

Thork Shock Wave

- Electromagnetic • Ergonomic Applicator • Touch Screen Panel • 08 different tips
- 09 evidenced protocols in aesthetics • High Energy: 200 mJ • Up to 9 million shots • Easy-to-use



The equipment

THORK Shock Wave is a micro controlled equipment of therapy using extracorporeal shock wave (ESWT – Extracorporeal Shock Wave Therapy). The mechanical energy cavitation produced by Thork Shock wave is transferred to the patient through a radial shock wave applicator.

It presents maximum energy of 200mJ, and the Shock wave emission mode can be single or sequential, with adjustment of frequency up to 22Hz and the number of shots can be previously adjusted until 9999 or free mode (Free).

The equipment is accompanied by 3 projectiles, one in the applicator and two spare. Each projectile presents a durability of 3 million shots. After 9 million, that is, after the use of the 3 projectiles, it is necessary to send the applicator for overhaul and maintenance.

Thork Shock wave can be used with tips of different sizes and materials for several therapeutic applications. It presents an ergonomic applicator, exclusive design, touchscreen and an informative tutorial. It is an effective equipment, safe, precise and easy-to-use.

The equipment must be used only under prescription and supervision of a licensed professional.

Technical characteristics

Electric Description

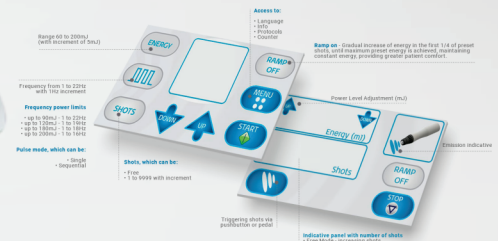
- Input: 100 – 240 V ~ 50/60 Hz;
- Input power 300 VA;
- Electric class: CLASS I.

Specifications Extracorporeal Shock Wave Therapy

- Energy: 60 a 200mJ w/ increment of 5mJ;
- Frequency: 1 a 22Hz \pm 10% w/ increment of 1Hz;
- Shots: Free OR from 1 to 9999 w/increment of 1 shot;
- Pulse Mode: Single or Sequential (Continuous pulses);
- Ramp Mode: ON and OFF;
- Private Protocols: 1 to 20;
- Preprogrammed Protocols: 1 to 9;
- Limits of energy by frequency:
 - From 60mJ to 90mJ: from 1 to 22Hz;
 - From 60mJ to 120mJ: from 1 to 19Hz;
 - From 60mJ to 180mJ: from 1 to 18Hz;
 - From 60mJ to 200mJ: from 1 to 16Hz.



LCD Display



Application techniques

Application techniques

Examine the skin and clean the area to be treated prior to application, using 0.5% alcohol chlorhexidine;

Apply Thork Neutral Lotion or neutral tip slip gel;

Depending on the therapeutic objective, realize static application or slow movements with the applicator in the horizontal and vertical directions, performing a scan on the treated area;

After the procedure, it's common that the patient presents hyperemia and hypersensitivity;

Clean the tips and the applicator before and after each treatment session. In the case of tips, it can be washed with water and sanitized with 0.5% alcohol chlorhexidine. For tips, if necessary, use a brush to clean gel wastes.

Indications

- Cellulite;
- Localized fat;
- Non-invasive body shaping;
- Improves local blood circulation;
- Skin flaccidness;
- Late liposuction postoperative;
- Stretch marks;
- Scars;
- Facial rejuvenation.

Dimension

Width	11.8 in (30cm)
Depth	12.2 in (31cm)
Height	6.6 in (17cm)

Weight

Net weight	3.2kg
Gross weight	4kg

Mechanisms of action and Physiological effects

Shock wave therapy promotes the following physiological effects:

01. Mechanotransduction of signal

Is the process by which the mechanoreceptor and parenchymal cells convert the mechanical stimuli (shock waves) into a chemical response, activating the fibroblasts and increasing the density of the collagen and elastin fibers, due to the production of neocollagen and ne elastin.

02. Remodeling of the collagen

The mechanical stress tractions the collagen fibers, stimulating the remodeling of collagen, stimulating remodeling of the collagen and elastin fibers and of the fibroblasts. The traction of the collagen fibers in the skin incites the rearrangement by the movement of the applicator, and improves the malleability of the collagen.

03. Microcirculation stimulation

The increase of circulation reduces the concentration of vasoneuroactive substances such as bradykinin, prostaglandins, serotonin and histamine, which also decreases the excitation of the nociceptors and of pain. It also increases the active transport of oxygen and nutrients to the tissue.

04. Release of nitric oxide

Nitric oxide is an important vasodilator, formed in the neurons of the posterior spinal dorsal horn, which promotes an inhibitory effect in the afferent nerve pathways of pain,

causing pain modulation and vasodilation for the increase of blood flow.

05. Elimination of toxins and increase of lymphatic flow

Activation of the lymphatic system, which accelerates the transport of metabolites of the extracellular matrix and causes the lymphatic drainage to reduce the edema and promote the fast regeneration of the tissues.

06. Release of growth factors VEGF, eNOS and BMPs

These chemical substances assist in the release of angiogenic factors and neovascularization, which improves local blood circulation, promoting healing.

07. Increase of cellular membrane permeability

This effect is due to the cavitation phenomenon. Studies conducted through in vitro tests have shown that the application of acoustic pulses drives increased cell permeability in a short time, which allows distinct active substances to be transferred to cells. For example, in adipocytes, this cellular permeability can stimulate cell substance exchange and activate enzymes that cleave stored lipids.

08. Reduction of adipose tissue

Studies show that there is a reduction in the thickness of the hypodermic layer with shock waves, which was demonstrated by diagnostic ultrasound measurements and clinically observed by standardized photographs. Until now there is no scientific evidence regarding the actual physiological effect caused at the cellular level for the reduction of adipose tissue, what we have are only speculations related to lipolysis and /or apoptosis.



Benefits

- Ergonomic
- High unheated shooting capability
- The only equipment with tips for facials
- Up to 9 million shots

Applicator

Thork Shock Wave® has an electromagnetic generator, it means, inside the applicator there are coils that when excited by the electric current generate a magnetic field, which causes the quick movement of the projectile inside the applicator generating impact on the tip and propagating mechanical energy in the place of treatment. This energy wave produces two effects, the first being mechanical impact on tissues and the second cavitation, which is the formation of gaseous microbubbles in biological liquids. Thork Shock Wave® has a radial applicator that promotes spreading energy by a diffuse way.

These energy waves are converted to shots and for each therapeutic objective there are a number of shots to be programmed in the equipment, in unaesthetic changes there is no specific number, and most scientific articles mention from 1,000 to 5,000,000 shots depending on the treatment area using the applicator in slow moving.

Types of Tips

Metallic tips (stainless steel, gold plated)

Used to aesthetics treatments that needs to reach deeper tissues and structures.



6mm

Can be used to:

- Acupuncture



15mm

Can be used to treat:

- Cellulite
- Localized fat
- Body Shaping



25mm

Can be used to treat:

- Cellulite
- Localized fat
- Body Shaping



34mm

Can be used to treat:

- Cellulite
- Localized fat
- Body Shaping

Plastic Tips

Used to aesthetics treatments that needs to reach superficial tissues and structures.



6mm

Can be used to treat:

- Stretch marks;
- Scars;
- Acupuncture.



15mm

Can be used to treat:

- Body skin flaccidness;
- Cellulite;
- Localized fat;
- Body Shapin.



25mm

Can be used to treat:

- Body skin flaccidness;
- Facial rejuvenation;
- Cellulite;
- Localized fat;
- Body Shapin.



34mm

Can be used to treat:

- Body skin flaccidness;
- Body aesthetic disorders in large surfaces;
- Cellulite;
- Localized fat;
- Body Shaping.