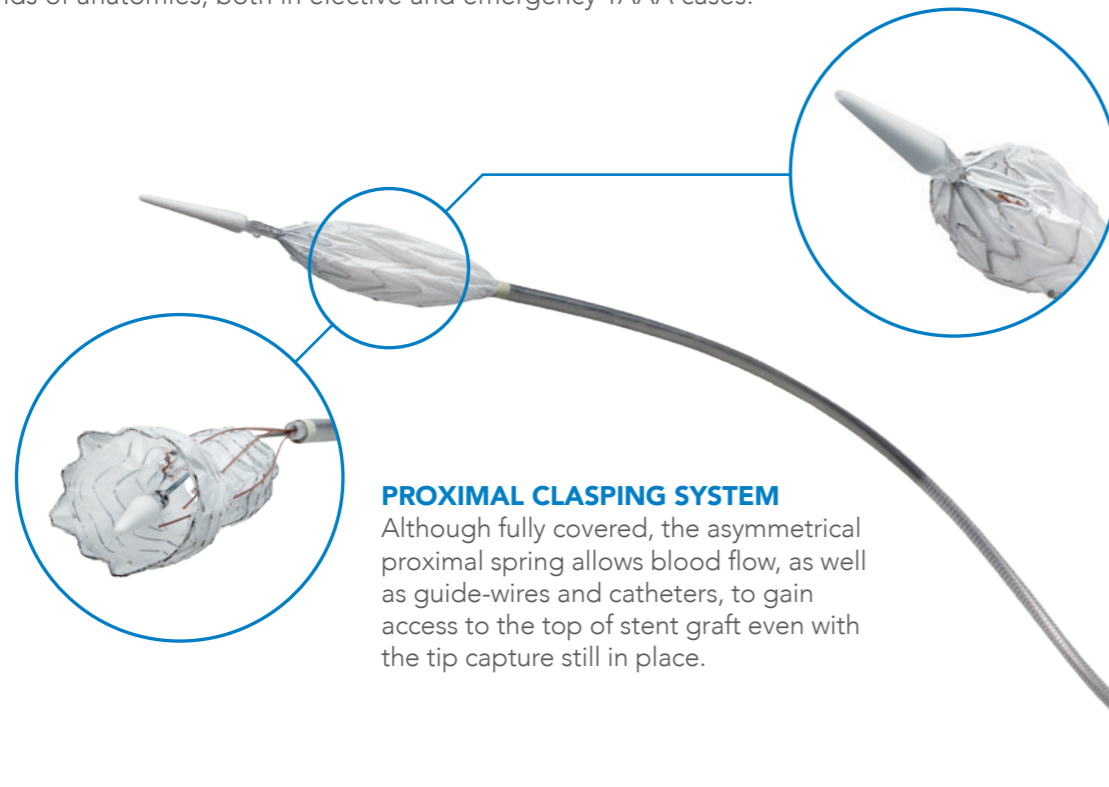
ASYMMETRICAL COMPRESSION SPRINGS

Designed to maintain patency of the branches as well as avoid longitudinal compressions during catheterization of the target vessels.

Simplicity. With Pre-cannulation

Pre-cannulation in combination with the inner branch technology is introduced with the intent to minimize fluoroscopy time and contrast media consumption, as well as maximise the ease of use and predictability of the device.

The experience that derives from the frequent employment of a consistent approach is designed to provide the user with confidence while facing all kinds of anatomies, both in elective and emergency TAAA cases.



PROXIMAL CLASPING SYSTEM

Although fully covered, the asymmetrical proximal spring allows blood flow, as well as guide-wires and catheters, to gain access to the top of stent graft even with the tip capture still in place.

PRE-CANNULATION

Four 0.018" (I.D.) tubes ensure access to the inner branches of the stent graft and by means of a through & through implantation technique provide convenient access for the bridging stents.



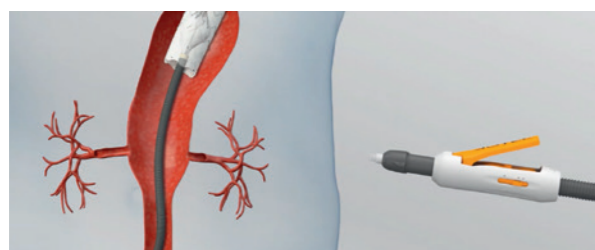
FIXATION

Knurled cap and tactile marker for fixation during the procedure.

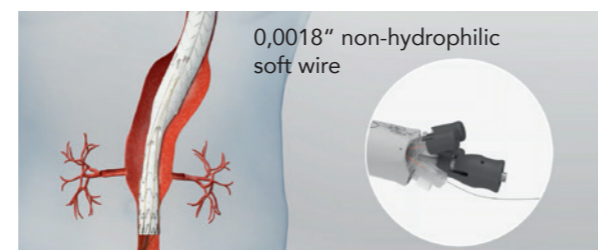
DEPLOYMENT HANDLE

Proven Squeeze-to-Release mechanism to ensure low friction, controlled deployment of the stent graft.

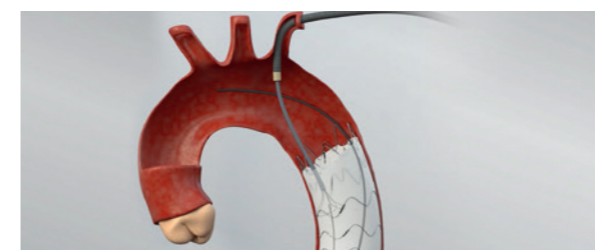
Deployment steps



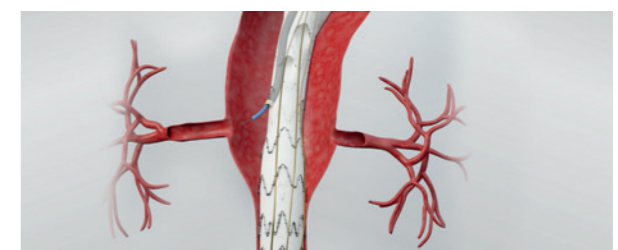
1 After having made sure of its correct longitudinal and circumferential positioning, the E-side stent graft is fully deployed and the proximal claspings system released.



2 One at the time, safety wires to be removed and pre-cannulation tubes to be engaged with a 0.018" guide-wire to be advanced into the thoracic aorta.



3 One target vessel at the time, 0.018" wires to be snared out from the axillary sheath to create a through&through and pre-cannulation tube to be removed. Axillary sheath then to be advanced into the relative inner branch.



4 Making use of the axillary sheath, in parallel to the through&through wire, a seeking catheter with a 0.035" soft wire to be used to cannulate - one at the time - all the target visceral vessels to be bridged with the relative inner branch.

Ordering Information

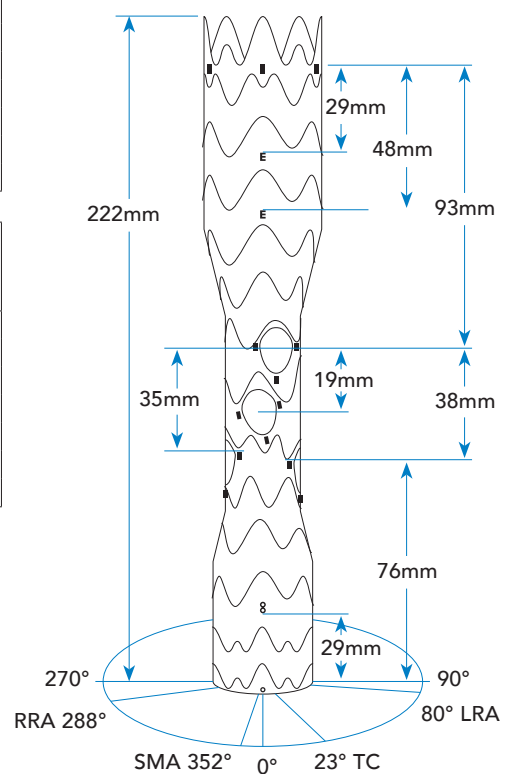
E-nside TAAA Stent Graft System

Catalog No.	∅ Proximal (mm)	∅ Distal (mm)	Total length (mm)	∅ Branch CT/SMA (mm)	∅ Branch LRA/RRA (mm)	OD delivery system (mm)
65MU332621-4B8866-00	33	26	222	8	6	8.2
65MU333021-4B8866-00	33	30	222	8	6	8.2
65MU382621-4B8866-00	38	26	222	8	6	8.2
65MU383021-4B8866-00	28	30	222	8	6	8.2

Oversizing Guidelines

∅ Distal Thoracic stent graft (mm)	∅ Proximal E-nside stent graft (mm)	Minimum length of landing zone (mm)
34	38	30
33		
32		
31		
30	33	
29		
28		
27		

∅ Infrarenal aorta (mm)	∅ Distal E-nside stent graft (mm)	Minimum length of landing zone (mm)
21	26	30
22		
23		
24		
25		
26		
27		



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