

PiezoWave² VET

The Next Piezo Shockwave Generation
for Veterinary Medicine



The PiezoWave²

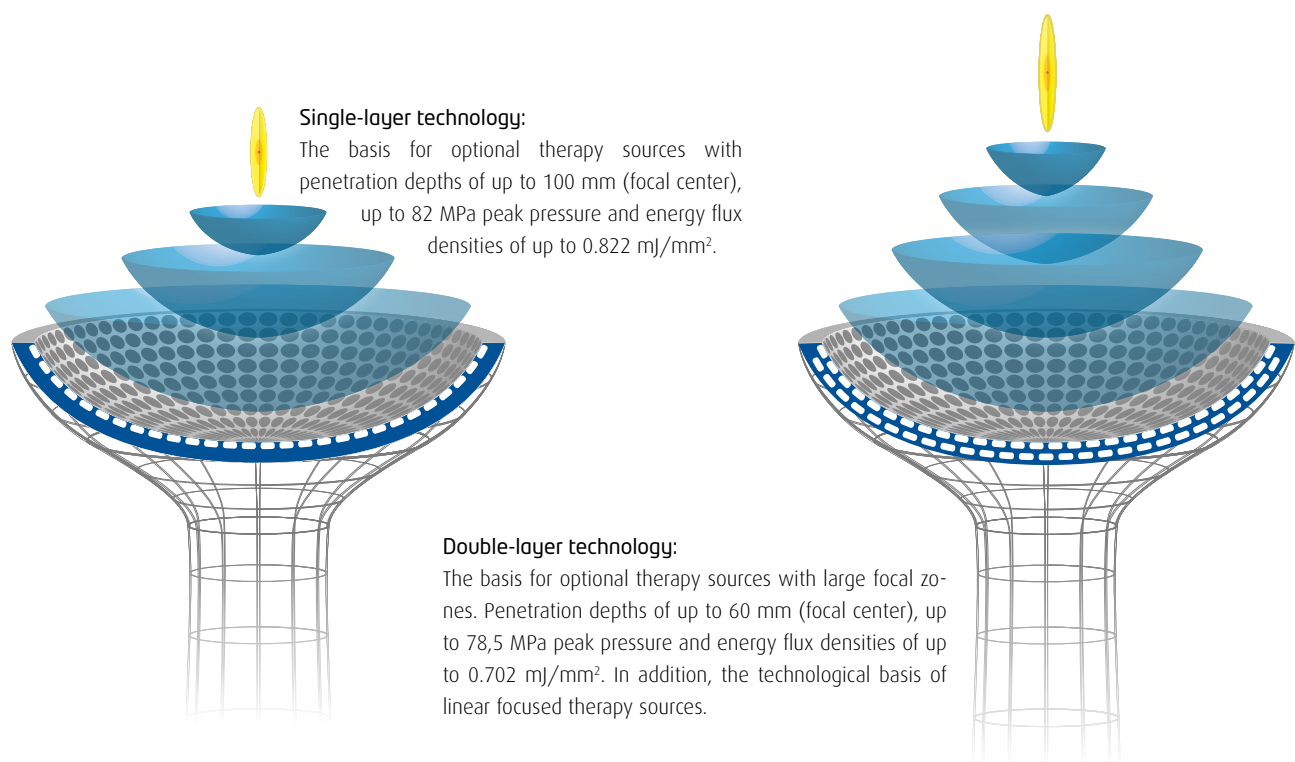
The piezoelectric principle / focused

Piezo-ceramic elements are geometrically arranged on a concave surface so that when they are excited simultaneously by a brief, high-voltage pulse, they expand by a few micrometers to generate a pressure pulse. The piezo elements are precisely aligned so that each pressure pulse generated focuses in a specific area. This precise focusing of the pulse creates a shockwave at the point of focus.

The piezo shockwave's "direct focusing" technology eliminates the need for additional reflectors, resulting

in a compact therapy source design and a precise and well defined focal zone. The virtually painless therapy is quiet and energy levels can be freely adjusted with almost no adverse effect on the size of the focal zone. The piezo shockwave technology is extremely durable.

Piezo shockwave therapy sources are available with single-layer or double-layer technology, depending on the required energy levels, with peak pressures of up to 82 MPa.



Efficacy of focused ESWT

Extracorporeal shockwaves are mechanical stressors capable of inducing biochemical changes in living tissue; at a molecular level these changes can influence gene expression in cells and, if used selectively, can produce specific reactions in tissue. This process is referred to as mechanotransduction.

Mechanical stimuli can affect almost all cellular functions in living tissue, including growth, cell differentiation, cell migration, protein synthesis, physiological apoptosis and tissue necrosis. New studies have shown that ESWT is

able to stimulate the endogenous production of lubricin in tendons and septa.

Scientific studies and publications which have used the highly accurate piezo shockwave technology have confirmed the effectiveness of focused shockwaves to treat various common musculoskeletal conditions as well as for the diagnosis and treatment of trigger points. ESWT is one of the few medical technologies which can treat chronic pain syndromes of the musculoskeletal system effectively by jump-starting self-healing processes.

The PiezoWave²

Focused and linear shockwave therapy

The piezo-electric shockwave principle offers an extensive range of shockwave configurations. The only one of its kind in the world, the PiezoWave² allows users to choose

between a classic focused shockwave and a linear focused shockwave. The right shockwave mode is available for every indication.

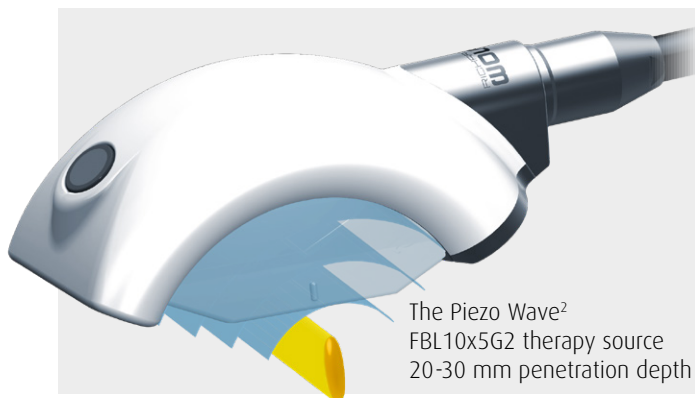
Focused shockwave

The focused therapy source of the PiezoWave² is characterized by its well defined and precise focal zone and a penetration depth of up to 100 mm (PiezoWave² F10G10 therapy source).

Its guaranteed life span of 5 million pulses is unsurpassed.



The Piezo Wave²
F10G6 therapy source
60 mm penetration depth



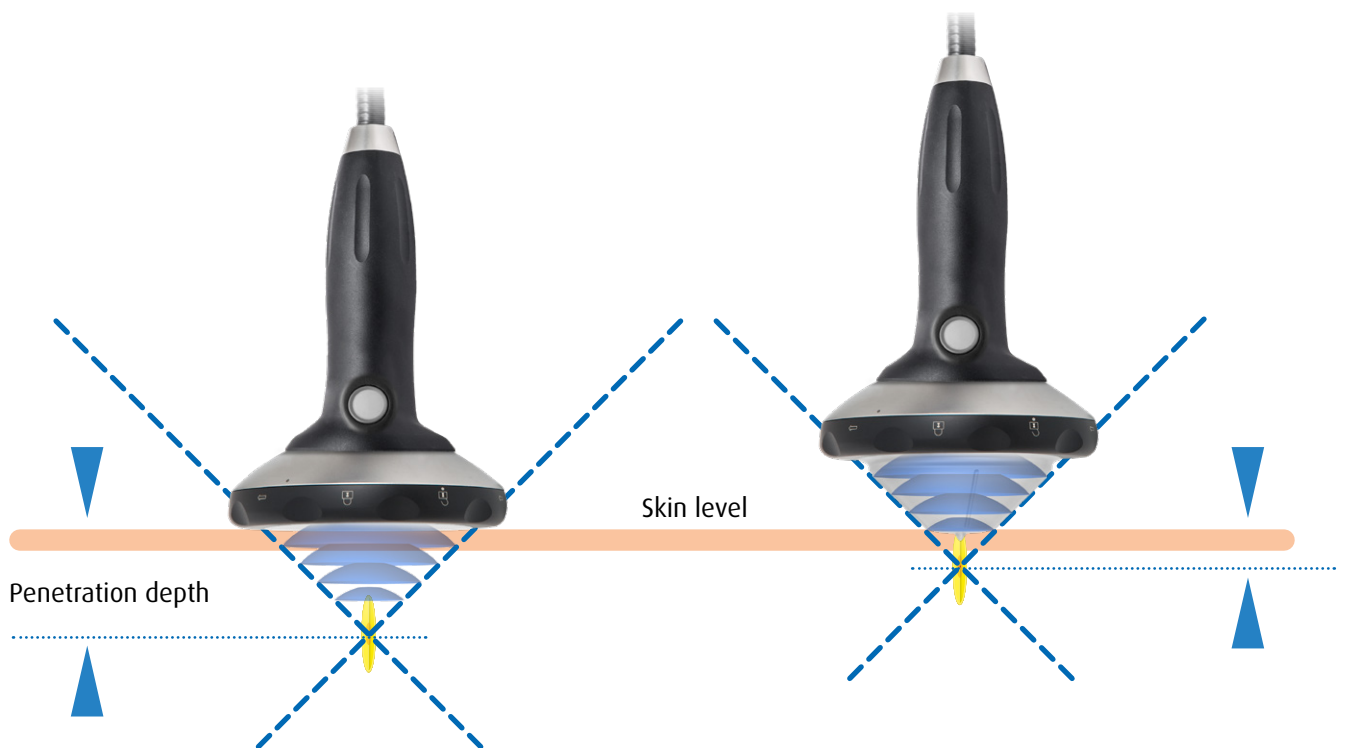
The Piezo Wave²
FBL10x5G2 therapy source
20-30 mm penetration depth

Linear focused shockwave

Breaking new ground in shockwave therapy, the linear focused therapy source is a double-layer piezoelectric source with a unique geometry and new features. The focal zone is of a 3-dimensional area with an outstanding size of 46 mm x 20 mm x 4 mm. Perfect for myofascial treatments and long superfascial tendons.



The Piezo Wave2
F10G10 therapy source
100 mm penetration
depth



Penetration depth

The piezo shockwave technology uses interchangeable gel pads which are placed on the patient to ensure that the shockwave penetrates precisely to the desired depth with as little scattering as possible. These gel pads are used as spacers and change the penetration depth in increments

of a few millimeters. They accomplish this by drawing the therapy source's static focal area incrementally superficial or deep respectively. Maximum penetration depths of between 20 mm and 100 mm (measured to the focal center) are possible, depending on the therapy source.

The PiezoWave²

An operational concept ensuring you will always be up-to-date

The PiezoWave² has an improved user interface that simplifies its daily use. Therapy source recognition through Plug&Play ensures that your PiezoWave² will provide the appropriate energy spectrum when you plug in the therapy source. Individual settings can be adjusted with just a few keystrokes. You will be supported by specially developed

optional App's, for example the anatomy App's (horse and dog) from our partner Real Bodywork. These are excellent tools to help visualize the treatment area and also ideal for client education on the treatments being applied to their animal. These Apps are easily accessed by attaching an iPad to the tablet holder on the PiezoWave².



Available on the iPad
App Store

- Therapy source recognition with Plug&Play
- Easy to use – uncomplicated operation

- Quick therapy start
- Use of external, supporting Apps

The PiezoWave²

Range of indications for ESWT

Chronic pain of the musculoskeletal system is one of the most common debilitating conditions. The majority of these painful conditions are the result of enthesiopathies. Myofascial trigger points have also increasingly been diagnosed as major causes of chronic pain. Focused ESWT has now become established as a useful method for the

- myofascial pain syndrom
- Insertion desmopathy
- Tendopathy
- Sesamoidosis

diagnosis and treatment of many acute and chronic pain syndromes of the musculoskeletal system. Extracorporeal shockwave therapy for the treatment of chronic lesions in the soft tissue areas near bones of the posture and locomotor system:

- Calcification
- Degenerative joint diseases
- Fractures
- etc.

ESWT Indications for small animals - especially for dogs

- Myofascial hardenings
- Diseases of the tendons and synovial sheaths
- Chronic joint disease (wear, functional restrictions)
- Changes to the vertebrae (spondylosis)
- Deformities of the hip (HD hip dysplasia)
- Acceleration of bone growth following fractures

Unique wound healing therapy

The shockwave with a linear therapy focus

Richard Wolf GmbH and ELvation have developed a new and unique technology: a linear, focused shockwave. The aim was to create a shockwave that could be applied more uniformly and more effectively compared to the point-shaped focus of conventional shockwave therapy sources. Gel pads are used to adjust the penetration depth to between 0 and 20 mm and to ensure that the acoustic field is optimally adapted to dermatological applications.





Sales and Service
Partner Piezo Systems



spirit of excellence

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