

# DYL - 3411

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## Dental 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

Introducing the most versatile dental laser for hard & soft tissue treatment.

Thanks to miniaturization of its laser technology, the entire power generator is incorporated within the Laser-in-Handpiece mechanism - a small chamber with direct energy delivery.

The smallest device in "all-tissue" lasers category and incorporates unique laser benefits: micro surgery, quicker healing, minimal invasive treatments and higher acceptance of patients to dental treatments.

Equipped with dentists can truly perform laser soft tissue and hard tissue procedures with full and free expression of their dental mastery and expertise.

## ►► Features

- Revolutionary technology, the “Laser-in-Handpiece”, integrates the entire laser mechanism into the handpiece, creating a direct energy delivery system.
- Includes a “Gentle Treatment” package with sub ablative low energies.
- Safely decontaminates implant surfaces without changing the implant structure. It is the optimal laser for Peri-implantitis treatments.
- The most ergonomic laser, with almost no limitation of hand movement, allowing easier access to all areas in the oral cavity.
- New touchscreen includes a friendly and intuitive user interface, making it simple and easy to use during treatments.
- There is no need for complicated calculations. The software includes an array of adjustable pre-sets for selected procedures.
- Unique handpiece design, allows easy use, requiring only a very short learning period.
- The smallest Er:YAG dental laser in the industry. It is completely portable and can easily fit into any dental clinic.



## ►► Application Fields



### IMPLANTOLOGY

- Precise & minimally invasive bone ablation.
- Second stage surgery without damaging implants.
- Effective treatment modality for Peri-Implantitis.
- Implant decontamination without any damage to the implant surface.
- Sub-ablative disinfection without injuring healthy bone.
- Increased bone-implant contact rate by encouraging bone growth factors.



### PERIODONTICS

- Effective pocket debridement & bactericidal effect (disinfection).
- Precise & selective granulation tissue ablation.
- Effective and selective calculus removal.
- Minimally invasive surgery. Fast healing of soft tissue and bone.
- Minimal inflammatory and infectious post-operative complications and discomfort.



### PEDODONTICS

- The preferred method for treating children: Less fear factor; less noise; no vibrations.
- Precise, gentle and minimally invasive treatments.
- Excellent disinfection of contaminated dentine. Guaranties the success of restoration process.
- Efficient disinfection of occlusal pits and fissures, even in deep ones.
- Friendly equipment for good compliance: Well accepted by children.



### ENDODONTICS

- Minimally invasive opening preparation: No thermal damage or micro-cracks.
- Bactericidal and debridement efficiency: Removes smear layer, cleans and disinfects root canals.
- Apicoectomy: Performed in a Minimal Invasive way.



### RESTORATIVE DENTISTRY

- Exceptional visibility: Non-contact work .
- Precise & selective ablation of carious lesions; avoids unnecessary ablation of healthy tissues.
- No vibration, No micro cracks and no carbonization.
- Bactericidal effect: decontamination of the remaining dentin.



### AESTHETIC DENTISTRY

- Gingival re-contouring smile design.
- Depigmentation of natural melanin deposits.
- Excellent for debonding porcelain veneers and crowns. Allows dentists to re-use veneers while preserving tooth substance.



### ORAL PATHOLOGY

- Minimally invasive surgery of benign odontogenic tumor.
- Precise biopsy for safe histological diagnosis.
- An elected tool for therapy of jaw osteonecrosis in bisphosphonate treated patients.
- Efficiently reduces symptoms in different oral diseases.



## MAXILOFACIAL SURGERY

- Bone cutting is performed in a precise and selective way, while maintaining tissue integrity.
- Non traumatic osteotomy.
- Bone ablation, with no thermal effects.
- Stimulates bone growth factors (Better Bone Healing).

## ►► Technical Specification

### Output

|                                |                            |
|--------------------------------|----------------------------|
| Laser Type                     | Erbium YAG                 |
| Wavelength                     | 2940nm                     |
| Pulse Energy                   | Up to 700mJ                |
| Power                          | Up to 8.4 watts on tissue  |
| Pulse Repetition Rate          | 10-50 Hz                   |
| Spot Size Distal at End of Tip | 0.2-1.3 mm (tip dependent) |

### Electrical Requirements

100-240 +-10% VAC, 13A

### Protection Against Electric Shock:

50-60 Hz, Single Phase  
Class I, Type BF Applied part

### System Dimensions (W x L x H)

Screen extended  
37x47x79 cm  
Screen folded  
37x47x64 cm

### System Cooling Method

Water Cooling  
(Built-In refill Bottle)

### System Weight

Approx. 55 lbs  
25 Kg

## Environmental Requirements

Treatment room temperature

5-25°C (41-77°F)

Recommended room temperature

20-25°C (68-77°F)

Storage - cooling system filled

5-50°C (41-122°F)

Storage - cooling system drained

2-55°C (35-131°F)

Relative humidity

Up to 80%

## ►► Accessories



## ANGLED HANDPIECE



## STRAIGHT HANDPIECE



## RINSING HANDPIECE



A wide variety of tips can be used with diameters ranging from 200 to 1300 microns and several options of tip lengths, facilitating access to different areas in the mouth. The laser ablated tissue surface (spot size) correspond to the tip's diameter.

## ►► TIPS

### 0.2 - 0.6 Diameter tips



Pack of 5 Laser tips 0.2 x 17 mm  
[Ø x Length], green O-ring



Pack of 5 Laser tips 0.4 x 17 mm  
[Ø x Length], white O-ring



Pack of 5 Laser tips 0.6 x 17 mm  
[Ø x Length], yellow O-ring

### 0.8 Diameter tips



Pack of 5 Laser tips 0.8 x 14 mm  
[Ø x Length], red O-ring



Pack of 5 Laser tips 0.8 x 17 mm  
[Ø x Length], red O-ring

### 1.0 Diameter tips



Pack of 5 Laser tips 1.0 x 14 mm  
[Ø x Length], blue O-ring



Pack of 5 Laser tips 1.0 x 17 mm  
[Ø x Length], blue O-ring

### 1.3 Diameter tips



Pack of 5 Laser tips 1.3 x 14 mm  
[Ø x Length], black O-ring



Pack of 5 Laser tips 1.3 x 17 mm  
[Ø x Length], black O-ring



Pack of 5 Laser tips 1.3 x 19 mm  
[Ø x Length], black O-ring

### ►► SPECIAL TIPS

#### Implant tip



Pack of 5 Laser Implant tips 1.3 x 19 mm  
[Ø x Length], black O-ring

#### Chisel tip



Pack of 5 Chisel Laser tips 1.3 X 17 mm  
[Ø x Length], green O-ring

#### Magnum tip



Pack of 5 Magnum Laser tips 1.3 X 6.3 mm  
[Ø x Length], green O-ring

#### Blade tip



Pack of 5 Blade tips 0.4 x 17mm  
[Ø x Length], black and red O-ring

#### Side firing tip



Pack of 5 Side Firing Laser tips 1.3 X 19 mm  
[Ø x Length], green O-ring

- Minimally Invasive
- Laser for All-Tissues
- The Smallest & Most Handy Laser

## 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.



## About Analytical Technologies

Analytical Technologies is synonymous for offering technologies for doing analysis and is the Fastest Growing Global Brand having presence in at least 96 countries across the global. Analytical Technologies Limited is an ISO:9001 Certified Company engaged in Designing, Manufacturing, Marketing & providing Services for the Analytical, Chromatography, Spectroscopy, Bio Technology, Bio Medical, Clinical Diagnostics, Material Science & General Laboratory Instrumentation. Analytical Technologies, India has across the Country operations with at least 4 Regional Offices, 6 Branch Offices & Service Centers. Distributors & Channel partners worldwide.

## Our Products & Technologies



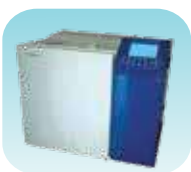
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Optima Gas  
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3007



Optima Gas  
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Flash  
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Liquid Particle  
Counter



Optical Emission  
Spectrophotometer



DSC/TGA



Semi Auto Bio  
Chemistry Analyzer



HEMA 2062  
Hematology  
Analyzer



Micro Plate  
Reader/Washer



URINOVA 2800  
Urine Analyzer



Total Organic  
Carbon 3800



Fully Automated  
CLIA



NOVA-2100  
Chemistry Analyzer



PCR/Gradient PCR/  
RTPCR



TOC  
Analyzer



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:



**Analytical**  
**Foundation**

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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