

Er:YAGレーザー アドベールSH



Adverl SH



Thinking ahead. Focused on life.

Adverl SH

Advanced "Human-Friendly Treatment"

The Er:YAG laser is a human-friendly laser that is characterized by its high vaporization capacity for water-containing biological tissue, its ability to cause reactions only on the surface layer, and its minimal heat generation, which causes little pain.

Advert SH is an Er:YAG laser unit that integrates the functions necessary for treatment into a compact body. In addition to its high-pulse and high-power laser, it also has preset modes that navigate you through treatments, supporting various treatment scenarios.





Promotional Video

Wide Variety of Treatments

For Various Treatment Scenarios

Many Approved Applications and Treatment Effects

The Er:YAG laser has been approved for various applications and treatment effects on hard tissue diseases, periodontal diseases, and soft tissue diseases under the Act on Pharmaceuticals and Medical Devices. With Advert SH, you may call up the contact tips and output settings that you need simply by selecting from a wide range of preset cases. With a higher pulse rate and a wider power range, it enables minimally invasive and highly efficient irradiation. In addition, a variety of contact tips for different treatment scenarios and flexible operability reduce the burden on both patients and practitioners, making laser treatment more efficient.

Hard tissue diseases	Periodontal diseases	Soft tissue diseases
Effect: vaporization	Effects: incision, vaporization	Effects: incision, hemostasis, coagulation, vaporization
Caries removal Superficial removal of wedge-shaped defects	Removal of calculus (including deposits on implants)* Bone resection** Irradiation to periodontal pockets Pocket curettage Flap surgery Gingivoplasty	Gingival incision and excision Formation of coagulation layers for stomatitis treatment Frenectomy Pigmentation removal

Caries removal

Removal of calculus (including deposits on implants)

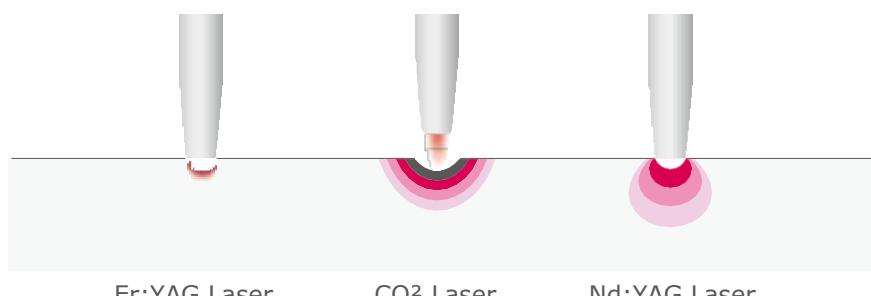
Gingival incision and excision

*In the process of treating peri-implantitis, it is possible to remove calculus that is attached to the implant. **It is possible to incise and vaporize bones in osteogenesis and decortication, etc.

Treatment With Minimal Impact on Biological Tissue

When using the Er:YAG laser, absorption of light energy is limited to the surface layer. Therefore, there is less impact on deeper tissue than when using a CO₂ laser or a Nd:YAG laser.

In addition, the Er:YAG laser is less likely to cause cracks in the enamel and thermal diffusion around the irradiation field, and thus has little effect on the surrounding tissue.

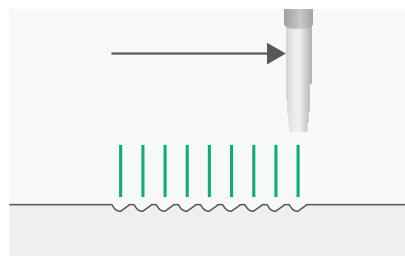


Improving Treatment Efficiency

Improved Treatment Efficiency Through a High-Pulse, High-Power Laser

Treatment Friendly to Both Patients and Practitioners

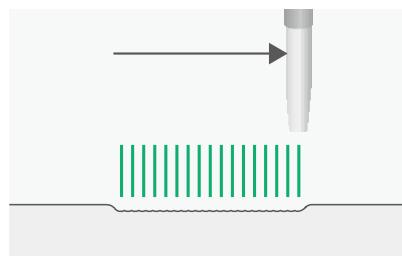
In addition to achieving a higher pulse rate, the expanded range of output from low to high power has made it possible to provide prompt treatment with improved efficiency. By simplifying the procedures through reduced treatment duration and improved operability, it reduces the burden on both patients and practitioners.



Low pulse rate



Soft tissue incision
20pps 50mJ



High pulse rate



Soft tissue incision
40pps 50mJ

Equipped with two modes: Hard mode and Soft mode

It is equipped with two modes, which have the same amount of energy but differ in pulse width and peak power. This enables irradiation that makes the most of the respective pulse characteristics, and is most appropriate for individual cases and treatment sites.

Hard mode

Peak power: high

Pulse width:
short

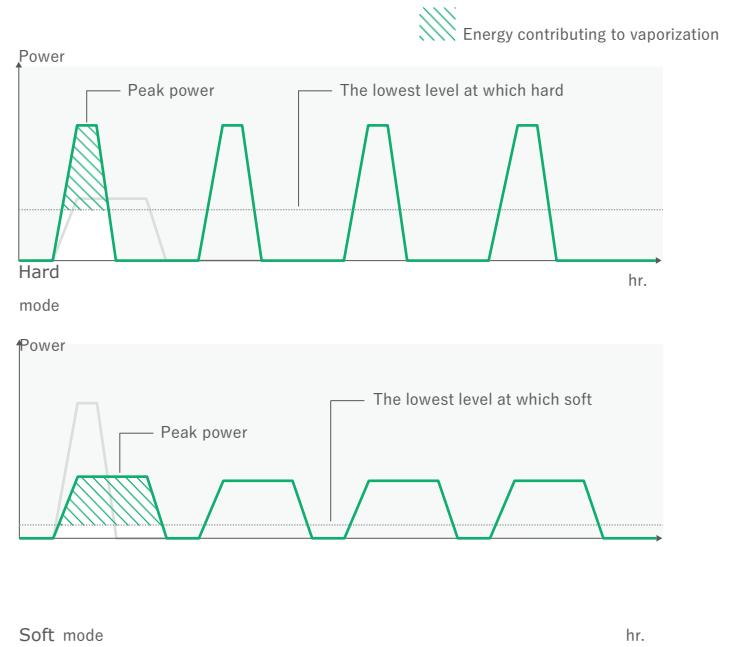
Examples of use: caries removal (enamel), osteoplasty

Soft mode

Peak power: low

Pulse width: long

Examples of use: gingival incision and excision, hemostasis





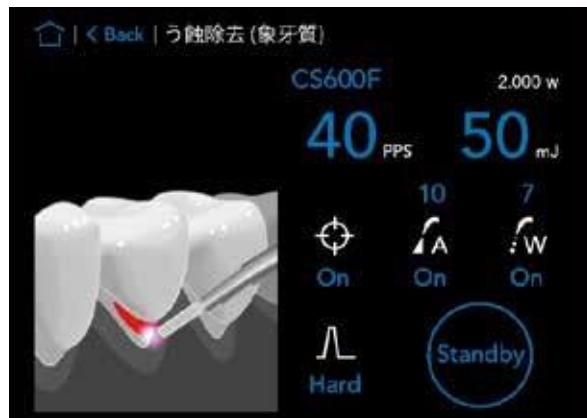
Smart & Compact
The sleek, lightweight, and compact body is designed to fit in well with the hospital environment.

Easy Navigation

Easy navigation with preset modes that allow you to choose from 18 different cases

Convenient Preset Mode

Simply by selecting a preset that matches the type of treatment, the system will display the conditions and contact tips set for the individual case, allowing you to easily navigate through the treatment.



Manual Mode

This mode allows you to manually set the conditions. It also allows you to store any conditions in memory and recall them as needed.



Intuitive and User-friendly Interface

The easy-to-read display allows you to see the current settings at a glance, and to intuitively access each setting screen.

Flow for Using Preset Mode



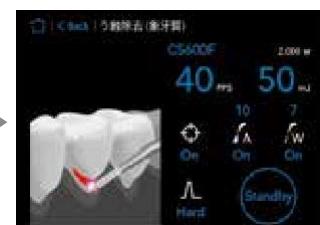
Select "Preset Mode"



Select
"Treatment
Site"



Select
"Case
Scenario"



Start treatment

Preset Mode Screens (Examples)

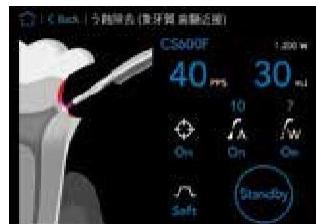
Hard tissue diseases



Caries removal (enamel)



Caries removal (dentin)



Caries removal (dentine-pulp complex)

Caries removal (enamel)
Caries removal (dentin)
Caries removal (dentine-pulp complex)
Hemostasis during dental pulp exposure

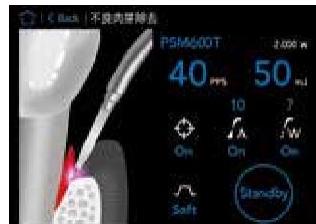
Periodontal diseases



Irradiation to periodontal pockets



Calculus removal



Removal of abnormal granulation

Irradiation to periodontal pockets
Calculus removal
Removal of abnormal granulation
Osteoplasty
Decortication

Soft tissue diseases



Frenectomy



Gingival incision and excision



Gingivoplasty

Frenectomy
Gingival incision and excision
Gingivoplasty

Melanin removal
Metal tattoo removal
Stomatitis/angular stomatitis coagulation
Hemostasis

Implant



Removal of calculus on an implant surface



Removal of abnormal granulation on an implant surface

Removal of calculus on an implant surface
Removal of abnormal granulation on an implant surface

Clinical Cases

Clinical Applications

Case 1 Periodontal Surgical Treatment



Before surgery



After surgery (1 year later)



Before surgery



Removal of abnormal granulation



Calculus removal (covered by insurance) After surgery (1 year later)



Before surgery, the periodontal pocket depth was 10 mm, and there was pus discharge. Minimally invasive flap surgery was performed by microsurgery.

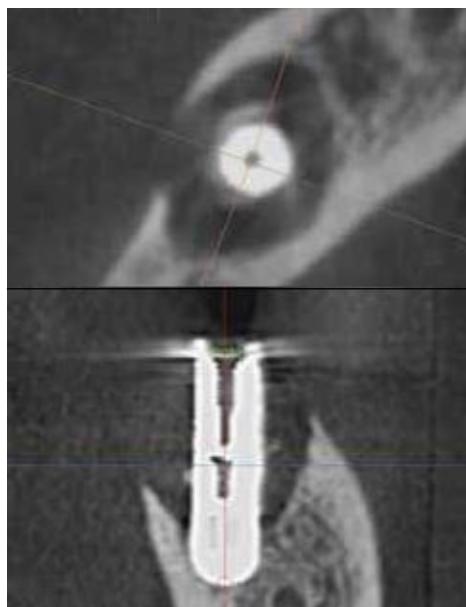


The granulation tissue in the bone defect and the calculus on the root surface were vaporized. The valve was restored and sutured without using materials for periodontal tissue regeneration. X-ray images taken 1 year after surgery showed recovery of the bone defect.

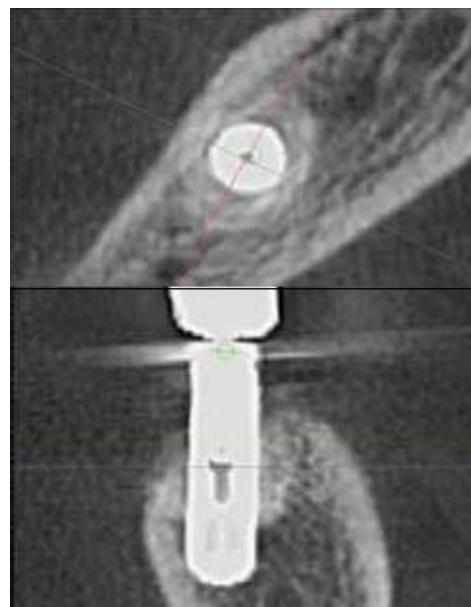


Clinical Video

Case 2 Implant treatment



Before surgery



After surgery (2.5 years later)

Left: Before surgery
In many cases, extensive bone resorption is observed, and it is usually judged to be unsuitable for preservation.

Center: After surgery (2.5 years later)
The surrounding area is covered with osteoid tissue. Lower: After surgery (9 years later)
A stable osteoid structure is observed, with no signs of resorption.



After surgery (9 years later)



Before surgery



Calculus removal



After surgery



After surgery (2.5 years later)

Calculus is firmly attached around the implant. In such cases, it is difficult to remove the calculus without destroying the microstructure of the implant surface.



Carefully remove the calculus on the implant surface.

After removal, calculus and other infectious substances have been completely eliminated from the implant surface.

The surrounding area is covered with osteoid tissue.

Clinical Cases

Clinical Applications

Case 3

Caries removal
Dentine



By vaporizing at 40 pps, it is possible to vaporize caries, such as in this case, without anesthesia or pain in approximately 20 seconds, even with a low energy of 50 mJ.

This presents the advantage of completing the entire procedure in the time it would take to wait for

Case 4

Caries removal
Enamel/dentin
(covered by



The enamel was vaporized at a higher power (180 mJ) than with conventional models, followed by efficient vaporization of the dentin at a high pulse rate (40 pps).

Case 5

Irradiation to an



Since bacteria may enter an exposed dental pulp surface during the treatment of deep caries, it may be possible to control infection by vaporizing the surface layer.

Case 6
Frenectomy (covered by insurance)

Before surgery During surgery After surgery (1 week later)

A excision was made because the oral vestibule was narrowed by the buccal frenulum. The excision was made using an **S600T** under local anesthesia, and the stumps of the fiber bundles remaining on the alveolar ridge were vaporized using a **CS600F**. Subsequently, bleeding from the wound surface was stopped by **defocus** irradiation without water injection. One week later, the wound surface was epithelialized, showing good healing.

Case 7
Melanin removal

Before surgery Immediately after surgery After surgery (2 weeks later)

The gingival surface layer is vaporized with melanin pigmentation using a **CS600F** with injecting water. The remaining deep pigmentation is then selectively vaporized using a **C400F** to complete the treatment. One week later, the wound surface was epithelialized, achieving an improvement in the gingival color.

Case 8
Stomatitis, angular stomatitis coagulation
(covered by insurance)

Before surgery During surgery After surgery (1 day later)

Soft mode was used for clinical application. Compared to irradiation over a wide area using conventional models, this procedure is more effective in a shorter time, and the use of **Soft** mode has resulted in a decrease in pain reported by patients, compared to conventional irradiation methods.

Case 9
Hemostasis

Before surgery During surgery After surgery

After periodontal pocket treatment, apply non-contact irradiation to the bleeding site at the pocket entrance without injecting water, while maintaining a distance of approximately 3 to 5 mm to enlarge the spot size, and evenly irradiate the entire area in a sweeping motion until the surface is lightly carbonized.

Clinical Cases

Clinical Applications

<p>Case 10 Irradiation to</p>				
<p>Perform irradiation inside the pocket with injecting water for periodontal pocket treatment. Carefully irradiate the entire interior of the pocket, such as root surface, pocket bottom, pocket inside wall.</p>				
<p>Case 11 Calculus</p>				
<p>The preoperative periodontal pocket depth was 5 mm, and bleeding was observed. Under local anesthesia, a tip was inserted into the periodontal pocket along the root surface to perform debridement on the rough root surface. The vaporized subgingival calculus was drained.</p>				
<p>Case 12 Decortication</p>				
<p>In periodontal tissue regeneration therapy, perform bone marrow perforation by fixed-point irradiation in a near-contact manner with injecting water, on the corticalized bone surface observed after curettage of the bone defects to promote bleeding from the bone marrow, with the aim of promoting</p>				

Case images and descriptions were provided by the following doctors (in order, by the Japanese syllabary)

Dr. Akira Aoki, Tokyo Medical and Dental University Graduate School (Cases 9, 10, and 12)
Dr. Takeshi Shinoki, Shinoki Dental Clinic (Cases 4 and 8)
Dr. Ryuboku Torikata, Ryuboku Dental Office (Case 2)
Dr. Kunio Matsumoto, Matsumoto Dental Clinic (Case 5)
Dr. Koji Mizutani, Department of Periodontology, Tokyo Medical and Dental University Hospital (Cases 1, 6, 7, and 11)
Dr. Atsuhiko Yamamoto, Fujisawadai Yamamoto Dental Office Inc. (Cases 2 and 3)

Cases 3, 4, and 8: Cases using Adver SH

Others Cases using a conventional model, Erwin AdvErL EVO

Output settings for the preset mode may differ from those in the provided cases.

The explanation was provided by the doctor who provided the case. The image is an example from the clinic that provided the case.

Smooth Handling

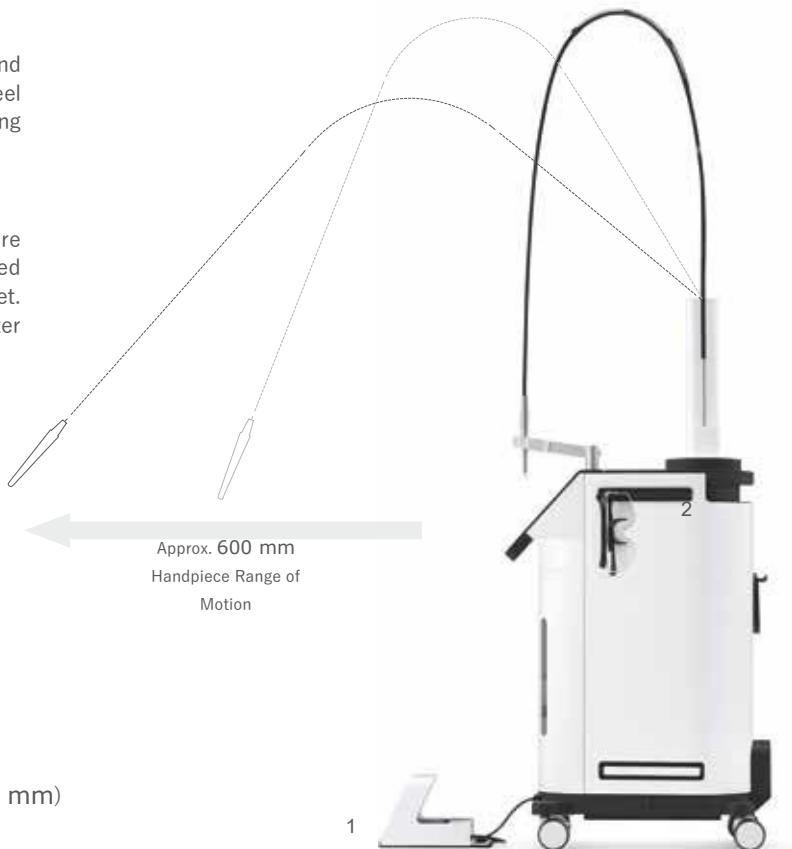
Stress-free Operation

Flexible Operability

The flexible transmission fiber and protective pole make the handpiece feel almost weightless in your hand, allowing you to concentrate on the treatment.

Easy Setting

Since the water and air compressors are built into the main unit, it can be used simply by plugging it into a power outlet. There is no need to connect air or water before each use.



1. Footswitch (cable length: approx. 800 mm)

2. Glasses hanger



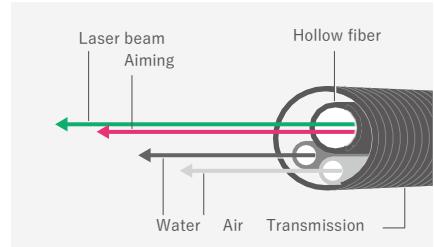
Position-adjustable hanger

The handpiece hanger position can be adjusted according to the clinical setting, for example, during treatment or transportation. The handpiece is held by a magnet built into the hanger, to prevent it from falling due to vibrations during transportation.



Smooth transportation with 4-wheel swivel casters

Four-wheel swivel casters allow the unit to be easily moved in any direction. They reduce the stress of moving the unit for preparation and clean up.



Transmission fiber structure

The hollow fibers provide a wide range of wavelengths and high transmission efficiency, enabling the laser beam and aiming beam to be transmitted on the same axis. There is no misalignment between the laser beam and aiming beam, which contributes to precise treatment.



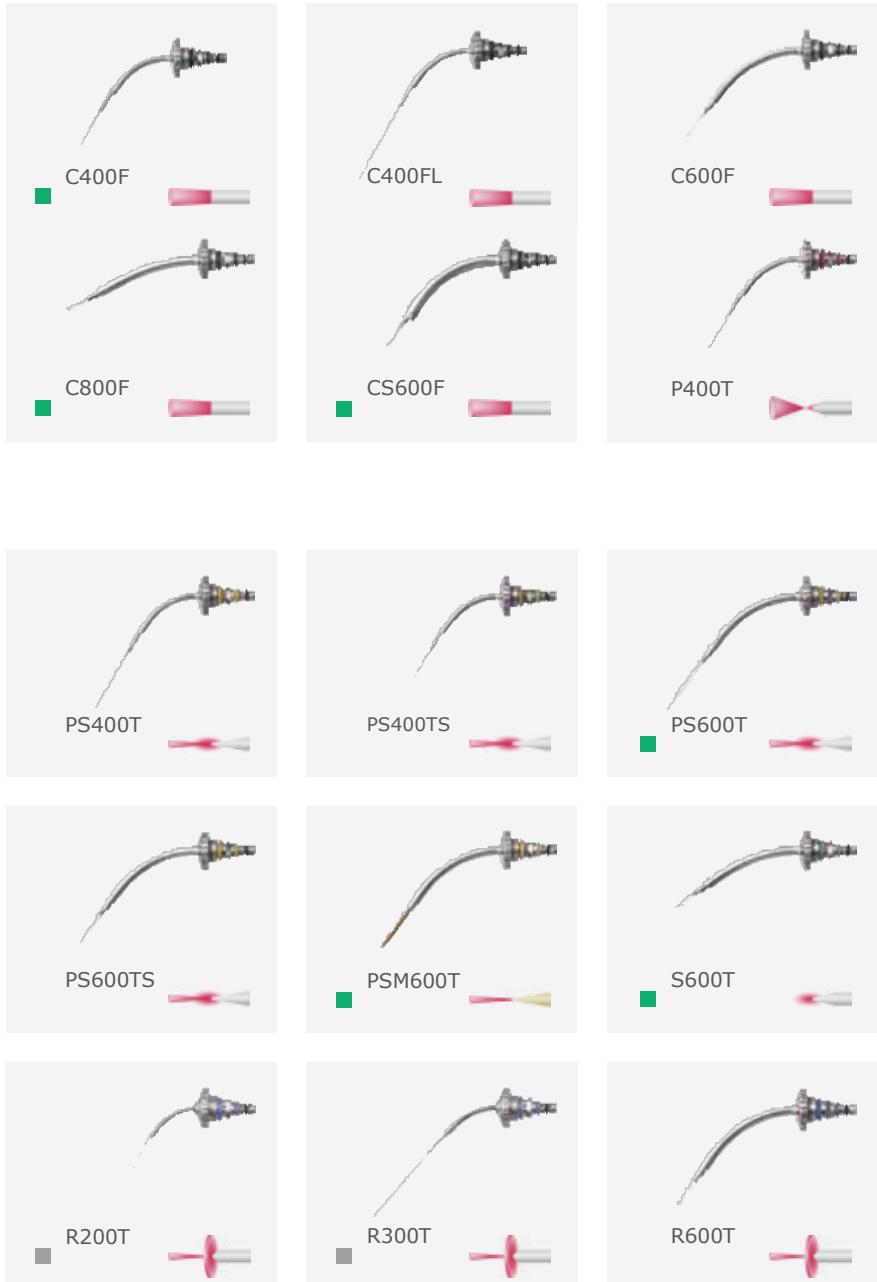
How to Use Video

Tip Lineup

Contact Tip Lineup

With a total of 15 different tips, the unit can be used in various clinical settings.

■ indicates the tips supplied with the main unit. All other tips are optional.
■ indicates tips that require the optional R-attachment.



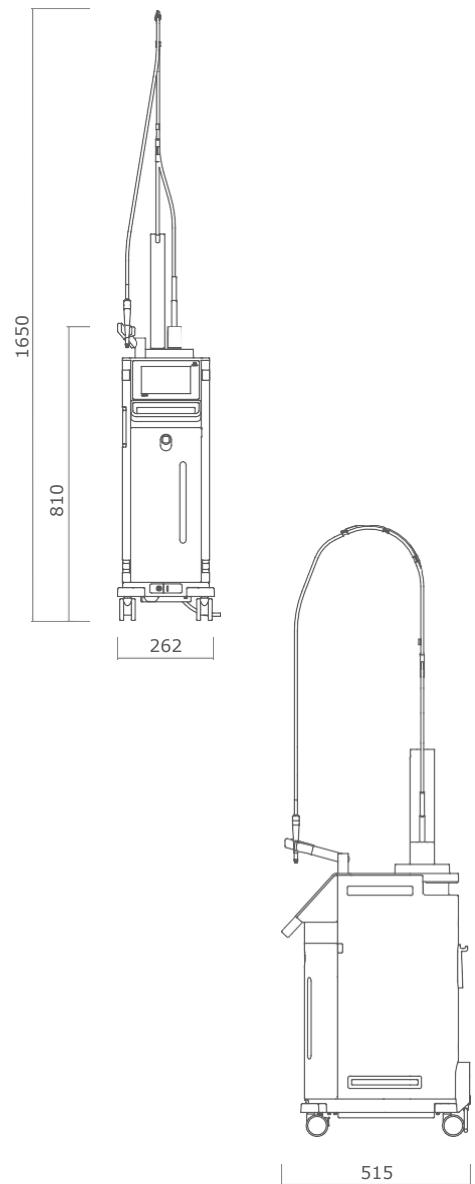


Product Introduction Page

Specifications

Product Specifications

Trade name:	Adverl SH
Model:	MEY-1-SH
Power rating:	AC100V
Power consumption:	1.0kVA
Weight:	38kg
Nonproprietary name:	Erbium-YAG laser
Medical device classification:	Specially controlled medical devices (Class III), Controlled medical devices requiring special maintenance
Approval number:	30500BZX00080000
Statutory useful life (amortization period):	6 years
Marketing authorization holder:	J. MORITA MFG. CORP.
Protection against electric shock:	Class I Device
Laser product classification: Laser oscillation method:	Type B attachment
Laser medium:	Class 4 (Er:YAG laser), Class 2 (Visible LD (Aiming beam))
Laser energy:	Pulse oscillation Er:YAG 10–400 mJ/Pulse (handpiece tip) 1–10 pps: 30–400 mJ/pulse 20pps: 15–200mJ/pulse 25 pps : 15–160 mJ/pulse 30pps: 10–100mJ/pulse 40 pps : 10–70 mJ/pulse 50pps: 10–40mJ/pulse 1, 3.3, 5, 10, 20, 25, 30, 40, 50pps 2.94 μ m
Pulse repetition rate:	
Oscillation wavelength:	Red semiconductor laser beam
Aiming beam:	650 \pm 15 nm
Aiming beam wavelength:	
Transmission method:	Hollow fiber method
Trade name:	Rezatip
Model:	MEY-C
Nonproprietary name:	Laser contact tip
Medical device classification:	Specially controlled medical devices (Class III)
Approval number:	21500BZZ00721000
Marketing authorization holder:	J. MORITA MFG. CORP.



Dimensions (mm)

Diagnostic and Imaging Equipment 

Treatment Units 

Handpieces and Instruments 

Endodontic System 

Laser Equipment 

Laboratory Devices 

Educational and Training Systems 

Auxiliaries 



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