

ENDOPATH

ENDOPATH XCEL[®] Trocars with OPTIVIEW[®] Technology

The only trocar that reduces smudging of the
endoscope/scope upon reinsertion¹





Not all ports require the same level of trocar functionality. That's why Ethicon developed a portfolio of trocars that offers the flexibility to choose the right trocar with the right level of functionality, when and where it's needed. ENDOPATH XCEL® Trocars with OPTIVIEW® Technology are designed to reduce smudging of the endoscope upon reinsertion by wiping, wicking and absorbing fluid that builds up inside the trocar.

Frustrated by constantly having to clean your endoscope?

Smudging upon endoscope reinsertion

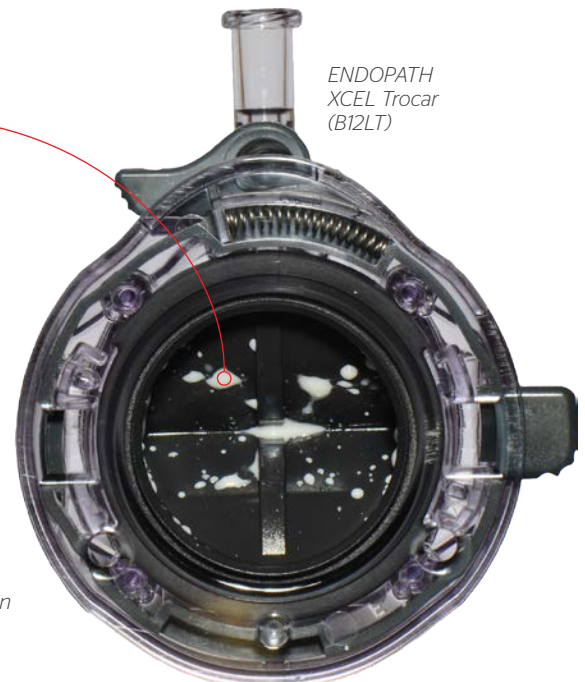
- Necessitates frequent rewiping
- May disrupt procedural flow
- May lead to surgeon distraction

How does endoscope reinsertion lead to smudging?

Intraoperative smudging may require periodic removal of the endoscope for cleaning.

- As the endoscope is removed, fluid from the endoscope shaft often remains trapped within the trocar's seal system
- Upon endoscope reinsertion, trapped fluid may be reapplied to the scope lens, causing smudging

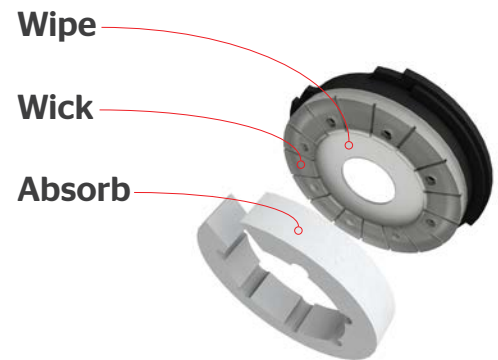
12mm trocar seal housing image was taken following five simulated insertions and extractions of an endoscope using porcine fluid during benchtop testing to demonstrate fluid buildup that may occur within the trocar seal housing during instrument exchanges. Actual fluid buildup in trocar seal housings may vary.



ENDOPATH XCEL[®] Trocars with OPTIVIEW[®] Technology minimize endoscope recleanings

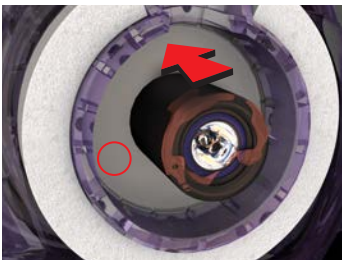
How OPTIVIEW Technology works

OPTIVIEW Technology **wipes, wicks and absorbs** to decrease smudging during camera reinsertion, reducing the need to rewipe the endoscope.¹ Proprietary technology wipes bodily fluid and debris from the endoscope shaft as it is removed from the trocar. The fluid is drawn into the absorbent material before it has a chance to enter the trocar seal, so it can't interfere with the endoscope lens upon reinsertion.



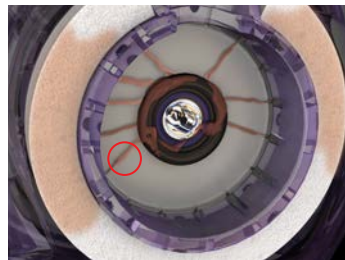
OPTIVIEW Technology components

Wipe



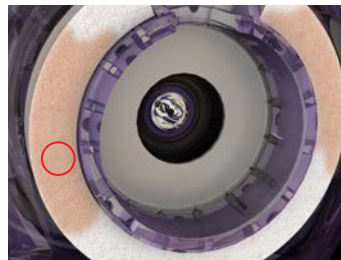
Flexible scraper wipes fluid from endoscope shaft on the way out of the trocar

Wick



Wicking channels absorb fluid as it moves outward into the absorbent material

Absorb



Absorbent ring captures and contains fluid, preventing it from entering the trocar seal

Reinsert



Endoscope has reduced smudging upon reinsertion

To watch a video demonstrating how OPTIVIEW Technology works, go to ethicon.com/xceloptiview

The benefits of ENDOPATH XCEL® Trocars, with smudge mitigation

Low insertion force

Provides controlled and predictable entry.

- ENDOPATH XCEL Bladeless Trocars with OPTIVIEW® Technology have the lowest peak insertion force compared to leading Covidien, Applied Medical and Taut® bladeless trocars²

Abdominal wall retention

Integrated thread design on bladeless, universal sleeve and dilating tip cannulas helps minimize trocar slip-outs.

- Greater stability demonstrated in bladeless trocars:
 - 5mm ENDOPATH XCEL Bladeless Trocars with OPTIVIEW Technology have twice as much peak retention force compared to leading 5mm Applied Medical trocars with threaded sleeves³
 - 12mm ENDOPATH XCEL Bladeless Trocars with OPTIVIEW Technology have higher peak retention force than leading 12mm Applied Medical bladeless trocars⁴

Low drag force

Housing and seal are designed to reduce instrument hang-ups and to provide low instrument insertion/extraction forces

Direct visualization

Bladeless tip trocar allows for endoscopic optical entry

ENDOPATH XCEL Trocars with OPTIVIEW Technology are available in 5mm and 12mm Bladeless Trocars, Dilating Tip Trocars and Universal Sleeves. Also available in 12mm Blunt Tip Trocars.



Bladeless



Dilating Tip



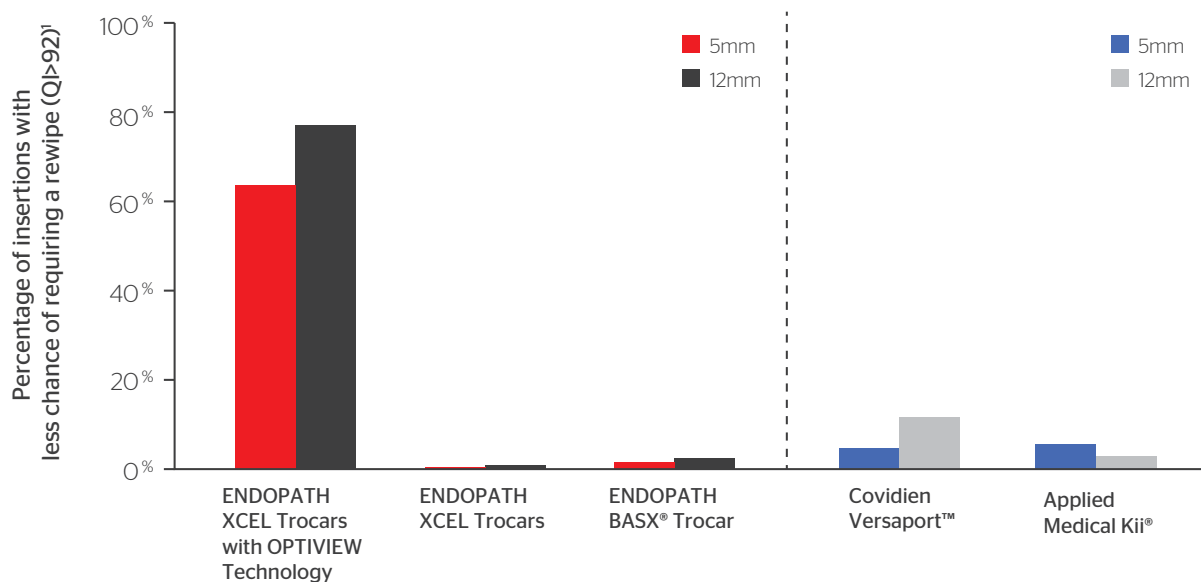
Blunt Tip



Universal Sleeve

ENDOPATH XCEL[®] Trocars with OPTIVIEW[®] Technology cut endoscope rewipes in half¹

Most effective smudge mitigation vs leading trocars



OPTIVIEW Technology is more effective at reducing rewipes¹



5mm trocars

- At least **59% more effective** than Covidien Versaport™ and VersaStep™ Bladeless Trocars
- At least **58% more effective** than Applied Medical Kii® and Kii Fios® Trocars



12mm trocars

- At least **66% more effective** than Covidien Versaport and VersaStep Bladeless Trocars
- At least **74% more effective** than Applied Medical Kii and Kii Fios Trocars

Reduced smudging means fewer procedural disruptions¹

- Reduces the disruption of rewiping the endoscope
- Minimizes the cumulative time spent needed to clean the endoscope

ENDOPATH XCEL[®] Trocars with OPTIVIEW[®] Technology

Designed specifically for camera ports, ENDOPATH XCEL Trocars with OPTIVIEW Technology reduce smudging during endoscope reinsertions by wiping, wicking and absorbing fluid buildup in the trocar.¹

Schedule a demo today and see the difference for yourself. Contact your Ethicon Sales Professional or visit ethicon.com/xceloptiview



OPTIVIEW Technology components

References:

1. Comparing mean number of insertions for 5mm trocars out of 10 insertions with a quality index score of 92 or higher for 2B5LT (6.4 insertions) to COQ04/CFR03/CTR03/CTF03/CFI13 (0.5 insertions), NB5STF/VS101005 (0.4 insertions) in benchtop tests, $P < 0.05$. Comparing mean number of insertions for 12mm trocars out of 15 insertions with a quality index score of 92 or higher for 2B12LT (11.6 insertions) to CTF73/COR29/CFI83/CF73/CFR73/COR47 (0.4 insertions), NB12STF/VS101012P (1.6 insertions) in benchtop tests, $P < 0.05$. Quality index score of 92 or higher indicates a less than 20% chance of having to rewipe the endoscope lens due to trocar induced smudging.
2. Comparing mean abdominal wall peak insertion forces of 2B5LT/B5LT (10.7lb) to CFR03/CF73 (21.5lb), CTR03/CTF03 (12.5lb), COQ04/CFI13 (12.2lb), NB5STF (12.0lb) and 40510 (12.7lb) and mean abdominal wall peak insertion forces of 2B12LT/B12LT (19.2lb) to CTF73 (23.1lb), COR29/CFI83 (24.3lb), CFR73/CF73 (31.7lb), NB12STF (29.6lb) and 41210 (26.0lb) in a preclinical model, $P < 0.05$.
3. Comparing mean abdominal wall retention forces of 2B5LT/B5LT (8.3lb), CTF03/CTR03 (4.1lb) and COQ04/CFI13 (4.1 lb), in a preclinical model, $P < 0.05$.
4. Comparing mean abdominal wall retention forces of 2B12LT/B12LT (16.1lb), CTF73 (8.8lb), CFR73/CF73 (14.4lb) and COR29/CFI83 (11.9lb) in a preclinical model, $P < 0.05$.