

DUOLITH® SD1 »ultra«
MODULAR SHOCK WAVE THERAPY
& ULTRASOUND DIAGNOSIS





STORZ MEDICAL AG

STORZ MEDICAL AG is a Swiss member company of the KARL STORZ Group. Our shock wave systems are in use all over the world in urology, orthopaedics, physical therapy, rehabilitation, gastroenterology, cardiology, neurology, dermatology and aesthetic medicine.

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Shock wave therapy

For shock wave therapy, diagnosis and treatment have merged into a single unit. Diagnostic ultrasound imaging and patient-specific radial and focused shock wave treatment can be performed via one single control unit. With the new modular design of the DUOLITH® SD1 »ultra« both new and experienced users of extracorporeal shock wave therapy will be able to utilise the different functions in their daily practice according to their needs.

In addition to the modular design, the new shock wave device has other convincing features such as colour Doppler ultrasound, handpiece control of radial shock waves, focused shock wave application at constant and high energy dynamics, on-board patient management and simple user guidance. The ultrasound touch screen display and an ergonomically optimised user interface ensure precise application of the radial and focused handpieces.

Highlights

- Therapy, diagnosis, information and user guidance in one system (»Connected Technologies«)
- On-board ultrasound imaging, B&W or colour Doppler
- STORZ MEDICAL »Top View« display delivering all the relevant information via touch screen
- Radial shock wave with innovative handpiece display and »Skin Touch« ON/OFF sensor
- Focused shock wave with constant and high energy dynamics

Control unit with optional integration of ultrasound diagnosis



R-SW module with handpiece display and »Skin Touch« sensor



F-SW module with constant and high energy dynamics



R-SW



Store Case



Control



F-SW



DUOLITH® SD1 »ultra« – Individually expandable and open for future technologies

The DUOLITH® SD1 »ultra« is the only system that grows with the needs of your surgery. The therapy column is the basic unit of the system. Optionally, the control unit and the touch screen panel can be equipped with an ultrasound diagnosis module.

With the therapy column as the basic module, all modules such as the control unit and the radial and focused shock wave generators can be combined with each other or added on and are operated centrally via the touch screen.

Highlights

- Centralised touch screen control of all modules
- Individual addition of modules
- Ultrasound diagnosis can be integrated any time
- »V-ACTOR®« for vibration therapy can be connected optionally
- Open for future technologies

Radial shock wave (R-SW)



Focused shock wave (F-SW)



Vibration therapy (V-ACTOR®)





INDUCTIVE-500
INDUCTIVE-500



DUOLITH® SD1 »ultra« – Intuitive operation

The ample touch screen offers all controls and displays for the individual components thanks to its design as a multifunctional control unit. This ensures quick learning. All functions and indications can be selected and imported simply by touching the screen. They are self-explanatory thanks to the symbols used and the way these are arranged on the screen.

The DUOLITH® SD1 »ultra« software includes a patient management system as well as treatment instructions supported by films and images.

Indications

- Achillodynia
- Calcified tendinitis
- Epicondylitis
- Tibial stress syndrome
- Plantar fasciitis
- Trochanteric insertional tendinitis
- Patellar tendinitis
- Pseudarthroses

Highlights

- Simple operation
- Broad range of indications
- Patient management with treatment history
- Treatment instructions supported by films and images
- On-screen operating instructions

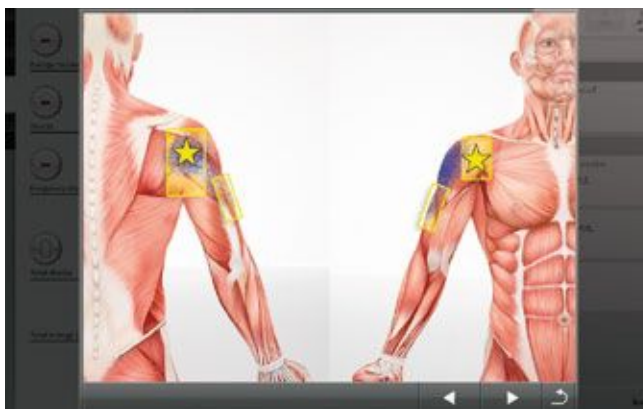
Trigger point indications:

Cervical syndrome (trapezius muscle), dorsalgia, periarticular shoulder pain (deltoid muscle), tendomyositis of forearm extensors and flexors, shortening of the thigh extensor and flexor muscles, shortening of the calf muscles

Touch screen – Treatment instructions



Touch screen – Pain zone overview



Touch screen – Application videos





DUOLITH® SD1 »ultra« – New radial ergonomics

The radial handpiece of the DUOLITH® SD1 »ultra« sets new standards in ESWT. The ergonomic design of the handpiece ensures an efficient and non-fatiguing treatment.

The integration of all essential controls allows an adjustment of both frequency and energy level directly at the handpiece. These parameters and the total number of pulses triggered are shown on the on-board display.

Another highlight is the indication of the handpiece pressure exerted on the treatment zone. A dial in the handpiece display shows the contact pressure.

Pulse triggering can be activated by means of the »Skin Touch« sensor. The application starts fully automatically as soon as the handpiece is placed onto the treatment zone at a defined contact pressure. If the skin contact is interrupted the handpiece stops.

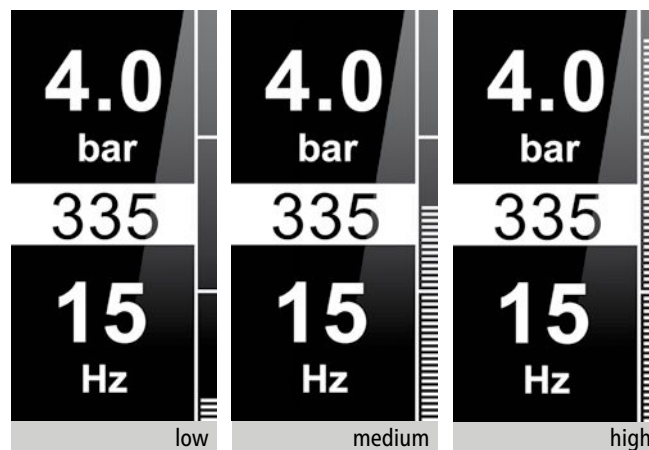
Highlights

- Ergonomic handpiece design
- Innovative handpiece display with pressure and frequency selection
- Pulse triggering by »Skin Touch« ON/OFF sensor
- Visual control of application pressure
- R-SW »Noise Absorption« cap (option)

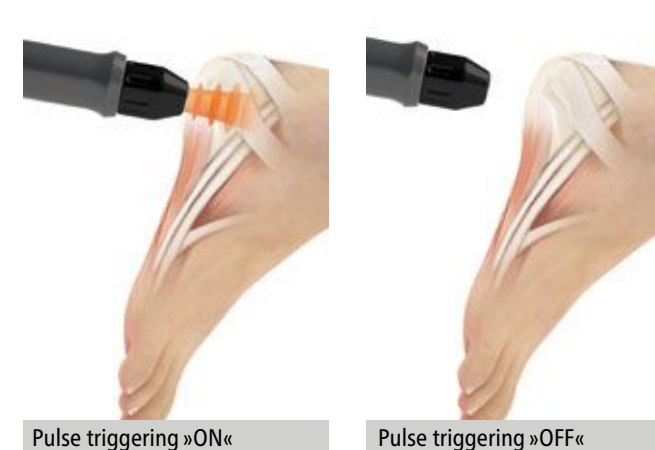
Handpiece display



Dial showing contact pressure



»Skin Touch« sensor



R-SW



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R-SW

ultra

DUQUITH SD1

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DUOLITH® SD1 »ultra« – R-SW module

Owing to the on-board control unit of the high-performance R-SW handpiece the radial module can also be operated independently of the control unit. All treatment parameters such as pressure, frequency, contact pressure and number of shocks can be uniquely entered and retrieved via the operating panel of the handpiece display.

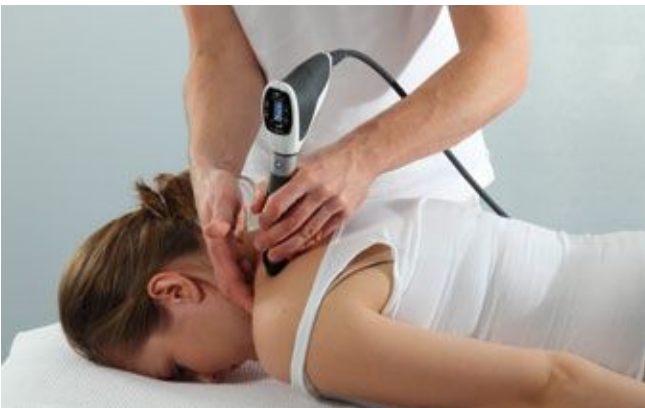
The R-SW module is equipped with a total of 3 handpiece connections: 2 x R-SW and 1 x V-ACTOR®.

Vibration therapy with the V-ACTOR® handpiece is the ideal complement to shock wave therapy. The V-ACTOR® introduces well-directed vibration pulses into the tissue. Microcirculation is improved by compression and decompression. The V-ACTOR® extends fascia and muscle fibres which leads to a normalisation of the muscle tone because contracted and hardened muscles are loosened up. Muscle triggers are easily located with the V-ACTOR®.

Highlights

- Radial handpiece display with unique operation
- Innovative »Skin Touch« ON/OFF sensor
- R-SW module can be used independently of the control unit
- 3 connections for radial and V-ACTOR® handpieces
- On-board high-performance »silent« compressor
- Vibration therapy with V-ACTOR® handpiece
- Optional: total applied energy shown in mNs

Treatment of shoulder with R-SW



Treatment of heel spur with R-SW



V-ACTOR® treatment



F-SW



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F-SW

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DUOLITH® SD1 »ultra« – F-SW module

The focused shock wave module serves for treating near-surface as well as deep target areas in the body. The shock wave source is equipped with the time-tested STORZ MEDICAL cylindrical coil and offers an ergonomically ideal focus zone and constantly high energy dynamics. As an option, a high-energy C-ACTOR® II handpiece (planar/ defocused shock waves) can be connected to this module for use in dermatology and especially for wound healing.

The module is operated via the central touch screen control unit which displays all parameters such as frequency, energy and total number of shocks. Previously stored treatment parameters or parameters determined by the user can be retrieved comfortably, which saves time because no new settings need to be selected by hand.

Highlights

- Time-tested STORZ MEDICAL cylindrical coil
- Treatment of deep target areas in the body
- Ergonomically ideal focus zone
- Constantly high energy dynamics
- Optional: high-energy C-ACTOR® II planar handpiece for wound healing and pseudarthrosis

Treatment of shoulder with F-SW



Treatment of tennis elbow with F-SW



Treatment of heel spur with F-SW





DUOLITH® SD1 »ultra« – Ultrasound diagnosis (optional)

Diagnosis and localisation of the indication are important for the optimum success of a treatment. Therefore, STORZ MEDICAL offers on-board ultrasound imaging in B&W or colour Doppler for the DUOLITH® SD1 »ultra« as an option. Thus, diagnosis and treatment are combined in one system. The ample touch screen of the system monitor serves for both display and operation.

All the familiar adjustment options for localisation of the treatment zone and its optimum representation as an ultrasound image are available on the screen. Ultrasound images can be stored directly by means of the on-board patient management system and are available for retrieval during later sessions.

Highlights

- Diagnosis and therapy in one apparatus
- B&W for standard diagrams
- Colour Doppler
- Storage of ultrasound images directly in the patient management system
- Export of patient data to other media such as a PC
- Documentation of patient data on a medical USB printer

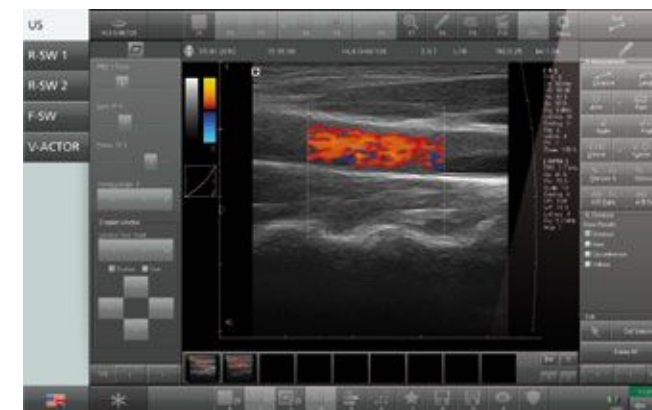
Ultrasound B&W (shoulder front view)



Ultrasound B&W (shoulder lateral view)



Ultrasound colour Doppler (vessels)





DUOLITH SD1® »ultra« – Innovative modularity

R-SW module

Radial shock wave with unique handpiece operation

- Therapy column
- Innovative display in the handpiece
- »Skin Touch« ON/OFF sensor
- On-board pressure and frequency selection
- Visual application pressure control
- »Noise Absorption« cap (option)
- Vibration therapy V-ACTOR® (option)



R-SW + control module (+ US)

Radial shock wave with on-board ultrasound imaging

- STORZ MEDICAL »Top View« display with touch screen
- Central unit for control and supervision of all modules
- Intuitive user guidance, all treatment parameters in the field of vision
- On-board patient management system
- Ultrasound diagnosis B&W or colour Doppler (option)



R-SW + control (+ US) + F-SW module

Radial and focused shock wave with reliable electromagnetic cylindrical source

- For treatment in near-surface and deep target areas of the body
- Ergonomically ideal focus zone
- Constantly high energy dynamics
- Simple user guidance

R-SW + V-ACTOR®



R-SW + V-ACTOR® (+ US)



R-SW + F-SW + V-ACTOR® (+ US)



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CONTROL ultra

DUOLITH® SD1



CONTROL ultra

CONTROL ultra

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R-SW ultra

DUOLITH® SD1



R-SW ultra

R-SW ultra

STORZ MEDICAL

F-SW ultra

DUOLITH® SD1



F-SW ultra

F-SW ultra

DUOLITH® SD1 »ultra« – Options

The DUOLITH® SD1 »ultra« fits into every surgery and its colour can be adapted individually to the surgery surroundings. The exchangeable colour accessories are available in green, blue and black.

The optional »Store Case« drawer module offers ample space for utensils needed in the daily treatment routine. Transmitters, ultrasound gel or other auxiliary equipment can be stored in the DUOLITH® SD1 »ultra« and are thus protected against dust and available any time.

The R-SW »Noise Absorption« cap offers optimum acoustic treatment conditions. It absorbs the operating noise of the radial handpiece, which increases the treatment comfort for users and patients alike.

The C-ACTOR® II planar handpiece broadens the range of applications considerably. The handpiece generates high-energy shock waves for planar coupling into the body. Thus it is perfectly suited for wound healing, among other things.

Highlights

- Individual choice of colours (green, blue, black)
- »Store Case« module
- R-SW »Noise Absorption« cap
- C-ACTOR® II planar handpiece
- Ultrasound diagnosis B&W
- Ultrasound diagnosis colour Doppler
- Vibration therapy V-ACTOR®

R-SW »Noise Absorption« cap

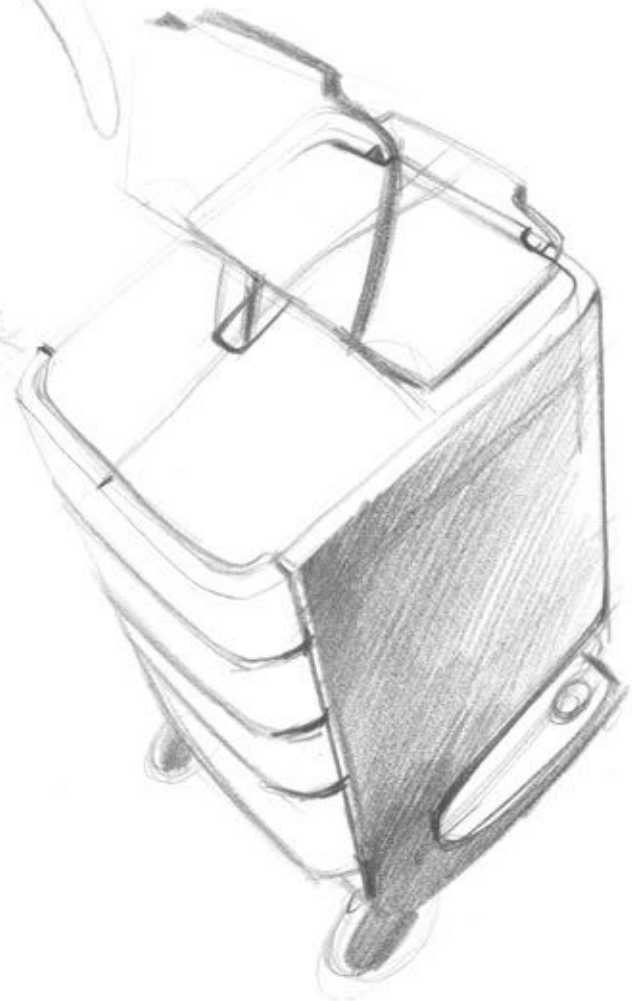


»Store Case« drawer module



C-ACTOR® II planar handpiece





DUOLITH® SD1 »ultra« – Making of ...

The leading STORZ MEDICAL shock wave technology is beautifully packaged in the DUOLITH® SD1 »ultra«. Various design studies were done in advance either virtually or close to reality in 3D with the aim to realise an ergonomically simple and yet timeless design. The shock wave device shall keep its modern look in any surgery even after years. In the course of development, the »wave« has been adopted as a design feature which is reflected in the rolling contours of the apparatus fronts.

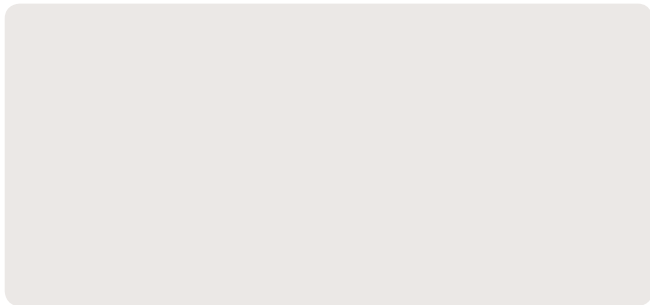
Although invisible to the user, there are further constructional highlights inside the system. For example, each module is built as a self-supporting robust frame and the material used ensures a long operating life. Thanks to the modular assembly, new components can be added to the therapy column or exchanged any time.

Highlights

- Timeless and high-quality design
- Stable frame
- High-gloss surfaces
- Modules can be added on and/or exchanged
- Further technological developments can be added on any time
- Award winning design



SHOCK WAVE TECHNOLOGY FOR PEOPLE



STORZ MEDICAL

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