

M-Hi

The (r)evolution of MLS® Laser Therapy

MLS®
Multiwave
Locked System



ASL
A S A L A S E R
Research and Therapeutic Solutions

ASA

Research and Therapeutic Solutions.

Since **1983** ASA wants to become the international landmark in **laser therapy** and **magnetotherapy** for multidisciplinary uses: from **Physiotherapy** to **Physical Rehabilitation**, passing through Pain Management, **Sports Medicine** and **Veterinary Medicine**.

In **2003** ASA becomes part of **El.En. Group**, an Italian multinational corporation among the world's leading manufacturers of lasers for medicine, industry, conservation and restoration of artistic heritage.

Research and innovation are the main investment channels and the foundations on which to build an **ethical, sustainable and valuable growth**.





MLS® Laser Therapy

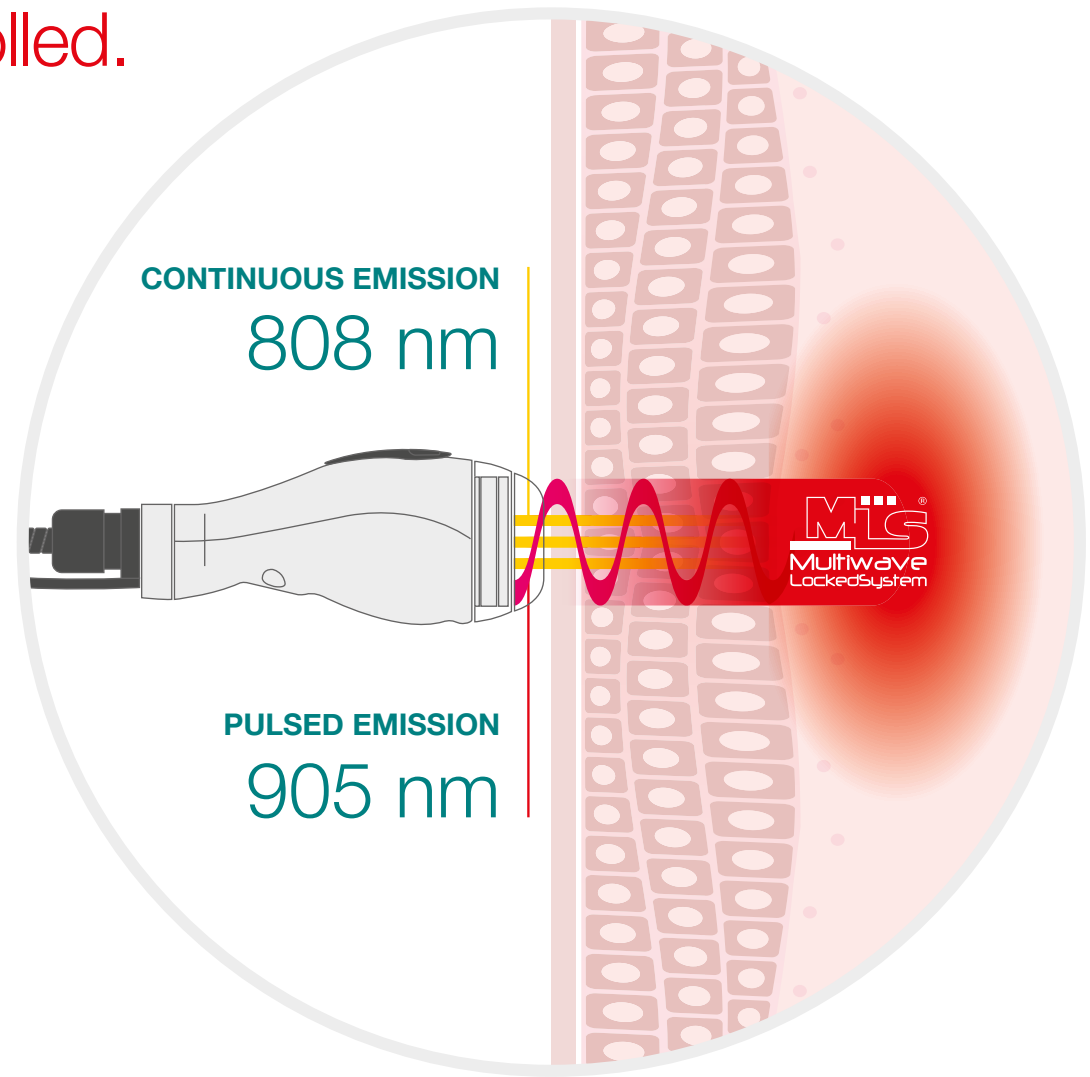
High power: perfectly controlled.
And synchronized.

The **patented** Multiwave Locked System (MLS®) technology **overcomes the limits** of traditional laser therapy devices (LLLT, class 3B and class 4 lasers).

The **combination and synchronization** in a single pulse of the continuous (808 nm) and pulsed (905 nm) emissions synergizes and strengthens the therapeutic effects on the **inflammation-oedema-pain** triad.

ADVANTAGES:

- ▶ Strengthening the anti-inflammatory, analgesic, anti-edema effects
- ▶ Fast pain reduction from the very first sessions
- ▶ Improvement of local microcirculation
- ▶ Short treatment times and few treatments required
- ▶ Improvement of patient mobility, functionality and quality of life





Evidence-based Medicine



Discover more

Safety and effectiveness of MLS® Laser Therapy are constantly proven at **ASAcampus**, the Joint Laboratory between ASA Research division and the Department of Biomedical and Clinical Experimental Science at the **University of Florence** – Italy, directed by Dr. Monica Monici.



United States patents N°:
US 8,251,982 B2
US 10,874,872 B2

MEDICAL INDICATIONS:

- ▶ Osteoarthritis¹
- ▶ Rheumatoid Arthritis²
- ▶ Bursitis³
- ▶ Sprain/Contusion⁴
- ▶ Tendinopathies⁵
- ▶ Myalgia/Contracture (from myofascial pain syndrome, trigger points, muscle spasms, postural or traumatic causes)⁶

- ¹ From mild to moderate stages (up to 3rd grade) with high level of clinical evidence on knee, moderate on shoulder, wrist, hip, ankle, lumbar region;
- ² From very low to severe stages with moderate level of clinical evidence on hand;
- ³ From mild to severe pain with moderate level of clinical evidence on elbow, knee, ankle, toe;
- ⁴ From mild to moderate injury (up to 2nd grade sprain, without complete ligament tear) with moderate level of clinical evidence on knee, ankle, wrist, finger;
- ⁵ From mild to severe pain and disability levels with moderate level of clinical evidence on shoulder, elbow, wrist, finger, knee, ankle, foot;
- ⁶ From mild to severe pain and disability levels with moderate/moderate-high level of clinical evidence on shoulder, cervical, lumbar and temporomandibular regions.

Reward your passion

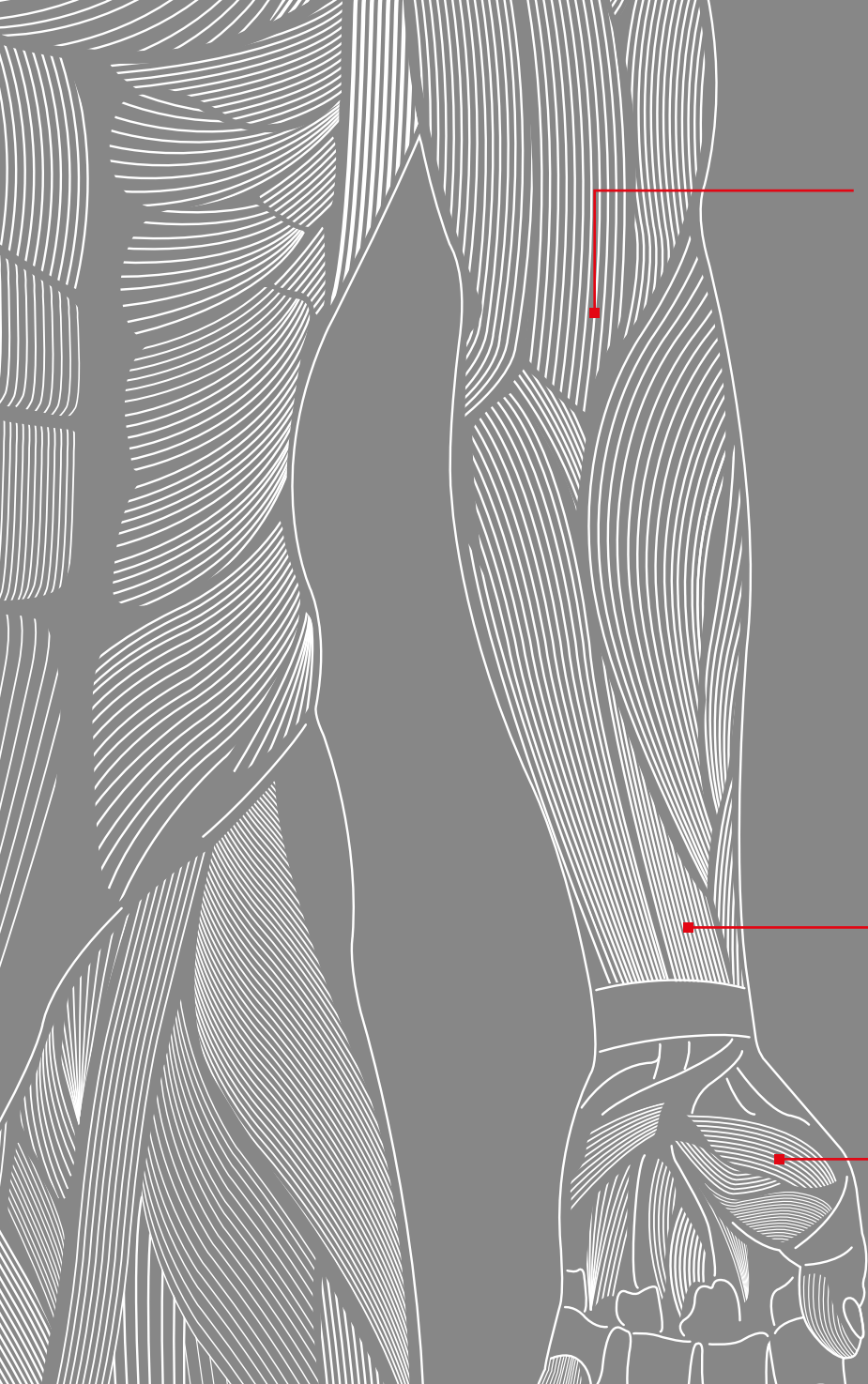
The **future of healthcare** lies in the **technological revolution** where patient **safety** is paramount, and MLS® Laser Therapy ensures just that.

Deliver **safe and quick treatments** that yield remarkable **results**: watch your patients improve right from the first sessions, fuel their confidence in your expertise and **elevate your practice to new heights**.

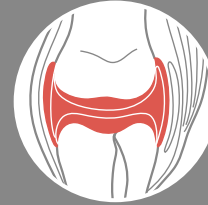
No more struggling with complicated equipment or wasting time on cumbersome setups. **Our intuitive user-friendly devices are designed and manufactured in Italy, with clinicians like you in mind**. Don't miss out on the opportunity to make a lasting impact.

Welcome to the MLS® Laser Therapy (r)evolution.

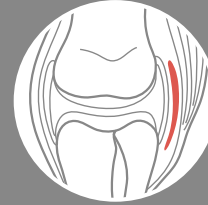




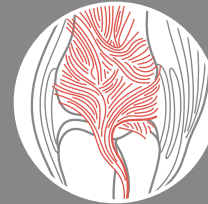
Intra-articular
tissues



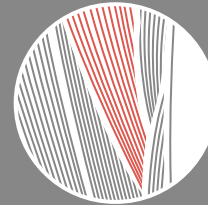
Bursae



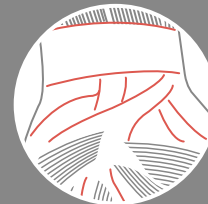
Ligaments



Muscles



Tendons



Target Tissues

MLS® Laser Therapy demonstrates to be effective on all major target tissues related to joints and muscles.

The spatial overlapping of the emission allows a **homogeneous energy distribution** on the target tissues.

Efficient
Patented technology,
scientifically and
clinically validated.

M-Hi is efficient in run-time and over time, thanks to advanced internal sensors that ensure **durability and stability**.

With +100 scientific publications and +20,000 devices installed all around the world, the **patented** MLS® Laser Therapy is **scientifically and clinically proven**.



Discover all
Scientific
publications





Safe

Reliability in your hands.

M-Hi inherits the mechanisms of action of MLS[®], evolving its technological features while delivering validated state-of-the-art protocols.

Applying the **most powerful protocol** in both **Point-by-Point** and **Scan** modality, M-Hi delivers the **right energy mix** to the target tissues through a **pleasant feeling: always far from reaching the thermal damage threshold.**

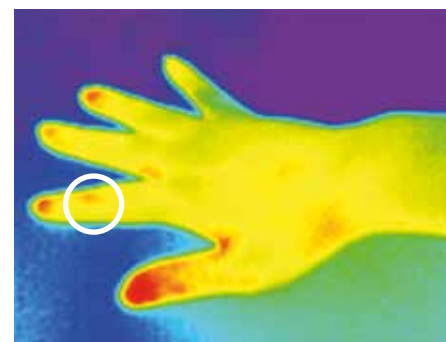
►

Top

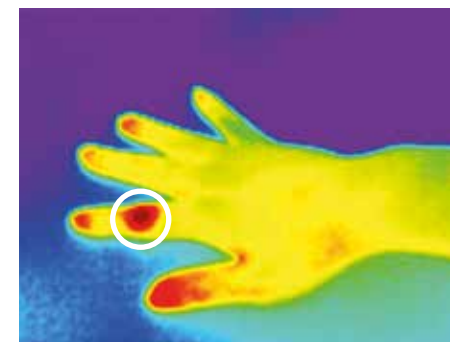
Hand Osteoarthritis, Phototype IV, pre & post treatment with Ø 2 cm lens in Point-by-Point modality.

Bottom

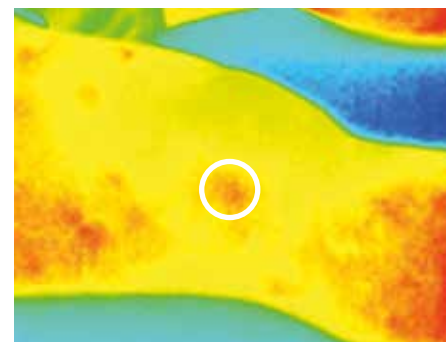
Knee Osteoarthritis, Phototype IV, pre & post treatment of optical window with Ø 2 cm lens in Scan modality.



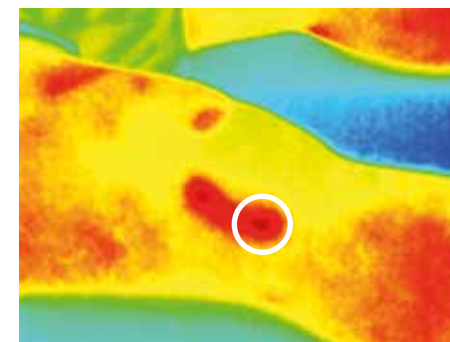
Pre
32,8 °C



Post
36,5 °C



Pre
32,6 °C



Post
35,3 °C



Mini





Efficient: /ɪfɪ(ə)nt/ Capable of producing a desired result. Effective. M-Hi patented technology is scientifically and clinically validated.



Safe: /seɪf/ Secure from threat of danger or harm. Trustworthy. Reliability in your hands: 270 W Peak Power on tissues are delivered in total safety.



Versatile: /ˈvɜː(r)sətaɪl/ Having many uses or applications. Multipurpose. M-Hi is suitable to all clinical environments and methods: for an intensive daily use.



Adaptive: /əˈdæptɪv/ Ability to change to suit changing conditions. Intuitive. Focus on your patients: M-Hi automatically adapts the protocols to your needs.



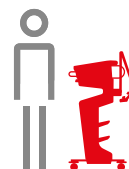
Accurate: /ˈækjərət/ Characterized by perfect conformity to fact. Precise. No more guesswork: track the dose, objectify your therapy and replicate the results.

Versatile

Suitable to all clinical environments and methods.



Lightweight: ergonomic, easy to handle and to operate, M-Hi is always at your side.



Cordless: thanks to its interchangeable batteries, M-Hi ensures hours of treatments and freedom of movement.



Tailored treatments



▷ a



▷ b



▷ c



▷ d

Whether you wish to treat large areas, trigger points, intra-articular windows in close contact or at a distance, M-Hi is equipped with the optical terminal that fits your needs.

a

Ø 2 cm collimated lens - 3 cm² target area: versatile lens suitable for any type of application.

c

Ø 4 mm lens - 0.13 cm² target area: conical light guide designed for rapid, targeted and painless laser puncture treatments.

b

Ø 5 cm collimated lens - 20 cm² target area: homogeneous irradiation of large volumes of tissue in a short time, from contact up to 30 cm distance.

d

Ø 8 mm lens - 0.5 cm² target area: curved light guide ideal for treating very localised and hard-to-reach painful areas, such as facial or interdigital points.

Adaptive

Focus on your patients.

Point-by-Point, Scan, hands-free.

You decide what's best.

Thanks to the **patented** system of **automatic lens recognition** and **parameters adjustment**, M-Hi adapts the protocol to ensure the desired dosage values.

The **tissue-targeted protocols** available for all body districts are extremely **easy to follow**: let them guide you to immediate results.

Point-by-Point modality

Ø 2 cm lens



Scan modality



Ø 5 cm lens



Hands-free modality



Ø 5 cm lens



Accurate No more guesswork.

Dosage (J/cm²)

Track the energy delivered per unit of treatment surface (J/cm²): the only way to objectify and replicate your successful therapy.

User-friendly from head to toe

a

Pre-set protocols are fully customizable: validated settings are at your service for tailor-made treatments.

Personal programs: build your own protocols choosing from hundreds of treatments images/videos to better explain your therapy to the patients.

b

Treatment records: track step-by-step the evolution of the recovery path of your patients and easily repeat your effective treatments.

c

Statistics: immediate feedback on the use of the device, assess the return on investment and improve patient management.

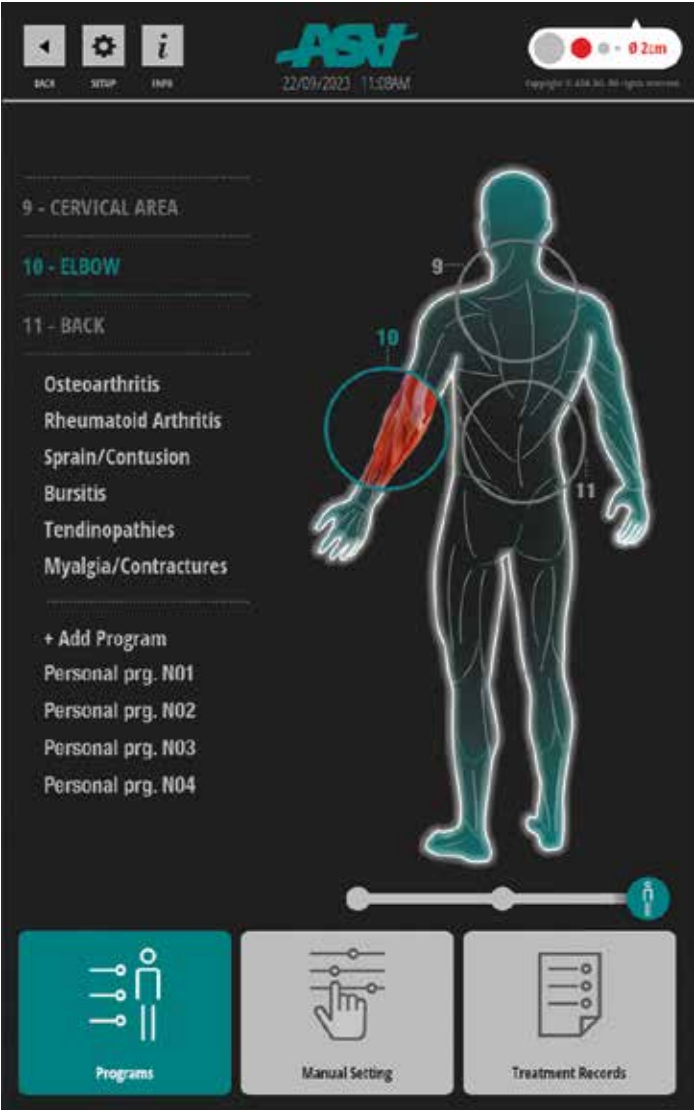
d

USB: you can quickly update the device as well as save and download all your treatment records and protocols.

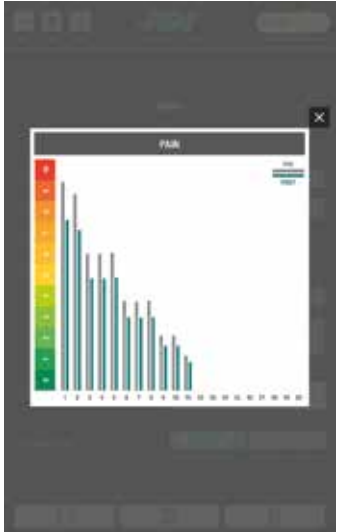
e

Device check-up: send a dynamic QR code to ASA Service for internal check-up.

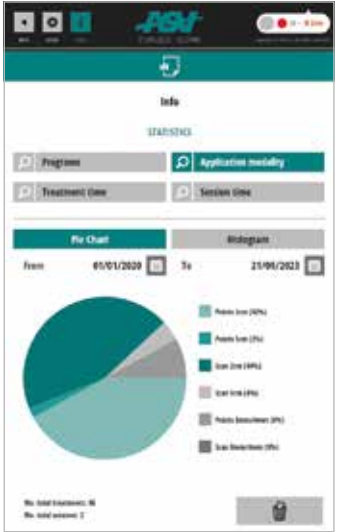




▷ a



▷ b



▷ c



▷ d



▷ e

M-Hi Datasheet



TECHNICAL FEATURES

- ▶ Laser source with impulse in MLS® mode up to 3.6 W
- ▶ MLS® modulation in CPW and FPW (synchronised emission of Continuous Pulsed Wave and Frequenced Pulsed Wave)
- ▶ Peak power outside handpiece: 270 W
- ▶ Power level from 1% to 100%
- ▶ MLS® pulse modulation frequency from 1 to 2,000 Hz in 1 Hz steps
- ▶ Treatment time from 1" to 30'00" in steps of 1"
- ▶ Automatic calculation of the energy emitted according to the parameters set
- ▶ Automatic recognition of the lens and parameters adaptation
- ▶ Lens with target area highlighted by high efficiency red light LEDs
- ▶ 10.1" high brightness LCD touchscreen display
- ▶ Pre-set programs for 11 body districts
- ▶ Programs section for laser puncture
- ▶ Treatment images and videos
- ▶ Possibility of customising each treatment parameter and save personal protocols
- ▶ Treatment log to keep track of patients recovery path
- ▶ Back-up system: a buffer battery keeps the device in stand-by mode when disconnected from the mains to allow the user to move it without having to switch it off
- ▶ Statistics of device usage

POWER SUPPLY, DIMENSIONS AND WEIGHT

- ▶ 100-240 V AC 50/60 Hz 51-68 VA external power supply unit
- ▶ Lithium-ion battery (optional) 14.4 V 6.9 Ah; 0,5 kg
- ▶ 30 x 35 x 15 (W x D x H) cm; 4 kg (M-Hi)
- ▶ 52 x 55 x 106 (W x D x H) cm; 23 kg (M-Hi + trolley + arm)





PROVIDED ACCESSORIES

- ▶ N° 2 Laser Safety Goggles
- ▶ Unit carrying case
- ▶ Shoulder strap for portable use
- ▶ Lens case attachable to the shoulder strap
- ▶ 4 lenses: Ø 4 mm (0.13 cm²), Ø 8 mm (0.5 cm²), Ø 2 cm (3 cm²), Ø 5 cm (20 cm²)

OPTIONAL ACCESSORIES

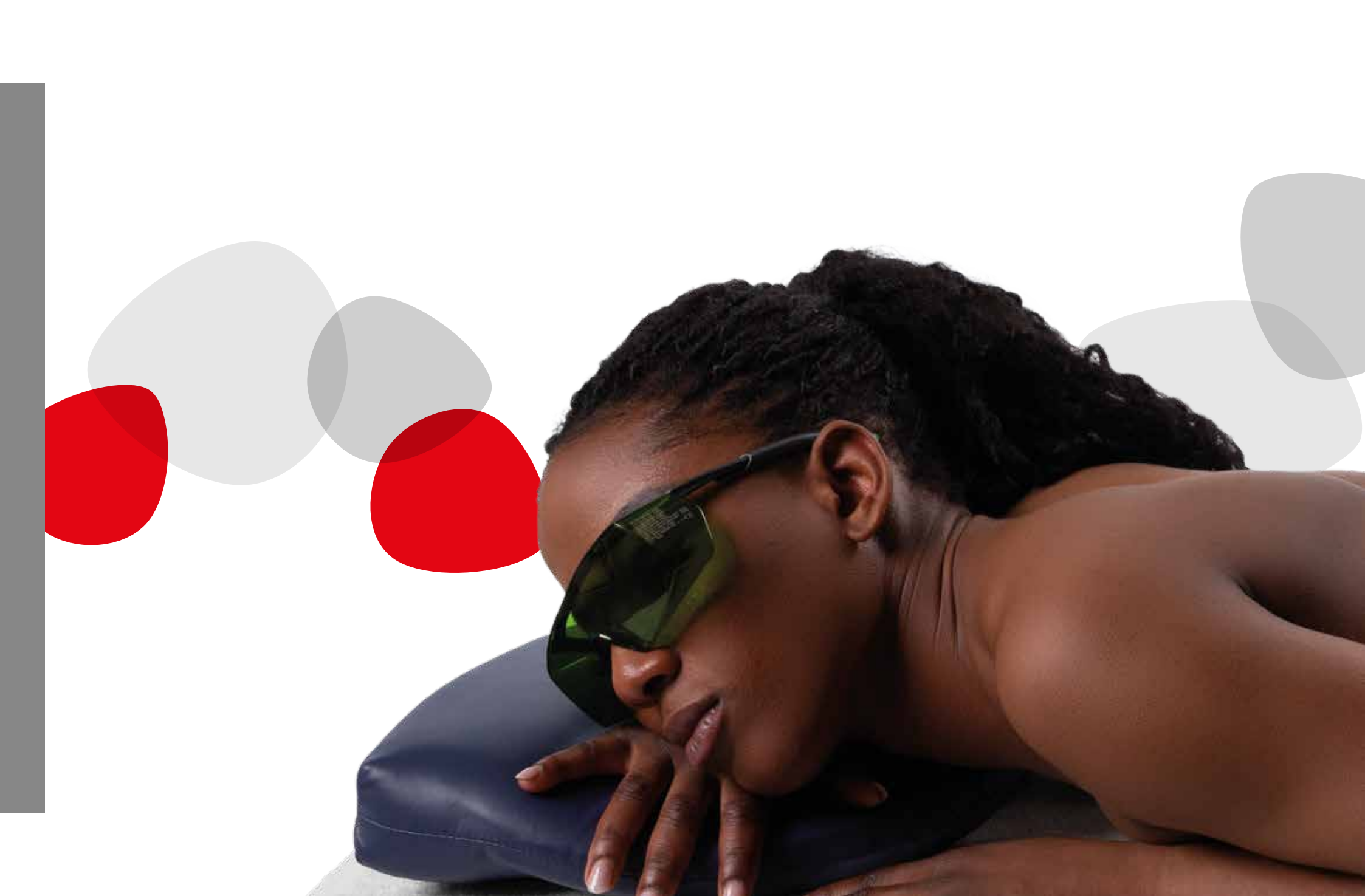
- ▶ Trolley: with storage compartment, 4 swivel wheels and self-locking system equipped with handpiece holder arm for fixed point use featuring sphere and joints
- ▶ Battery kit: consisting of an exclusive charger, battery and connection cable, it allows the device to be used throughout the day without the need to plug it into the mains

ALARMS AND SAFETY FEATURES

- ▶ Laser emission warning light
- ▶ Interlock
- ▶ Acoustic signal adjustable by the operator
- ▶ Date and time
- ▶ Password to operate the device
- ▶ Language option
- ▶ Ready to be connected to the remote Laser emission signalling device

VISIBLE AND INVISIBLE LASER RADIATION
AVOID EYE OR SKIN EXPOSURE
TO DIRECT OR SCATTERED RADIATION.
CLASS 4 LASER PRODUCT.







A tale of passion, commitment and talent.

ASA Quality System is certified by TÜV SÜD Product Service GmbH (ISO 13485:2016), TÜV SÜD AMERICA (ISO 13485:2016), and TÜV SÜD Italia (ISO 9001:2015).

ASA devices are marked CE0123, EU MDR compliant and US FDA listed.

+ 90 served Countries + 30,000 installed devices



+ 500,000 therapies per day + 15,000,000 patients per year



+ 100 documented clinical cases + 200 scientific publications

FOR
EnergyHealth International journal
of information and scientific culture



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