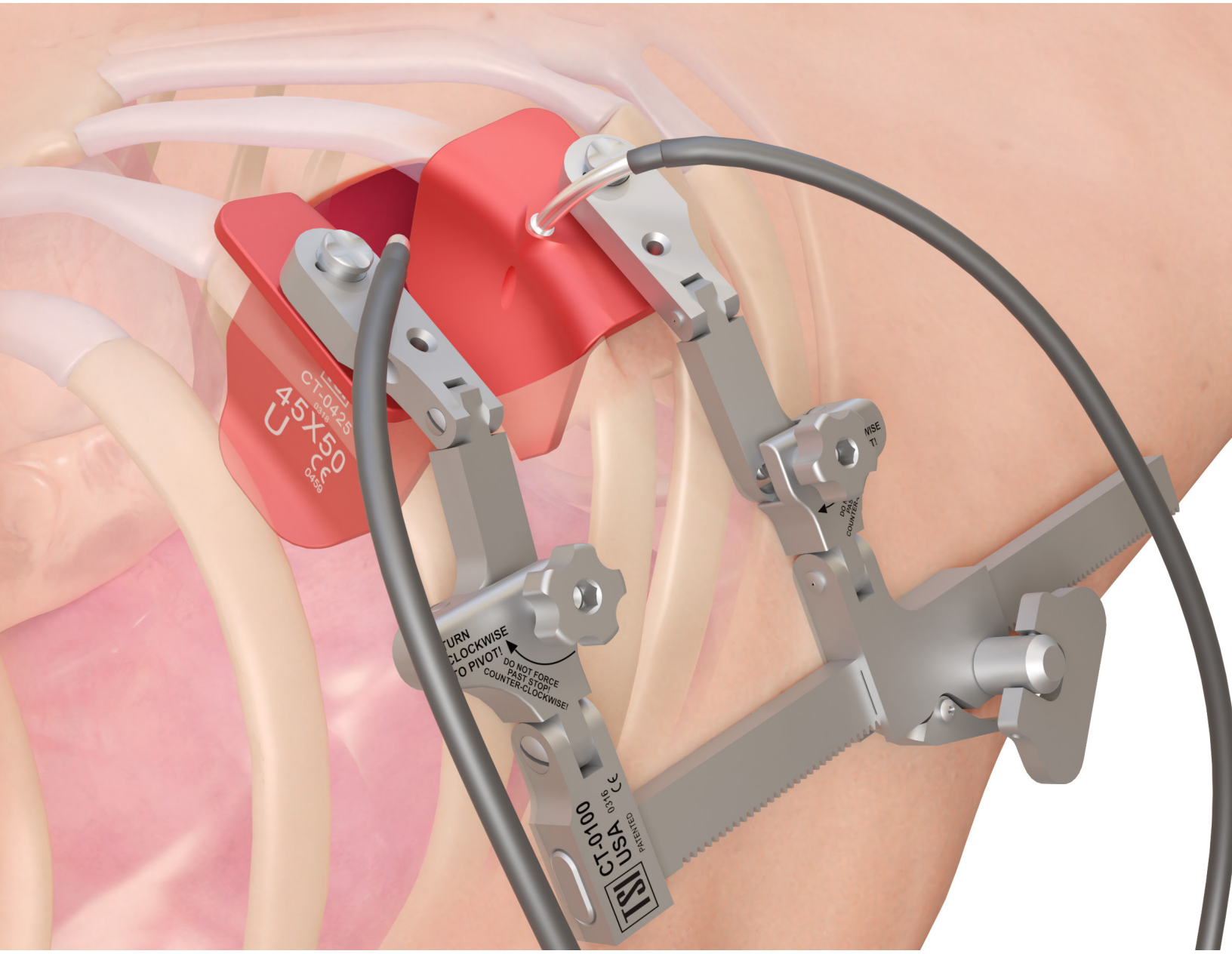


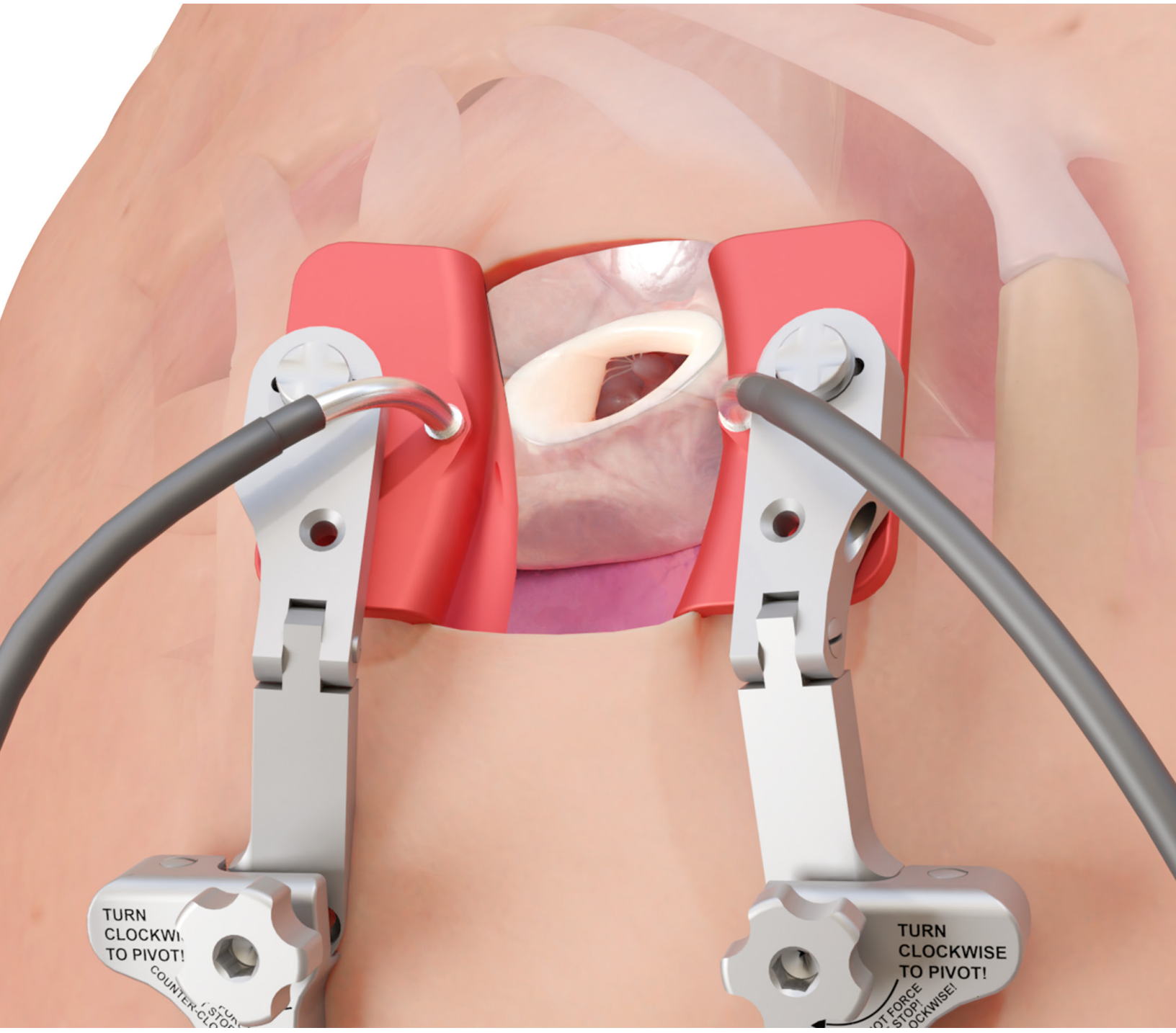
ULTRAVISION CT Surgical Access System

Setting the Standard in Minimally Invasive Thoracic Access

TSI

ULTRAVISION CT Surgical Access System

THE EVOLUTION OF SURGICAL ACCESS TO THE HEART



Access to the thoracic space using traditional retractor systems has frequently been associated with significant post-operative pain due to rib and intercostal nerve trauma.

In pursuit of enabling a continued evolution of the thoracic approach, ULTRAVISION CT™ Surgical Access System from TEDAN SURGICAL INNOVATIONS introduces a next-level approach to efficient access to the cardiac anatomy, while helping to minimize rib and intercostal nerve trauma.

With the uniquely-designed ULTRAVISION CT StreamLine™ Blades that conform to the intercostal rib anatomy, to its patented pivoting mechanism increasing the surgical working area while maintaining a small incision and the integrated illumination capability enhancing shadow-free visualization of the surgical field, ULTRAVISION CT Surgical Access System introduces significant technology advancements aimed at reducing post-operative pain associated with thoracotomy access.

ULTRAVISION CT Surgical Access System
— Evolving Surgical Access to the Heart

DO NO HARM

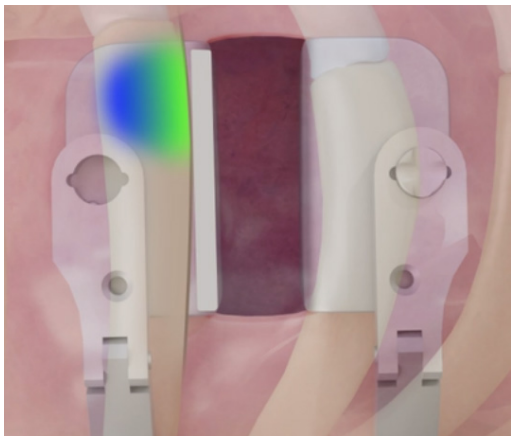
"… trauma from [thoracic] retraction can cause complications, including rib fractures, impaired respiratory function, and pain, both acute and long-term.[1]

Chanoit, G. et al.

Anatomically-Designed

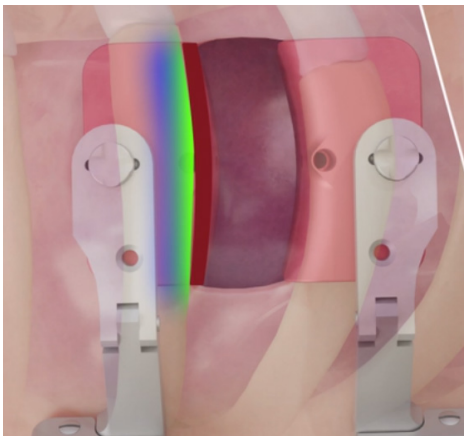
ULTRAVISION CT StreamLine Blades have been thoughtfully-engineered to conform to the intercostal rib anatomy, distributing retraction force across the blade surface, rather than a single point of contact — all helping to reduce post-thoracotomy pain due to rib trauma or nerve injury.

Standard Blade

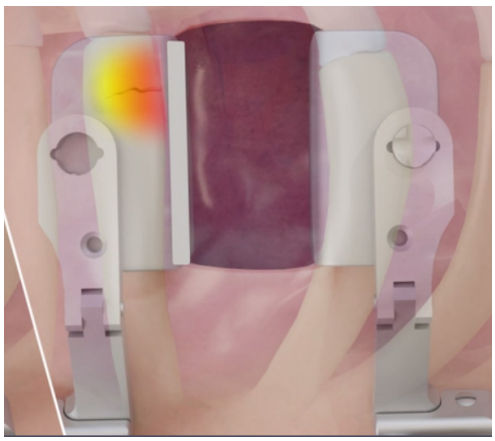


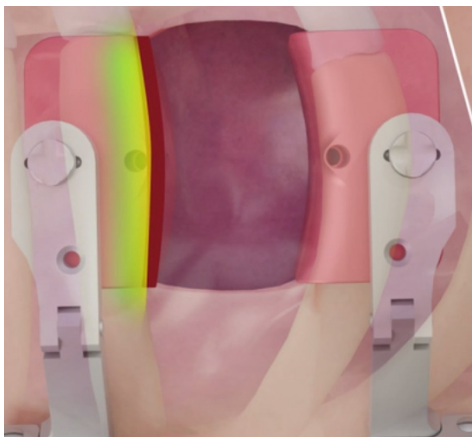
Standard Concave Blade: 184.3lbf/in^2 or 1.271 N/mm^2
Contact area = 2mm × 35mm (2)

StreamLine Blade



ULTRAVISION CT StreamLine Conforming Blade: 8.192lbf/in^2 or .0565 N/mm^2
Contact area = 45mm × 35mm (2)





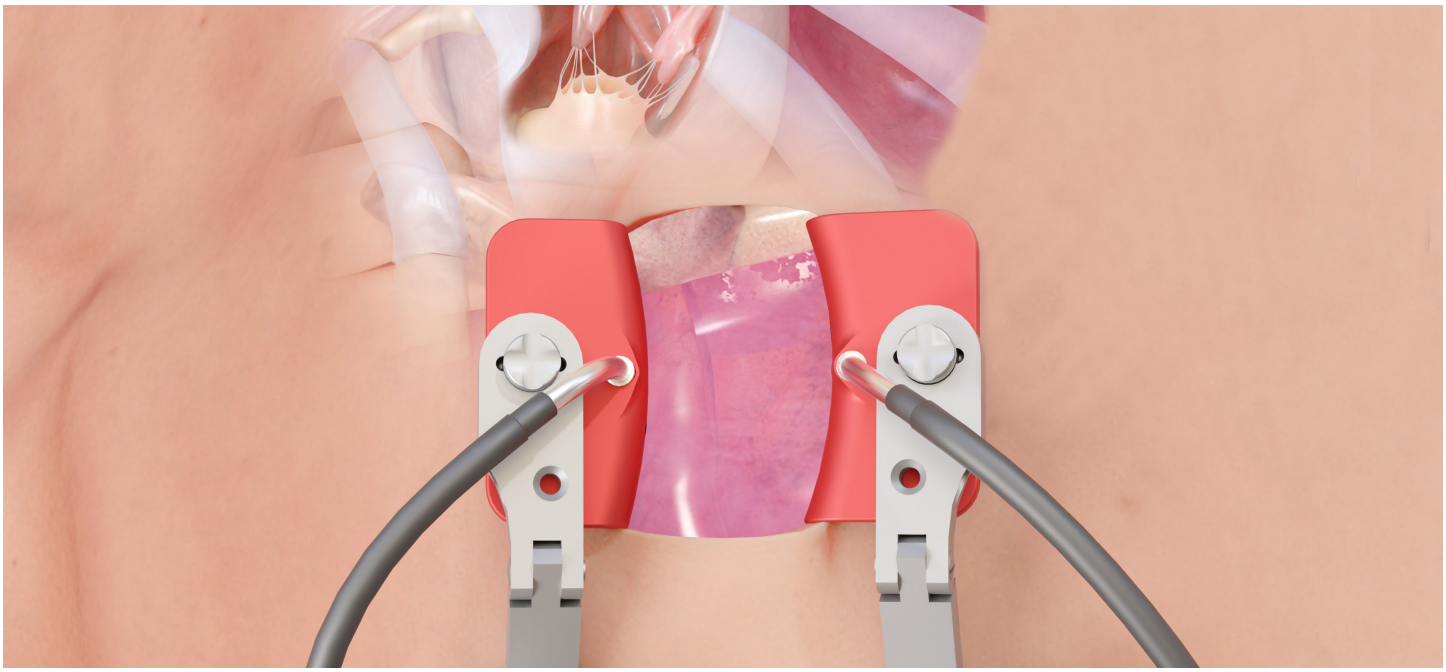
1. Chanoit, G., Pell, C.A., Bolotin, G. et al. Retraction mechanics of Finochietto-style self-retaining thoracic retractors. BioMed Eng OnLine 18, 45 (2019).
2. Data on file.

SEEING IS ALL THAT MATTERS

"It has been reported that a metallic thoracic retractor crushes the intracostal nerve in the intracostal muscle when the retractor is opened …" [3]

Yokoi K. et al.

Traditional retractors depend on a standard asymmetrical crank frame movement, which when opened too wide to visualize the cardiac and thoracic anatomy, there is an increased potential for rib fracture, intercostal nerve damage and associated post-operative, debilitating pain.[3]



ULTRAVISION CT Pivoting Technology increases surgical access without the need of excessive retraction of the intercostal space. Blades have a pivoting capability of up to 30 degrees on each side – minimizing the incision size, while increasing the working area without additional spreading. Coupled with the 1mm per click retractor movement, precise and optimal surgical access are now within reach.

CT-0100
PIVOTING RETRACTOR,
150 MM RACK

3. Yokoi K. et al. Assessment of Long-Term Postoperative Pain in Open Thoracotomy Patients: Pain Reduction by the Edge Closure Technique. Ann Thorac Surg 2010; 89:1064-70.

A FIT FOR EVERY SURGICAL SCENARIO

The need for reliable, yet low impact retraction has been addressed through the continued innovation of retractor blade design.

ULTRAVISION CT StreamLine Retractor Blades have been uniquely designed for mini thoracotomy and sternal incisions. With its one-of-kind, anatomically-conforming shape, ULTRAVISION StreamLine Blades deploy easily and with stability in the incision to ensure uninterrupted surgeon focus.

ULTRAVISION StreamLine Blades conform seamlessly to the intercostal space for thoracotomy access

Narrow 30mm thoracotomy - ULTRAVISION StreamLine Blades facilitate small, port-sized incisions

ULTRAVISION StreamLine Sternal Blades feature a flat blade design specifically to effectively engage the anatomy in small upper sternal approaches

See More of the Anatomy

Designed for standard and port-sized thoracotomy or sternal approaches, ULTRAVISION StreamLine Blades feature a color-coded, aluminum radiolucent material enabling anatomical visualization during intra-operative imaging in trans-catheter aortic valve replacement (TAVR).

Blades do not interfere with fluoroscopic visualization during procedures requiring intraoperative imaging. On the fluoroscopic image (left), the retractor blade can be seen as a shadow on the right side of the image during a transapical approach enabling greater view of the anatomy.

Image courtesy of Gilbert H. Tang, M.D., MSc., MBA Mount Sinai Health System New York, New York

LET THERE BE LIGHT

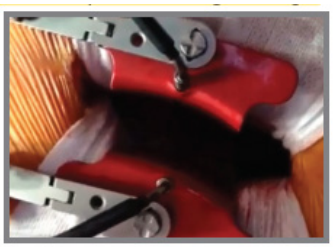
See more with the Phantom ML™ Integrated Light System. ULTRAVISION Surgical Access System's unique integrated light can increase visualization by directly introducing light into the surgical field, eliminating or enhancing the effectiveness of surgical headlights.

Minimally invasive surgery presents unique challenges in anatomical access and visualization.

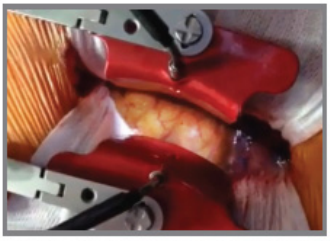
While surgical headlights are the norm in the operating room, optimal visualization is hindered by their spotlight type illumination and ergonomic limitations.

Phantom Illumination System provides a seamless *in situ,* low-profile lighting solution flooding the surgical field with additional light that eliminates shadowing and blind spots typically experienced in head-mounted illumination options.

Phantom ML Sterile, Single-Use Light Cable (ML-0046) ensures perfectly bright, predictable illumination in every surgical procedure.



Light cable in retractor blades with light off

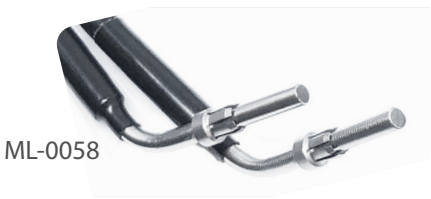


Light cable in retractor blades with light on

Light Without Heat

ML-0051

The Phantom Illumination System uses LED technology that provides bright light without producing heat. The LED technology has a life of 50,000 hours eliminating frequent replacement of costly bulbs.



ML-0058

Phantom ML Secure Reusable Light Cable (ML-0058) is deployed into the light channel port located on the proximal end of the blade, introducing cold LED illumination from the Phantom ML Light Source (ML-0051). Its pronged, distal connector design ensures a secure fit into the blade.

ULTRAVISION CT SURGICAL ACCESS SYSTEM (CT-1000)

CAT. NO.	DESCRIPTION	QTY
CT-0100	PIVOTING RETRACTOR, 150 MM RACK - ML-0505 or LS-0451 REQUIRED	1
CT-0414	STREAMLINE BLADE, LOWER RIB, 45 X 35 MM, GREEN	1
CT-0415	STREAMLINE BLADE, UPPER RIB, 45 X 35 MM, GREEN	1
CT-0424	STREAMLINE BLADE, LOWER RIB, 45 X 50 MM, RED	1
CT-0425	STREAMLINE BLADE, UPPER RIB, 45 X 50 MM, RED	1
CT-0434	STREAMLINE BLADE, LOWER RIB, 45 X 70 MM, BLUE	1
CT-0435	STREAMLINE BLADE, UPPER RIB, 45 X 70 MM, BLUE	1
CT-0444	STREAMLINE BLADE, STERNAL, 50 X 60 MM, ORANGE	2
CT-0445	STREAMLINE BLADE, STERNAL, 50 X 40 MM, TEAL	2
CT-0460	STREAMLINE PORT BLADE, LOWER RIB, 30 X 50 MM, GOLD	1
CT-0461	STREAMLINE PORT BLADE, UPPER RIB, 30 X 50 MM, GOLD	1
CT-0462	STREAMLINE PORT BLADE, LOWER RIB, 30 X 35 MM, PURPLE	1
CT-0463	STREAMLINE PORT BLADE, UPPER RIB, 30 X 35 MM, PURPLE	1
CT-0702	INSTRUMENT TRAY, CT-1000	1
LS-0451	T-HANDLE PIVOT CONTROL	1
ML-0058	SECURE LIGHT CABLE, PRONGED BUSHING, 10', NON-STERILE	1
ML-0051	LED LIGHT SOURCE	1

Learn more about this system here

Watch the animation

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