

Enseal™

ENSEAL™ X1 Tissue Sealers Expect more^{1-3*}



ENSEAL™ X1 CURVED JAW TISSUE SEALER

ENSEAL™ X1 STRAIGHT JAW TISSUE SEALER

ENSEAL™ X1 LARGE JAW TISSUE SEALER

*ENSEAL™ X1 Curved Jaw has a longer jaw, longer cut length and wider jaw aperture compared to LigaSure Maryland (LF1937) ($p < 0.001$). In benchtop testing on porcine arteries, vessels sealed with ENSEAL X1 Curved Jaw had a 22% higher average burst pressure than vessels sealed with LigaSure™ Maryland (LF1937), (1055mmHg vs. 862mmHg, $p < 0.001$)

ETHICON
PART OF THE *Johnson & Johnson* FAMILY OF COMPANIES

Shaping
the future
of surgery

1. Ethicon, Project Floyd: Claims Metrology Report, June 2018, PRC079564B (145171-200630) 2. Ethicon, Floyd Relaunch Claims Metrology, June 2020, PRC095763A (145171-200630) 3. Ethicon, Floyd Relaunch Claims Ex-Vivo Sealing, June 2020, PRC094697A (145171-200630)

ENSEAL™ X1 Tissue Sealers **offer more** than LigaSure™

More secure^{4*}



**More efficient
per bite^{5‡}**

The ENSEAL™ X1 Tissue Sealers are advanced bipolar devices designed for use in open or laparoscopic surgical procedures.[‡] We have and will further redesign our Ethicon Energy Advanced Bipolar Portfolio, to provide secure sealing with more intuitive and simplified steps-for-use.^{6,7}

⁴Compared to Ligasure Impact (LF4318) in preclinical test of distal tip bleeding (ENSEAL™ vs. Impact-LF4318) in thick porcine mesentery base (p=0.001)

[‡]ENSEAL™ X1 Straight Jaw Tissue Sealer can capture more tissue per bite with a longer jaw compared to LigaSure™ Blunt Tip [‡]As Per Instructions For Use

⁴ Ethicon, PSPO05173A, Final Report: 2017 Brick Claims: Comparison of Distal Tip Sealing Performance Between ENSEAL™ X1 Large Jaw (NSLX120L) with Algorithm and Ligasure™ Impact (LF4318), Sept 2016, Data on File (154862-201002) ⁵ Ethicon, PRC095763B, Floyd Relaunch Claims Metrology, May 2021, Data on File (181977-210702) ⁶ Ethicon, DOCO23555A, A Floyd Claims Memo Industrial Design, July 2018, Data on File (155321-201009) ⁷ Ethicon, PRC095915A, Curved Design Validation 2 Completion Report, June 2020, Data on File (155321-201009)

ENSEAL™ X1 Curved Jaw Tissue Sealer

More efficient than LigaSure™ Maryland^{8,9*}

Curved, tapered tip designed
for fine dissection^{12,13}

- Capture more tissue per bite with a longer jaw and wider jaw aperture^{8,9†}
- Better distal tip grasping compared to LigaSure™ Maryland^{10‡}
- **360° continuous shaft rotation** to enable easy access to targeted tissue^{11,12}

ENSEAL™ X1 Curved Jaw can capture more tissue per bite with a 16% longer jaw and 9% wider jaw aperture compared to LigaSure™ Maryland^{8,9†}

9%
wider jaw
aperture^{9‡}

16%
longer jaw^{8,9†}

19%
longer cut
length^{14§}

ENSEAL™ X1 Curved Jaw

LigaSure™ Maryland

*ENSEAL™ X1 Curved Jaw Tissue Sealer can capture, seal and transect a longer length of tissue per single activation due to a 16% (or 3.4mm) longer jaw (p < 0.001) and a 19% (or 3.5mm) longer cut length (p < 0.001) compared to LigaSure™ Maryland (LF1937) †Based on metrology data, ENSEAL X1 Curved Jaw Tissue Sealer has a 16% (or 3.4mm) longer jaw than LigaSure™ Maryland (LF1937) (p < 0.001) and ENSEAL X1 Curved Jaw Tissue Sealer has a 9% (or 1.15mm) wider jaw aperture than LigaSure™ Maryland (LF1937) (p < 0.001) ‡Grasping force measured as the maximum amount of force required to pull porcine jejunum from the distal tip of device jaws. Comparison of ENSEAL X1 Curved Jaw to LigaSure™ Maryland (LF1937) (p < 0.001) §Metrology report comparing the jaw aperture of ENSEAL™ X1 Curved Jaw to LigaSure™ Maryland (LF1937) (p < 0.001) ¶Metrology report comparing ENSEAL™ X1 Curved and Articulating Jaw to LigaSure™ Maryland (LF1937) (p < 0.001)

8. Ethicon, Project Floyd: Claims Metrology Report, June 2018, PRC079564B (145163-200630, 145041-200629) 9. Ethicon, Floyd Relaunch Claims Metrology, June 2020, PRC095763A (145163-200630, 145041-200629, 145034-200629) 10. Ethicon, Floyd Relaunch Claims Grasping Force, June 2020, PRC096063A (145160-200630) 11. As Per Instructions For Use (152441-200929) 12. Ethicon, DOC023555A, A Floyd Claims Memo - Industrial Design, July 2018, Data on File (152441-200929, 152450-200909) 13. Ethicon, DOC024721A, Floyd Marketing Claims Memo, Jan 2019, Data on File (152450-200909) 14. Ethicon, PRC079564B, Project Floyd Claims Metrology Report, June 2018, Data on File (152466-200909)

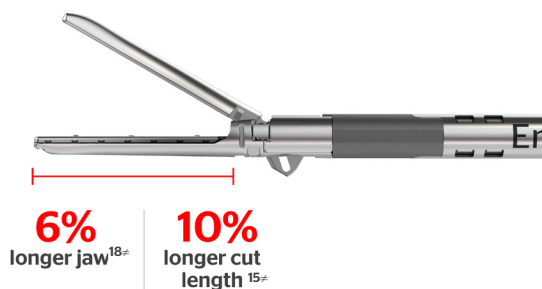
ENSEAL™ X1 Straight Jaw Tissue Sealer

More efficient per bite^{15*}

- Can **capture more tissue** per bite with a longer jaw^{15†}
- Has a **10% longer cut length** than LigaSure™ Blunt Tip^{15‡}
- **360° continuous shaft rotation** to enable access to targeted tissue^{16,17}

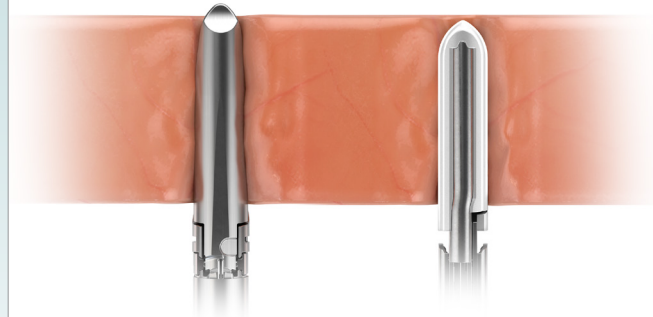


ENSEAL™ X1 Straight Jaw Tissue Sealer can capture more tissue per bite with a longer jaw compared to LigaSure™ Blunt Tip^{15 †}



ENSEAL™ X1 Straight Jaw

LigaSure™ Blunt Tip



*ENSEAL™ X1 Straight Jaw Tissue Sealer can capture more tissue per bite with a longer jaw compared to LigaSure™ Blunt Tip \Based on metrology data, ENSEAL™ X1 Straight Jaw Tissue Sealer has a 6% (or 1.1mm) longer jaw than LigaSure™ Blunt Tip (LF1837) (p < 0.001) †Metrology report comparing Enseal™ X1 Straight Jaw to LigaSure™ Blunt Tip (LF1837) (p < 0.001) ‡Based on metrology data, ENSEAL™ X1 Straight Jaw Tissue Sealer has a 6% (or 1.1mm) longer jaw than LigaSure™ Blunt Tip (LF1837) (p < 0.001)

15. Ethicon, PRC095763B, Floyd Relaunch Claims Metrology, May 2021, Data on File (181977-210702, 181978-210702) 16. As Per Instructions For Use (152441-200929) 17. Ethicon, DOC023555A, A Floyd Claims Memo - Industrial Design, July 2018, Data on File (152441-200929) 18. Ethicon, PRC095763B, Floyd Relaunch Claims Metrology, May 2021, Data on File (181980-210702)

ENSEAL™ X1 Large Jaw Tissue Sealer

More secure sealing than LigaSure Impact™^{19*}

- Had **significantly less bleeding** at the distal tip vs LigaSure Impact™ in thick tissue^{20,21†}
- Had **41% less lateral thermal** spread than LigaSure Impact^{22‡}
- Has **improved ergonomics** which allows a 360° rotation compared to LigaSure Impact™²³

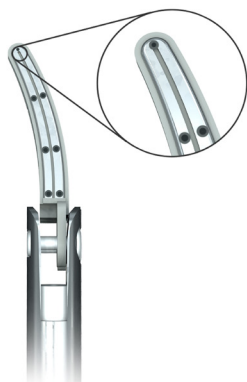


ENSEAL™ X1 Large Jaw has a larger distal electrode surface area
than LigaSure™ Impact²⁴

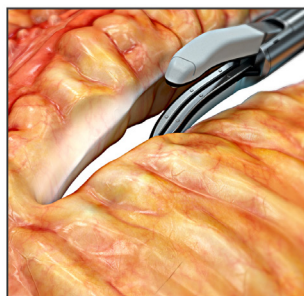
ENSEAL™ X1 Large Jaw



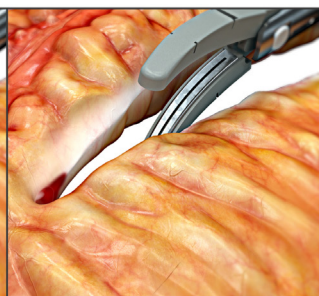
LigaSure Impact™



ENSEAL™ X1 Large Jaw



LigaSure Impact™



*Compared to Ligasure Impact (LF4318) in preclinical test of distal tip bleeding (ENSEAL™ vs. Impact-LF4318) in thick porcine mesentery base (p=0.001)

†Preclinical test of distal tip bleeding (ENSEAL™ vs. Impact-LF4318) in thick porcine mesentery base (p<0.001) ‡Preclinical testing on porcine carotids (ENSEAL™ vs. Impact-LF4318) that measured mean max lateral thermal damage via histology (p=0.005)

19. Ethicon, PSPO05173A, Final Report- 2017 Brick Claims: Comparison of Distal Tip Sealing Performance Between ENSEAL™ X1 Large Jaw (NSLX120L) with Algorithm and Ligasure™ Impact (LF4318), Sept 2016, Data on File (154862-201002) 20. Ethicon, PSB004548 Final Report Brick Distal Tip Sealing Algo D, Sept 2016, Data on File (116497-190612) 21. Ethicon, PSPO05819A, Final Report- 2017 Brick Claims: Comparison of distal tip sealing performance between ENSEAL™ X1 LARGE JAW (NSLX120L) and LIGASURE™ IMPACT (LF4318), Sept 2017, Data on File (116497-190612) 22. Ethicon, PSB004570, Final Report Brick Thermal Damage vs Impact1, Nov 2016, Data on File (114378-210504) 23. Ethicon, DOC022221, Memo - X1 Large Jaw - better design and ergonomics vs Impact, July 2016, Data on File (116496-190612) 24. Ethicon, DOC022209A Brick - Superior Distal Tip Sealing Rationale, Aug 2016, Data on File (124114-190923)

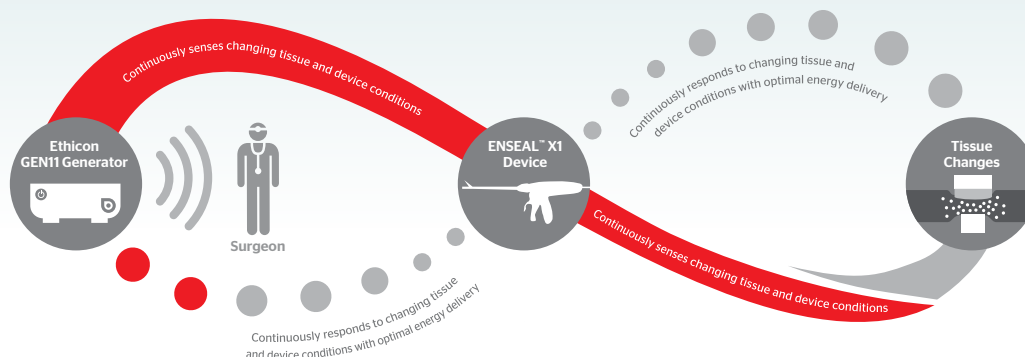
Expect more with ENSEAL™ X1 devices

Intelligent energy delivery

Powered by Ethicon GEN11 Generator, Adaptive Tissue Technology continuously delivers:

- Energy intelligently and efficiently in ENSEAL™ X1 Large Jaw^{25,26#}
- Senses changes in tissue conditions and responds with an optimized amount of energy^{25,26#}

The Intelligence of Adaptive Tissue Technology



Advancing beyond secure sealing

- ✓ ENSEAL™ X1 Tissue Sealers can seal vessels up to and including 7mm and lymphatics²⁷
- ✓ Average burst pressure of more than 8x normal systolic^{28¥}
- ✓ Silicone coating was designed for minimal tissue sticking^{29,30≥}
- ✓ ENSEAL™ X1 Curved Jaw had 22% higher average burst pressures than LigaSure™ Maryland^{28±}
- ✓ ENSEAL™ X1 Straight Jaw had 19% higher burst pressures than LigaSure™ Blunt Tip^{31±}

#Adaptive Tissue Technology algorithm powered by GEN11

¥In benchtop testing on porcine arteries, average burst pressure was 1055 mmHg

≥Preclinical testing that compared average sticking force (lbF) of ENSEAL X1 Large Jaw end-effector coated with and without non-stick silicone (p<0.05)

±Comparison of ENSEAL X1 Curved Jaw to LigaSure™ Maryland (LF1937). Benchtop testing on porcine arteries (1055mmHg vs. 862mmHg, p < 0.001)

25. Ethicon, SCNO47554A, Brick X1 System and Generator - Memo v2, Sept 2016, Data on File (173804-210414) 26. Ethicon, PSPO07612A, Evaluation of ENSEAL™ X1 Tissue Sealer, Curved Jaw, in an Acute Porcine Model, Feb 2020, Data on File (173804-210414) 27. As Per Instructions For Use (130176-200102) 28. Ethicon, Floyd Relaunch Claims Ex-Vivo Sealing, June 2020, PRCO94697A (145156-200630, 145069-200629) 29. Ethicon, DOC023555A, A Floyd Claims Memo - Industrial Design, July 2018, Data on File (123390-190913) 30. Ethicon, PRCO74959A, Brick EB2 Silicone versus No Silicone Testing, Sept 2016, Data on File (123390-190913) 31. Ethicon, 500805374A, Floyd Straight vs. LigaSure™ Blunt Claims Ex-Vivo Sealing, Oct 2021, Data on File (200488-220106)

ENSEAL™ X1 devices feature ergonomic engineering

- **Intuitive design**³²
- **Separate seal and cut functionality**³³
- **Conveniently placed control buttons** are designed for less hand movement³²
- **360° shaft rotation** to enable access to targeted tissue^{32,33}

DESCRIPTION	PRODUCT CODE	SHAFT LENGTH (cm)	SHAFT DIAMETER (mm)	QUANTITY/SALES UNIT
ENSEAL™ X1 Curved Jaw	NSLX125C	25	5	3
ENSEAL™ X1 Curved Jaw	NSLX137C	37	5	3
ENSEAL™ X1 Curved Jaw	NSLX145C	45	5	3
ENSEAL™ X1 Straight Jaw	NSLX125S	25	5	3
ENSEAL™ X1 Straight Jaw	NSLX137S	37	5	3
ENSEAL™ X1 Large Jaw	NSLX120L	20	13	6

- ENSEAL™ X1 Curved Jaw, ENSEAL™ X1 Straight Jaw, and ENSEAL™ X1 Large Jaw are supplied sterile for single-patient use
- ENSEAL™ X1 Tissue Sealers are compatible with the Ethicon GEN11 Generator (software version 2016-1 or later versions)

How to order

Please contact your local Ethicon Sales Representative

Visit www.jnjmedicaldevices.com for more information about the ENSEAL™ X1 Tissue Sealers.

Please refer always to the Instructions for Use / Package Insert that come with the device for the most current and complete instructions.

The third party trademarks used herein are the trademarks of their respective owners.

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³². Ethicon, DOC023555A, A Floyd Claims Memo - Industrial Design, July 2018, Data on File (155022-201006, 116498-210802, 152441-200929)

³³. As Per Instructions For Use (152981-200915, 152441-200929)