

# Dermeo®

French designer and manufacturer

ISO 9001 ISO 13485

## Compact and portable aesthetic pulsed light device

# LDFLASH®

### New technology for dermatological treatments



## EASYLAMP®

Worldwide innovation: DERMEO has developed the first  
water-cooled LAMP-CARTRIDGE interchangeable by the user

## DHR

Dynamic Hair Removal  
Processing mode by scanning  
Up to 375 000 pulses



# ORGANIZATION

Our research,  
our expertise



## The company

Founded in 2000, DERMEO® became the only French IPL manufacturer offering medical devices combining the best technological features with the best results. At the top of an evolutionary innovation, DERMEO® has technological and clinical expertise.

DERMEO is involved in designing, manufacturing, distributing, sales and after sales services of medical devices.

**DESIGN, MANUFACTURING,  
DISTRIBUTION, SALES, AND AFTER  
SALES OF MEDICAL AND AESTHETIC  
DEVICES.**



Our quality,  
your safety

**The guarantee of a manufacturer that offers a complete management system of quality**

DERMEO® provides you with the knowledge of an ISO 9001 and ISO 13485 certified expert. Compliance with these standards is a guarantee of quality for both our customers and our suppliers.



## French quality production

The high quality of DERMEO's production tools complies with the French manufacturing protocols and enables total transparency and traceability from the designer to the patient.

DERMEO® only selects the best components from French or European origin. The manufacturing steps are validated under our quality management system of control and by inspectors from our notified body who check the conformity of the devices on the manufacturing line with the production files.

The strategy of innovation and quality coupled with excellent knowledge of international regulations has enabled DERMEO® to expand to all five continents.

## Innovation for performance

### Evolutionary technology

DERMEO® is in constant development and only recruits the best engineers in mechanics, electronics, energy conversion, computer software development, optics, and composite materials. This has enabled DERMEO® to be awarded several patents.

### International patents

French patents n° 11 58334, 09 56126, 09 56124  
European patent n° 23 44248  
U.S. patents n° 8 672 987, 8 721 697  
Canadian patents n° 2 736 769, 2 737 231

### Medical research

Clinical research investments are made jointly with groups of specialist doctors to assess the performance, security, and innocuousness of the devices that are on the market.



## New compact and easily transportable range

### Compact and lightweight

Thanks to the miniaturization of components, the new range of pulsed light systems is lighter and more compact and offers exciting new treatment possibilities (ability to perform treatments at home).

The LDFLASH®, which is easily transportable, is an outcome of advanced technology providing high-quality and professional results.



**DERMEO'S RESEARCH,  
RECOGNIZED QUALITY  
VERIFIED SAFETY**

# ≡ DHR

## Dynamic Hair Removal



### DHR technology : Dynamic Hair Removal

This new technology makes it possible to provide care to the treated area by scanning it. It delivers a continuous energy which gradually increases the temperature at the target's chromophore area. This program is particularly suitable for hair removal on light and dark skin.

In DHR mode, the LDFLASH® device is able to deliver a maximum pulse repetition frequency of 7 pulses per second (7Hz). This technology reduces the treatment time for the operator, and, due to a softer flash, raises the level of comfort for the patient.

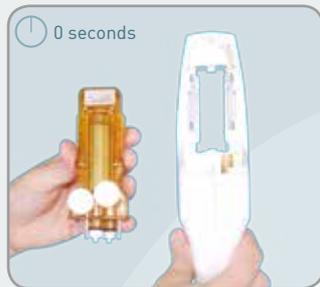
# TECHNOLOGIES

## Easier, faster, more functional

### Interchangeable EASYLAMP® LAMP CARTRIDGE

A worldwide innovation: DERMEO® has developed the first water-cooled LAMP CARTRIDGE which is directly interchangeable by the user. When the lamp has to be changed, there is no need to ship it back to the workshop or to contact a technician.

**JUST 10 SECONDS ARE ENOUGH FOR THE OPERATOR TO CHANGE THE WATER-COOLED LAMP CARTRIDGE**

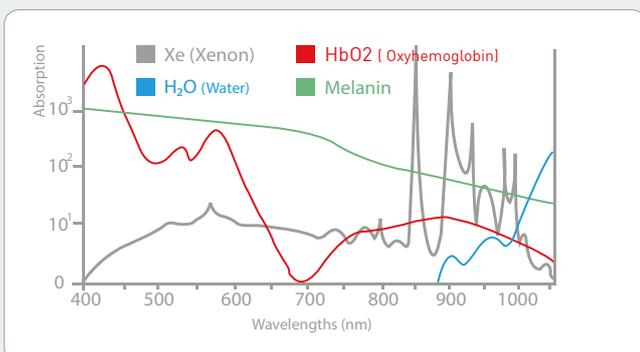


Patents granted

In a few seconds, the lamp can easily and safely be replaced.

The replacement of the LAMP CARTRIDGE is simultaneously and without extra cost accompanied by the complete replacement of the cartridge containing the lamp, the optical cavity, the reflectors, the anti-UV filter and the embedded electronics.

### Absorption curve of chromophores by level of wavelength



### Interchangeable optical blocks

To ensure optimal effectiveness of the treatments, DERMEO® has created two different sizes for the optical guides (2.25 et 6.75 cm<sup>2</sup>) This enables the operators to use up to 8 different filtrations.



15 mm  
15 mm  
Spot Size



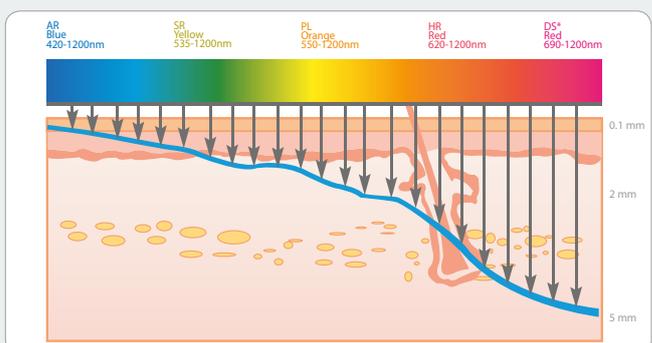
15 mm  
45 mm  
Spot size

### Reflective filters' benefits

A filter is composed of several layers laid on a light guide made of optic substrat. The reflective filters allow multiband selective filtrations, and, therefore, the wavelengths are exactly adapted to the absorption peaks of the targeted chromophores.

The non sampled energy of the ray of light is reflected back into the lamp where the heat is dissipated by the water cooling system. Results: No heating of the quartz, nor at skin level..

### Depth of the penetration of the light depending on the selected wavelength



## Comfortable, fast & efficient treatments thanks to the water cooling system

### Water cooling for endurance and an exceptionally long life

Even at maximum power, the device can work for hours without overheating the lamp or optical blocks, thanks to the continuous cooling of the lamp and filter, and the absorption of the infrared rays by water.

The stainless steel radiator facilitates a rapid and efficient cooling of the lamp.

### Optimal effectiveness through power up to 30 J/cm<sup>2</sup> at cartridge level

To achieve optimal results, maximum power is needed for the treatment process: 30 J per cm<sup>2</sup>, meaning more than 300 Joules per flash at lamp level.

This leads to max 30 Joules per cm<sup>2</sup> at the level of the skin.

## Communicating systems, powerful, efficient and effective

### A balanced train of pulses for more safety

To avoid the risk of burn or discomfort caused by a single flash or a too long flash, all emitted flashes are cut into several pulses. Each pulse raises the target's temperature, while the intervals between pulses let the skin dissipate the heat.



### LCD color touchscreen

LDFLASH<sup>®</sup> has a resistive 5.7 inch color touchscreen, which provides excellent legibility and comfort to users, even when wearing gloves.



### Evolutive software for easy updating

The software is embedded on an SD card which facilitates a quick and easy update of the medical systems via internet.

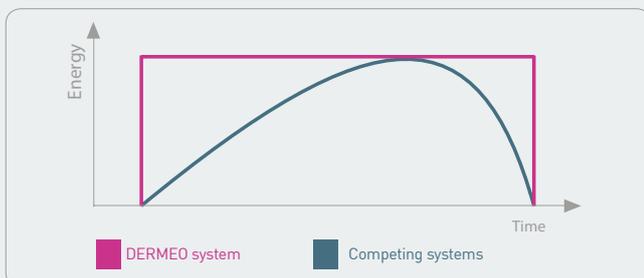


### Balanced pulses for more comfort

Balance of pulses grants to get the same density of energy from the first until the last pulse. This balance of train of pulses leads to an efficient treatment even with difficult skin conditions.

### A "simmer" for powerful and effective "square" pulses

The "simmer" enables the lamp to be powered up before the flash. The required energy level is therefore reached more quickly and efficiently than with other pulsed light systems. With the simmer in use, the pulse comes in a "square" shape."



**TO ACHIEVE THE BEST RESULTS, MAXIMUM POWER IS NEEDED**

### A logbook which enables you to access to complete information

At any time, access with your computer the number of flashes used per transaction, and view the date and time of carried out treatments.

### Remote access

The user has the ability to remotely monitor the use of the system through optional networking software.



# OFFER

Profitability,  
flexibility,  
efficiency

## LDFLASH®

LDFLASH®, from 8 to 30 J/cm<sup>2</sup>, depending on the filtration of the optical guide.

### Indications:

- Hair removal on light skin\*
- Hair removal on dark skin\*
- Rejuvenation\*
- Acne treatment\*
- Treatment of Pigmented Lesions\*

- 1 EASYLAMP® LAMP-CARTRIDGE
- Accessories
- Marketing package
- 2 years full warranty on labor & parts



Marketing, sales,  
legal

### Sales arguments

DERMEO® provides its users with relevant marketing material, such as a sales arguments guideness containing the most frequently asked questions with appropriate answers, which can be used when interacting with patients that are interested in treatments by DERMEO's devices.

### Training

The training program is supported by 2 volumes of training manuals. One is theoretically and technically oriented, whereas the other volume focuses on the practical and commercial aspects. Training videos conducted with our medical consultant doctor complete this training.

### Media exposure

DERMEO's products and treatments receive strong national and international exposure in on and offline media.

### Clinical and legal

To provide clients with better information and users with better protection, models of quote / informed consent / medical history forms, have been validated and approved by doctors and lawyers and are put at professional's disposal.

## Clinical studies, scientific articles

### Acne treatment

The action of pulsed light on acne is based on the heating of the porphyrin which is produced by the Propionbacterium Acnes bacteria. The bacteria's cellular membrane is destroyed with results in skin asepsis. Significant improvement of the skin condition provides patients with the desired aesthetic effect.

Care duration: depending on severity. 1-2 week intervals between two sessions  
AR : 420 - 1200 nm



BACK  
BEFORE



BACK  
AFTER 2 SESSIONS

### Rejuvenation

Flashes of pulsed light reduce the effects of skin ageing. The treatment stimulates collagen production, modifies connective tissue, tightens dilated pores, improves skin elasticity and reduces fine lines.

The skin tone is improved, pores are tightened and color is enlightened. The tolerance for this treatment has proven to be excellent.

Care duration : 5 to 6 sessions are necessary at intervals of 2 to 3 weeks.  
SR : 535 - 1200 nm



CHEEKBONE  
BEFORE



CHEEKBONE  
AFTER 1 SESSION

## Results approved over all indications

### Clinical studies, scientific articles

To demonstrate the quality and effectiveness of DERMEO's medical devices, a clinical report was officially established by an independent laboratory, the GREDECO. This study was performed on voluntary patients which were recruited at the hospital of Pitié-Salpêtrière in Paris (FRANCE).



This study enabled DERMEO® to assess the performance of its pulsed light devices on several subjects in real conditions of consultation.

Regarding efficiency, in almost all configurations and within due time, very satisfactory results (acne) and even excellent results (brown pigmented lesions, hair removal, and rejuvenation) were obtained. The patients treated in this study had proven pathologies such as inflammatory and retentional acne.

Medical treatments showed satisfaction. As for aesthetic treatments such as rejuvenation, spots care and hair removal on light and dark skin, a high level of safety and efficiency have been proven.

### DERMATOLOGICAL AND AESTHETIC TREATMENTS WITH DERMEO DEVICES PRESENT HIGH LEVELS OF EFFICIENCY AND SAFETY

#### Pigmented lesions treatment

During the sessions, the pulsed light energy is absorbed by melanin, causing an accumulation of heat and destruction of the pigment. After the session, the destroyed particles are eliminated by phagocytosis. The pigment and the melanocytes leave no trace.

Excellent results from the first session.

Care duration: 1 to 3 sessions are necessary at intervals of 1 to 2 weeks.  
PL : 550 - 1200 nm



CHEEKBONE BEFORE

CHEEKBONE AFTER 1 SESSION

#### Hair Removal Light Skin

Pulsed light is absorbed by melanin (a colored pigment present in hair). During the growth stage (anagen phase), the light is conducted down to the root of the hair. This light is turned into heat, and it is the heat that destroys the follicle and the root, without side effects. This is called "selective photothermolysis" or "photodepilation."

Excellent results, 80% of hair removed after the third session.

Care duration: 8 to 12 sessions are required at intervals of approximately six weeks.  
HR: 620 - 1200 nm for light skin



BIKINI BEFORE

BIKINI AFTER 3 SESSIONS

### Clinical references

**Dr. Sylvie Boisnic**  
Dermatologist, Pathologist Research Director  
GREDECO  
Consultant at the Pitié-Salpêtrière's hospital

**Dr. Luc Benichou**  
Consultant Medical Doctor GREDECO

**Dr. L. Ben Slama**  
Stomatologist

**M. C. Branchet**  
Bio-chemist

**Mrs. Sophie Blondel**  
Pharmacist Research Officer of GREDECO

#### Hair Removal Dark Skin

The use of a specific filter DS (690<sub>nm</sub>) makes it possible to safely perform treatments on dark skin. (phototype IV, V and beginning of VI). The specific filtration for dark skin favors the absorption of the pulsed light by melanin contained in hair anchored in tissue, and thus promotes a high level of efficiency of the treatments.

The obtained results are very satisfactory.

Care duration: 8 to 12 sessions are required at intervals of approximately six weeks.  
DS: 690 - 1200 nm for dark skin



UPPER LIP BEFORE

UPPER LIP AFTER 3 SESSIONS

# Dermeo®

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Paris

## Light at the service of innovation

Designer and manufacturer of new technologies  
for medical and aesthetic treatments.

Covered spectrum	420 -1200 nm
Fluence in J/cm <sup>2</sup> at optical guide level	Until 30 J/cm <sup>2</sup>
Possible filtrations	LP 420 -1200 nm / LP 620 -1200 nm LP 535 -1200 nm / LP 690 -1200 nm LP 550 -1200 nm Other filtrations upon request
Treatment surfaces	45x15 mm = 6.75 cm <sup>2</sup> / 15x15 mm = 2.25 cm <sup>2</sup>
Repetition frequency	0.3 to 7 Hz
Mode of emission	Multi-pulsed, static or dynamic
Number of pulses per flash	4 to 6 per flash
Duration of pulses	2 to 6 ms
Inter-pulse interval	5 to 30 ms
Maximum number of flashes (pulses) per lamp cartridge	25 000 (375 000)
DHR mode pulses repetition max (dynamic)	7 Hz
Setting mode	Automatic-Expert
Networking possibilities	USB, SD, RJ45 optional
Control panel	LCD TFT resistive touch screen,
Lamp cooling system	Internal water cooling
Internal water circuit	Deionized water

Dimensions (H x W x D) in mm	334 x 339 x 497
Weight	10 Kg
Electric current	100-240VAC
Input frequency	50/60Hz
Input protection	T6.3 A H 250VAC
Average consumption at maximum power	400W
Protection category	1, type BF
Protection index	IP30
Warranty	2 years warranty on parts and labor
Certifications of the manufacturer	ISO 9001, ISO 13485, ISO 13485 : CMDCAS
Markings and homologations Europe	CE 0473 (pending)

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