GreenLight XPS™
Xcelerated Performance System

Building on the excellent tradition of the PV and HPS Systems

GreenLight XPS™
Xcelerated Performance System

Safety

GreenLight XPS™ offers the same safety profile as current GreenLight HPS® technology[4]

Speed and Efficiency

XPS with the MoXy™ Liquid Cooled Fiber offers 2X speed of HPS[1]

Fiber Longevity

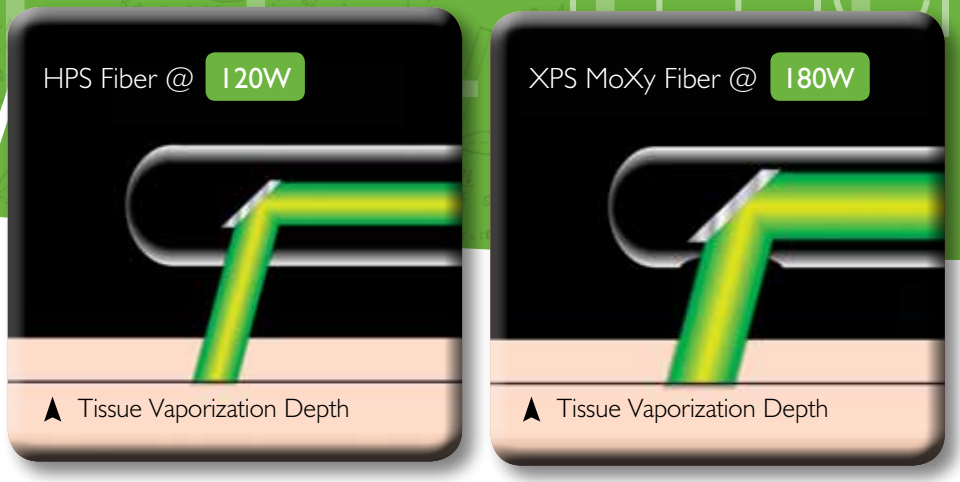
FiberLife™ ensures improved fiber reliability

Improved Coagulation

TruCoag™ offers better control of bleeders than any previous GreenLight™ console[2]

MOXY™
Liquid Cooled Fiber

180W



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.

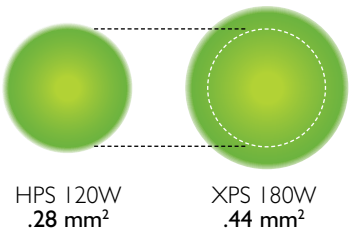
Safety

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

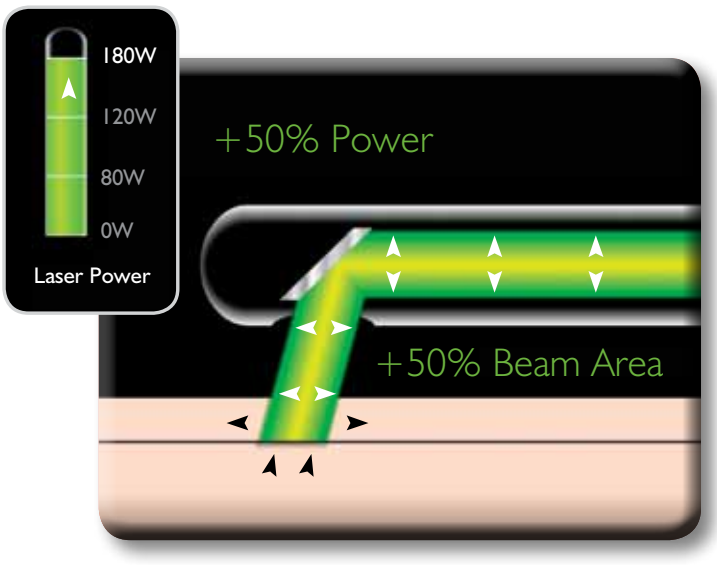
To achieve the proven safety profile of the GreenLight HPS system and improve the rate of vaporization, the power of the XPS/MoXy system was increased by 50% while simultaneously increasing the area of the laser beam by 50% percent. The benefit of XPS/MoXy is that it provides a wider tissue vaporization effect without sacrificing the depth of vaporization and coagulation of our clinically proven HPS and PV systems.[4]

Power Density =

$$\frac{\text{Power}}{\text{Beam Area}}$$



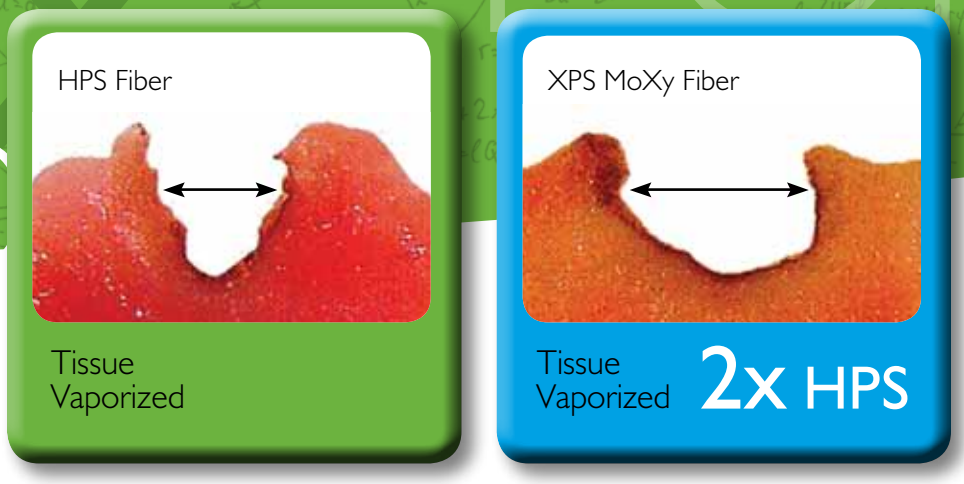
50% Increase in Beam Area



Wider Vaporization
Comparable Depth to HPS

NCY

SPEED



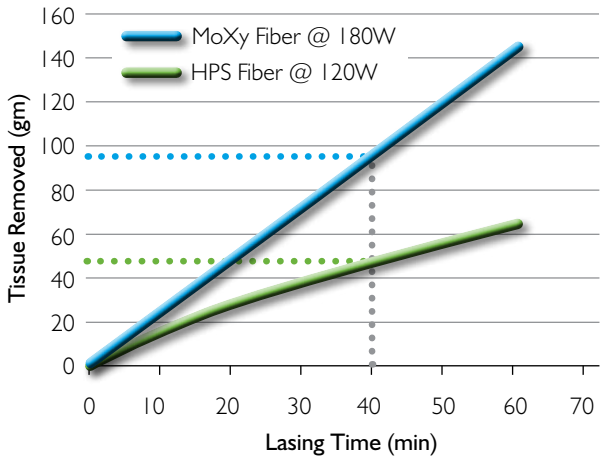
Speed and Efficiency

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.

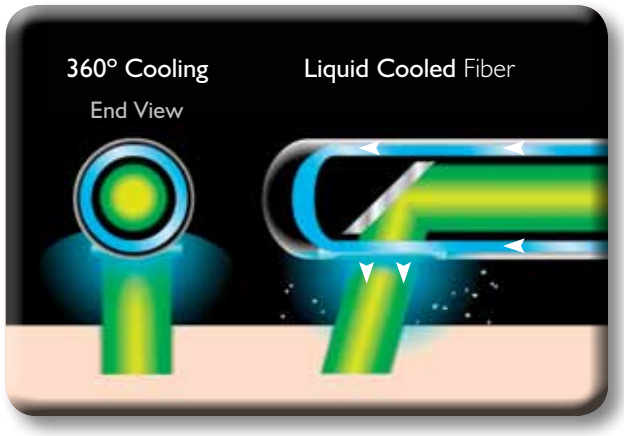
* Based on American Medical Systems® (AMS), internal testing using standard PVP technique to remove tissue from the bovine lower urinary tract. Periodically through the procedure tissue removal rate was measured by scanning the beam across bovine prostatic tissue at a speed 4 mm/sec and at a fiber to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

Remove More Tissue in Less Time*

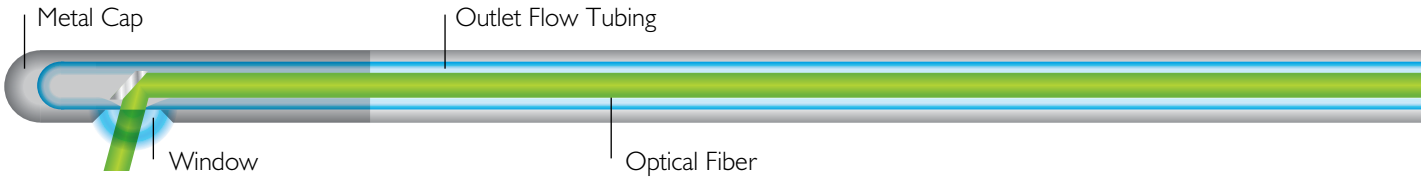


MoXy's Active Cooling Cap™

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

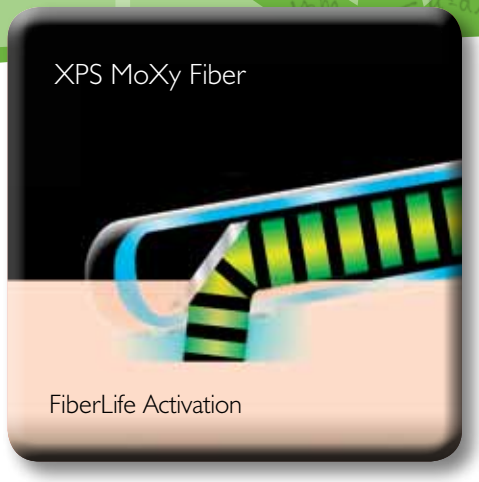


Active Cooling Cap



FIBER

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.

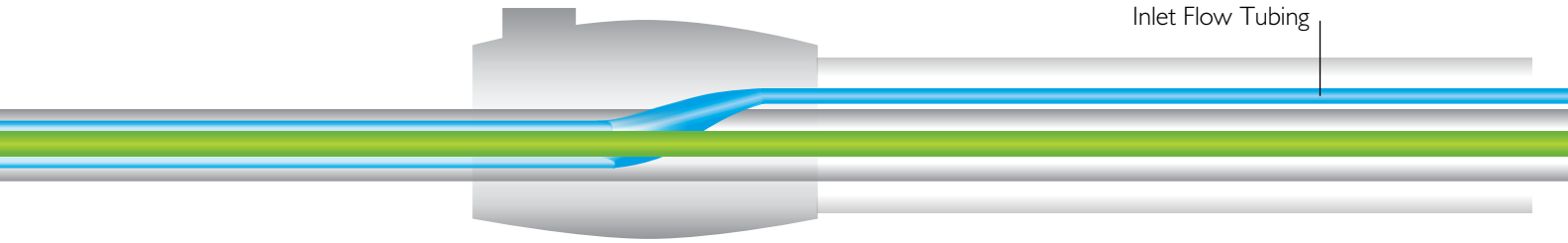
Treat glands >100 gm with only one fiber[1,6].

Extreme Bench Test
Fiber tips were buried in tissue through 400kJ.

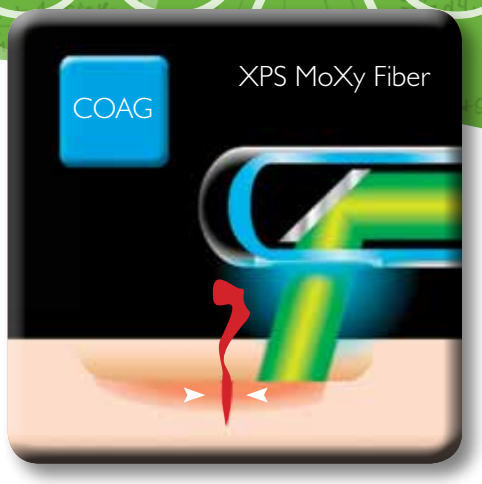
Active Cooling Cap Technology

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

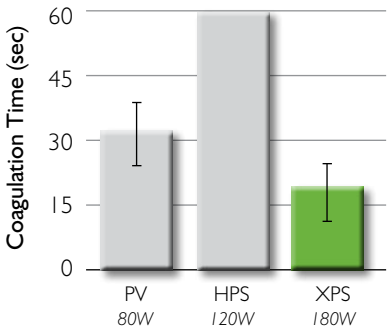
MOXY™
Liquid Cooled Fiber



TRUCOAG



Coagulation (30W) Comparison



Improved Coagulation

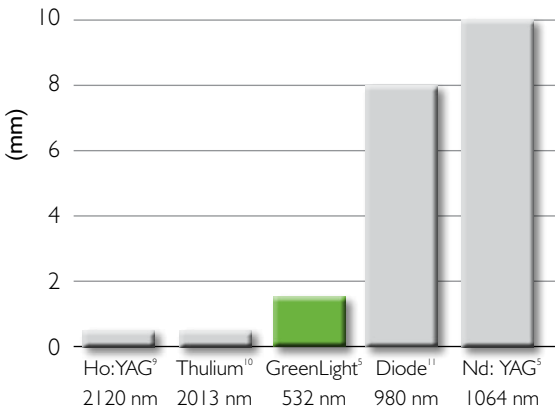
TruCoag uses pulsating light to cauterize ruptured vessels and reduce bleeding faster and in more situations.

Better Control of Bleeders

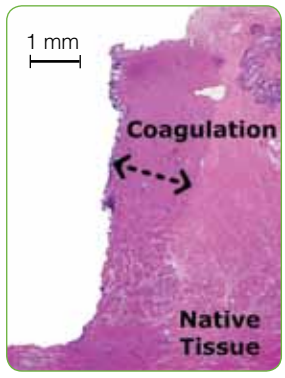
TruCoag offers better control of aberrant bleeders compared to the GreenLight HPS and PV laser consoles.[2]

Provides rapid[3] suppression of bleeding.

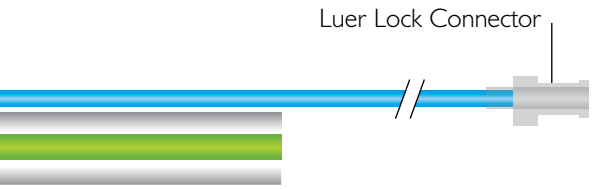
Depth of Coagulation



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.



TURP-like results
with fewer complications and less morbidity than TURP[6,7]

PROVEN EQUIVALENT TO TURP WITH

LOWER MORBIDITY FEWER COMPLICATIONS[6,7]

LOWER OVERALL COST[8] SHORTER HOSPITAL STAYS[6,7]

A world without TURP is our vision

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

The GreenLight XPS Laser System Specifications

XPS Laser	
Laser Type	Solid State, Frequency Doubled
Wave Length	532 nm
Max Power output @ 532 nm	Limited by fiber delivery device, max. 180W
Nominal Optical Hazard Distance (NOHD)	33.9 meters (MPE = $1x10^{-3}$ W/cm^2)
Repetition Rate	Vaporization: Quasi-CW (15 kHz -22 kHz) Coagulation: Modulated at 12 Hz, 25% duty cycle
Max Aiming Beam Power	5 mW
Output Beam Divergence	Perpendicular to fiber: 0.5 ± 0.1, Parallel to fiber: 0.25 ± 0.1 radians full angle at half maximum with the 10-2090 fiber in air
Electrical Requirements	200 - 240 VAC, @ 60 Hz or 50 Hz, 20 A, Single phase
Operating Temperature	50° F (10° C) - 85° F (30° C)
Storage Transport Temperature	50° F (10° C) - 104° F (40° C)
Humidity	10% - 90%, non-condensing
Dimensions	W: less than 22", D: less than 36", H: less than 58"
Weight	Less than 475 pounds

XPS Laser Order Number: 10-0210

MoXy Fiber	
Laser Compatibility	XPS System
Sterility	Provided sterile for one-time use
Saline Inlet Connection	Female Luer Lock
Shipping and Storage	4 – 40°C
Core Diameter	750 µm
Beam Emission Direction	Side firing
Maximum Power	180W in saline for 532 nm wavelength light
Overall Length	120 ± 6 inches (3060 ± 153 mm)
Min Saline Flow Rate	0.3mL/s

MoXy Fiber Order Number: 10-2400

SOLUTIONS FOR LIFE® For more than 35 years, American Medical Systems has provided world-class medical devices used for treating pelvic health issues. Over the past decade, our reputation for quality and medical efficacy has broadened to encompass both devices and therapies that restore pelvic health for men and women. The medical conditions our solutions address include male and female urinary incontinence, erectile dysfunction, prostate disorders (including BPH), urethral strictures, pelvic organ prolapse and fecal incontinence.

All surgical treatments have inherent and associated risks. The most common risks associated with Photoselective Vaporization of the Prostate (PVP) are hematuria, short term dysuria and UTI. See the GreenLight Operator's Manual or Surgical Guide CD for a complete list of possible risks and complications.

1. AMS internal in vitro testing on bovine prostatic tissue.
2. AMS internal ex-vivo testing using a porcine perfused kidney model.
3. Data from unpublished AMS post-market evaluation.
4. AMS internal in vitro testing on bovine prostatic tissue showing similar depth of tissue removal and thickness of residual coagulated tissue.
5. 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.
6. Spaliviero M, Araki M, Wong C. Short-term outcomes of GreenLight HPS™ laser photoselective vaporization prostatectomy (PVP) for benign prostatic hyperplasia (BPH), J. Endourol Oct 2008; 22 (10):2341-7.
7. 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.
8. Stovsky MD, Griffiths RI, Duff SB. A clinical outcomes 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.
9. Lumenis Corporate Website: http://www.surgical.lumenis.com/wt/content/bph, downloaded 12/12/08.
10. Revolix Duo Brochure. Healthtronics 2007.
11. Seitz M, Reich O, Gratzke C, Schlenker B, Karl A, 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.

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