





A world without TURP is our vision

Our objective is simple – provide TURP users with the most compelling reasons to convert to GreenLight.

Building on the excellent tradition of the PV and HPS Systems



Safety

GreenLight XPS® offers the same safety profile as current GreenLight HPS® technology³

Speed and Efficiency

XPS with the MoXy® Liquid Cooled Fiber offers 2X speed of HPS¹

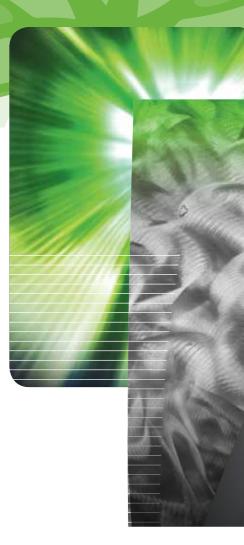
Fiber Longevity

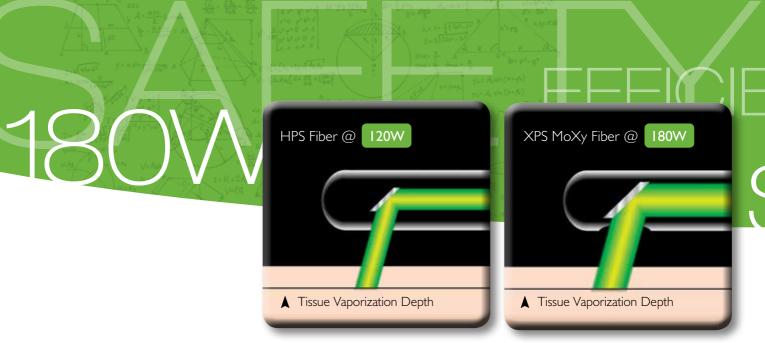
FiberLife™ ensures improved fiber reliability

Improved Coagulation

TruCoag™ offers better control of bleeders than any previous GreenLight™ console $^{^2}$





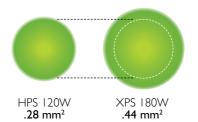


While the vaporization depth of the XPS with the MoXy Fiber and HPS with the 10-2090 Fiber are similar when used under similar conditions, the actual depth of tissue removal will vary with sweep rate, power and tissue condition.

Safety

GreenLight XPS with the MoXy liquid cooled fiber provides fast and efficient vaporization with the same safety profile as current GreenLight HPS technology.

To achieve the proven safety profile of the GreenLight HPS system and improve the rate of vaporization, the power of the XPS/MoXy system was increased by 50% while simultaneously increasing the area of the laser beam by 50% percent. The benefit of XPS/MoXy is that it provides a wider tissue vaporization effect without sacrificing the depth of vaporization and coagulation of our clinically proven HPS and PV systems.³

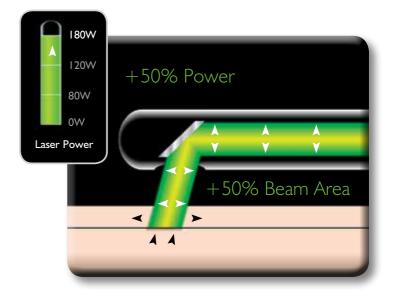


50% Increase in Beam Area

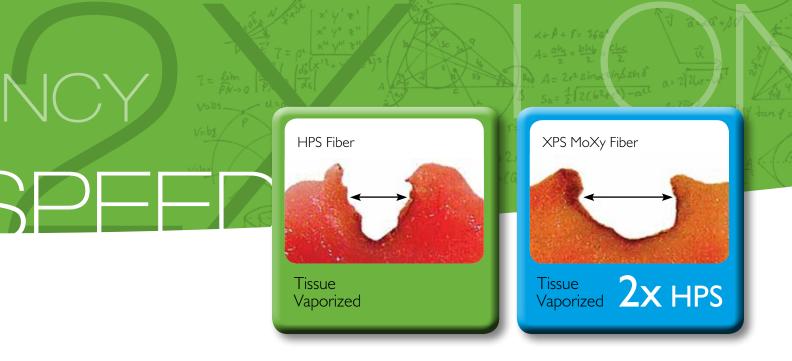
Power Density =

Power

Beam Area



Wider Vaporization Comparable Depth to HPS



Speed and Efficiency

Vaporization efficiency is significantly enhanced throughout the procedure with the MoXy liquid cooled fiber resulting in the removal of 2x more tissue over the same lasing time.¹

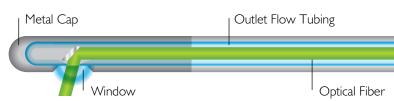
XPS with MoXy allows for the removal of a wider section of tissue without increasing the depth of tissue removal. Coagulation depth also remains the same.

* Based on American Medical Systems® (AMS), internal testing using standard PVP technique to remove tissue from the bovine lower urinary tract. Periodically through the procedure tissue removal rate was measured by scanning the beam across bovine prostatic tissue at a speed 4 mm/sec and at a fiber to tissue spacing of 2 mm. Tissue was cross sectioned and the ablated volume measured.

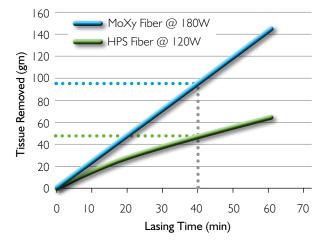
MoXy's Active Cooling Cap™

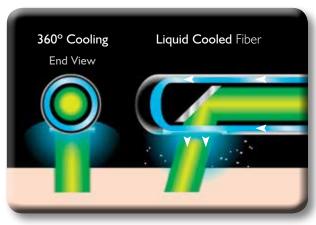
Active Cooling Cap technology utilizes saline flow to minimize fiber tip devitrification which significantly reduces power degradation throughout the duration of the procedure.¹

Active Cooling Cap



Remove More Tissue in Less Time*







FiberLife is an automatic safety system that detects conditions when the fiber cap may overheat and briefly interrupts the laser beam. This keeps the cap temperature within the safe zone.



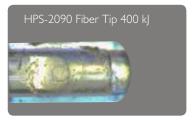
Fiber Longevity

Revolutionary proprietary technology increases fiber longevity while decreasing cap-related failures by 90%¹ as compared to the HPS fiber. Also alerts the user to conditions of excessive heat such as the presence of prostatic calculi.

Treat glands >120 gm with only one fiber. 5,11

Active Cooling Cap Technology

Active Cooling Cap technology utilizes saline flow to keep the fiber tip cooled reducing fiber cap related failures while minimizing beam devitrification or power degradation increasing the life of the fiber.



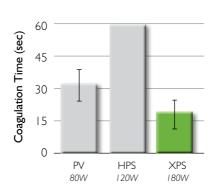


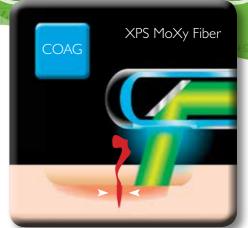
Lab tests show average %T degradation ~5% @ 650 kj (MoXy-XPS) >10% @ 400 kj (2090-HPS)



Inlet Flow Tubing

Coagulation (30W) Comparison





Improved Coagulation

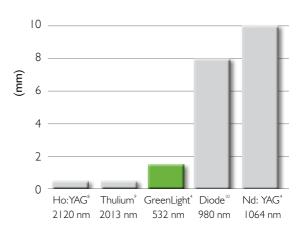
TruCoag uses pulsating light to cauterize ruptured vessels and reduce bleeding faster and in more situations.

Better Control of Bleeders

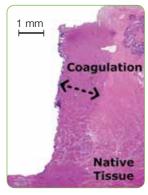
TruCoag offers better control of aberrant bleeders compared to the GreenLight HPS and PV laser consoles.²

Luer Lock Connector

Depth of Coagulation



Deeper coagulation may be a key factor influencing increased dysuria rates and other post-procedural complications.



Tissue vaporized at 180 watts showing 1-2 mm zone of coagulation utilizing GreenLight XPS.

The GreenLight XPS Laser System Specifications

Console	XPS
Laser Type	Solid State, Frequency Doubled
Wavelength	532 nm
Max. Power Output	180 W
Nominal Optical Hazard Distance (NOHD)	33.9 meters (MPE = Ix10 ⁻³ W/cm ²)
Eye Protection	OD ≥6
Working Distance	0.5 – 3.0 mm
Vaporization Beam Mode	Quasi-CW (15 kHz–25 kHz)
Coagulation Beam Mode	Pulse modulated at 12 Hz 25% duty cycle
Compatible Fibers	MoXy fiber (750 μ m core diameter) HPS fibers (600 μ m core diameter)
Optical Penetration	0.8 mm
Coagulation Depth	I–2 mm
Coagulation Mode	Yes - TruCoag™ 5–40 W
FiberLife™	Yes
MoJo® Enabled	Yes
Current Draw	20 A
Cooling Water	Internal
Dimensions	W: 20" x D: 36" x H: 43.5" (50.8 cm x 91.4 cm x 110.5 cm)
Weight	Approximately 420 lb (190 kg)
Length of Power Cord	15 ft (4.6 m)

Fiber	MoXy
Laser Compatibility	XPS
Firing Angle	~70 - 80°
Power Range	≤ 180 W
Beam Area at Working Distance	0.44 mm ²
Energy Limit	650 kJ
Fiber Core Diameter	750 μm
Fiber Tip O.D.	2.3 mm
Active Cooling Cap™	Yes
Use Environment	Most 22 - 26 Fr Continuous Flow Endoscope/Cystoscope

MoXy Fiber Order Number: 10-2400



XPS Laser Order Number: 10-0210

The GreenLight™ laser system is intended for incision/excision, vaporization, ablation, hemostasis and coagulation of soft tissue, including photoselective vaporization of the prostate for benign prostatic hyperplasia (BPH). The laser system is contraindicated for patients who: are contraindicated for surgery, contraindicated where appropriate anesthesia is contraindicated by patient history, have calcified tissue, require hemostasis in >2mm vessels, have uncontrolled bleeding disorders, have prostate cancer, have acute urinary tract infection (UTI) or severe urethral stricture. Possible risks and complications include, but are not limited to, irritative symptoms (dysuria, urgency, frequency), retrograde ejaculation, urinary incontinence, erectile dysfunction, hematuria - gross, UTI, bladder neck contracture/outlet obstruct, urinary retention, perforation - prostate, urethral stricture.

Prior to using these devices, please review the Operator's Manual and any accompanying instructions for use for a complete listing of indications, contraindications, warnings, precautions and potential adverse events.

- 2. AMS internal ex-vivo testing using a porcine perfused kidney model.
- 3. AMS internal in vitro testing on bovine prostatic tissue showing similar depth of tissue removal and thickness of residual coagulated tissue.
- 4. Malek RS. Photoselective KTP laser vaporization of obstructive BPH (PVP) in Recent Advances in Endourology 8. Interventional management of urological diseases. Baba S and Ono Y (eds). Tokyo: Springer-Verlag 2006: 103-122.
- of GreenLight HPS™ laser photoselective vaporization prostatectomy (PVP) for benign prostatic hyperplasia (BPH), I. Endourol Oct 2008; 22 (10):2341-7.
- 6. Bouchier-Hayes D, Anderson P, Van Appledorn S, Bueja P, Costello A. KTP laser versus transurethral resection: early results of a randomized trial. J Endourol. Aug 2006; 20(8):580-5.
- 1. AMS internal in vitro testing on bovine prostatic tissue. 5. Spaliviero M, Araki M, Wong C. Short-term outcomes 7. Stovsky MD, Griffiths RI, Duff SB. A clinical outcomes 10. Seitz M, Reich O, Gratzke C, Schlenker B, Karl A, and cost analysis comparing photoselective vaporization of the prostate to alternative minimally invasive therapies and transurethral prostate resection for the treatment of benign prostatic hyperplasia. J Urol Oct 2006; 176(4 pt 1):1500-6.
 - 8. Lumenis Corporate Website: http://www.surgical. lumenis.com/wt/content/bph, downloaded 12/12/08.
 - 9. Revolix Duo Brochure, Healthtronics 2007.
- Bader M, Khoder W, Fisher F, Stief C, Sroka R. High-power diode laser at 980nm for the treatment of benign prostatic hyperplasia; ex-vivo investigations on porcine kidneys and human cadavers. Lasers Med Sci Mar 2009; 24(2):172-8.
- 11. Bachmann et al. 180-W XPS GreenLight Laser Therapy for Benign Prostate Hyperplasia: Early Safety, Efficacy, and Perioperative Outcome After 201 Procedures. Euro Urol Mar 2012; (61): 600-607.



AMSUS/GL-00204/February 2013 www.AmericanMedicalSystems.com 1-800-328-3881 Global Use