Medtronic

Signia™ circular stapler with Tri-Staple™ technology

Real-time feedback.[1,2] Real-time confidence.

With its intelligent Adaptive Compression™ technology, the Signia™ circular stapler gives you the feedback you want throughout compression and firing.[1,2] Combined with Tri-Staple™ 2.0 reloads, the system gives you more confidence in the staple line[†,‡,3,4] for empowered anastomotic performance.

Gain the advantages you need to create strong anastomoses – and improve patient outcomes.[§,◊,5-7]

Adaptive Compression™ technology

- Determines the compression profile based on tissue properties and thickness[8]
- Uses tissue-sensing technology to measure[1,2] and adapt[2,9] the amount of applied pressure
- Helps you avoid overcompressing the tissue[¶,#,2,9,10] and prevent damage to the anastomosis[#,11]

Three rows of powered protection

- Allows greater perfusion into the staple line than other circular staplers[◊,5]
- Provides greater anastomotic leak reduction than Ethicon™* powered circular staplers[Δ,12]
- Generates less stress on tissue during compression and clamping[#,∞,10,13]

One-of-a-kind functionality

- The **only** circular stapler with powered and intelligent clamping to control compression[††,9,14]
- The **only** circular stapler that allows staple line leak testing without removing the instrument from the lumen[††,‡‡,15]
- The **only** circular stapler that separates staple and cut functions,[††,9,14] confirming staple line formation before engaging the knife[9]

† Based on survey results from trained surgeons comparing CDH31P to SIGCIR31XT ($n = 15$, $p = 0.008$). ‡ Based on survey results from trained surgeons using Signia™ circular stapler. 16 out of 16 surgeons agreed. § The Signia™ circular stapler allows 164% greater perfusion into the staple line than the Echelon Circular™* powered stapler, which may facilitate better wound healing at the anastomotic site. ◊ Compared to the Ethicon Circular™* powered stapler in an in vivo benchtop comparison (CDH31P: $n = 13$; SIGCIR31XT: $n = 9$, $p = 0.043$). Results may not correlate with clinical performance in humans. ¶ Compared to manual clamping circular staplers, $p < 0.001$, $n = 5$ for SIGCIR, $n = 9$ for TriEEA. # Bench test results may not necessarily be indicative of clinical performance. Δ Preclinical results may not correlate with clinical performance in humans. Based on leak testing in an in vivo canine model comparing to Ethicon Circular™* powered stapler. (SIGCIR28MT: $n = 18$; CDH29P: $n = 14$; $p = 0.028$). ∞ Compared to EEA™ circular staplers with DST Series™ technology (EEA2835, $p < 0.001$, $n = 5$), Ethicon™* CDH (CDH29A $n = 9$, $p < 0.001$, $n = 5$ for SIGCIR, for CDHA), and Ethicon Echelon Circular™* powered stapler (Ethicon™* CDH29P, $p < 0.001$, $n = 5$). †† As of January 2024. ‡‡ For 28, 31, and 33 mm sizes only.

Intelligent stapling comes full circle.

Go beyond the features you need and get the features you want. With the powered Signia™ circular stapling system, you gain an array of choices for powered circular stapling, from reusable adapters to a variety of single-use reload sizes to procedure-specific options.

Product code	Description	Quantity
SIGPHANDLE	Signia™ power handle	1
SIGPSHELL	Signia™ power shell	1
SIGSBCHGR	Signia™ single-bay charger	1
SIGRIG	Signia™ reusable insertion guide	1
SIGMRET	Signia™ manual retraction tool	1
SIGTRAY	Signia™ sterilization tray	1
SIGCIRSTND	Signia™ circular adapter (standard length)	1
SIGCIRXL	Signia™ circular adapter (XL length)	1
SIGCIR28MT	Tri-Staple™ 2.0 circular reload	28 mm reload, medium/thick	6 per box
SIGCIR28XT	Tri-Staple™ 2.0 circular reload	28 mm reload, extra thick	6 per box
SIGCIR31MT	Tri-Staple™ 2.0 circular reload	31 mm reload, medium/thick	6 per box
SIGCIR31XT	Tri-Staple™ 2.0 circular reload	31 mm reload, extra thick	6 per box
SIGCIR33MT	Tri-Staple™ 2.0 circular reload	33 mm reload, medium/thick	6 per box
SIGCIR33XT	Tri-Staple™ 2.0 circular reload	33 mm reload, extra thick	6 per box

Join the circle of trust.

Discover more at **medtronic.com/signia-circular**

Potential complications may include but are not limited to unspecified infection, hypersensitivity/allergic reaction, fistula, failure to anastomose, hemorrhage/blood loss/bleeding, peritonitis, sepsis, hemothorax, bowel burn, ischemia, stenosis, foreign body in patient, perforation, bowel perforation, environmental contamination, gastro-intestinal obstruction/occlusion, tissue breakdown.

1. Signia™ stapler [user manual]. North Haven, CT: Medtronic; 2023.
2. Based on report #RE00052285 rev W, Gen II Power Pack EEA™ stapler application SRS. Oct 2023.
3. Based on internal report #RE00480654, PEEA post-summative lab user questionnaire. October 2023.
4. Based on internal test report #RE00394109 rev. 0, Distal tip motion and user feedback for circular staplers: EEA™ with Tri-Staple™, Signia™ circular with Tri-Staple™, and Ethicon™* Echelon™* circular powered stapler. October 2023.
5. Based on internal test report #RE00330708 rev.1, PCG-42: Perfusion analysis for circular staplers. May 13, 2021.
6. Blanco-Colino R, Espin-Basany E. Intraoperative use of ICG fluorescence imaging to reduce the risk of anastomotic leakage in colorectal surgery: a systematic review and meta-analysis. *Tech Coloproctol.* 2018;22(1):15-23.
7. Smallwood N, Mutch MG, Fleshman JW. The failed anastomosis. In: Steele SR, Maykel JA, Champagne BJ, Orangio GR, eds. *Complexities in Colorectal Surgery: Decision-Making and Management.* New York, NY: Springer Science and Business Media; 2014:277-304.
8. Based on internal test report #RE00258180, Memo – Signia™ power EEA™ clamping. Oct 2023.
9. Based on report #RE00052291 rev R, Gen II Power Pack EEA™ stapler application software design document. Nov 2023.
10. Based on internal test report #RE00185349 rev.1, Tissue clamp benchmark vs. manual instruments (Tulip, DST™, & Ethicon™*). Nov 2023.
11. Kim JS, Park SH, Kim NS, et al. Compression automation of circular stapler for preventing compression injury on gastrointestinal anastomosis. *Int J Med Robot.* 2022;18(3):e2374.
12. Based on internal test report #RE00550119 rev.0, Comparative in vivo leak testing. January 2025.
13. Based on internal test report #RE00350454, Compression testing for powered CDH 29mm product. Sept. 13, 2021.
14. Based on the Echelon Circular™* powered stapler 510(k) summary, no. K163523. April 18, 2017.
15. Based on internal report #RE00124842 rev C, Signia™ circular stapling system (PEEA) summative usability. Sept 2019.

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