COMMITTED TO YOUR PRACTICE SUCCESS

Sharing expertise and support from the proven leader

- **Business Development**
  - In-person and online education—practice-building tools and patient marketing initiatives
  - Diagnosis and solutions to elevate practice performance
- **Application Support**
  - On-site surgeon and technician training and support to help improve outcomes by maximizing team skills
  - Highly skilled application support team and renowned medical monitors—ongoing clinical consultation and analysis to enhance patient outcomes
- **Field Service Support**
  - Multiple service plans to meet your practice needs—so you can be confident in your system's performance
  - 10-time recipient of the Omega Management Group's Annual NorthFace ScoreBoard Award for consistently exceeding customer expectations

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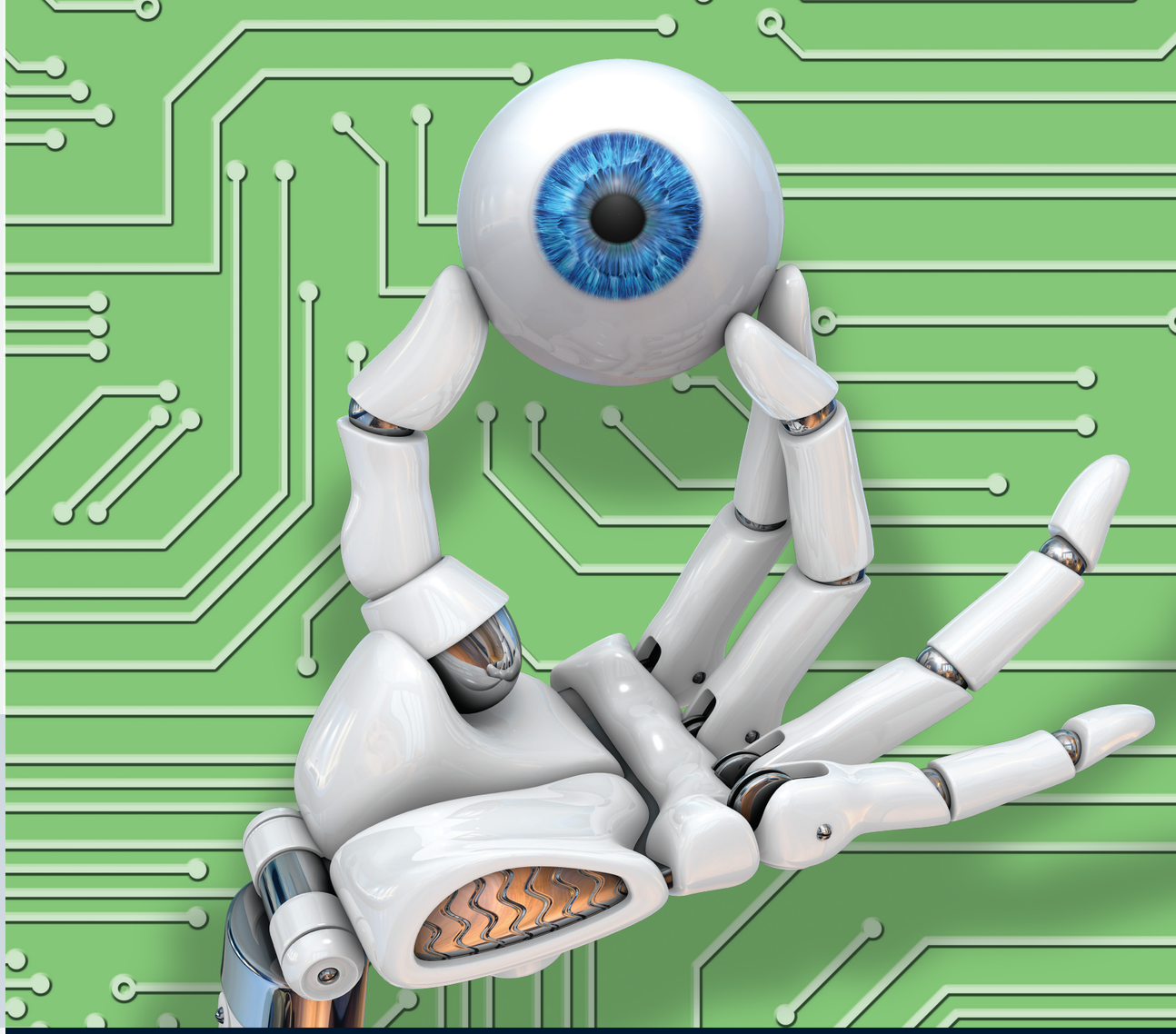
1. Rabinowitz YS. Intacs for keratoconus. *Current Opinion in Ophthalmology*. 2007 Jul;18(4):279-283. DOI: 10.1097/icu.0b013e3281fc94a5. **2.** Lofti AC, et al. Intracorneal ring segments implanted with femtosecond laser can teat keratoconus. *OSN US*, June 10, 2010. **3.** Yu CQ, Manche EE. A comparison of LASIK flap thickness and morphology between the IntraLase® 60- and 150-kHz femtosecond lasers. *J Refract Surg.* 2014 Dec;30(12):827-30. **4.** Donnenfeld E. Preservation of corneal innervation with femtosecond laser inverted sidecut flaps. *Invest Ophthalmol Vis Sci.* 2010 51: E-Abstract 2855. **5.** Knorz MC. Thin-flap LASIK: How thin should we go? *CRST Europe*. October 2008. **6.** Marshall J. Sub-Bowman Keratomileusis vs. conventional LASIK. Paper presented at the ESCRS Annual Meeting; 2007; Stockholm. **7.** Probst LE. Circular, elliptical flap comparison takes shape. *Ophthalmology Times*. July 1, 2013. **8.** Probst LE. The next horizon in creating the LASIK flap. *CRST*. July 2012. **9.** Binder PS. AMO's new iFS® Advanced Femtosecond Laser: faster, safer, more versatile. *Refract Eyecare*. 2008. **10.** Guttman C. Accumulating research evidence highlights benefits of fifth-generation IntraLase® Femtosecond Laser. *Euro Times.* 2009;14(2):14. **11.** Stahl JE, Durrie DS, Schwendeman FJ, Boghossian AJ. Anterior segment OCT analysis of thin IntraLase® femtosecond flaps. *J Refract Surg.* 2007;23:555-558. **12.** Steinert RF. Using IntraLase® to improve penetrating keratoplasty. *Refract Eyecare*. February 2007. **13.** Farid M, Kim M, Steinert RF. Results of penetrating keratoplasty performed with a femtosecond laser zig-zag incision initial report. *Ophthalmology*. 2007;114(12):2208-2212. **14.** Binder PS, Gray B, Brownell M, Martiz J, Gown A, Hill J. Morphology of femtosecond intrastromal arcuate incisions. *IOVS*. 2012;53,6622. **15.** Binder PS. Perfecting clear corneal incisions. *CRST*. May 2013.

WARNING - INVISIBLE LASER RADIATION AVOID EXPOSURE TO BEAM 400 mW at 1053 nm PULSE DURATION: 600-800 fs CLASS 3B LASER PRODUCT IEC 60825-1: 2014 J660126 Rev. C

Johnson & Johnson VISION



iFS
Advanced Femtosecond Laser

A COMPREHENSIVE PLATFORM OF SURGICAL PRECISION

INDICATIONS: The ***iFS***® Femtosecond Laser is an ophthalmic surgical laser indicated for use in patients undergoing surgery or treatment requiring initial lamellar resection of the cornea, in treatment requiring initial lamellar resection of the cornea to create tunnels for placement of corneal ring segments, in treatment requiring arcuate cuts/incisions in the cornea, penetrating and/or intrastromal, in lamellar IEK and corneal harvesting, in the creation of a corneal flap in patients undergoing LASIK surgery or other treatment requiring initial lamellar resection of the cornea, in the creation of a lamellar cut/resection of the cornea for lamellar IEK and for the creation of a penetrating cut/incision for penetrating IEK, in treatment requiring the creation of corneal channels for placement/insertion of a corneal inlay device.

PROVEN TECHNOLOGY, RESULTS, AND VERSATILITY

Utilized in over 8 million procedures and with over 300 scientific citations to its credit, ***IntraLase***® Technology has a long history of innovation and market leadership. For the ***iFS***® Laser, this standard of excellence means surgeons experience levels of precision and performance that create unmatched confidence in treating patients and maximizing outcomes. The ***iFS***® Laser is modular, ensuring ever-expanding treatment capabilities for today's demanding patient population.

*"All around, the **iFS**® Laser is just a very solid instrument that does exactly what it's supposed to do every time."*
—JOHN VUKICH, MD

GOING WELL BEYOND LASIK FLAPS

Fully individualized, precise incisions for your ophthalmic procedures utilizing a single-laser system

- LASIK flaps
- ***IntraLase***®-enabled keratoplasty (IEK) incisions
- Laser cataract: arcuate incisions and clear corneal and paracentesis incisions
- Corneal channel creation
- Intracorneal ring segments

THE IDEAL CHOICE FOR YOUR REFRACTIVE, CORNEAL, CATARACT, AND CORNEAL CHANNEL CREATION SURGERY

CONTROL AND ACCURACY WITH INTRACORNEAL RING SEGMENTS

More precise control in intracorneal ring segments (ICRS)

- Greater channel depth control and accuracy than mechanical instruments[1]
- A better match with various ring segment dimensions[2]

*"All the data supports that the **iFS**® Laser is an excellent way to perform corneal incisions with greater precision and usability. The **iFS**® Laser can be considered for a range of applications that go well beyond creating LASIK flaps."*
—CHRISTOPHER BLANTON, MD

IMPORTANT SAFETY INFORMATION

PRECAUTIONS: A high level of surgical skill is required for these lasers. A surgeon should have successfully completed one or more training courses before attempting to create a corneal resection. The use of the ***iFS***® Laser for IEK procedures or for arcuate incisions is not recommended for patients with severe corneal thinning, preexisting glaucoma, a history of steroid-responsive rise in intraocular pressure, preoperative intraocular pressure greater than 21 mm Hg in the operative eye, more than 1,200 µm corneal thickness at the 9 mm peripheral zone, active intraocular inflammation, or active ocular infection or keratoconus. The use of the ***iFS***® laser for creation of corneal channels for placement of a corneal inlay device is not recommended for patients with preexisting glaucoma, a history of steroid-responsive rise in intraocular pressure, preoperative intraocular pressure greater than 21 mm Hg in the operative eye, more than 1,200 µm corneal thickness at the 9 mm peripheral zone, active intraocular inflammation, or active ocular infection or keratoconus.

ADVERSE EVENTS: Possible complications resulting from LASIK flap creation include corneal edema/inflammation, corneal pain, epithelial ingrowth, epithelial defect, infection, photophobia, flap decentration, incomplete flap creation, flap tearing or incomplete lift-off, free cap, inflammation (e.g., diffuse lamellar keratitis, corneal infiltrates, iritis), thin or thick flaps, or flap striae. Transient light sensitivity syndrome (TLSS) and peripheral light spectrum (PLS) have been sporadically reported and may occur following LASIK flap creation. TLSS is characterized by symptoms of mild to severe light sensitivity that manifests between 2 and 6 weeks postoperatively. Patients experience no decrease in uncorrected or best spectacle-corrected visual acuity. The incidence of this sensitivity is observed in approximately 1% of patients who undergo flap creation with either laser. Patients respond to the use of hourly topical steroids, and most report improvement within 1 week of treatment. PLS is a temporary phenomenon whereby patients report the perception of a spoke-like spectrum of light in the periphery of their vision. PLS has no clinical examination findings and no effect on visual acuity; however, the potential diffractive effects may be bothersome to some patients. Reported in only 0.03% of cases, the onset of symptoms occurs during the immediate postoperative period and typically resolves within 3 months but may be slightly persistent in rare cases. The visual impact of PLS is clinically inconsequential for the vast majority of patients. Arcuate incision complications include corneal edema/inflammation, corneal pain, epithelial ingrowth, epithelial defect, infection, photophobia, or corneal endothelium perforation. Creation of corneal channel for placement of a corneal inlay device complications include corneal edema, corneal pain, epithelial ingrowth, epithelial defect, infection, implant decentration, incomplete inlay channel creation, corneal tearing or incomplete inlay channel dissection, photophobia, and corneal inflammation—such as diffuse lamellar keratisis (DLK), corneal infiltrates, iritis, and inlay channel bleeding.

WARNINGS: Check all treatment parameters for accuracy. The posterior depth should be programmed at least 125 microns above the corneal endothelium. Use of these laser systems allows laser surgical incisions up to 1,200 µm deep. Setting the posterior depth too deep could result in injury to other ocular structures. Use caution when setting cut position and cut angle to avoid overlapping arcuate incisions. The applanation lens becomes etched by the laser during the side-cut procedures and must not be reused. Laser light will not effectively permeate an etched lens, and the precision of the laser will be altered. Patient interface disposables should not be reused or resterilized.

CAUTION: U.S. Federal law restricts this device to sale, distribution, and use by or on the order of a physician or other licensed eye care practitioner who has been trained in the calibration and operation of this device.

CORNEAL CHANNEL CREATION WITH INTUITIVE USER INTERFACE

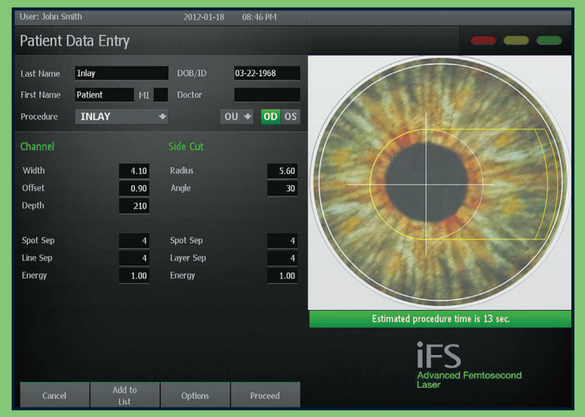
Advanced graphical user interface provides you with full control of the inlay channel settings

Parameter adjustments and patient data entry can be conveniently performed on screen

PARAMETER SETTING OPTIONS

- **CHANNEL WIDTH** – Superior to inferior size of the channel: 3.6 mm–4.7 mm
- **CHANNEL OFFSET** – Distance between surgical field center and channel reference axis: 0.0 mm–2.8 mm
- **CHANNEL DEPTH** – Stromal depth of channel: 100 microns–400 microns
- **SIDE-CUT RADIUS** – Distance between the channel reference axis and entry side cut: 3.7 mm–7.6 mm
- **SIDE-CUT ANGLE** – Angle from channel to epithelial surface: 30°–90°

INTUITIVE USER INTERFACE



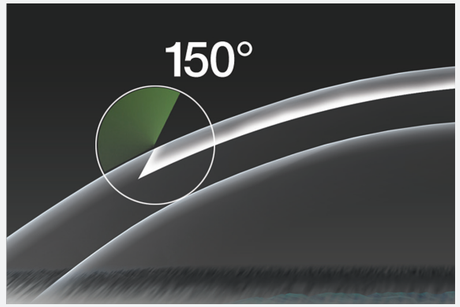
Note: An offset dock may be required for performing a corneal channel. The corneal channel is created in the temporal position and cannot be modified.

Note: Treatment parameter modifications are allowed up to the point of treatment initiation. Centration can be performed to improve the treatment case.

IMPORTANT SAFETY INFORMATION

CONTRAINDICATIONS: Lamellar resection for the creation of a corneal flap is contraindicated in the presence of corneal edema, corneal lesions, hypotony, glaucoma, existing corneal implant, or keratoconus. IEK procedures and arcuate incisions are contraindicated in the presence of any corneal opacity adequately dense to obscure visualization of the iris, descemetocele with impending corneal rupture, previous corneal incisions that might provide a potential space into which the gas produced by the procedure can escape, or corneal thickness requirements that are beyond the range of the system. Creation of corneal channels for placement/insertion of a corneal inlay device are contraindicated in the presence of any corneal opacity adequately dense to obscure visualization of the iris, descemetocele with impending corneal rupture, previous corneal incisions that might provide a potential space into which the gas produced by the procedure can escape, corneal thickness requirements that are beyond the range of the system, any previous incisional refractive corneal procedure (e.g. radial keratotomy), significant corneal neovascularization in the limbal area for a planned incision, previous history of corneal Herpes Simplex Keratitis, previous corneal transplant, any cataract, corneal edema, corneal lesions, hypotony, existing corneal implant, keratoconus or subjects with severe corneal thinning less than 450 microns.

PRECISE LASIK FLAPS



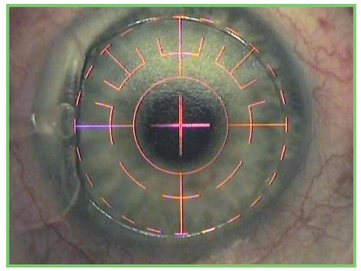
Inverted bevel-in side cut, customizable to 150°.

Inverted bevel-in side cut, up to 150°

- Increased flap stability and strength postoperatively[3]
- Fewer signs and symptoms of dry eye than with 30° side cut[4]
- Results in less strain on the cornea, with little biomechanical change[5,6]

Elliptical flap option

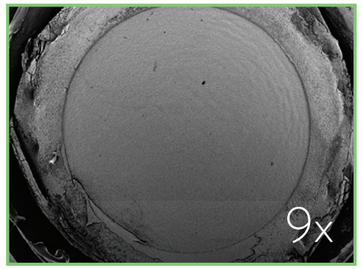
- Maximizes stromal bed exposure for full delivery of excimer ablation
- Results in better flap alignment[7,8]
- Follows the natural contour of the cornea, preserving the vital lamellar fibers during flap creation[7,8]



Elliptical flap option available only with the ***iFS***® Laser.*

Low-energy setting, tight spot, and line separation

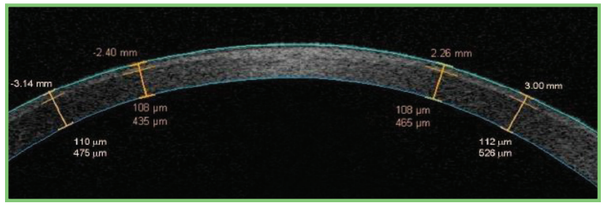
- Results in smooth stromal beds for easier flap lift[9]
- Helps minimize inflammatory tissue reaction[10]
- Allows for faster flap creation[9]



iFS® Laser results in significantly high-quality stromal beds.

Thin, uniform (planar) flap

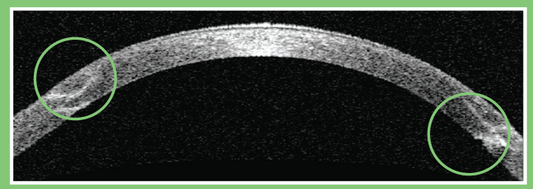
- Minimal disruption of corneal architecture[11]
- High predictability and reproducibility[11]



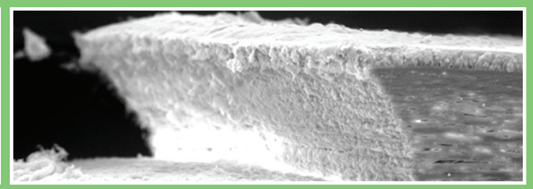
*Not available on ***IntraLase***® FS Systems

PRECISE CORNEAL INCISIONS (IEK)

Precisely shaped edges in multiple configurations (mushroom, zig-zag, Christmas tree, top hat)[12]



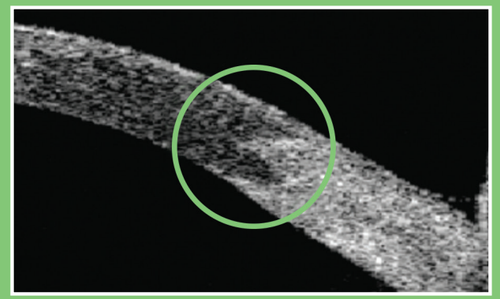
OCT image of ***iFS®*** Laser–created zig-zag pattern performed on the cornea.



SEM image showing the precisely shaped angled edge.

Reproducible grafting of donor and host cornea[12,13]

- Benefits of improved tissue alignment
  - Shaped incisions may be stronger and more stable[12,13]
  - Utilizing incisions with multiplanar pattern configuration ensures a snug fit that may require less suture tension[12,13]



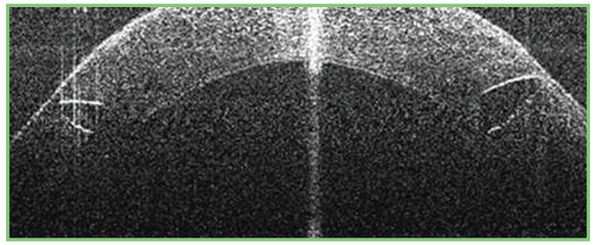
OCT image showing multiplanar pattern configuration to ensure a snug fit.

*"In terms of using the **iFS®** Laser for the creation of corneal incisions, I have noticed an incredible degree of precision and reproducibility."*
—GUILLERMO ROCHA, MD

CATARACT INCISIONS WITH GREATER SURGICAL PRECISION

Intrastromal and penetrating arcuate incisions

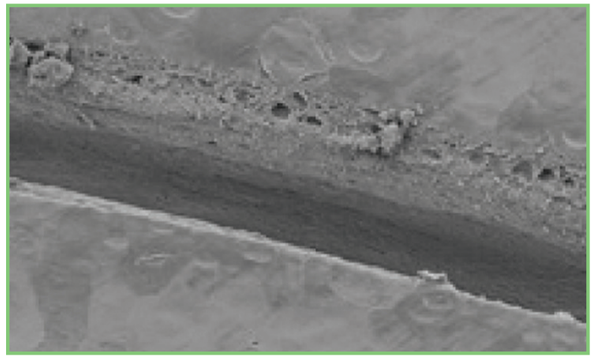
- Complete control of angles, placement, and orientations, with micron-level accuracy unmatched by manual blades
- Single or paired arc-shaped incisions with smooth edges[14]



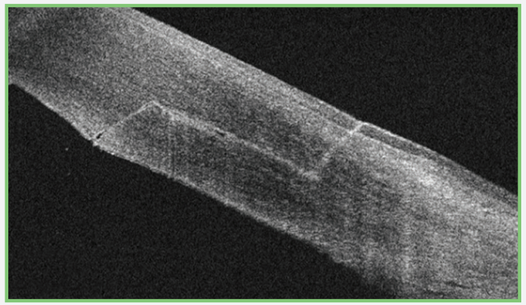
OCT showing a paired set of intrastromal arcuate incisions created with the ***iFS®*** Laser.

Precision-designed cataract incisions

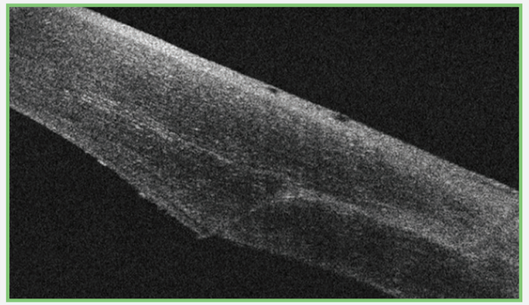
- Creation of multiplanar clear corneal and planar paracentesis incisions
- Incisions have a precise construction with clear, defined planes[15]
- Provides flexibility, allowing you to create incisions in your surgical suite and then move the patient to the operating facility



SEM images showing a very regular, arc-shaped penetrating arcuate incision with the ***iFS®*** Laser. Note: Sharply cut epithelium and Bowman's layer.



OCT image of a 1-day postsurgical clear corneal incision.



OCT side-view image of the cornea after creation of a triplanar clear corneal incision. Note: Incisions have a precise construction, with clear, defined planes.