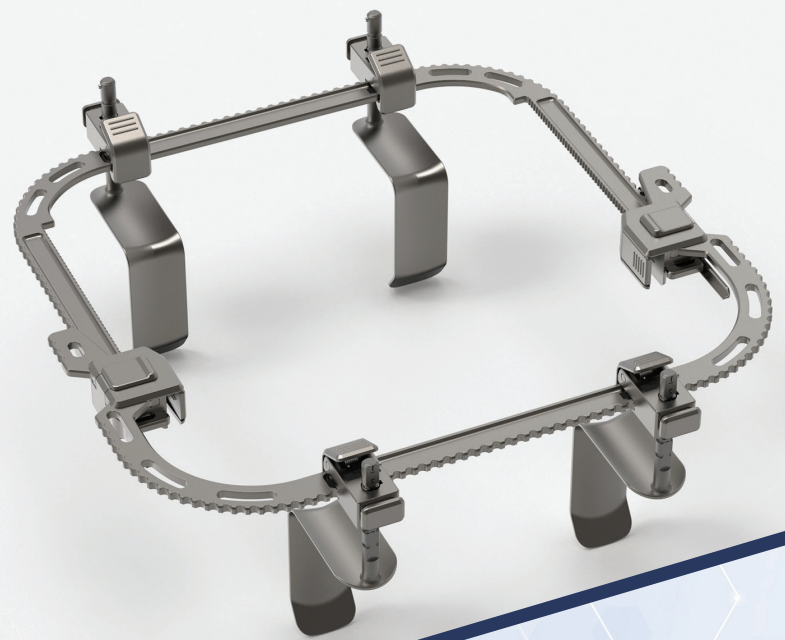




**Rapid Retraction.  
Superior Exposure.  
No Table Attachment.**



**“The TITAN CSR® retractor simply makes me a better surgeon.”**

Trauma Surgeon, Level 1 Trauma Center

**“ I expect the TITAN CSR® surgical retractor will significantly change the future of trauma and emergency operations, ultimately improving patient outcomes. ”**

Brian Eastridge, MD FACS  
Internationally renowned civilian and military trauma surgeon

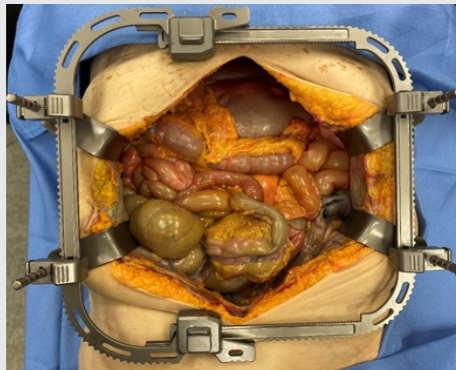
- ✓ **Exposure in less than one minute** through rapid setup for abdominal wall retraction and superior retroperitoneal exposure with fewer personnel.
- ✓ **Optimizes exposure in emergency surgeries where the patient setting may not support table-mounted retractors:** hybrid O.R., ICU bedside laparotomies, trauma bays, and MIS cases that require conversion to laparotomy.
- ✓ Potential for **improved patient outcomes** due to superior exposure, faster hemorrhage control, and reduced O.R. times.
- ✓ **Meets AAMI and AORN tray weight guidelines** for improved ergonomics through lightweight titanium construction.

## Two Retractors In One

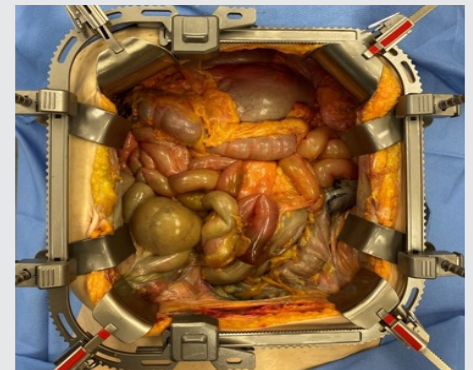
The TITAN CSR® retractor’s Post-Free™ design combines the speed of the Balfour with the improved exposure of the Bookwalter®, all without the need to attach to the surgical table.



Balfour



TITAN CSR® Retractor

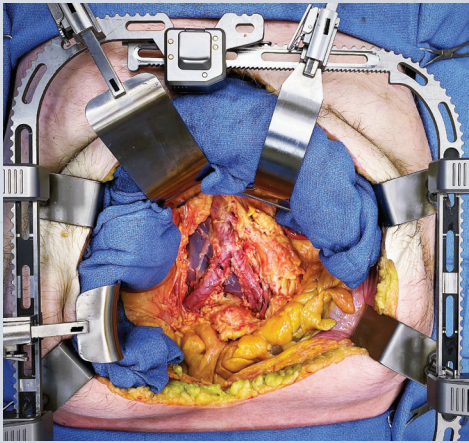
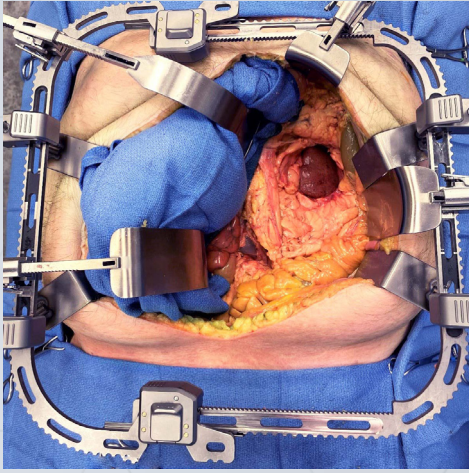


TITAN CSR® with Bookwalter® blades

\*The Bookwalter® trademark is a registered trademark of Symmetry Surgical, Inc., and ASR Systems makes no claim to it. ASR Systems is not an authorized seller of Bookwalter® branded products.

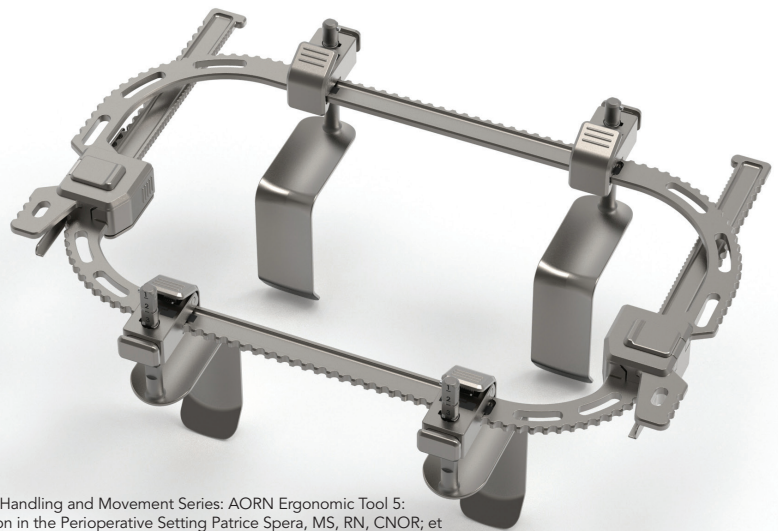
# "The TITAN CSR® retractor just makes my job easier."

General Surgeon, Community Medical Center



- ✓ Significant cost savings attributable to reduced O.R. time, decreased SPD reprocessing costs, and more efficient use of O.R. resources.
  - Reduces retractor setup time by ~15 minutes, providing more rapid abdominal access.
  - Cumulatively saves up to 30 minutes in the O.R., improving overall efficiency and providing extra O.R. revenue opportunities resulting in potential cost savings up to \$3,400 per case. (O.R. costs \$113/min)
  - Compared to over \$3,000 in potential single-use disposable costs using energy-based tissue sealing devices, GIA staplers/reloads, hemostasis adjuncts, and damage control closure products, the cost of TITAN CSR® retractor use is under \$20 per laparotomy (5 laparotomies/week, 10yr timeframe).
  - Fewer parts to clean and count, reducing the number of surgical trays per case.
- ✓ Reduces staff needed in the operating room, minimizing personnel costs and optimizing use of O.R. resources.
- ✓ Minimizes need for handheld retractors which reduces risk of staff injury while providing ergonomic benefit.\*\*
- ✓ Can be used by multiple service lines (trauma, general surgery, vascular, etc.), allowing streamlining of SPD inventory to one retractor.

**At an average O.R. cost per minute of \$113, estimated O.R. savings in excess of \$500K annually**



\*\* Safe Patient Handling and Movement Series: AORN Ergonomic Tool 5: Tissue Retraction in the Perioperative Setting Patrice Spera, MS, RN, CNOR; et al, AORN Journal, July 2011 Vol 94 No 1

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10/24

“When every minute counts, the TITAN CSR® retractor is a truly useful tool that saved me 15 minutes when my patient was exsanguinating and required rapid control of massive bleeding.”

Trauma Surgeon  
Level 1 Trauma Center

REVOLUTIONIZING SURGICAL RETRACTION™

Toll Free: (855) 415-7471 | Fax: (210) 622-2874  
[titanretractor.com](http://titanretractor.com) | [sales@asrsystemsinc.com](mailto:sales@asrsystemsinc.com)

