

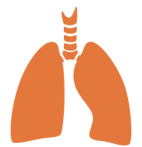


# AEON™ ENDOSTAPLER

INNOVATING  
MINIMALLY INVASIVE  
SURGERY WITH  
S3 ENGINEERING™



CLINICALLY PROVEN



IN  
THORACIC SURGERY



Superior staple lines



Smooth articulation



Multi-speed gear

# AEON™ WITH S3 ENGINEERING™

Superior staple lines. Smooth articulation. Multi-speed gear.

## 50%

lower firing force with **multi-speed gear**<sup>1</sup>  
for better staple formation and **superior hemostasis**<sup>2,3</sup>



### Smooth articulation

Precise stapler positioning with fluid range of motion



### Multi-speed gear

Reduced trigger pull force for thicker tissue

### Universal handle

Use one handle for vessels and parenchyma with full reload menu.

### Advanced reload architecture

Integrated I-beam assembly, fixed anvil and teardrop shape anvil buckets



### Uniform staple height

Designed for improved aerostasis<sup>4</sup> with 3 rows of protection

### High tech manufacturing

Proprietary manufacturing equipment incorporating AI

## WIDEST RANGE OF ANVILS



Regular tip



Short tip



Curved tip

# Clinical Evidence

## 80 consecutive thoracic cases

performed in prospective clinical study including VATS wedge, VATS lobectomy, open wedge, and open lobectomy



## Use of a New Stapling Device in General Thoracic Surgery

Kristof Katona MD, Alexandru Has MD, Joana Grups MD, Pawel J. Leskow MD, André E. Dutly MD  
Division of Thoracic Surgery, Kantonsspital St. Gallen, Switzerland

### RATIONALE

Stapling devices are used extensively for various thoracic surgeries. These multi-purpose tools must be safe, easy to use, and provide value to the hospital. A new stapler, AEON Endostapler, has previously been tested and proven as safe and effective for bariatric surgery. The stapler was also found to have improved hemostasis in a randomized, multi-center study. We wanted to test the safety and efficacy of this stapler in our general thoracic surgery practice.

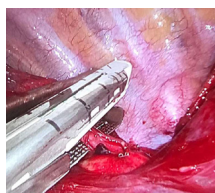


FIGURE 1. AEON 30mm White Curved Tip Reload

### METHODS

A prospective study was conducted between March and September 2021 with 80 consecutive thoracic cases in which staplers were used by two surgeons at Kantonsspital St. Gallen. Ethics approval and patient consent was obtained for this study. Stapler usage data, intraoperative outcomes, and 30-day post-operative outcomes were evaluated.

### RESULTS

Eighty patients (42 male, 38 female) were included. Mean patient age was 64.8 years. Procedures included video-assisted thoracoscopic surgery (VATS) wedge (n=29), VATS lobectomy (n=24), open wedge (n=8), and open lobectomy (n=19). A total of 81 handles (55 short, 26 medium) and 454 reloads were successfully deployed, and no misfire occurred. No staple line bleeding was observed. In one case the surgeon decided to add a suture on the staple line to prevent an air leak. No other intraoperative or post-operative complications were detected. On average, the chest tube was removed after 2.1 days, and the length of stay in hospital was 3.8 days.

TABLE 1. Quantity of reload sizes used for the 80 consecutive thoracic procedures

Reload usage	VATS wedge	VATS lobectomy	Open wedge	Open lobectomy
30mm/1.0mm White	1	8	1	0
45mm/1.0mm White	5	67	0	58
60mm/1.0mm White	0	1	3	2
45mm/1.5mm Orange	20	19	2	11
60mm/1.5mm Orange	77	83	20	50
45mm/1.8mm Purple	5	0	0	1
60mm/1.8mm Purple	1	4	3	5
60mm/2.2mm Black	2	0	4	1

### CONCLUSIONS

The new stapler AEON from Lexington Medical appears to be safe in general thoracic surgery and presents a new cost-effective option. The devices have several advantages over previously used or tested devices, namely the option to change gears to facilitate dissection of thicker structures. Another advantage was the fact that staples that are not within the tissue remain in the reload – meaning they do not soil the surgical site.

### REFERENCES

- Landreneau, J. et al. (2019). Use of Alternative, Cost-Effective Laparoscopic Stapler Reload Cartridges in Bariatric Surgery: A Prospective, Two-Center Pilot, Society of American Gastrointestinal and Endoscopic Surgeons, Baltimore, MD (US).
- Redmann, J. et al. (2020). Improving Hemostasis in Sleeve Gastrectomy with Alternative Stapler. Journal of the Society of Laparoscopic & Robotic Surgeons, 24 (4), <https://pubmed.ncbi.nlm.nih.gov/33447003/>

[www.kssg.ch](http://www.kssg.ch)

## Advantages over prior devices

with no stapler misfires and no staple line bleeding observed

## Clinical use in 28 countries and growing

Ask us about our Thoracic Data Registry to learn how thoracic surgeons are using AEON™





# Surgeon Testimonial



## Andre Dutly, M.D.

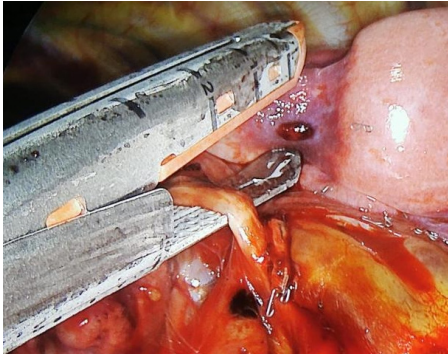
Chief Thoracic Surgeon, Kantonsspital St. Gallen,  
St. Gallen, Switzerland

"In my experience, you get the **whole package** with Lexington Medical, proven by **high quality products and responsiveness to surgeons' needs**. The AEON Endostapler has performed very well in nearly 200 thoracic surgeries - including complex lobectomies and segmentectomies - and when in my hands it **undeniably feels like a well-engineered product**. Recent findings from a prospective clinical trial are encouraging as the study evaluated the safety and efficacy of the stapler in our general thoracic surgery practice.

In addition, I prefer AEON's unique features including the dual firing gear for drier staple lines, smooth articulation for precise positioning and **short tip anvil for better access in tight spaces** and to avoid injury to critical structures. The company has proven itself time and time again that they listen to surgeons, and are **committed to surgical stapling releasing new, impressive innovations at record speed.**"



# Clinical Applications

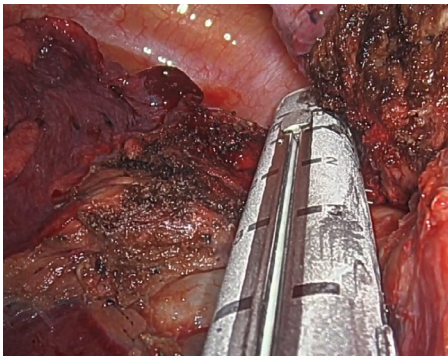
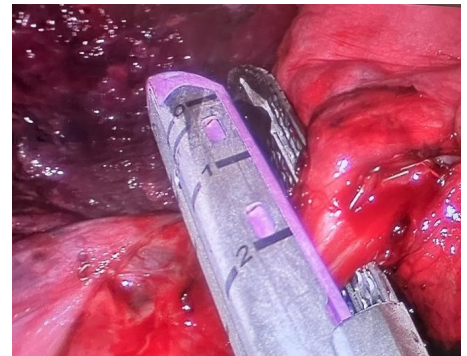


## Segmentectomy

using AEON 30mm Orange Curved Tip Reload on segmental bronchus.

## Lobectomy

using AEON 30mm Curved Tip Purple Reload on lobar bronchus.

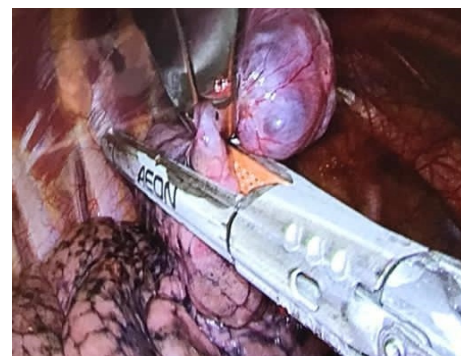


## Pneumonectomy

using AEON 45mm White Reload on vessels.

## Lung Volume Reduction (LVRS)

using AEON 60mm Orange Reload on parenchymal emphysema.



# Complete Thoracic Solution

## 30 unique reloads

Whether for bronchus, vessel, or parenchyma, AEON offers surgeons the right tool for every clinical scenario

## Proprietary short-tip anvil

For improved access in tight spaces during VATS procedures

## Widest range of curved tip reloads

Curved tip anvil offered in 30mm, 45mm, and 60mm reload lengths



Reload Type	Cartridge Lengths	Product Codes	Open Height	Closed Height	Handle Type	Shaft Length	Product Code
Gray	30, 45mm	AESR30G, AESR45G	2.0mm	0.75mm	Short	60mm	AESH060
White	30, 45, 60mm	AESR30W, AESR45W, AESR60W	2.5mm	1.0mm	Medium	160mm	AESH160
Orange	30, 45, 60mm	AESR30R, AESR45R, AESR60R	3.25mm	1.5mm	Long	260mm	AESH260
Purple	30, 45, 60mm	AESR30P, AESR45P, AESR60P	4.0mm	1.8mm			
Black	60mm	AESR60B	5.0mm	2.2mm			
Gray Curved Tip	30, 45mm	ASR30GC, AESC45G	2.0mm	0.75mm			
White Curved Tip	30, 45, 60mm	ASR30WC, AESC45W, AESC60W	2.5mm	1.0mm			
Orange Curved Tip	30, 45, 60mm	ASR30RC, AESC45R, AESC60R	3.25mm	1.5mm			
Purple Curved Tip	30, 45, 60mm	ASR30PC, AESC45P, AESC60P	4.0mm	1.8mm			
Gray Short Tip	30mm	ASR30GS	2.0mm	0.75mm			
White Short Tip	30, 60mm	ASR30WS, ASR60WS	2.5mm	1.0mm			
Orange Short Tip	30, 60mm	ASR30RS, ASR60RS	3.25mm	1.5mm			
Purple Short Tip	30, 60mm	ASR30PS, ASR60PS	4.0mm	1.8mm			

<sup>1</sup>Eckert et al. (2018) Preclinical quantification of air leaks in a physiologic lung model: effects of ventilation modality and staple design. *Medical Devices: Evidence and Research*. (11) 433-442. <sup>2</sup>Redmann, et al. (2020). Improving hemostasis in sleeve gastrectomy with alternative stapler. *Journal of the Society of Laparoscopic and Robotic Surgeons*. (24) 4. <https://pubmed.ncbi.nlm.nih.gov/33447003>. <sup>3</sup>Raftopoulos, et al. (2021). Prospective randomized comparison of linear endostaplers during laparoscopic sleeve gastrectomy. <https://clinicaltrials.gov/ct2/show/study/NCT04617574> <sup>4</sup>Data on file.

© 2022 Lexington Medical, Inc. The third-party trademarks used herein are trademarks of their respective owners. Always refer to the instructions for use for the most recent information. Document control MC-070122 Rev C.

**LEXINGTON**  
MEDICAL