



## Introducing the LenSx<sup>®</sup> Laser

**Putting the Future in Motion**



# **With the LenSx® Laser, Cataract Surgery Will Change in a Femtosecond**

## **Laser Refractive Cataract Surgery Has Arrived**

Designed to deliver the precision of a femtosecond laser to Refractive Cataract Surgery, the LenSx® Laser is Putting the Future in Motion:

- Automates some of the most challenging aspects of traditional cataract surgery
- Provides image-guided surgeon control to perform capsulotomy, lens fragmentation and all corneal incisions with consummate accuracy
- Offers a truly premium laser experience for Refractive Cataract Surgery patients



## A Closer Look at a Breakthrough Innovation

Alcon's LenSx® Laser, the first femtosecond laser cleared for use in cataract surgery, represents a breakthrough for image-guided Laser Refractive Cataract Surgery. Now, many of the most challenging, manually executed steps can be accurately and predictably performed with computer precision and reproducibility.

### True image-guided surgical planning

Enables the surgeon to precisely program the size, shape and location of each incision

### Intuitive touch screen graphic user interface

Allows each step of the procedure to be easily planned, customized and executed

### Real-time video imaging with integrated OCT

Provides three-dimensional visualization of the entire anterior segment during docking, planning and procedure

### Curved patient interface

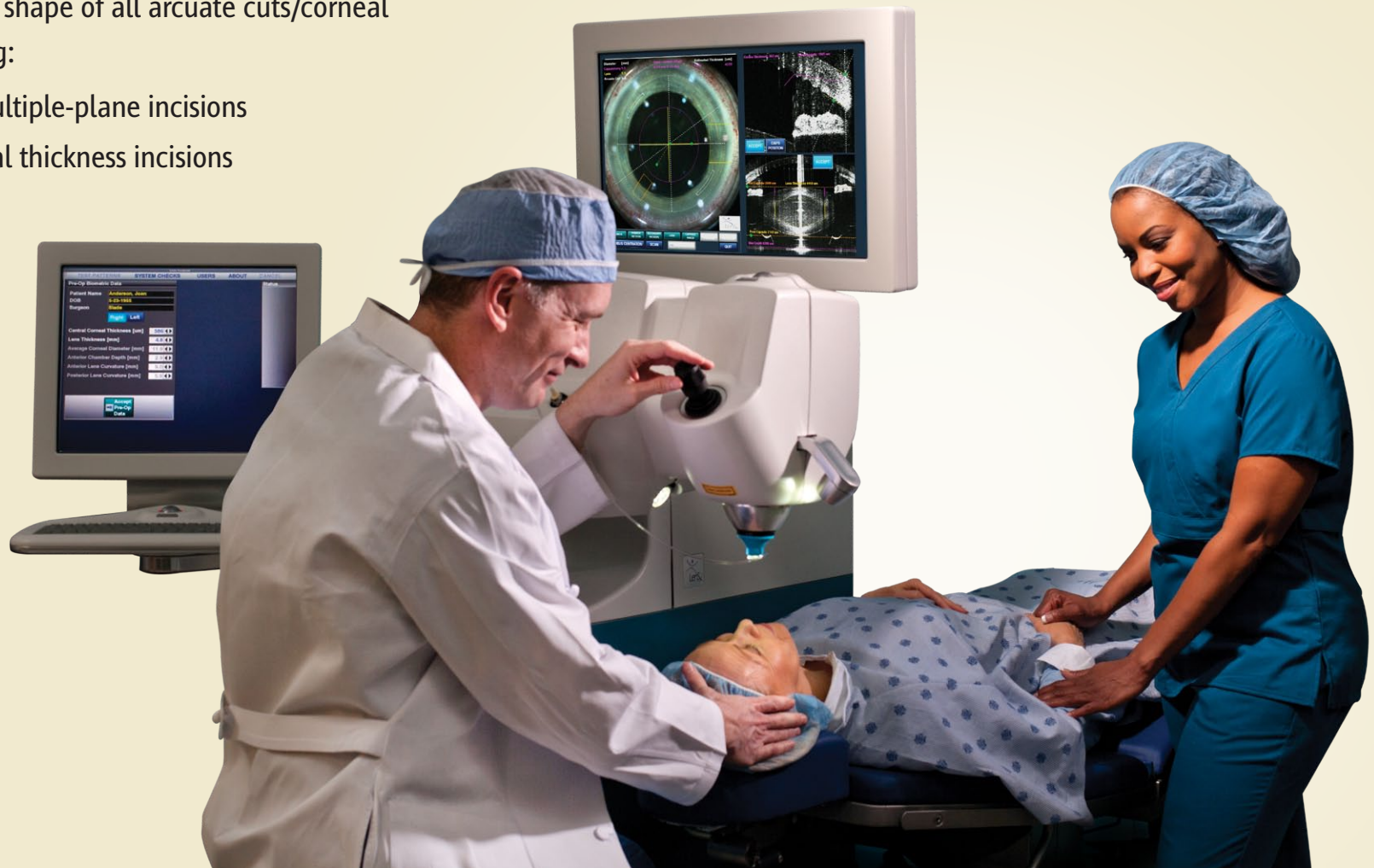
Designed for patient comfort, ease of use and optimal laser performance



## Customized Precision

Bringing a new level of customization to cataract surgery, the LenSx® Laser allows the surgeon to confirm all surgical parameters and quickly and easily make any required adjustments before proceeding with the laser treatment:

- Size and location of the capsulotomy
- Lens fragmentation pattern, shape and location
- Size, location and shape of all arcuate cuts/corneal incisions including:
  - Single and multiple-plane incisions
  - Full and partial thickness incisions





## Advanced Imaging

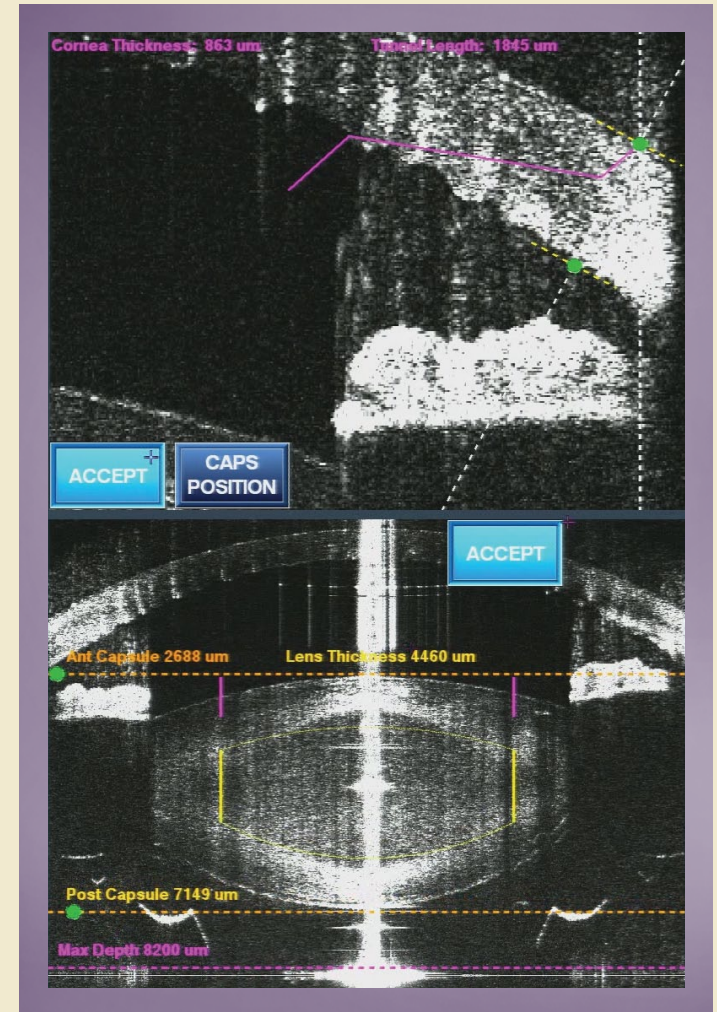
With the LenSx® Laser, surgeons can monitor the entire anterior segment throughout the procedure using:

- A high-resolution video microscope for real-time imaging
- An integrated, large-range Optical Coherence Tomographer (OCT) for three-dimensional visualization

## Image-Guided Planning

The LenSx® Laser allows the surgeon to precisely program key surgical steps:

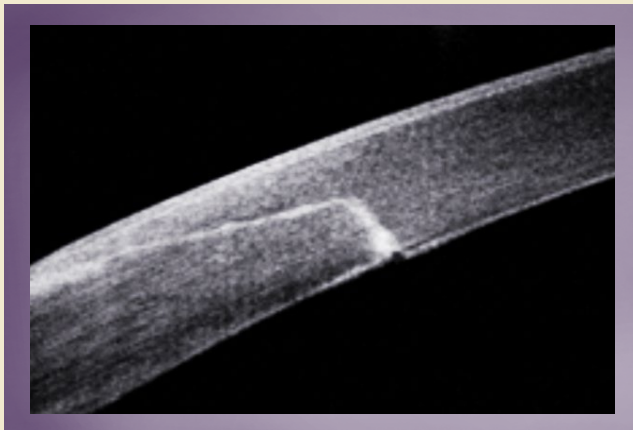
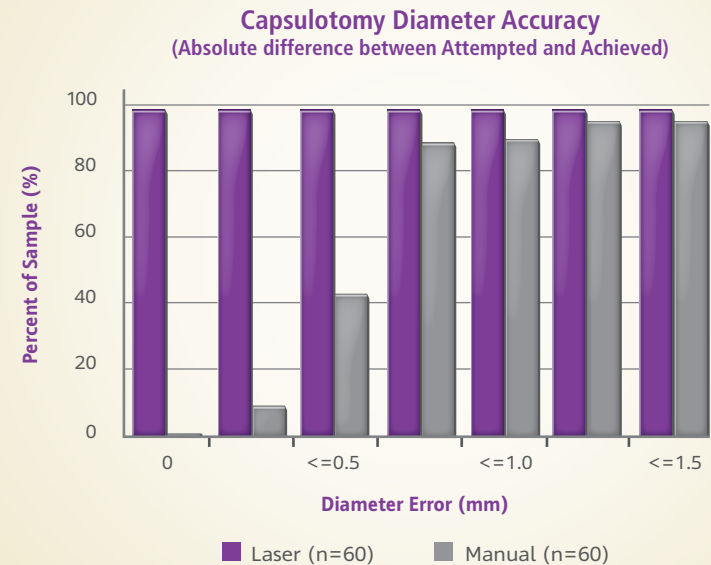
- Scans of the anterior capsule are efficiently captured and presented for precise placement of the anterior capsulotomy
- Next, the surgeon programs the precise location and shape of the fragmentation pattern with OCT visualization of the entire lens thickness
- Finally, corneal OCT images are used to program precise single or multiple-plane arcuate cuts/incisions at the required corneal thickness



3D OCT images give a complete picture of the anterior chamber.

## Anterior Capsulotomy Diameter

Anterior capsulotomy size has been shown to impact the effective lens position post-operatively,<sup>1</sup> a key parameter in IOL power calculations.<sup>2</sup> Anterior capsulotomy with the Alcon LenSx® Laser provides accurate and reproducible capsulotomy diameters not routinely achievable with manual techniques.



## Femtosecond Laser Corneal Incisions

Incisions with the Alcon LenSx® Laser provide accurate and reproducible corneal incisions with complete flexibility. This allows the surgeon to customize incision width and architecture for enhanced surgical performance.

Post-operative OCT image of bi-plane corneal incisions made with the Alcon LenSx® Laser.

**The Next Era of Innovation  
is Now in Motion**





The next era of innovation is now in motion – an era that will lead to further advancements in technology and techniques surgeons can use for the benefit of their patients. Alcon's LenSx® Laser is Putting the Future in Motion.

To learn more about LenSx® technology and other Alcon innovations for Laser Refractive Cataract Surgery, visit [www.lensxlasers.com](http://www.lensxlasers.com).



1. Cekiç O, Batman C. The relationship between capsulorhexis size and anterior chamber depth relation. *Ophthalmic Surg Lasers*. 1999;30(3):185-90. Erratum in: *Ophthalmic Surg Lasers*. 1999;30(9):714.
2. Norrby S. Sources of error in intraocular lens power calculation. *J Cataract Refract Surg*. 2008;34(3):368-76.

©2011 Alcon, Inc. 3/11 LSX10501VS

**Alcon**

  
**LenSx**  
LASER