

Transderm[®] Meso[®] System

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Transderm[®] Meso[®] System is the new Non Invasive, Stand alone powered drug-delivery carrying Dermoelectroporation[®] Technology to deliver Ionic drug solution into the body for medical purposes.

The system has been FDA approved for the *"local administration of ionic drug solutions into the body for medical purposes and can be used as an alternative to injections"*.

Transderm[®] Meso[®] System allows a very efficient transdermal delivery of products in any condition and it works right after Microdermabrasion.

Transderm[®] Meso[®] System is made of the following devices:

- Power supply Rack.
- Transderm[®] Meso[®] delivery display with both applicators.
- Super Precision Liquid Dispenser - Super PLD.



Macromolecules (greater than 15.000 Dalton) previously not transdermally deliverable by traditional Ionthophoresis are now successfully deliverable due this new outstanding Dermoelectroporation[®] Technology.

Transderm[®] Meso[®] System ensures speed of action, easier regulation of either current

delivery and vibration and monitors skin impedance on real time to give users the final results they expect.

Operators will enjoy the light applicators of Transderm[®] Meso[®] System in any skin condition and for any length of treatment.

Patients will enjoy treatments with Transderm[®] Meso[®] System due to the very high comfortable sessions. Vibration feature makes electrical pulses delivery perception to decrease significantly.

Benefit to patients

- ASTONISHING RESULTS FROM THE 1ST SESSION
- COMFORTABLE TREATMENTS
- NO DOWNTIME OR SOCIAL LIFE RESTRICTION OF ANY SORT
- NO IRRITATIONS, BURNINGS OR INFLAMMATIONS
- NO TRAUMA FROM INJECTIONS

Easy to use.

FDA cleared as alternative to injections.

New Internationally Patented proprietary Dermoelectroporation[®] Technology.

Non invasive.

Current delivery perception protected.

Control on homogeneous drug delivery.

100% drug protection against external agents.

Real time skin impedance measurement feature.

Real time transdermal delivery monitoring.

Control on either amount of drug to be delivered and time of treatment.

No need of Pre-charged compounds / Carrying Gels / specific products or particular preparations / Additional terminals.

Some applications

- Hyperhidrosys
- Cellulite treatments
- Skin Rejuvenation treatments
- Cellulite treatments
- Wrinkles treatments
- Fat Deposits treatments
- Pre laser treatments
- Pre and post plastic surgery sessions
- Skin Whitening treatments
- Steroids applications
- Aesthetic applications
- Replacing injections for Mesotherapy applications and many others

Some deliverable drugs

- Type A Botulinum Toxine
- Phosphatidylcoline
- Hyaluronic Acid
- Aminophylline
- Grow Factors
- Amino Acids
- L-Carnitine
- Lidocaine
- Heparine
- Collagen
- Vitamins
- Steroids
- Elastine
- and many others

DATA SHEET

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TECHNICAL SPECIFICATIONS

POWER SUPPLY: 9 V DC, 1A max, external

AVERAGE PULSE CURRENT:

+/-1 mA, 2 mA, 3 mA, 4 mA, 5 mA, user selectable, $\pm 20\%$

LOAD IMPEDANCE: 0 -15 KOhm

PULSE FREQUENCY: 2200 Hz

BURST TIME: 10 msec.

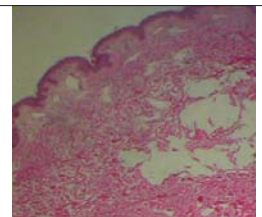
BURST FREQUENCY: 50 Hz.



Before



After



1.700.000 dalton
Hyaluronic acid delivery
through the dermis
to hypodermis using
Transderm[®] Ionto System



**MATTIOLI ENGINEERING
ITALIA S.P.A.**

Via Petrarca 80-82
50041 Calenzano (Firenze) - Italy
Phone +39 055 882247
Fax +39 055 8874879
info@mattioliengineering.com

**MATTIOLI ENGINEERING
LIMITED**

The Old Rectory, Church Street
Weybridge - Surrey
KT 13 8DE - London, U.K.
uk@matteng.com

a new science
in skin care[®]

Dermoelectroporation[®]

Dermoelectroporation[®] is a new named and patented proprietary technology of Mattioli Engineering Labs.

Dermoelectroporation[®] technology utilizes the skin's water based "channels" to allow ionic drug solutions to penetrate due to controlled "electroporation-like" continuous reversed polarity electrical pulses delivery. These pulses **increase the skin permeability** and allow transdermal delivery of drugs as occurs in traditional iontophoresis, even if the average current value on the patient is zero. Due to this either micro-molecules and **macro-molecules** (greater than 800 Kdalton in size, such as Hyaluronic, Vitamins, Amino acids, Heparin, Antinflammatories etc) **are safely delivered** into the body without either modification of the ionic drug solutions pH and Electrolysis effect of the ionic solution itself. This was not possible with traditional iontophoresis systems before.

www.mattioliengineering.com