

# Laser - 3100

## HOLMIUM YAG LASER



EPCC / PRODUCTS / APPLICATION / SOFTWARE / ACCESSORIES / CONSUMABLES / SERVICES

**Analytical Technologies Limited**

An ISO 9001 Certified Company

[www.analyticalgroup.net](http://www.analyticalgroup.net)

## ►► **PRODUCT INTRODUCTION**

Holmium Laser is used to generate laser beam which is intended for Lithotripsy (fragmentation and dusting of stone) and HoLEP. It is equipped with an advanced compressor based recirculating DI water cooling system to maintain the temperature.

## ►► **APPLICATIONS AND PROCEDURES**

Lithotripsy

- Retrograde Intrarenal Surgery (RIRS)
- Ureteroscopy (URS)
- Percutaneous Nephrolithotomy (PCNL)

Mini perc    Micro perc

HoLEP, BPH treatment

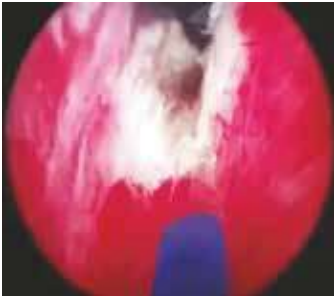
Tumor (Bladder / UUT)

BNI and Strictures

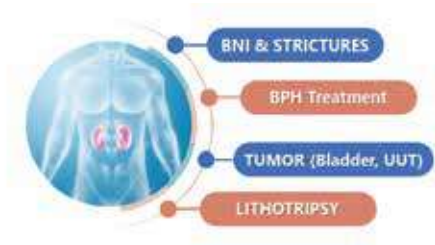
## ►► **Laser - 3100 IN BRIEF**

- Optical power upto 100W.
- Treatment of BPH, Bladder Tumor and HoLEP.
- “Restoration” enables the surgeon to operate the patient on previously stored / saved settings, thus saving on crucial time needed to complete the procedure.
- Variable pulse width.
- Excellent homeostasis and coagulation.
- Selectable energy and frequency range.
- Selectable level for Aiming beam and Lasing sound.
- Advanced compressor based turbo cooling system to enhance laser beam quality and efficiency of laser.
- Advanced long pulse laser with super imposed modulated pulse to minimize retropulsion and enhance the ablation rate.
- Hands free Ready / Standby selection switch with dual foot pedal.
- Low maintenance and minimal operating costs.
- User friendly easy to operate touch screen interface.

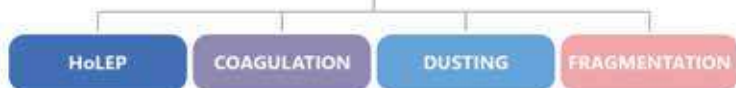
## ►► HOLMIUM LASER SYSTEM FOR LITHOTRIPSY AND PROSTATE SURGERY



Holmium Laser System for lithotripsy and prostate surgery is the latest generation laser with variable pulse width and large dynamic power range which makes procedures faster and precise.



### OPERATIVE MODE



Display Screen

Laser Aperture

Key Lock (On / Off)

Emergency Switch

Foot Switch Connection



Tilt movement of touch screen display



Sideways Swivel movement of touch screen display

## ►► ADVANTAGES OF THESE ADJUSTABLE VIEWING ANGLES

- Reduces eye fatigue while reading.
- Easy adjustment while reading during sitting and standing postures.
- Optimized viewing experience due to flexible options.

## ►► SMART INTERFACE

Interactive interface with short cut keys to operate functions with single and wide touch screen.

## ►► SHORT PULSE

The energy delivered by the single laser pulse occurs during a short period of time which is very effective for fragmentation of large stones and ablation of soft tissues.

## ►► LONG PULSE

Long pulse with super imposed modulated pulse technique for pulse reshaping is designed to minimize retropulsion and eliminates the need of basket abstraction. This would help to reduce the total time of procedure.



## ►► WATER COOLING SYSTEM

Laser 3100 has dual inverter compressor based cooling system for significant cooling even in long running time of machine operation. It enables machine to operate uninterrupted in all climate condition.

The rapid cooling and maintained temperature to the optimal operating range of Holmium Laser machine allows improved laser beam parameter to best possible range. Thus, it reduces thermal lensing effect and improves life span of optical component inside laser machine and external fiber, hence reduces the running cost in long term due to good beam parameter.

## ►► FIBERS

The Laser 3100 bare reusable fiber is supplied in sterile condition and is suitable for immediate first use without preconditioning. Bare fiber is indicated in general laser surgery application of different disciplines such as lithotripsy, incision, excision, vaporization and coagulation. Moreover the product can be used for fragmentation of stones and HoLEP application.

Laser 3100 reusable fiber has low OH for effective transmission of high power laser energy.

## ►► MULTI-FUNCTIONAL FOOT PEDAL / SWITCH

This comprises of Foot Paddle 1 or Foot Paddle 2 to allow easy switching between laser setting during procedure :

- Standby / Ready Foot Switch : This feature enables user / doctor to have full control of laser by switching between standby / ready mode without any assistance.
- Foot Paddle 1 or Foot Paddle 2 can be suitably used for short pulse or long pulse independently or simultaneously for different emission setting.



## ►► ACCESSORIES

- Single or reusable fiber (3 meter long) ranging from 200/272, 365 and 600  $\mu\text{m}$
- Ceramic scissor
- Adjustable fiber stripper
- Safety goggle
- Foot Pedal
- Dust cover



Laser Fiber



Ceramic Scissor



Adjustable Fiber Stripper



Safety Goggle



Foot Pedal

## ►► TECHNICAL SPECIFICATIONS

Laser Type : HO : YAG

Wavelength : 2.1  $\mu\text{m}$

Laser Type : Pulsed

Pumping Media : Flash Lamp Pumping

Maximum Average Power : Upto 100W

Pulse Energy : 0.1J to 5J

Pulse Duration : Upto 1500 $\mu\text{s}$

Repetition Rate : Upto 80 Hz

Laser Fiber : Reusable / disposable - 200/272, 365, 600  $\mu\text{m}$

Aiming Beam : Green, 532nm (<5mW adjustable)

Water Cooling System : Advanced dual inverter compressor based turbo cooling system

Display : Touch colour display

Foot Switch : Dual foot pedal with ready / standby switch

Electrical Requirement : 1 $\phi$ , 230 VAC  $\pm 10\%$ , 50/60Hz, <32A

Operating Temperature : 10  $^{\circ}\text{C}$  to 35  $^{\circ}\text{C}$

Dimensions : W- 52cm | L- 112cm | H- 106cm

Weight : <150Kg

Power Cord Length : 3mtr.



## HPLC Servicing, Validation, Trainings and Preventive Maintenance :

**HPLC Servicing** :HPLC Servicing : We have team of service engineers who can attend to any make of HPLC promptly @the most affordable cost.

**Trainings** :We also take up preventive Maintenance to reduce downtime of HPLC's Trainings.

**AMC's/CMC** :AMC's/CMC :We offer user training both in-House and at customer sites on HPLC principles, operations, trouble-shooting.

**Validations** :Validations :We have protocols for carrying out periodic Validations as per GLP/GMP/USFDA norms.

**Instruments** :Instruments :We offer instruments/Renting Services Modules like pumps,detector etc. on Rent.



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Reader/Washer



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Urine Analyzer



Total Organic  
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RTPCR



TOC  
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Laser Particle  
Size Analyzer



Ion Chromatograph



Water purification  
system



## Regulatory compliances



## Corporate Social Responsibility

Analytical Foundation is a nonprofit organization (NGO) found for the purpose of:



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1. Research & Innovation Scientist's awards/QC Professional Award : Quality life is possible by innovation only and the innovation is possible by research only, hence ANALYTICAL FOUNDATION is committed to identify such personalities for their contributions across various field of Science and Technology and awarding them yearly. To participate for award, send us your details of research / testing / publication at [Info@analyticalfoundation.org](mailto:Info@analyticalfoundation.org)

2. Improving quality of life by offering YOGA Training courses, Work shops/Seminars etc.

3. ANALYTICAL FOUNDATION aims to DETOXYFY human minds,souls and body by means of yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Camps etc.



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