



PiezoWave

... focused extracorporeal shock wave therapy (**ESWT**) and trigger point shock wave therapy (**TPST**) in orthopaedics

PiezoWave Gentle treatment of chronic pain

The **PiezoWave** from Richard Wolf combines orthopaedic **ESWT** applications with the applications of **TPST**. Extracorporeal shock waves have been used successfully in the treatment of chronic pain since the early '90s. Extracorporeal shock wave therapy (**ESWT**) and trigger point shock wave therapy (**TPST**) are highly efficient, non-surgical treatments for chronic pain in the musculoskeletal system. The **PiezoWave** offers a significant expansion of the range of applications for myofascial pain syndrome. The extracorporeal, focused shock wave allows precise diagnosis and therapy of active and latent trigger points. Trigger points are thickened, pain-sensitive points within a usually tense muscle. They can cause a variety of pains – even well away from their own location.

How it works

The heart of the Richard Wolf **PiezoWave** is the compact piezo shock wave source with its excellent features.

Operation is simple with the multifunction operator control and display unit on the top of the device. All the device parameters can be set and monitored.

The penetration depth can be varied at the therapy source by exchanging gel pads of different thickness.

A further advantage is the large area energy coupling with an aperture angle of 94°. This lowers the energy density at the surface of the skin and reduces pain. The finely dosed energy with 20 intensity levels allows treatment without sedation.

Upper and lower extremities, cervical spine, shoulder girdle



Hip region, thoracic and lumbar spine



Hip and buttock region



The F 10 G4 therapy source can be used for all standard indications in orthopaedic ESWT



PiezoWave

Eliminating pain with shock wave trigger therapy

ESWT

Shock waves have been used successfully by orthopaedic specialists for many years in the treatment of disease of the musculoskeletal system. The classical orthopaedic indications for shock wave therapy (ESWT) are diseases of the tendon attachments such as changes in the soft tissue area of the rotator cuff of the shoulder, tennis or golf elbow, patellar tip syndrome of the knee or plantar fascia in heel pain.

TPST

In trigger point shock wave therapy TPST, the depth of penetration, the intensity, power and pulse frequency of the shock-wave pulses can be adapted easily to the various indications. Prior to treatment, the trigger points can be found and precisely located with the finely delineated focus point. The variable depth of penetration allows triggers to be located accurately and treated even in deep muscle. This feature of the treatment means maximum efficiency.



Focused extracorporeal shock wave therapy – ESWT

Therapy

The **PiezoWave** is a compact and extremely mobile **ESWT** unit for individual therapy options:

- Epicondylitis humeri radialis and ulnaris
- Jumper's knee
- Plantar fasciitis with heel spurs
- Tendinosis calcarea
- Impingement syndrome
- Pseudoarthrosis

Advantages in ESWT

- Deep, clearly defined penetration
- Practically maintenance-free
- Highly accurate treatment
- Low risk of haematoma
- Maximum energy directly in the treatment area
- Practically no skin irritation
- Small design, portable, compact

Shoulder

Soft tissue treatment at the rotator cuff of the shoulder with and without calcification (tendinosis calcarea)



Elbow

Tennis and golf elbow (epicondylitis humeri radialis and ulnaris)



Knee

Treatment of the patellar tendon attachment "jumper's knee"



Foot

Treatment of the plantar fascia in cases of heel pain



Trigger point shock wave therapy – TPST



Neck muscles



Shoulder muscles



Back muscles



Buttock muscles

Further indications:
Knee muscles

Therapy

The extracorporeal, **focused** shock wave allows both the therapy and the precise localisation of active and latent trigger points. The trigger is detected by the small focus point of the **PiezoWave**. This allows precise localisation without palpation that is often painful for the patient.

- Neck
- Shoulder
- Back
- Buttock
- Knee

Advantages in TPST

- ❑ Mobile and focused ESWT system
- ❑ Deep penetration up to 40 mm
- ❑ Treatment with a pulse frequency up to 8 HZ
- ❑ Precise localisation of trigger points
- ❑ Low risk of haematoma
- ❑ Broad range of applications
- ❑ Individual therapy options
- ❑ Long working life – extremely economical

PiezoWave

The alternative to surgery

The **PiezoWave** from Richard Wolf is a small, powerful desktop device for extra-corporeal shock wave therapy of all orthopaedic **ESWT** and **TPST** indications. This represents a significant expansion of the range of applications.



PiezoWave radial, piezoelectric shock wave

– Further additional indications, further therapeutic success

The planar therapy source FP4 for the **Richard Wolf PiezoWave** greatly expands the treatment spectrum in ESWT / TPST. It allows successful treatment of large area, myofascial syndrome close to the surface. The successful treatment of many orthopaedic indications with the **Richard Wolf PiezoWave** is possible thanks to the unique treatment combination, in other words, combined application of the planar therapy source FP4 and the focused therapy source F10 G4.

The magnitude of the pressure pulses can be finely adjusted with 20 intensity levels. The pulse frequency can be increased from 1 to 8 Hz allowing extremely short treatment times to be achieved.

The treatment is gentle on the surface of the skin, no mechanical vibration, no skin irritation, no bruising.

The piezo technology allows an optimum therapy area (1200 mm²) with excellent ergonomics.

TPST for myofascial syndrome close to the surface in the areas

- Upper extremities
- Cervical spine
- Pectoral girdle
- Thoracic and lumbar spine
- Region of the hips
- Lower extremities



Therapy source FP4

Technical data of the FP4 therapy source

Transducer diameter	40 mm
Sonic propagation	planar
Energy density	0.001-0.06 mJ/mm ²
Pressure range	0.1 - 3.2 MPa
Pulse frequency	1 - 8 Hz

PiezoWave

Technical Data

PiezoWave Basic Set

Name	Article no.
Control unit	80.214
Therapy source F 10 G4 complete	80.621
Unit trolley	80.902

Technical Data

Power supply	100 - 127 V / 220 - 240 V
Frequency	50 / 60 Hz
Power consumption	150 VA
In compliance with the directive on medical equipment 93/42 EEC	Class II b
Weight (control unit)	approx. 12 kg
Dimensions L x W x H	450 x 325 x 185
Energy settings	20 levels
Pulse frequency	0 - 8 Hz
Therapy source F 10 G4:	
Penetration depth	5 - 40 mm
Aperture angle	94 °
Energy density	0.03 - 0.4 mJ / mm ²
Pressure range	11 - 82 MPa
Energy 12 mm	3 - 26 mJ

If you require more information, Peter Vallon will be happy to assist you:
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Whether you buy, lease or hire, you can find out more about our attractive financing
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Stamp

New impetus for your practice

The **Richard Wolf PiezoWave** allows universal application for a large number of indications. With this unit, you can expand the range of indications you can treat and offer relief of chronic pain to a wider circle of patients.

As a non-invasive procedure, extracorporeal shock wave therapy is a genuine and successful alternative to surgical intervention. Patients are treated on an outpatient basis and one treatment takes approximately 15 minutes.

Please tell your "pain" patients about the real advantages and the chances of healing with the **PiezoWave** and shock wave therapy.

The versatility of the **ESWT / TPST** unit means that you can plan individual therapies, opening the door to new patients and providing economic impetus.

An opportunity to increase the efficiency of your practice. We will be happy to support you in your efforts to gain new patients with posters, patient information sheets, professional instruction on the use of the system, further product information, studies and references.

Make your practice more attractive. Offer your patients more. You can increase the economic efficiency of your practice. Ask us about further information on the **PiezoWave**, our references and, if you wish, a consultation with your medical product advisor.