





# ROLAND2: the best expression of the Italian Design

The new R2 Opera Design is coming and promptly becomes the protagonist: modern and attractive shape, along with innovative solutions are the clear expression of the attention and style typically belonging to the Italian Design. The attention to the details is evident and it is also the synthesis and expression of the intrinsic qualities of a range of products where the creative vision and technological solutions make products with great performances.



## Pure passion for Innovation!

R2 Opera Design is more than a simple evolution of the previous R2 range. It is using all the new solutions, both stylistic and technological belonging to the new "concept" of Opera Design. Each unit is an innovative device, with an innovative software and a large colored touch-screen. All solutions make the operator capable to customize the unit and to make it "his own device", with all capabilities and functions for meeting his satisfaction. R2 Opera Design is made for all those operators looking for special solutions and always want the best, for getting comfort and efficiency in treating every pathology and patient.

# It ain't over till it's over!

Treatment of almost all pathologies is made from a complex range of applications, making a whole protocol.

This is why, Opera Design is offering information about possible therapeutic association of each pathology and target; practically, for each available target and for each available suggested pathology, where possible, R2 Opera Design is also suggesting about further useful applications to be performed for being more effective. That approach is completely new and makes R2 Opera Design a real interactive support for the Physiotherapist..

Wide colored and touch-screen display



Pre-set pathologies with body pictures



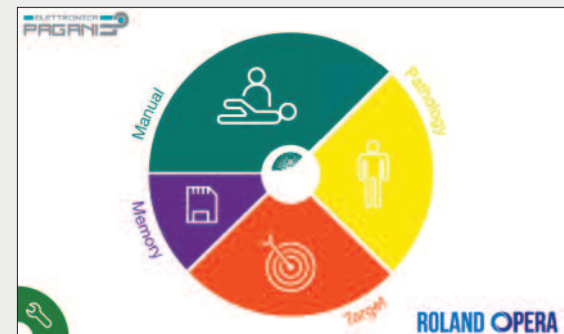
# Software Opera Design

Manual setting, pre-set programs with body pictures, and particularly the new function made from the "Targets" allowing the operator to select functions depending on the aim of each treatment, all together are granting the widest versatility. The technology is evolving only when it becomes useful. All technological solutions belonging to R2 Opera Design are expressing a useful concept of technology, where technological solutions are used to assign important features in offering better comfort, faster, larger and more intuitive and efficient performances.

Therapeutic targets



Multitasking software



# All-around!

The circle is generally considered the “perfect geometric figure” and PAGANI’s team of Engineers and Physiotherapists who developed the idea concerning Opera Design were thinking about the operator first! So, the operator is the protagonist and everything has to go around him! This is why R2 Opera Design is offering all main functions into the area of a circle, where the operator is inside and it is easy and intuitive for him to move, having always available all keys and all functions.

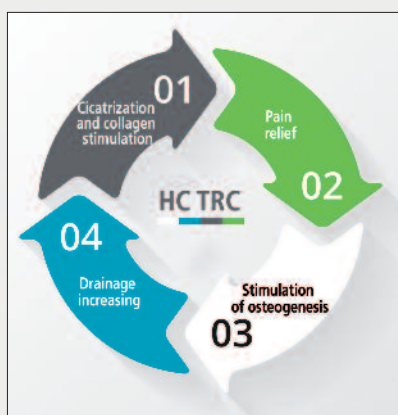
Each parameter is under control, every action is intuitive and fast.



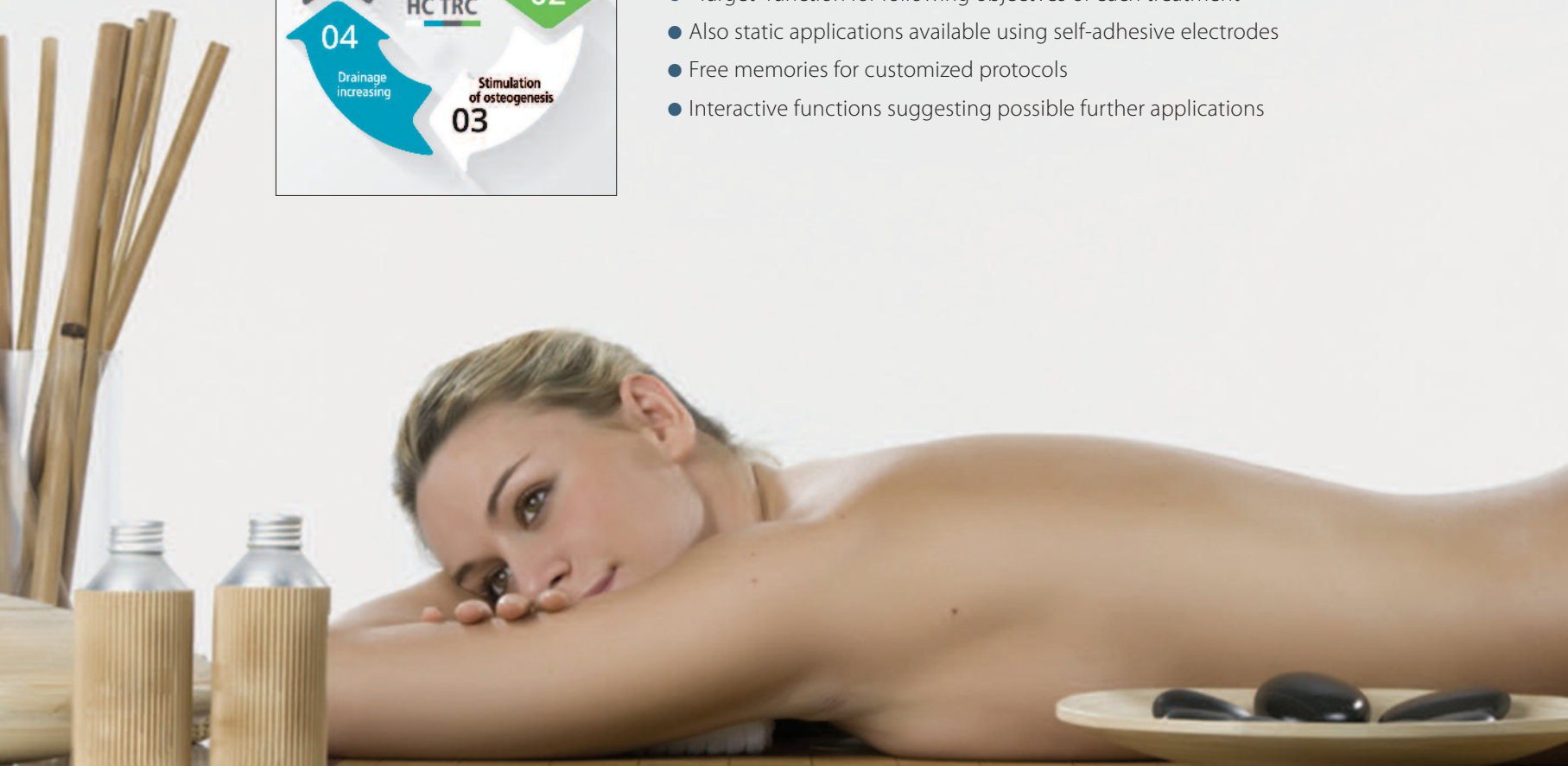
# TRC: The Evoluted Thecar Therapy concept!



TRC is the most modern device belonging to the Evoluted Thecar Therapy Concept. The new R2 TRC Opera Design is offering a product supporting the operator in performing very special applications and getting benefits from each of them with reference to the aim of the treatment. TRC Opera Design is again a further step making TRC the point of reference for those professional operators who today want an advanced device, for those who are not satisfied from very traditional devices and solutions and ask for unusual and special solutions, for getting the best without any compromise, aiming to get maximum effectiveness, advanced performance, safety operations.



- Single and internationally accepted working frequency at 485 KHz belonging to Thecar Therapy
- "Touch-screen" as standard
- Pre-set programs with body pictures
- "Target" function for following objectives of each treatment
- Also static applications available using self-adhesive electrodes
- Free memories for customized protocols
- Interactive functions suggesting possible further applications





# Creative and thecnologic funtions make your TRC a special device



Manual setting of each parameter



Therapeutic "Target" functions



Main screen

## INTERACTIVE PROBE



### **Interactive Probe: improve your safety and comfort!**

IP belongs to PAGANI only and has been made for granting comfortable and safety massage, in respect with ergonomic shape of the hand. Everybody may handle the hand-piece with insulation and protection from eletromagnetic field. IP is granting electronic switching from capacitive to resistive without changing the electrode. A sophisticated electronic system is granting changing. Over the colored LCD of IP you may check all useful parameters such as temperature, intensity, impedance, modality and you may adjust intensity continuously.





# When you decide to perform an application, do it at the best!

## **DET: Dynamic Energy Transfer**

Dynamic Energy Transfer has been introduced for granting proper energy to the patient with reference to temperature modifications and impedance over the patient.

## **MCS: Magnetic Coupling System**

MCS has been studied exclusively from PAGANI for allowing coupling of each electrode to the Interactive Probe by using a special magnetic attraction, without any connector for making easier and safer every connection.

## **Hand-piece for Bipolar (without neutral plate) and unipolar applications**

The hand-piece is useful both for unipolar and bipolar modalities. Bipolar application is allowing the operator to avoid neutral electrode and delivering energy locally where the electrode keeps in touch with the patient's skin. It is useful for treating small parts of the body, such as face (sinusitis, rinitis, wrinkles, stimulating collagen, etc.), cheloidis, for treating cellulite and oedema, vascular diseases.

## **Static applications**

R2 is also allowing static applications, where intensity is automatically reduced for being totally safety.

Static action could be useful for delivering electromagnetic fields directly over a certain area to be treated, where massage is not required and local hyperemia and electromagnetic field could provoke benefits.

## **Neutral electrode for upper limbs**

This special neutral electrode is keeping into the hand of the patient and it is useful for treating upper limbs.

### **TECHNICAL FEATURES**

Frequency: 480 KHz +/- 10Hz

Emission: continuous and pulsed

Impedance: in real time

Temperature sensor

Power:

mod. HCTRC 180: max 180 W

mod. HCTRC 300: max. 300 W

Pre-set protocols with body pictures

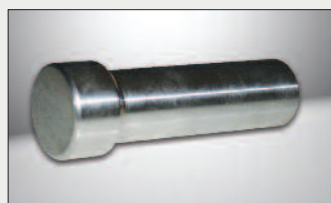
Free memories for storing customized protocols

### **On inquiry:**

- Roland 2 trolley
- Bipolar hand-piece
- Set of accessories for static applications



Static applications with self-adhesive electrodes



Neutral electrode for treating upper limbs



Bipolar modality



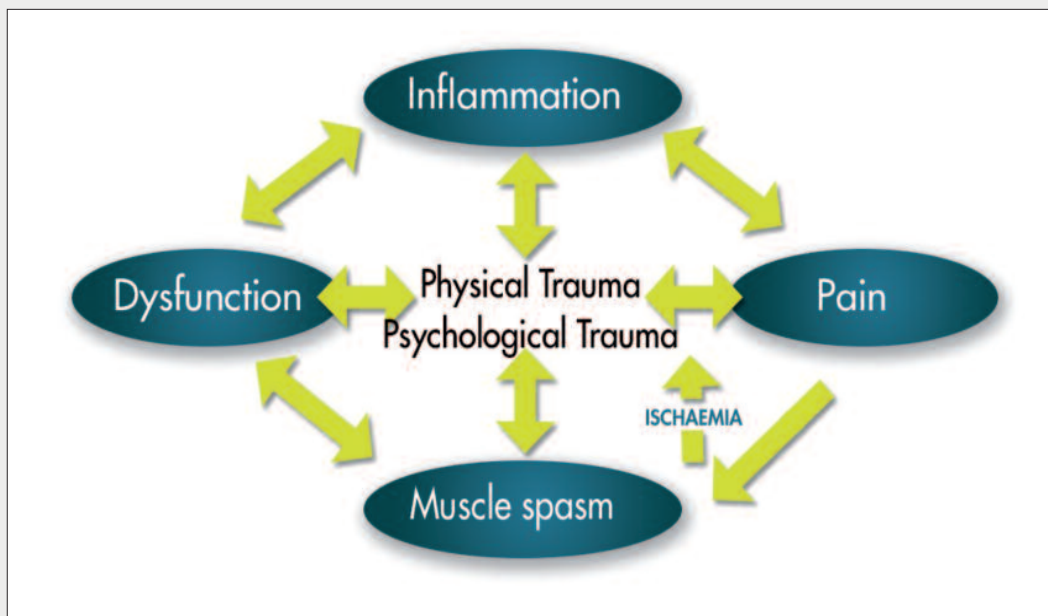
Static modality

# EXPERT: the intelligent energy!

The recent introduction of extra-corporeal shock-waves therapy changed the general approach to several pathologies of musculoskeletal system.

EXPERT is particularly effective into the treatment of tendons, muscles where a poor vascularization of the joint is present; it is also successfully applied over the treatment of calcifications.

Very good effects have been demonstrated into the improvement of elasticity of the superficial tissues, where it seems to improve aesthetic and collagen stimulation and it is capable to reduce oedema and cellulite.



# Professional like your needs!



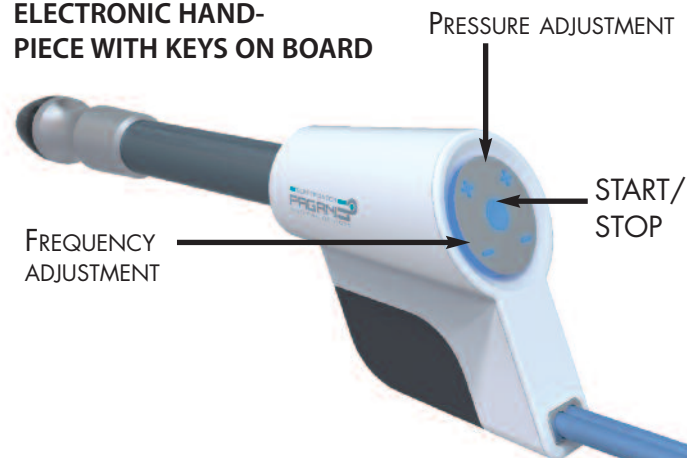
## Patented shock-waves applicators



### "LARGE-FOCUS" shock-waves applicator

developed from PAGANI is capable to generate and transfer mid and high energy density shock-waves into the different cellular layers, by respecting the patient's comfort. This special feature allows the operator to perform every treatment without any special collateral effect and without provoking pain to the patient. The special "LARGE FOCUS" probe is using a wide range of energy levels for transmitting the proper energy to the different cellular layers.

## PATENTED DEVICE

### ELECTRONIC HAND-PIECE WITH KEYS ON BOARD



FUNCTION			
	CONTROLLED SHOCKWAVE		LARGE FOCUS

Emission setting, between "Large Focus" and "Unfocused"

# Solutions that combine versatility and efficiency

The new extra-corporeal shockwaves device mod. EXPERT belonging to the re-designed R2 Opera Design is provided with innovative functions and software solutions which are the result of more than ten years experience and meet the best requirements in terms of versatility and effectiveness. On this purposes, EXPERT is provided with the new comfortable hand-piece with controls on board for setting pressure and switching the unit on and off; also the arm with the relevant holder for the above mentioned hand-piece may grant more comfortable applications for making each application easier; last but not least the innovative software is very simple and intuitive allowing the operator to perform every treatment with care.

Furthermore, EXPERT is offering manual setting, a wide range of pre-set programs with body pictures, free memories and the new therapeutic objectives for treating symptoms and phases where it is useful to use extra corporeal shock waves.



Wide range of pathologies



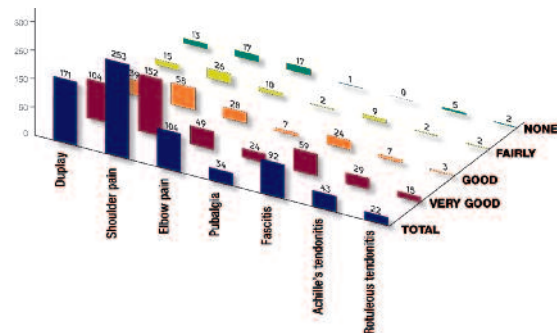
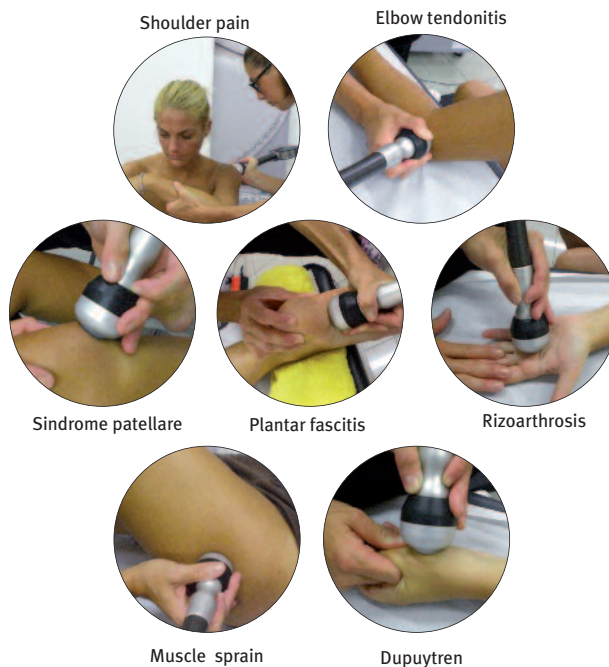
Therapeutic objectives



# Always well up to your best expectations

The clinical introduction of extracorporeal shock waves has proved to be of great interest in musculoskeletal pathology in three specific areas of application:

- a) in restoring bone repair processes where there is a delay in consolidation or evident pseudoarthrosis;
- B) in the case of fibrotic and / or calcific muscle lesions such as tearing and crushing or cutting injuries;
- C) in pathologies of tendons, particularly chronic tendon diseases resistant to other therapies, with clear and circumscribed anatomic-functional localization. Further to the experimentation on biological tissues, the conception of physical effect of shock waves in destroying calcifications has been jumped, since it became more interesting to stimulate neo-vascular localized activity for re-activating cellular action.



From the graphic, we notice very good results in almost all whole 719 treated patients belonging to the multicenter clinical evidence

## TECHNICAL FEATURES

Wheeled frame device: cm 40 x 30 x 90 h

Graphic and colored LCD

Wide range of pre-set protocols with body pictures

Free memories for customized protocols

Max. 5 Bar electropneumatic device

Emission mode: "Large Focus and "Unfocused"

Max. penetration of focus: around 55 mm

Max. penetration of shock-waves: around 70 mm

Frequency: 1 to 15 Hz (22 Hz on inquiry)

Touch-screen

Arm with hand-piece holder (on inquiry)





# 3-BAND: the technology of Quartz!

## **A completely new and more effective concept of ultrasound therapy!**

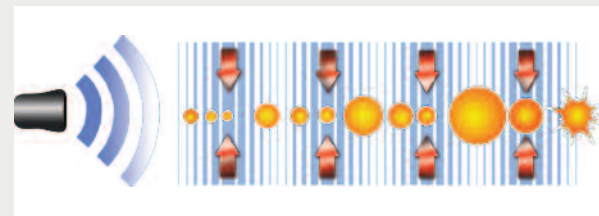
Totally new, the 3-BAND ultrasound therapy device represents the "Excellence" into the ultrasound range belonging to PAGANI. Innovative, modern, provided with solutions capable to ensure the widest versatility in performing applications and whole effectiveness mainly thanks to application of quartz technology, applied in manufacturing ultrasound head. More expensive and difficult to use than ceramic, which is apply from almost all other competitors into the market, quartz has been chosen from PAGANI for its highest features in terms of stability, performance and longevity that ceramics cannot currently ensure. This is why, the new 3-BAND device is the leading ultrasound, suitable for those operators who asks for the top quality without any compromise.

## **CAVITATION**

Cavitation means a copious mechanical effect caused by ultrasound waves on the patient. All ultrasound therapy devices may produce cavitation but thanks to quartz, 3-BAND is capable to grant a very useful effect which could be applied both into the field of rehabilitation for treating muscular and tendon calcifications over the joints and treating also physio-aesthetic pathologies for removing undesired fat cells and improving skin elasticity.



High-efficiency quartz with gold protection for granting top performance



Cavitation effect coming from piezoelectric effect



# Made for getting the best results!

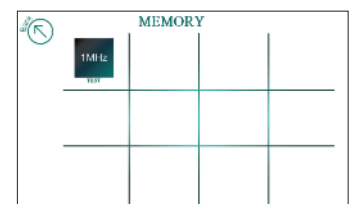


## TECHNICAL FEATURES

Frequency: 1 & 3 MHz
Emission: Continuous and Pulsed (25%, 50%, 75%)
Modulation: 1 to 200 Hz
Standard ultrasound head: 1 MHz 5 cm <sup>2</sup>
Timer max. 30 min
Display: touch-screen colored display
Pre-set programs with body pictures
Therapeutic objectives
Free memories
Maximum intensity: 3 W cm <sup>2</sup> ; 15 W max
Real-time device with visual and acoustic indication of missing coupling between patient's tissue and ultrasound head
Gel 250 g



Programs



Free memories

## On inquiry::

- Ultrasound head 5 cm<sup>2</sup> 3 MHz
- Ultrasound head 1 MHz for static treatments with or without adapter
- Trolley mod. R2 with or without drawers
- Arm with holder for ultrasound static head

# INFINITY: 2 independent channels.

## Beyond the usual electrotherapy devices!

### Draining electrotherapy

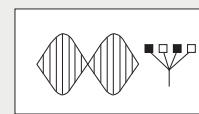
Use of this particular exponential waveform helps to improve circulation, accelerates and facilitates venous return, attenuates problems and pain coming from swelling and edema.

### IF waveforms from 2 to 20 KHz

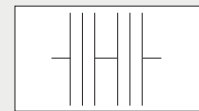
IF waveforms could be adjusted both in intensity (vertically) and also into the carrier frequency (horizontally). In this latest opportunity, during treatment it is possible to apply to the patient different kind of frequencies provoking several effects, such as anti-inflammation and edema, stimulations of fibers and muscles, pain relief. This is why those kinds of waveforms could be useful for treating complex pathologies, where pain is associated to edema, or edema is associated to traumas, or pain is associated to muscle contraction and sprain.

### Continuous and pulsed vacuum device (on inquiry)

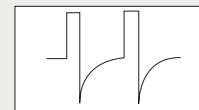
Vacuum could be useful for performing specific treatments such as cheloidis, drainage, or to apply IF currents with the aim to be effective in provoking hyperemia effects.



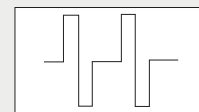
*IF Bipolar & Quadripolar*



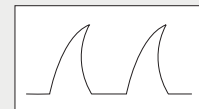
*Kötz*



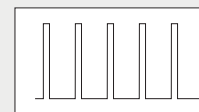
*Tens*



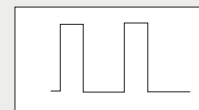
*Biphasic*



*Drainage current*



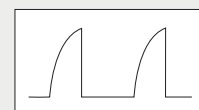
*Träbert*



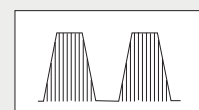
*Rectangular*



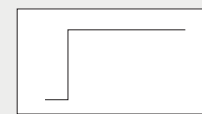
*Triangular*



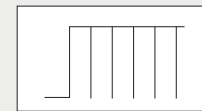
*Triangular-exponential*



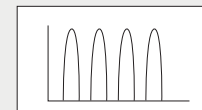
*Faradics*



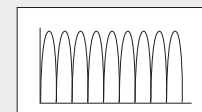
*Galvanic*



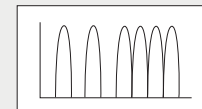
*Interrupted Galvanic*



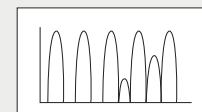
*Diadynamic 50Hz*



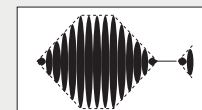
*Diadynamic 100Hz*



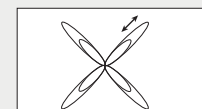
*Short period*



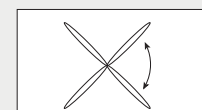
*Long period*



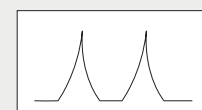
*Mid frequency*



*IF isoplanar*

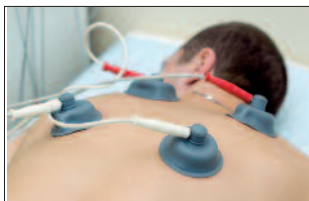


*IF vectorial*



*High voltage (on inquiry)*

# It's easy to become familiar in using the best solutions!



Vacuum system



Available accessories

#### On request:

- Continuous and pulsed vacuum
- High voltage current
- Trolley mod. R2 with or without drawers

#### TECHNICAL FEATURES

Outputs: n. 2, independent into the choice of current and intensity

Maximum intensity: 76.5 mA

##### *Low frequency*

Galvanic and interrupted galvanic, diadynamic (50-100 Hz, CP, LP, 50 Hz interrupted and 100 Hz interrupted), rectangular, triangular, biphasic, exponential, Trabert, faradics, drainage

##### *Medium frequency*

from 2 to 20 KHz

Bipolar and quadripolar, IF isoplanar, IF vectorial, MF stimulation, Kotz, IF isodynamic

Display: 480x800 pixels: colored touch-screen

Pre-set programs with body pictures

Free Memories

Therapeutic objectives

# X5 EU: combined ultrasound and electrotherapy device!

R2 X5EU includes all special features belonging to the most modern therapeutic generators for electrotherapy and ultrasound therapy.

X5EU is the most versatile combined device for electrotherapy and ultrasound.

1 & 3 MHz multifrequency ultrasound therapy is combined to the universal electrotherapy device, capable to perform every useful current alone or also combined to the ultrasound waves.

The universal electrotherapy generator is provided with two outputs. X5EU allows the operator to set every pathology with all the widest range of parameters, over the Windows CE platform; also, the operator may use a lot of pre-set protocols with the relevant pictures, for placing correctly the relevant electrodes and/or ultrasound head.

Combination of the two available generators, ultrasound and electrotherapy, also grants more therapeutic benefits, due to the sum of the combined effects into the same time.







## TECHNICAL FEATURES

### Ultrasoundtherapy

Frequency: 1-3 MHz

Emission: continuous and pulsed (from 20 to 80%)

Modulation: 1 to 200 Hz

5cm<sup>2</sup> multifrequency head for single and combined use

Timer max. 30 min

Intensity max: 3 W cm<sup>2</sup>

Real-time attesting no-coupling between patient's tissue and us head

### Elettrotherapy

Outputs: n. 2

Intensity max.: 76,5 mA

### Low frequency:

Galvanic, interrupted galvanic, diadynamics (50-100 Hz, CP, LP, 50 and 100 Hz interrupted), rectangular, exponential, triangular, Biphasic, Trabert, Faradics, drainage current

### Mid frequency:

Outputs: 2

Frequency: 2,0 KHz to 20 KHz

IF bipolar, IF quadripolar, IF isoplanar, IF vectorial, MF of stimulation, Kotz, IF horizontal

Graphic and colored LCD with touch-screen

Pre-set programs with body pictures

Free memories

Therapeutic objective

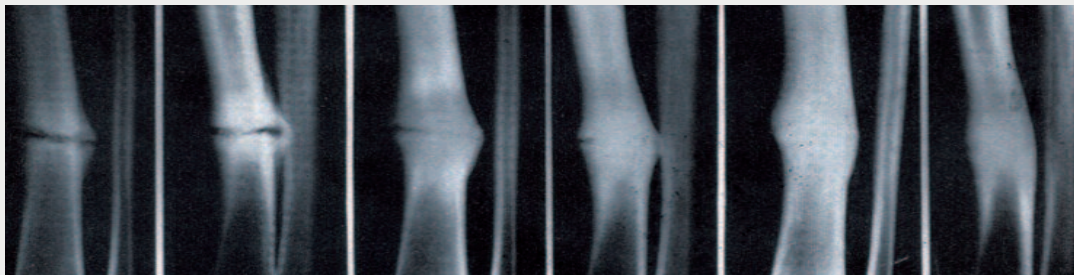
### On inquiry:

- HV current
- Trolley with or without drawers
- 1 cm<sup>2</sup> 1-3 MHz head
- 1 MHz 8 cm large head with strap for static and underwater treatments
- Connector combining electrotherapy to ultrasoundtherapy



# SYNERGY: affordable performances with the highest versatility of features

Further to the most traditional frequencies from 1 to 200 Hz, it is also possible to set high frequency magnetic field up to 5000 Hz. It is possible to set only low frequency or only high frequency. Usually, low frequency magnetic field is applied for performing treatment in case of fractures, pseudarthrosis, osteoporosis, etc.. The aim of the treatment is to improve quality and quantity of callus and collagen. Otherwise, high frequency magnetic field is generally used for treating vascular, dermatology diseases and also for treating all the pathologies where warm is absolutely contra-indicated.







## TECHNICAL FEATURES

Outputs: 2

Frequency: 10 to 200 Hz for LF and up to 5000 Hz for HF

Emission mode: pulsed and pulsed modulated

Intensity: max 100 Gauss (peak);

Effective on the patient max. 50 Gauss

Display: Colored touch-screen

Pre-set programs with body pictures

Free Memories for customized protocols

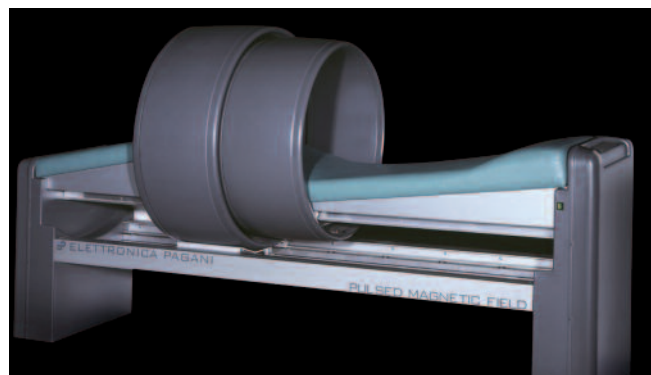
Therapeutic objectives

## Standard accessories:

- Pair of LF applicators with straps

## On request:

- Pair of HF applicators
- Ergonomic couch with two-solenoids for partial and total-body treatments
- Ergonomic couch with single solenoid partial treatments
- Solenoid 30 cm large for upper and lower limbs
- Trolley mod. R2 with or without drawers



**1** Low frequency contact solenoids



**2** Solenoid for limbs of diameter 30 cm



**3** High frequency band hammer

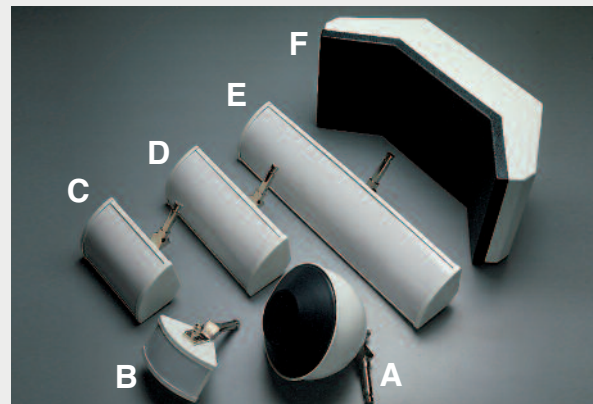
# ENDOSAN: choosing the best without any compromise!

ENDOSAN is a modern device for microwaves therapy.

ENDOSAN could deliver both continuous microwaves for creating hyperemia effects over the area of the treatment and also pulsed microwaves for transmitting electromagnetic waves without making warm over the superficial tissues. This innovative device is capable to deliver electromagnetic field only, without provoking warm while acute diseases are present and/or while warm is not indicated for the general situation of the pathology.

Microwaves operating at 2450 MHz frequency have been shown to be effective in the treatment of painful joints (eg cervical disorders, dorsalgia, lumbago, etc.), in degenerative rheumatic diseases (eg osteoarthritis, rheumatoid arthritis). And lately, thanks to pulsed emission modes, it is useful to use micro-waves in recent traumas (eg distortions, bruises, hematomas, muscle injuries, etc.). The wheeled frame device is provided with an attractive and innovative design and it is especially comfortable to move. The handle placed on the back of the unit is allowing a comfortable and safe movement. Finally, the multi-articulated arm is assuring correct flexibility and safety. A wide range of radiators allows you to perform any kind of application.

- A.** Conical radiator diam. 170 mm
- B.** Radiator 100 x 120 mm
- C.** Radiator 170 x 120 mm
- D.** Radiator 250 x 120 mm
- E.** Radiator 470 x 120 mm
- F.** Large field radiator





### TECHNICAL FEATURES

Frequency: 2450 MHz

Emission modes: continuous and pulsed

Intensity: 250 (continuous); 1600 W (pulsed)

Modality pulsed: 25 ÷ 50% ÷ 75%

PPS 1/4, 2/4, 3/4, 4/4

Display: Colored touch-screen

Pre-set programs with body pictures

Free Memories for customized protocols

Therapeutic objectives





# Against pain and inflammation

## Continuous Emission

It is suggest for using the max output power, reducing application time, getting warm effects over the affected area. Also, it is useful to use continuous emission mode while automatic scanning or static emission modes are performed over a large part of the body.

Operator may adjust intensity from the lowest level to the highest level, both before starting treatment that during treatment, just in order to adapt intensity to the real feedback of the patient.

## Pulsed emission

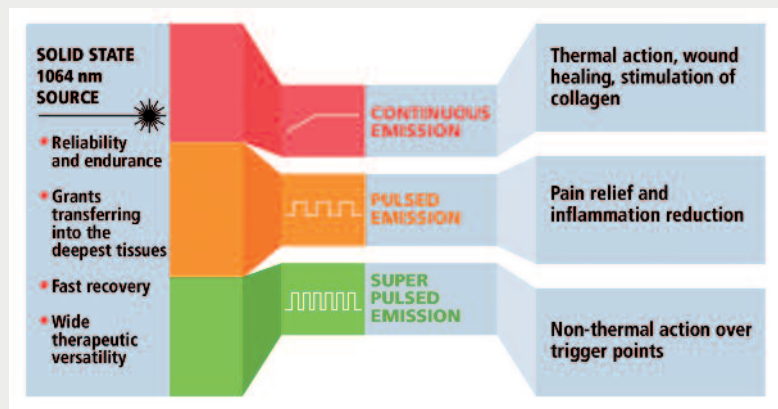
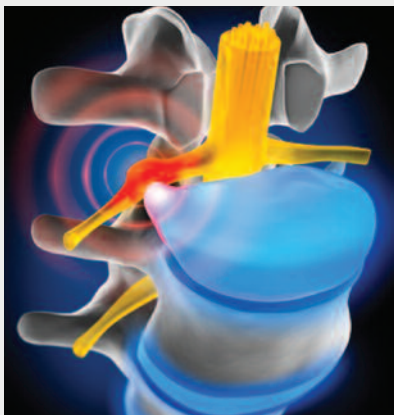
Pulsed emission or interrupted emission mode is performed for reducing thermal effects over the

different cellular layers and delivering high energy power.

In this regard, some clinical evidences show that the pulse duration should be at least 100 ms for being capable to provoke muscle bio-stimulation.

## Super Pulsed and Trigger Points

Treatment of the trigger points is useful while a painful area is advisable, generally over small areas of the body. Trigger points are available over the muscles, mainly over the body of the muscle. Usually, it is used super pulsed emission mode for treating trigger points, by transferring laser energy over each point for a short application time, in order to avoid dangerous energy density.





# HEALTH: High Energy Laser Therapy



More and more affordable technologies for ever increasing performance! Against pain and inflammation, accelerates local metabolism. The 1064nm wavelength is included in into the universally defined best "laser therapeutic window", in which the transmission occurs both on the superficial tissues and on the deeper tissues, involving muscles, tendons and bones

## TECHNICAL FEATURES

**Mod. FIBER Yag 6:** 1064 nm, 6 W

**Mod. FIBER Yag:** mode source: 1064 nm, 12 W at source

Visible wavelength 650 nm

Automatic calculation of energy density and application time

Modulation: 1 to 250 Hz Emission: continuous / pulsed / super pulsed

Pre-set programs with body pictures

Free memories for customized protocols

Therapeutic objectives

Standard accessories: protective goggles, 2 and 6 cm applicators

On request: trolley mod R2 with or without drawers

12 cm applicator with arm and holder

# Original accessories



Trolley mod. R2 with drawers



1 MHz static head for X5EU



Static ultrasound heads for 3-BAND



Arm mod. PROFILO for 3-BAND



Electrotherapy accessories



Neutral Hand-Piece for TRC







**QUALITY FOR HEALTH SINCE 1947**

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