

360-DEGREE
STAPLE LINE
SECURITY.
**FOR ALL
AROUND
CONFIDENCE.**



EEA™ Circular Stapler with
Tri-Staple™ Technology

Medtronic
Further, Together

TABLE OF CONTENTS

3 Introduction

4 Features and Benefits

Tri-Staple™ Technology
in Circular Stapling Overview

Product Enhancements

7 Competitive Comparison

8 In-Service Guide

10 Staple Height Recommendations

11 Ordering Information

12 References



SECURITY MATTERS

EEA™ Circular Stapler
with Tri-Staple™ Technology



Anastomotic leaks are bad for patients — and for your hospital.



6.2%

colorectal leak rate^{1,†}



>162,000

annual global leaks²



\$28,597

average cost per leak^{1,†}



>4.6B

annual hospital cost²

†Based on U.S. data.





MORE ROWS OF STAPLES. MORE SECURITY.

Secure staple lines. You count on them.
So do your patients.

That's why we've given our EEA™ circular stapler the advantages of Tri-Staple™ technology. Now you can have:

- Three rows of varied height staples for 30 percent more security compared to two-row staplers^{3-5,†,‡}
- Consistent performance over a broad range of tissue⁶⁻⁸
- A sloped cartridge face for less stress on tissue during compression and clamping compared to flat cartridge faces^{6,11}
- Improved audible and tactile feedback^{9,‡,§}
- Potentially greater perfusion into the staple line vs. two row flat cartridge circular staplers^{10,12,†}



LESS STRESS

On tissue during compression and clamping^{11,†,‡,Ω}



GREATER PERFUSION

May be allowed into the staple line^{10,12,†,‡}



CONSISTENT PERFORMANCE

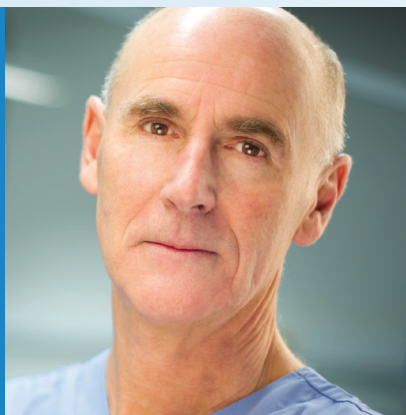
Over a broad range of tissue thicknesses^{6-8,‡}

†Preclinical results may not correlate with clinical performance in humans.
‡Based on the addition of a third row of staples in the EEA™ circular stapler with Tri-Staple™ technology, as compared to predicate two-row device designs.
§16 out of 19 surgeons surveyed agreed. ΩFinite element analysis (FEA) was used to determine the strain profiles of three circular staplers during clamp-up. The EEA™ circular stapler with Tri-Staple™ technology demonstrated a graduated compression profile upon clamping.

EASIER TO FIRE. EASIER TO HEAR AND FEEL WHEN YOU DO.



†Compared to two-row circular staplers.
‡16 out of 19 surgeons surveyed agreed.



A LEGACY REDEFINED.



EEA™ Circular Stapler with Tri-Staple™ Technology



EEA™ Circular Stapler with DST Series™ Technology



CIRCULAR STAPLING LOOKED AT FROM DIFFERENT ANGLES.

The EEA™ circular stapler with Tri-Staple™ technology has:



3 ROWS
of varied height staples⁶

The Ethicon™ ILS circular stapler and the EEA™ stapler with DST Series™ technology have:



2 ROWS
of staples⁸

Compared to the Ethicon™ ILS circular stapler and the EEA™ stapler with DST Series™ technology, the EEA™ device with Tri-Staple™ technology provides:

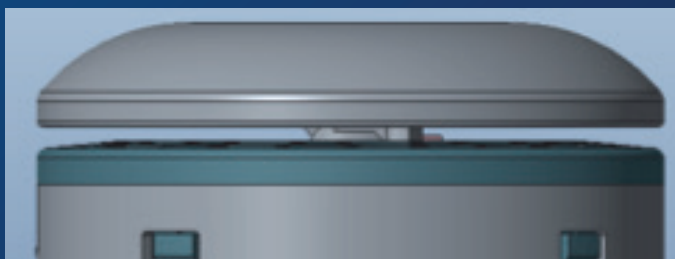
30%
MORE SECURITY
at the staple line
during the critical
healing period^{3-5,†,‡,§}

33.3%
REDUCTION
in firing force vs.
circular staplers
with DST Series™
technology¹⁴

60%
REDUCTION
in firing force vs.
the Ethicon™ ILS
circular stapler¹⁴

**MORE
CONSISTENT
AUDIBLE
FEEDBACK¹⁴**

The EEA™ circular stapler with Tri-Staple™ technology has a sloped cartridge face.

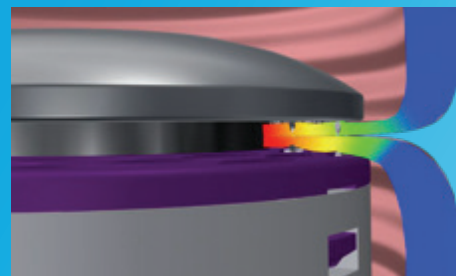


The EEA™ stapler with DST Series™ technology and the Ethicon™ ILS stapler each have a flat cartridge face.

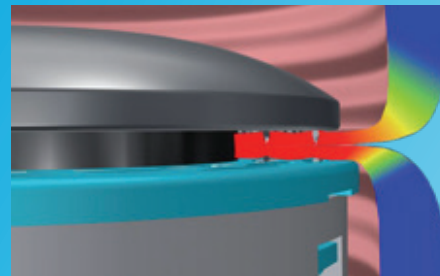


The Tri-Staple™ technology's sloped cartridge face delivers less stress on tissue compared to the Ethicon™ ILS stapler's flat-faced cartridges during compression and clamping.^{11,†,§}

SLOPED CARTRIDGE FACE

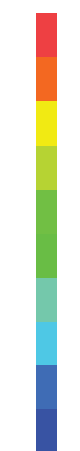


FLAT CARTRIDGE FACE



KEY

HIGH
STRAIN

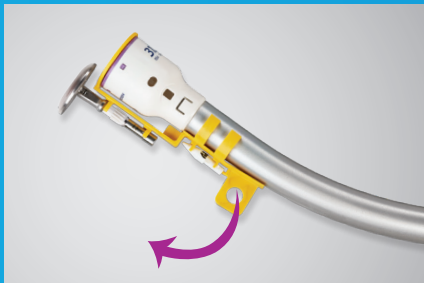


LOW
STRAIN

†Compared to two-row circular staplers. ‡Preclinical results may not correlate with clinical performance in humans. §Finite element analysis (FEA) was used to determine the strain profiles of three circular staplers during clamp-up. The EEA™ circular stapler with Tri-Staple™ technology demonstrated a graduated compression profile upon clamping.

IN-SERVICE GUIDE

DETACH



Detach the yellow shipping wedge.



Remove anvil and trocar tip(s).



If the white trocar accessory is desired, it can be attached to the hollow shaft on Tilt-top™ anvil/central rod assembly and removed after usage by depressing the black release button.

SETUP



Insert anvil.

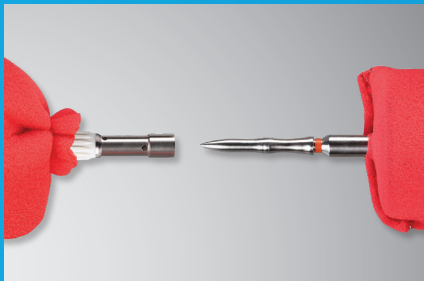


Tighten Purstring™ around Purstring™ notch.

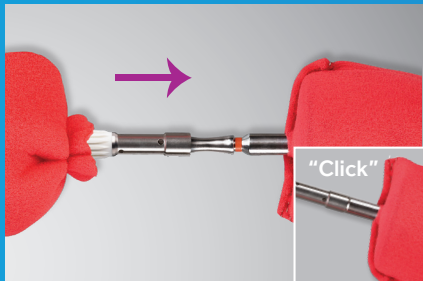


Extend trocar. Orange band must be visible.

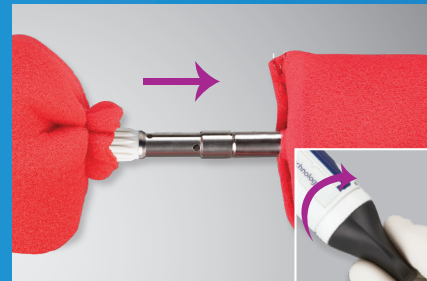
CLOSE



Attach anvil to trocar.



Tilt-top™ anvil must click in its fully seated position and orange band must be completely covered.



Fully tighten with twist knob until the green bar is visible in the indicator window.

FIRE



Ready to fire indicator. The green bar must be visible in the indicator window before releasing the safety lever and firing.



Flip the red safety lever.



Handle must be fully squeezed until it comes in contact with instrument body.

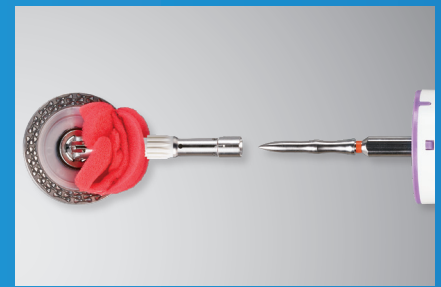
OPEN



Red safety needs to be reset for proper opening.



Rotate twist knob two full turns counterclockwise, stopping when a click is heard.



Inspect tissue specimens.

IMPORTANT: Please refer to the package insert for complete instructions, contraindications, warnings, and precautions.



STAPLE HEIGHT RECOMMENDATIONS

EEA™ circular stapler with Tri-Staple™ technology

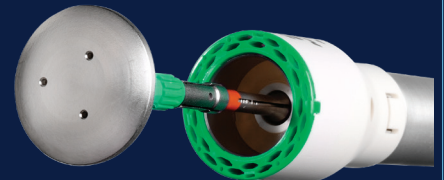
If you normally use a 4.8 mm **green thick tissue** circular stapler, or larger, for anastomosis, then you should consider converting to the **black extra-thick** EEA™ circular stapler with Tri-Staple™ technology. The black stapler provides an approximate staple height of 4.0 mm, 4.5 mm, and 5.0 mm.



If you normally use a 4.8 mm **green thick tissue** circular stapler, or larger, for anastomosis, but the patient's tissue seems thinner than the indicated range, you should consider converting to the **purple medium/thick** EEA™ circular stapler with Tri-Staple™ technology. The purple stapler provides an approximate staple height of 3.0 mm, 3.5 mm, and 4.0 mm.



If a **black extra-thick** EEA™ circular stapler with Tri-Staple™ technology is not available, and the tissue exceeds the indicated range of either a 3.5 mm **blue** circular stapler or the **purple medium/thick** circular stapler, then you should consider using a 4.8 mm **green thick tissue** circular stapler with DST Series™ technology.





ORDERING INFORMATION

Reorder Code	Product Description	Color	Staple Size (Inner to Outer Row)
TRIEEA28MT	EEA™ Circular Stapler with Tri-Staple™ Technology 28 mm Medium/Thick	Purple	3.0 mm, 3.5 mm, 4.0 mm
TRIEEA28XT	Black EEA™ Circular Stapler with Tri-Staple™ Technology 28 mm Extra Thick	Black	4.0 mm, 4.5 mm, 5.0 mm
TRIEEA31MT	EEA™ Circular Stapler with Tri-Staple™ Technology 31 mm Medium/Thick	Purple	3.0 mm, 3.5 mm, 4.0 mm
TRIEEA31XT	Black EEA™ Circular Stapler with Tri-Staple™ Technology 31 mm Extra Thick	Black	4.0 mm, 4.5 mm, 5.0 mm
TRIEEAXL33MT	EEA™ Circular Stapler XL Length with Tri-Staple™ Technology 33 mm Medium/Thick	Purple	3.0 mm, 3.5 mm, 4.0 mm
TRIEEAXL33XT	Black EEA™ Circular Stapler XL Length with Tri-Staple™ Technology 33 mm Extra Thick	Black	4.0 mm, 4.5 mm, 5.0 mm

We recommend always stocking both purple medium/thick and black extra-thick staplers so the surgeon can make the appropriate staple height decision in the case. If a black extra-thick stapler is not available, we suggest stocking the 4.8 mm green thick tissue EEA™ circular stapler with DST Series™ technology.

EEA31	EEA™ Stapler with DST Series™ Technology 31 mm Single Use Stapler	Green	4.8 mm
EEAXL31	EEA™ Stapler with DST Series™ Technology XL 31 mm Single Use Stapler	Green	4.8 mm

LESS STRESS ON TISSUE.^{11,†,‡,§} MORE SECURE STAPLE LINES.^{3-5,†}



LESS STRESS



On tissue during compression and clamping^{11,†,‡}

GREATER PERFUSION



May be allowed into the staple line^{10,12,‡}

CONSISTENT PERFORMANCE



Over a broad range of tissue thicknesses⁶⁻⁸

Call your sales representative for more information about the EEA™ circular stapler with Tri-Staple™ technology.

Visit us at [medtronic.com/covidien](https://www.medtronic.com/covidien)

†Compared to two-row circular staplers.

‡Preclinical results may not correlate with clinical performance in humans.

§Finite element analysis (FEA) was used to determine the strain profiles of three circular staplers during clamp-up. The EEA™ circular stapler with Tri-Staple™ technology demonstrated a graduated compression profile upon clamping.

1. Hammond J, Lim S, Wan Y, Gao X, Patkar A. The burden of gastrointestinal anastomotic leaks: an evaluation of clinical and economic outcomes. *J Gastrointest Surg*. 2014;18(6):1176–1185.
2. Based on internal analysis of MICI marker model for colorectal procedures multiplied by leak rate and average cost.
3. Based on internal test report #2128-194, Comparison of EEA™ circular stapler with Tri-Staple™ technology to EEA™ circular stapler with DST Series™ technology in colocolonic and gastrojejunal anastomoses. Aug. 20, 2015.
4. Based on internal test report #RE0036707, Pilot: comparison of EEA™ circular stapler with Tri-Staple™ technology to EEA™ circular stapler with DST Series™ technology in an esophago-gastrostomy using a canine model. Feb. 25, 2015.
5. Based on internal test report #2128-097, Evaluation of early wound healing events in gastrojejunostomies and colonic anastomosis using a three row EEA™ stapler in canines. Aug. 7, 2013.
6. Based on internal test report #RE00069039, EEA™ circular stapler with Tri-Staple™ technology design verification report. Dec. 2, 2014.
7. Based on internal test report #RE00008030, Tulip benchmark test report. March 18, 2016.
8. Based on internal test report #2128-053, Ethicon benchmark testing — Signia™ circular reload. June 17, 2014.
9. Based on internal test report #RE00073061, Tulip formative evaluation summary. Nov. 25, 2016.
10. Based on internal test report #PCG-007, Media absorbency under clamped conditions. Aug. 6, 2012.
11. Based on internal test report #PCG-30, Comparison of circular staplers: tissue compression profiles as determined by 2-D static axisymmetric finite element analysis (FEA). Aug. 2, 2018.
12. Based on extrapolation of perfusion studies performed for Endo GIA™ with Tri-Staple™ technology: internal test report #2128-002-2, Final analysis of staple line vascularity using MicroCT. April 27, 2015.
13. Zhang J. The use of the language “EEA” circular stapler with Tri-Staple™ technology has 30 percent more staples in the staplers of the same lumen diameters as compared to two row circular staplers” in marketing materials [memorandum]. North Haven, CT: Medtronic. June 4, 2017.
14. Based on internal test report #RE00183973, Firing force and audible feedback test report. May 2019.

© 2020 Medtronic. All rights reserved. Medtronic, Medtronic logo and Further, Together are trademarks of Medtronic.

™* Third party brands are trademarks of their respective owners. All other brands are trademarks of a Medtronic company.
03/2020 – US180882(2) – [WF #2530925]

Medtronic