

**4** YEARS OF  
**INNOVATION**  
& **EXPERIENCE**

# THEAL THERAPY

**IXYON XP**  
THE LASER THERAPY  
**REVOLUTION**



 Mecmedix

# WHAT IS THEAL THERAPY?

**THEAL THERAPY** (Temperature controlled High Energy Adjustable multi-mode emission Laser) is a unique, targeted, and personalized therapeutic method that expands the application possibilities of phototherapy and laser therapy.

## APPLICATION FIELDS

**THEAL THERAPY** is a totally adaptive and customizable method; for this reason, its fields of application are many: from sports to rehabilitation, from treatment of sores to conservative treatment of hernias, from podiatry to use in the dermatology functional field.

**SPORTS**

**REHABILITATION**

**NEUROPATHIES**

**PODOLOGY**

**DENTAL**

**VULNOLOGY**

**PDT**

**VETERINARY**



**The meeting point between low-energy laser therapy and high-intensity laser therapy.**

**THEAL THERAPY** not only delivers laser light at different intensities, but amplifies its potential and effectiveness by allowing the operator to use the device with emissions from very low energy levels (LLLL: Low Level Laser Therapy) up to high intensities. Thanks to this working flexibility, the operator can treat different pathologies in different modalities with different applicators.

## PATENTED THERMAL CONTROL

We have designed and patented an advanced tissue thermal control system, thanks to which **THEAL therapy** is applicable on multiple musculoskeletal pathologies of patients with different phototype and different tissue type effectively and safely, making **THEAL THERAPY** even more unique and close to the needs of operators and patients.

## BETTER THERAPEUTIC RESULTS

## SCANX MODE (OPTIONAL)

Automatic application with unique **patented thermal control** via application arm and applicator. Thanks to the two patented magnetic applicators and the adjustable arm, **Ixyon XP** can be easily used as a stand-alone laser operator by switching from manual to automatic ScanX mode with a simple gesture.

### KIT SCANX



**ScanX XP arm with magnetic attachment system**



**ScanX Small / Large Conical applicator for XP handpiece** diam. 70 mm / diam. 120 mm



**Software Update**



**Patient button**



**93%**

93%\* of patients treated with **THEAL Therapy** experience immediate relief from pain

\*Short-term effect of Shockwave Therapy, Temperature controlled High Energy Adjustable multi-mode emission Laser (THEAL THERAPY) or stretching in Dupuytren's disease: a prospective randomized clinical trial. - A. NOTARNICOLA, G. MACCAGNANO, F. RIFINO, V. PESCE, M.F. GALLONE, I. COVELLI E B. MORETTI

## THERAPEUTICAL PROTOCOLS

**Ixyon XP** has an interactive menu that allows you to select specially designed treatment protocols divided according to the anatomical district you wish to treat. It is also possible to create and save customized protocols, choose to treat the patient according to the effect you want to achieve or select one of the protocols for localized or non-localized pathologies on the device.



## CALIBRATION



**Ixyon XP** is equipped with a laser emission control system at the handpiece output according to CEI EN 60825-1.

**Ixyon XP** has a USB port, through which it is possible to constantly update the software.



## CUSTOMISED THERAPIES FOR EACH PATIENT

**THEAL Therapy** allows for the customization of each treatment based on the patient's specific needs.

## WAVELENGTHS

Due to the high absorption coefficient of Cytochrome C Oxidase toward this wavelength, the photobiomodulation mechanism can be triggered. It ensures significant energy exchange at the surface and mid-depth levels and inhibits bacterial proliferation. It enables excellent results in the healing of wounds, sores and ulcers.

650nm

Activates the oxidative process of hemoglobin, accelerating ATP production. Scientific research testifies to its effectiveness in nerve tissue regeneration.

780nm

Due to the high absorption coefficient of Cytochrome C Oxidase towards this wavelength, the photobiomodulation mechanism can be triggered. It allows rapid activation of the hemoglobin oxygenation process: by transferring the correct energy supply to muscles and tendons, it promotes their regeneration.

810nm

Absorbed by major chromophores, this wavelength increases the amount of oxygen available to cells, thereby supporting natural healing processes.

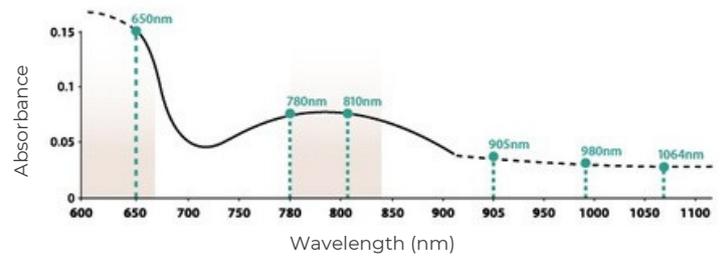
905nm

Mainly absorbed by water, it enables optimized action on thermo- and mechanoreceptors. When combined with the E<sup>2</sup>C mode it ensures the right interaction with the peripheral nervous system, activating the Gate Control mechanism for a rapid analgesic effect.

980nm

It is the wavelength with the least scattering within biological tissues. Its high directionality allows the correct dose of energy to be channeled onto the noxa. The result is a perfect synergy that harmonizes the rapid antalgic effect with a control of inflammatory processes and deep activation of metabolic processes triggered by photobiomodulation.

1064nm



"Re-evaluation of the near infrared spectra of mitochondrial cytochrome c oxidase: Implications for non-invasive in vivo monitoring of tissues" (2014) G.Mason, P. Nicholls, E. Cooper

## ENHANCE YOUR TREATMENTS WITH THE LAPI INVASIVE MODE

Mecmedix's invasive mode is an achievement in the field of laser therapy.

This cutting-edge technology delivers the therapeutic dose directly to the injury location, deep tissues or joints, providing optimal results in just a few minutes and achieving better and faster outcomes than any other physical therapy.



### INVASIVE MODE



Software Update



Fiber



LAPI Optical Applicator



Adaptor Fiber Needle



FAST RESULTS



ACCURACY



SECURE AND CERTIFIED

# AN APPLICATOR FOR EACH TREATMENT

## Large set of applicators for different treatment needs.

Each applicator is specifically designed to optimise the effectiveness of the treatment and ensure maximum precision and comfort for the patient.



## INCLUDED

### APPLICATORS



#### Small IR XP laser applicator with temperature control system

Small applicator suitable for small districts and trigger point treatments.



#### Large IR XP laser applicator with temperature control system

Large applicator ideal for large area treatment.



#### Small Spheric XP laser applicator

Allows you to treat both trigger points and small anatomic districts, combining mechanical pressure and massage during treatment with therapy.



#### Large Spheric XP laser applicator

Allows you to treat large anatomic districts by associating a massage and a mechanical pressure during therapy treatment.



#### Collimated XP laser applicator

Applicator with optical system that can create a spot with a diameter of 10 mm. This applicator allows you to deal with Trigger points and small size anatomical districts with extreme precision.

### ACCESSORIES



#### Protective eyeglasses Rosso + IR + CO<sup>2</sup>



#### Protective eyeglasses 700-1100 + CO<sup>2</sup>



#### XP/PL applicators case

## OPTIONALS

### APPLICATORS



#### Collimated XP laser applicator with IR sensor

This applicator allows you to deal with Trigger points and small size anatomical districts with extreme precision thanks to the skin temperature control system.



#### Aurix XP laser applicator for auriculotherapy (applicator + fiber)

This applicator can be used in auriculotherapy, acupuncture or when it is necessary to administer energy with extreme precision.



#### Micro Spheric XP laser applicator

Applicator suitable for the treatment of very small areas, Trigger Points and myofascial points, delivering mechanical pressure and massage during the treatment.



#### Variable Focus laser applicator XP with IR sensor

Allows you to change the size of the spot depending on the specific pathological condition, modifying the power density of the treatment.



#### Fixed Focus XP laser applicator

Applicator allows you to focus the spot in order to be able to use the generic surgery device. This applicator has many applications in the surgical, dental and podological fields.

### ACCESSORIES



#### Soft bag for transport 34 x 34 x 20cm



#### Rigid bag for transport 47 x 35 x 25cm

For our athletes of the Italian Rowing Federation, THEAL Laser Therapy is particularly indicated. This technology, thanks to its continuous, pulsed and superpulsed emission characteristics, correct wavelengths and thermal control, allows us to have a great help in the treatment of our athletes' pathologies and in particular in the resolution of pathologies of the spinal column and shoulder area.



**Prof. Antonio Spataro**

Sportsphysician - president of the medical commission Italian Rowing Federation

## TECHNICAL SPECIFICATIONS

DEVICE	IXYON XP
SOFTWARE	Proprietary Real-Time Operating System MecOS 5.0
WAVELENGTH*	In the 650 ÷ 1064 nm range, mixable with the innovative patented Lambda Wave Creator system
GUIDE LIGHT	650 nm - up to 3 mW
LASER POWER	Up to 50 W
EMISSION MODE	<b>Continuous (CW), Puls1, Puls2, Puls3, Antif, E°C</b> (patented stochastic mode), <b>Dimmer, HPM, Single Pulse, Burst, THP, PBM, Trap, Sinus and Custom</b>
WORKING MODES	Manual, Automatic (ScanX)
SPECIAL MODES	Joule Mode, Timer Mode, Trigger Point Mode and Mode with thermal control of fabrics
EFFECTS MODES	Protocols to maximize the main effects: <b>Biostimulant, Anti-inflammatory, Antiedemigenous, Decontracting, Analgesic</b>
SCANX AUTOMATIC MODE	SCANX Automatic Mode (Optional)
PROTOCOLS	<ul style="list-style-type: none"> <li>• More than 150 predefined protocols</li> <li>• Ability to create custom protocols</li> </ul>
CALIBRATION	Graphic and acoustic laser emission control system at the exit from the handpiece, according to IEC EN 60825-1
DISPLAY	10.1" TFT color touch-screen display
POWER SUPPLY	100 ÷ 240V 50 ÷ 60Hz
ABSORPTION	160 VA
DIMENSIONS	<ul style="list-style-type: none"> <li>• 300 x 450 x 250 mm (excluding trolley)</li> <li>• 300 x 450 x 1070 mm (with trolley)</li> </ul>
WEIGHT	<ul style="list-style-type: none"> <li>• Without trolley: 7 kg</li> <li>• With trolley: 22 Kg</li> </ul>
LASER CLASS	IV
BEAM DIVERGENCE	25°
PULSE DURATION	1-1000 ms
IP CLASSIFICATION	Device: IPX0 Handpiece: IPX0 Pneumatic foot pedal: IPX4
CONDITIONS OF OPERATING CONDITIONS	10°C ÷ 30°C 30 ÷ 75% non-condensing humidity 700 ÷ 1060 hPa
CONDITIONS OF TRANSPORT AND STORAGE	-10 ÷ 55°C 10 ÷ 100% non-condensing humidity 500 ÷ 1060 hPa
EMP	Maximum emission allowed on the skin 5600W/m <sup>2</sup>
EMP	Maximum emission allowed on the cornea 9W/m <sup>2</sup>
NOHD	Nominal Ocular Hazard Distance 10m
CONFORMITY	EN 60601-1; EN 60601-1-2; EN 60601-2-22
DIRECTIVE 93/42	IIb Classification
WARRANTY	2 YEARS

\*specified on license plate data

## SUPPORTING CHAMPIONS

Mecmedix is proud to collaborate with some of the world's leading professional teams and athletes. Our technologies are chosen to **enhance performance, accelerate injury recovery, and ensure the best physical well-being** for high-level athletes.



FORNITORE UFFICIALE  
2024/25



## BENEFITS for SPORTS



FAST RECOVERY



PREVENTION OF RECURRENT INJURIES



# ADVANCING THERAPY, EMPOWERING PROFESSIONALS

Mecmedix empowers healthcare professionals with cutting-edge technology and specialized training, ensuring optimal treatment outcomes. Through global education programs and expert support, we enhance skills and set new standards in rehabilitation.



**50+**

TRAINING COURSES  
PER YEAR  
Ongoing **professional education** for therapists.



PROVEN EFFICACY SUPPORTED BY

**19.000+**

Over 19,000 scientific studies **confirm the effectiveness** behind Mecmedix therapies.



**300.000+**

THERAPISTS TRAINED  
Devices used by over 300,000 professional therapists



**70.000+**

Mecmedix/Mecmedix devices used in clinics and hospitals



MYMECMEDIX: YOUR ONLINE HUB FOR **COURSES, TRAINING, SUPPORT AND THERAPY INSIGHTS**



**200+**

Therapy protocols developed and tested.

## NEVER STOP **INNOVATING** *for* A **HEALTHIER WORLD**

Mecmedix brings together cutting-edge technology, global expertise, and a commitment to personalized care. Our therapies not only speed up recovery but are designed to be effective for every patient, offering personalized protocols for tangible results.

As we look to the future, we invite you to explore how our advanced therapies are enhancing lives around the world.

**At Mecmedix, health is our mission.**

Join Us on our Journey to a Better Health



Mecmedix

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