



TREO[®]

ABDOMINAL STENT-GRAFT SYSTEM

 **TERUMO**
Aortic

Advanced Design

Every aspect of the TREO Abdominal Stent-Graft System is engineered for performance.

As the only EVAR solution with dual proximal fixation and active leg fixation, TREO offers the next advancement in abdominal stent-graft solutions.

TREO is **Engineered for Confidence.**

Modular design

Three-piece system available in a wide range of sizes, lengths, and tapers.

Accurate deployment

Designed to work together, TREO's unique dual fixation and the proximal clasp system enable precise deployment.

Lock stent

TREO's main body actively engages both legs, ensuring a durable connection.

Designed for safety

The infrarenal barbs remain contained in the graft material valleys until complete deployment and suprarenal barbs remain contained inside the clasp during initial deployment.

Proximal clasp

Engineered for precise deployment, TREO's advanced proximal clasp moves distally to deploy.

System removal

All components were designed for safe removal, without sharp edges.



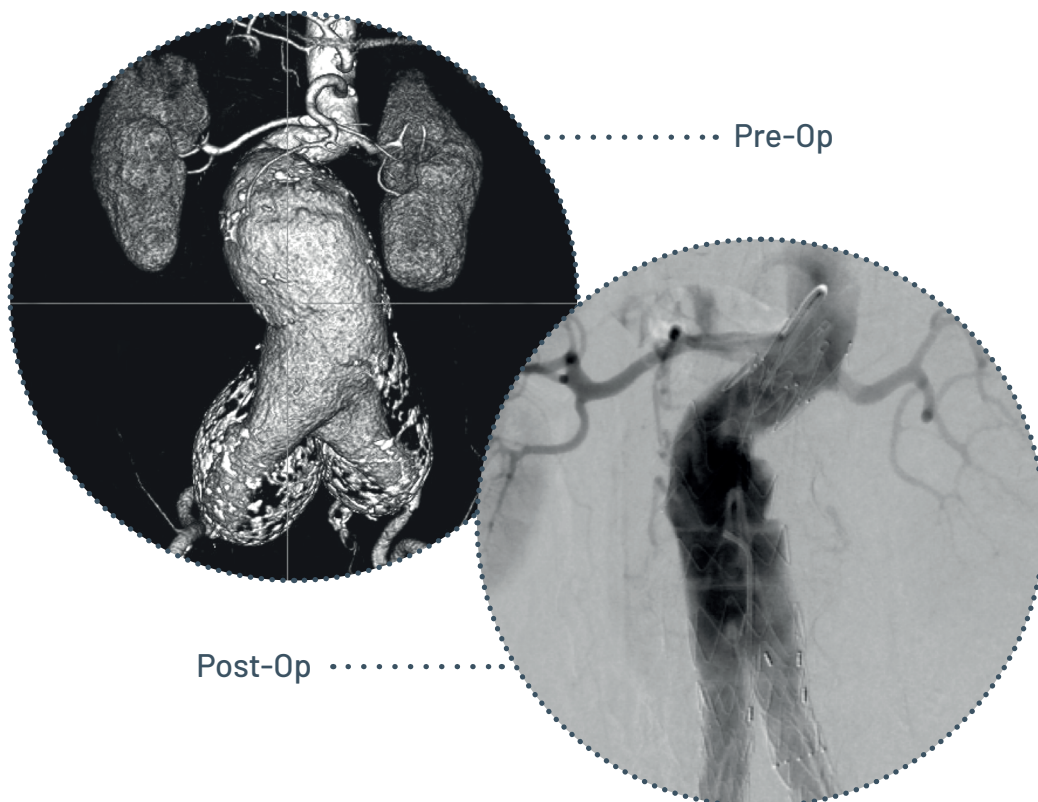
Enhanced Delivery

Designed for patient safety and clinician confidence, TREO:

- Tracks through challenging anatomy
- Enables precise deployment
- Allows for safe removal

At one year:

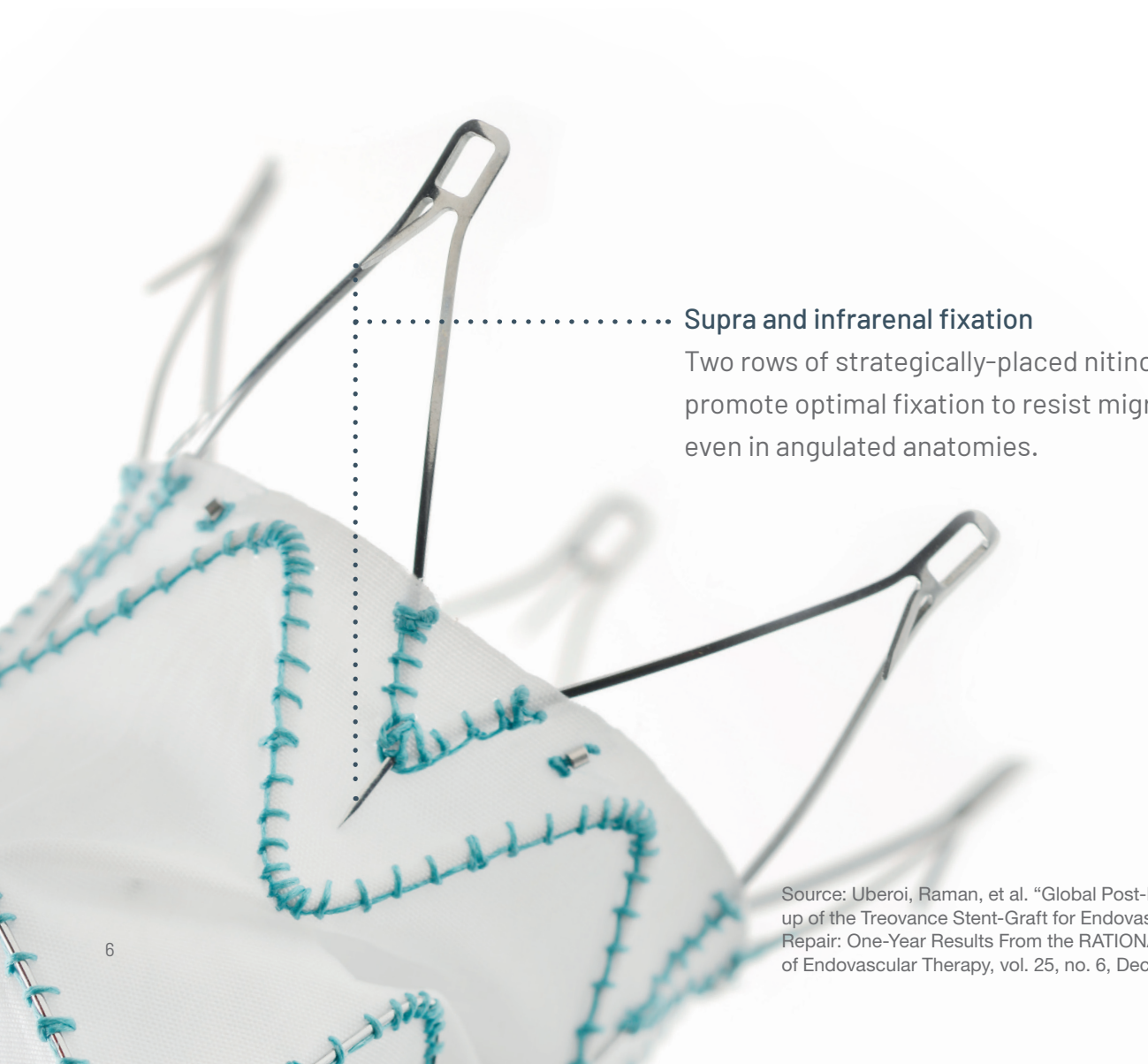
- 0% Aneurysm related mortality
- 95.6% Freedom from reintervention
- 95.5% Freedom from endoleak (Type I & III)



Secure Fixation

TREO is the **only** EVAR graft with dual proximal fixation and exclusive Lock Stent technology. Clinical follow-up highlights include:

- 0% Migration
- 54% Decrease ($\geq 5\text{mm}$)
- 97.4% Decrease or Stable Aneurysm Sac Size



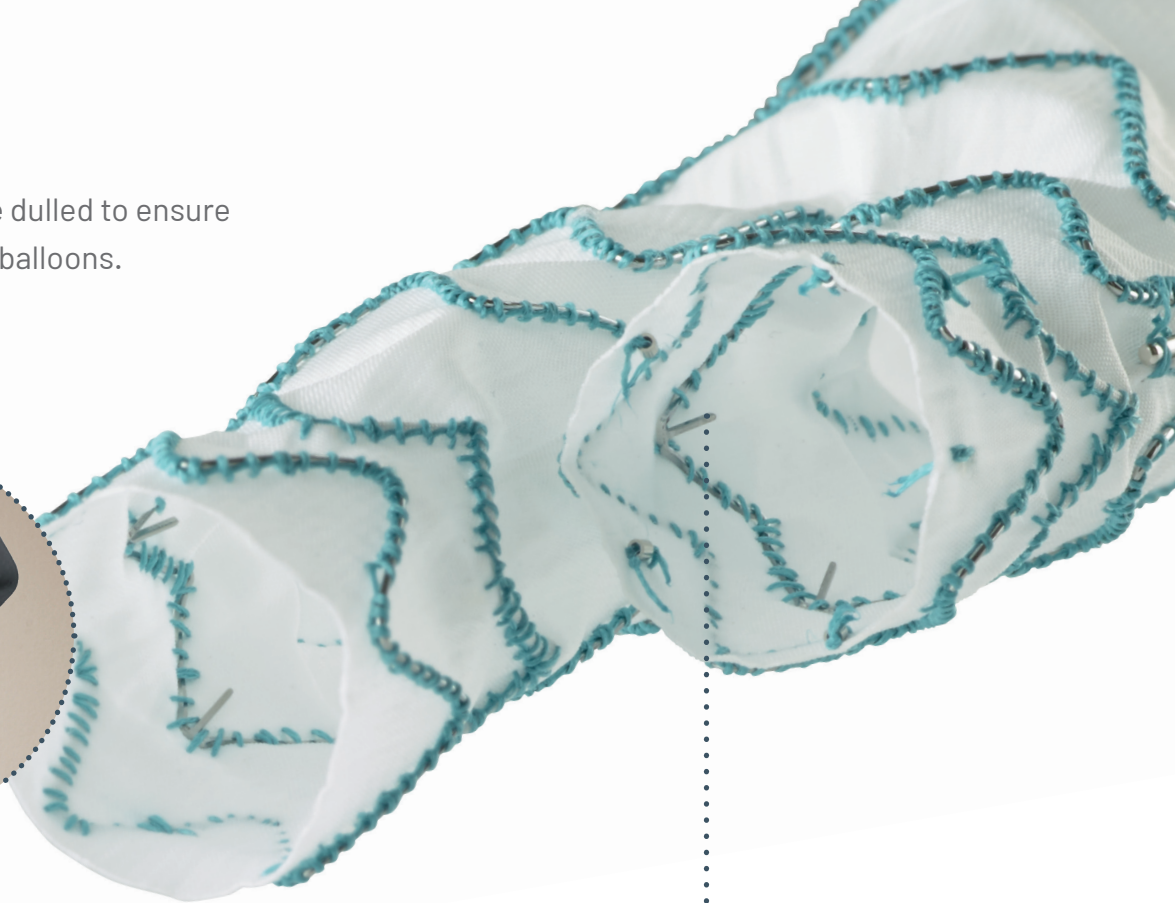
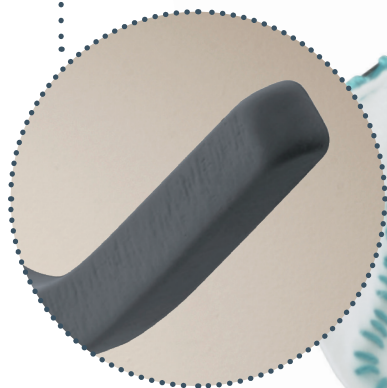
Supra and infrarenal fixation

Two rows of strategically-placed nitinol edges promote optimal fixation to resist migration, even in angulated anatomies.

Source: Uberoi, Raman, et al. "Global Post-Market Clinical Follow-up of the Treovance Stent-Graft for Endovascular Aneurysm Repair: One-Year Results From the RATIONALE Registry." *Journal of Endovascular Therapy*, vol. 25, no. 6, Dec. 2018, pp. 726–734.

Lock stent

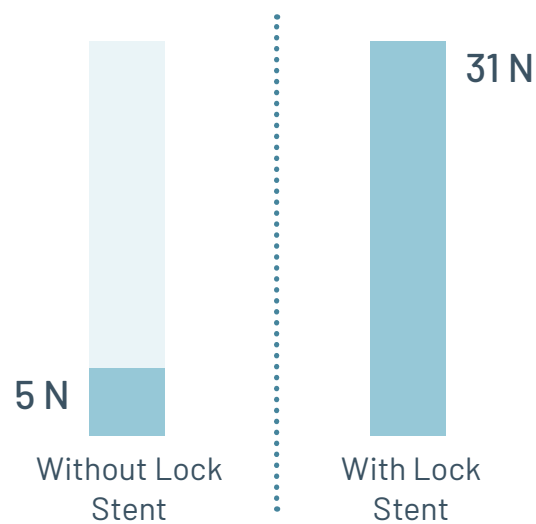
Rounded barbs are dulled to ensure compatibility with balloons.



Lock stent technology

Rounded edges inside main body gates are designed to securely engage with legs.

Pull out forces of body with leg extensions



Average pull out forces calculated during internal bench testing.

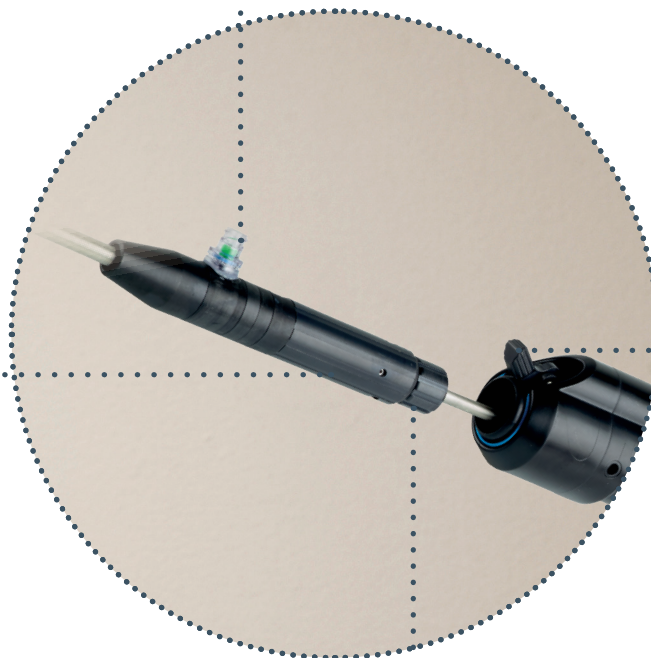
Low profile delivery system



Bi-directional flush port

Detachable sheath

Locking mechanism



Dynamic dual sealing
haemostasis valve

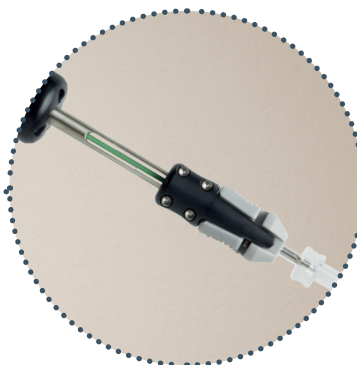
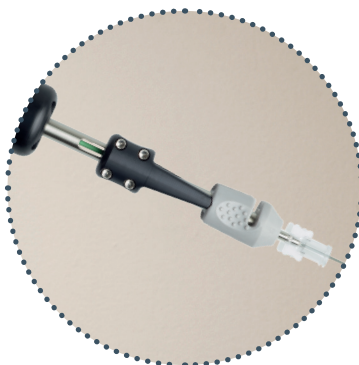
Optimised Procedure

The TREO delivery system was designed for ease of use, improved confidence, and reliable outcomes.



Controlled deployment

Allows for precise delivery using intuitive mechanical advantage or quick pin and pull. Available on both legs and main body systems.



Clasp release mechanism

Intuitive mechanism releases proximal clasp.

Personalised Approach

TREO offers a three-piece system with a wide range of sizes, diameters, and tapers that allow for precise treatment.

Indications

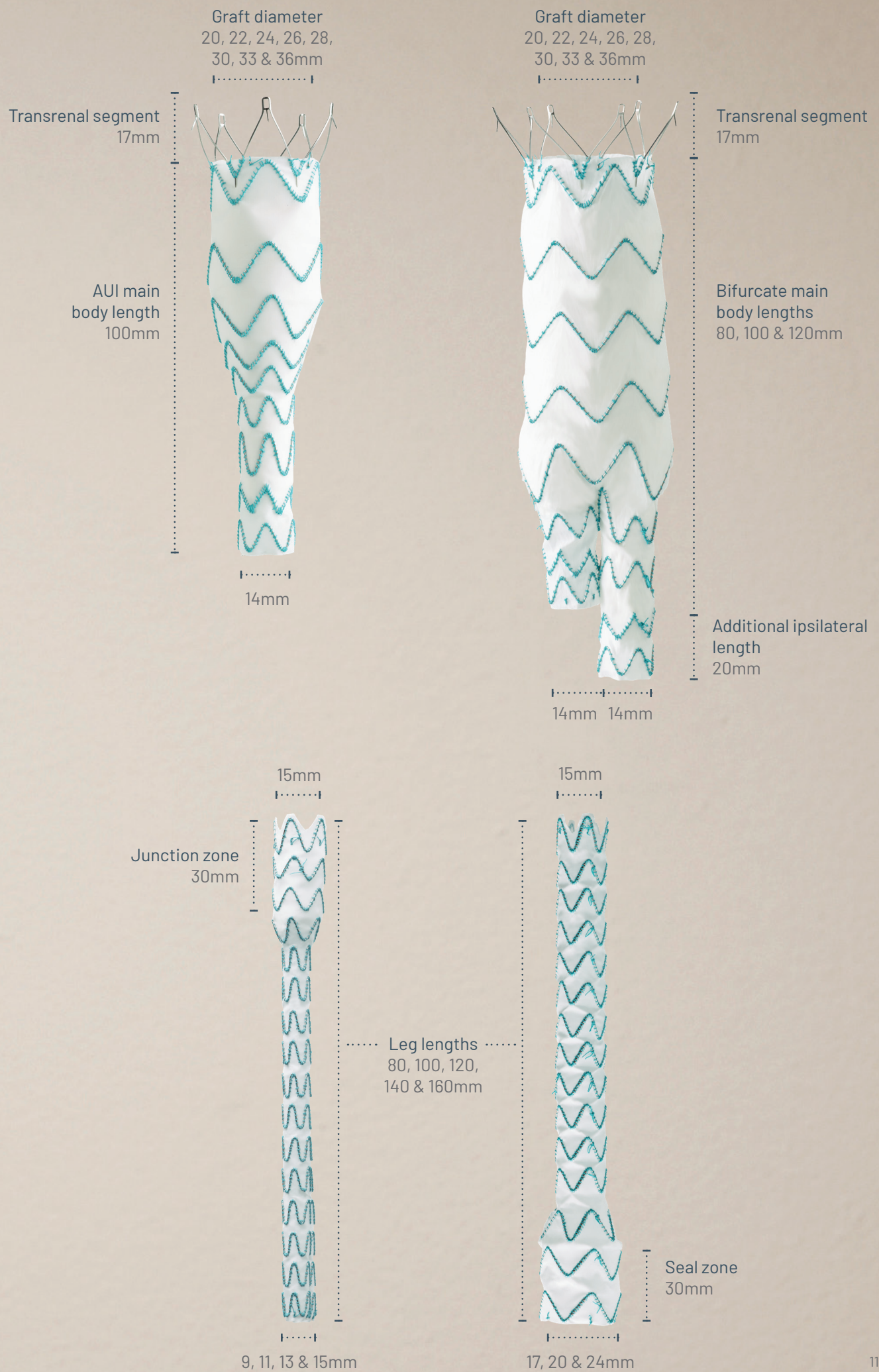
- Up to 75 degree infrarenal angulation with 15mm landing zone
- Up to 60 degree infrarenal angulation with 10mm landing zone

Three-Piece System With In-Situ Sizing

- Three main body lengths, multiple leg extensions lengths
- Adjustable zones between main body and leg extensions allows **in situ** sizing

Low Profile Delivery System

- Main body system: 18–19F, OD
- Leg system: 13–14F, OD



Customised Solution

The TREO custom platform allows clinicians to design a customised solution when needed.

Delivery time: three weeks*

Proximal Scallop





Short Main Body

Category	Custom Design
Custom tapered	Reverse tapers
	Extreme tapers
Custom lengths	Main bodies
Custom main bodies	Scallop
	Single fenestration
Leg extension	"Dog Bone" shape legs
	Iliac Branch Device

* from clinician design approval to operating room delivery
Custom-made devices do not bear CE mark. According to medical device law, clinician prescription is required.
Custom-made option not available in the U.S.

Main body

All measures in mm unless otherwise specified.

AORTIC OUTER DIAMETER (PROXIMAL NECK ANGLE < 60°) #	LOWEST RENAL TO AORTIC BIFURCATION MINIMUM LENGTH	PROXIMAL DIAMETER	CONTRALATERAL LENGTH	PROFILE	DESCRIPTION	CATALOGUE REFERENCE
17-18	90	20	80	18 Fr	20 mm Bifurcate - 80 mm	28-B2-20-080S
	110	20	100	18 Fr	20 mm Bifurcate - 100 mm	28-B2-20-100S
	130	20	120	18 Fr	20 mm Bifurcate - 120 mm	28-B2-20-120S
18-19	90	22	80	18 Fr	22 mm Bifurcate - 80 mm	28-B2-22-080S
	110	22	100	18 Fr	22 mm Bifurcate - 100 mm	28-B2-22-100S
	130	22	120	18 Fr	22 mm Bifurcate - 120 mm	28-B2-22-120S
19-21	90	24	80	18 Fr	24 mm Bifurcate - 80 mm	28-B2-24-080S
	110	24	100	18 Fr	24 mm Bifurcate - 100 mm	28-B2-24-100S
	130	24	120	18 Fr	24 mm Bifurcate - 120 mm	28-B2-24-120S
21-23	90	26	80	18 Fr	26 mm Bifurcate - 80 mm	28-B2-26-080S
	110	26	100	18 Fr	26 mm Bifurcate - 100 mm	28-B2-26-100S
	130	26	120	18 Fr	26 mm Bifurcate - 120 mm	28-B2-26-120S
23-25	90	28	80	18 Fr	28 mm Bifurcate - 80 mm	28-B2-28-080S
	110	28	100	18 Fr	28 mm Bifurcate - 100 mm	28-B2-28-100S
	130	28	120	18 Fr	28 mm Bifurcate - 120 mm	28-B2-28-120S
25-27	90	30	80	19 Fr	30 mm Bifurcate - 80 mm	28-B2-30-080S
	110	30	100	19 Fr	30 mm Bifurcate - 100 mm	28-B2-30-100S
	130	30	120	19 Fr	30 mm Bifurcate - 120 mm	28-B2-30-120S
27-30	90	33	80	19 Fr	33 mm Bifurcate - 80 mm	28-B2-33-080S
	110	33	100	19 Fr	33 mm Bifurcate - 100 mm	28-B2-33-100S
	130	33	120	19 Fr	33 mm Bifurcate - 120 mm	28-B2-33-120S
30-32	90	36	80	19 Fr	36 mm Bifurcate - 80 mm	28-B2-36-080S
	110	36	100	19 Fr	36 mm Bifurcate - 100 mm	28-B2-36-100S
	130	36	120	19 Fr	36 mm Bifurcate - 120 mm	28-B2-36-120S

Leg Extension

ILIAC OUTER DIAMETER	ILIAC LANDING ZONE MINIMUM LENGTH	LEG EXTENSION DISTAL DIAMETER	COVERED LENGTH	PROFILE	DESCRIPTION	CATALOGUE REFERENCE
8	10	9	80	13 Fr	15/9 mm Leg Extension - 80 mm	28-L2-09-080S
	10	9	100	13 Fr	15/9 mm Leg Extension - 100 mm	28-L2-09-100S
	10	9	120	13 Fr	15/9 mm Leg Extension - 120 mm	28-L2-09-120S
	10	9	140	13 Fr	15/9 mm Leg Extension - 140 mm	28-L2-09-140S
	10	9	160	13 Fr	15/9 mm Leg Extension - 160 mm	28-L2-09-160S
9	10	11	80	13 Fr	15/11 mm Leg Extension - 80 mm	28-L2-11-080S
	10	11	100	13 Fr	15/11 mm Leg Extension - 100 mm	28-L2-11-100S
	10	11	120	13 Fr	15/11 mm Leg Extension - 120 mm	28-L2-11-120S
	10	11	140	13 Fr	15/11 mm Leg Extension - 140 mm	28-L2-11-140S
	10	11	160	13 Fr	15/11 mm Leg Extension - 160 mm	28-L2-11-160S
10-11	10	13	80	13 Fr	15/13 mm Leg Extension - 80 mm	28-L2-13-080S
	10	13	100	13 Fr	15/13 mm Leg Extension - 100 mm	28-L2-13-100S
	10	13	120	13 Fr	15/13 mm Leg Extension - 120 mm	28-L2-13-120S
	10	13	140	13 Fr	15/13 mm Leg Extension - 140 mm	28-L2-13-140S
	10	13	160	13 Fr	15/13 mm Leg Extension - 160 mm	28-L2-13-160S
12-13	10	15	80	13 Fr	15/15 mm Leg Extension - 80 mm	28-L2-15-080S
	10	15	100	13 Fr	15/15 mm Leg Extension - 100 mm	28-L2-15-100S
	10	15	120	13 Fr	15/15 mm Leg Extension - 120 mm	28-L2-15-120S
	10	15	140	13 Fr	15/15 mm Leg Extension - 140 mm	28-L2-15-140S
	10	15	160	13 Fr	15/15 mm Leg Extension - 160 mm	28-L2-15-160S
14-15	15	17	80	14 Fr	15/17 mm Leg Extension - 80 mm	28-L2-17-080S
	15	17	100	14 Fr	15/17 mm Leg Extension - 100 mm	28-L2-17-100S
	15	17	120	14 Fr	15/17 mm Leg Extension - 120 mm	28-L2-17-120S
	15	17	140	14 Fr	15/17 mm Leg Extension - 140 mm	28-L2-17-140S
	15	17	160	14 Fr	15/17 mm Leg Extension - 160 mm	28-L2-17-160S
16-17	15	20	80	14 Fr	15/20 mm Leg Extension - 80 mm	28-L2-20-080S
	15	20	100	14 Fr	15/20 mm Leg Extension - 100 mm	28-L2-20-100S
	15	20	120	14 Fr	15/20 mm Leg Extension - 120 mm	28-L2-20-120S
	15	20	140	14 Fr	15/20 mm Leg Extension - 140 mm	28-L2-20-140S
	15	20	160	14 Fr	15/20 mm Leg Extension - 160 mm	28-L2-20-160S
18-20	15	24	80	14 Fr	15/24 mm Leg Extension - 80 mm	28-L2-24-080S
	15	24	100	14 Fr	15/24 mm Leg Extension - 100 mm	28-L2-24-100S
	15	24	120	14 Fr	15/24 mm Leg Extension - 120 mm	28-L2-24-120S
	15	24	140	14 Fr	15/24 mm Leg Extension - 140 mm	28-L2-24-140S
	15	24	160	14 Fr	15/24 mm Leg Extension - 160 mm	28-L2-24-160S

Straight

ILIAC OUTER DIAMETER	ILIAC LANDING ZONE MINIMUM LENGTH	LEG EXTENSION DISTAL DIAMETER	COVERED LENGTH	PROFILE	DESCRIPTION	CATALOGUE REFERENCE
8	10	9	80	13 Fr	9 mm Straight Extension - 80 mm	28-S2-09-080S
9	10	11	80	13 Fr	11 mm Straight Extension - 80 mm	28-S2-11-080S
10-11	10	13	80	13 Fr	13 mm Straight Extension - 80 mm	28-S2-13-080S

Cuff

All measures in mm unless otherwise specified.

AORTIC OUTER DIAMETER (PROXIMAL NECK ANGLE <60°) #	PROXIMAL AND DISTAL DIAMETER	COVERED LENGTH	PROFILE	DESCRIPTION	CATALOGUE REFERENCE
17-18	20	40	18 Fr	20 mm Cuff - 40 mm	28-C2-20-040S
	20	55	18 Fr	20 mm Cuff - 55 mm	28-C2-20-055S
	20	70	18 Fr	20 mm Cuff - 70 mm	28-C2-20-070S
18-19	22	40	18 Fr	22 mm Cuff - 40 mm	28-C2-22-040S
	22	55	18 Fr	22 mm Cuff - 55 mm	28-C2-22-055S
	22	70	18 Fr	22 mm Cuff - 70 mm	28-C2-22-070S
19-21	24	40	18 Fr	24 mm Cuff - 40 mm	28-C2-24-040S
	24	55	18 Fr	24 mm Cuff - 55 mm	28-C2-24-055S
	24	70	18 Fr	24 mm Cuff - 70 mm	28-C2-24-070S
21-23	26	40	18 Fr	26 mm Cuff - 40 mm	28-C2-26-040S
	26	55	18 Fr	26 mm Cuff - 55 mm	28-C2-26-055S
	26	70	18 Fr	26 mm Cuff - 70 mm	28-C2-26-070S
23-25	28	40	18 Fr	28 mm Cuff - 40 mm	28-C2-28-040S
	28	55	18 Fr	28 mm Cuff - 55 mm	28-C2-28-055S
	28	70	18 Fr	28 mm Cuff - 70 mm	28-C2-28-070S
25-27	30	40	19 Fr	30 mm Cuff - 40 mm	28-C2-30-040S
	30	55	19 Fr	30 mm Cuff - 55 mm	28-C2-30-055S
	30	70	19 Fr	30 mm Cuff - 70 mm	28-C2-30-070S
27-30	33	40	19 Fr	33 mm Cuff - 40 mm	28-C2-33-040S
	33	55	19 Fr	33 mm Cuff - 55 mm	28-C2-33-055S
	33	70	19 Fr	33 mm Cuff - 70 mm	28-C2-33-070S
30-32	36	40	19 Fr	36 mm Cuff - 40 mm	28-C2-36-040S
	36	55	19 Fr	36 mm Cuff - 55 mm	28-C2-36-055S
	36	70	19 Fr	36 mm Cuff - 70 mm	28-C2-36-070S

Aorto - Uni - Iliac (AUI)

VESSEL OUTER DIAMETER*	PROXIMAL DIAMETER	COVERED LENGTH	PROFILE	DESCRIPTION	CATALOGUE REFERENCE
17-18	20	100	18 Fr	20 mm AUI - 100 mm	28-A1-20-100S
18-19	22	100	18 Fr	22 mm AUI - 100 mm	28-A1-22-100S
19-21	24	100	18 Fr	24 mm AUI - 100 mm	28-A1-24-100S
21-23	26	100	18 Fr	26 mm AUI - 100 mm	28-A1-26-100S
23-25	28	100	18 Fr	28 mm AUI - 100 mm	28-A1-28-100S
25-27	30	100	19 Fr	30 mm AUI - 100 mm	28-A1-30-100S
27-30	33	100	19 Fr	33 mm AUI - 100 mm	28-A1-33-100S
30-32	36	100	19 Fr	36 mm AUI - 100 mm	28-A1-36-100S

Occluder

ILIAC OUTER DIAMETER	SEAL ZONE NECK LENGTH REQUIREMENT	DIAMETER	COVERED LENGTH*	PROFILE	DESCRIPTION	CATALOGUE REFERENCE
6	10	8	31	14 Fr	8 mm Occluder - 31 mm	28-P1-08-031S
7-8	10	10	31	14 Fr	10 mm Occluder - 31mm	28-P1-10-031S
9-10	10	12	31	14 Fr	12 mm Occluder - 31 mm	28-P1-12-031S
11-12	10	14	33	14 Fr	14 mm Occluder - 33 mm	28-P1-14-033S
13-14	15	17	33	14 Fr	17 mm Occluder - 33 mm	28-P1-17-033S
15-17	15	20	35	14 Fr	20mmOccluder-35mm	28-P1-20-035S
18-20	15	24	35	14 Fr	24mmOccluder-35mm	28-P1-24-035S

For Proximal Neck angle 60-75°, refer to the instructions for use.
* In occluder, from spring to spring.

TREO is certified by SGS (0120) according to Council Directive 93/42/EEC as amended 2007/47/EC
US: CAUTION - Limited by United States law to investigational use only.
TREO, AUI & Occluder is certified by SGS (0120) according to Council Directive 93/42/EEC as amended 2007/47/EC

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The logo for Terumo Aortic, featuring a stylized white swoosh above the word "TERUMO" in a bold, sans-serif font, with the word "Aortic" in a smaller, regular sans-serif font below it.

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