

Precision Laser Cataract Surgery

The CATALYS® Precision Laser System combines a <600 femtosecond laser, gentle LIQUID OPTICS Interface, and integrated 3D Full Volume Optical Coherence Tomography (OCT) image guidance system to create precise incisions in the lens

and cornea. The CATALYS® System was developed in close collaboration with a medical advisory board of cataract experts from around the world. In 2012, the CATALYS® System was recognized as one of the top 100 technological innovations in the world.





The CATALYS® Precision Laser System is FDA Cleared for all incisions:

Capsulotomy • Lens Fragmentation • Corneal Arcuate Incision • Corneal Primary Incisions & Sideports









Designed for Laser Cataract Surgery

The CATALYS® System is the only laser platform designed from the beginning specifically for laser cataract surgery. The CATALYS® System also offers:

- Precise capsulotomies within 30µm
- Complete segmentation and softening of the cataract with adjustable grid sizing
- Multiple corneal incision centration options that are based on anatomical landmarks
- INTEGRAL GUIDANCE proprietary 3D Full Volume Optical Coherence Tomography (OCT) and automated surface mapping algorithms that guide laser delivery
- LIQUID OPTICS Interface, gentle docking with minimal intraocular pressure rise and clear optics for excellent imaging and laser delivery

IMPORTANT SAFETY INFORMATION

INDICATION The CATALYS® Precision Laser System is indicated for use in patients undergoing cataract surgery for removal of the crystalline lens. Intended uses in cataract surgery include anterior capsulotomy, phacofragmentation, and the creation of single plane and multi-plane arc cuts/incisions in the cornea, each of which may be performed either individually or consecutively during the same procedure.

ADVERSE EFFECTS Complications associated with the CATALYS® System include mild Petechiae and subconjunctival hemorrhage due to vacuum pressure of the LIQUID OPTICS Interface suction ring. Potential complications and adverse events include those generally associated with the performance of capsulotomy and lens fragmentation, or creation of a partial-thickness or full-thickness cut or incision of the cornea.

CAUTION Federal law (USA) restricts this device to sale by or on the order of a physician. The system should be used only by qualified physicians who have extensive knowledge of the use of this device and who have been trained and certified in its use.

System Components

Femtosecond laser system, operating parameters

• Type: Diode pumped solid-state • Pulse energy range: 1 to 10 µJ • Wavelength: 1030 nm (near infrared) • Pulse repetition rate: 120 kHz

Pulse duration: <600 fs
Optical coherence tomography

Type: 3D spectral domainWavelength: 820 - 930 nm

• Resolution: axial = 30 μm; lateral = 15 μm

Video system

Monochrome near infrared live video with 40 µm lateral resolution and a 17 mm field of view

HDMI port for streaming video

Patient chair

• Integrated Dexta chair with custom headrest for additional stability and control

• Three lock positions for patient loading, suction ring placement and treatment

Disposable LIQUID OPTICS Interface

Suction ring that attaches to conjunctiva with 13.5 mm clear aperture

Disposable lens and fluid catchment that attach to the system

User Controls

Docking: Vacuum footswitch and docking keypad

• User interface: 24" (61 cm), high definition touchscreen monitor

• Patient chair: Joystick for x,y, height adjustment

Laser: Footswitch

Operating Conditions

Relative humidity: 0 to 80% at 90°F (32°C) non-condensing

• Temperature: 59°F (15°C) to 90°F (32°C)- Temperature-controlled environment

• Electrical: 200-240 V AC, Single Phase, 15 A

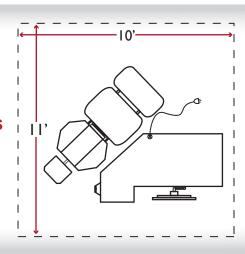
• Weight: System: 750 lbs (340 kg); Patient chair: 380 lbs (172 kg)

• Space required: 10' (3.04 m) x 11' (3.35 m) minimum space required including system, integrated

rotating patient chair, service access. System fits through 34" (86.36 cm) doorway.



CATALYS® System minimum space requirements



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