



the
art of
shock
wave

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





STORZ MEDICAL AG – Combined Shock Wave Therapy

There is no talking about shock waves today without talking about STORZ MEDICAL, too. When Dr h.c. Karl Storz laid the foundations of the KARL STORZ Group back in 1945, it was hard to imagine what an enormous influence the products from this think tank would have not only on endoscopy but also on shock wave therapy. STORZ MEDICAL's presentation of the first worldwide prototype of a urological shock

wave device in 1988 was followed by a series of technological innovations in the field of extracorporeal shock wave therapy. Non-invasive solutions for urgent therapeutic problems consolidated the reputation of STORZ MEDICAL as the leading enterprise in shock wave technology in the world.

The new DUOLITH® SD1 »ultra« stands out because of its technological innovations, reliability and precision down to the last detail. The enlarged energy range of radial shock waves and the operating elements integrated into the handpieces extend the lead in radial and focused shock wave therapies.

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DUOLITH® SD1 »ultra« – Diagnosis and Treatment

The DUOLITH® SD1 »ultra« shock wave system represents a clear modular concept that meets the growing demands of a medical practice regarding therapy and diagnosis. This is not only beneficial to newcomers to the field of extracorporeal shock wave treatment but also to experienced users.

The DUOLITH® SD1 »ultra« can be combined or extended individually and operated centrally via the 15.4" touch screen. All modular elements of the entire system are interconnected in the equipment trolley.

Control unit with »Pain Guide« and, optionally, integrated diagnostic ultrasound imaging (15.4" touch screen)



The DUOLITH® SD1 »ultra« combines radial and focused shock wave therapies, complementary vibration and vacuum therapies as well as the integrated diagnostic ultrasound imaging in one system. Diagnostic ultrasound imaging and patient-specific shock wave treatment can be performed via one single control unit.

R-SW module with radial »FALCON« handpiece



Highlights

- Combined – radial and focused – shock wave therapy
- Therapy, diagnosis, information and user guidance combined in one system (»Connected Technologies«)
- Individual modularity
- Integrated diagnostic ultrasound imaging (optional): colour Doppler »High resolution«: 1.5 – 15 MHz or colour Doppler »Standard«: 2 – 10 MHz

F-SW module with focused »SEPIA« handpiece





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CONTROL

100-4110000

100-4110000

DUOLITH® SD1 »ultra« – Intuitive Treatment Guidance via Touch Screen

All system modules can be operated via the generously dimensioned touch screen on the multifunctional control unit. Functions and indications can be selected and accepted by tapping on the screen.

The DUOLITH® SD1 »ultra« software includes a retrievable patient management system as well as treatment parameters recommended by experienced users and supported by videos and images. The integrated Visible Body® software allows the user to immerse deeply into the anatomic structures of the human body.

Highlights

- Large 15.4" touch screen
- Patient management system with treatment history
- Treatment parameters supported by videos and images
- Visible Body® digital anatomy atlas

Treatment parameters with application videos



Overview of pain zones



Visible Body® digital anatomy atlas



R-SW



STORZ MEDICAL

R-SW

ultra

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DUOLITH® SD1 »ultra« – Radial Module with »FALCON« Handpiece

The high-performance »FALCON« R-SW handpiece allows the radial module to be operated also 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.

Vibration therapy with the V-ACTOR® handpiece as well as the optional vacuum therapy using VACU-ACTOR® technology are the ideal complements to shock wave therapy.

The »Skin Touch« sensor integrated into the »FALCON« handpiece serves for starting or stopping the triggering of pulses directly at the patient by pressing slightly on the skin.

Highlights

- All control elements integrated into the »FALCON« handpiece display
- Extended energy range: 0.3 – 5 bar_{eff}
- Radial handpiece with »Skin Touch« sensor
- 4 connections: 2 x R-SW, 1 x V-ACTOR®, 1 x VACU-ACTOR®
- Vibration therapy with V-ACTOR® handpiece (optional)
- VACU-ACTOR® vacuum therapy

Treatment of shoulder with »FALCON« R-SW handpiece



Handpiece display



»Skin Touch« sensor



F-SW



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F-SW

ultra

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DUOLITH® SD1 »ultra« – Focused Module with »SEPIA« Handpiece

The focused shock wave serves for treating near-surface as well as deep target areas in the body. The special flexibility of the handpiece cable supports non-tiring and, thus, easier treatment always directly at the patient – an important factor in the day-to-day work.

The »SEPIA« handpiece renders treatment directly at the patient easy and efficient. All the important control elements have been integrated into the handpiece display.

The easy replacement of the cylindrical coil is another advantage for the user as it saves revision time and costs.

As an option, a handpiece with extended energy range can be connected to this module for use in dermatology, especially for wound healing, and also for pseudoarthrosis treatment.

Highlights

- Effective and non-tiring treatment directly at the patient
- Reduced revision costs thanks to easy change of coil
- All control elements integrated into the handpiece display
- Focal zone depth: 0 – 65 mm
- Therapeutic effectiveness: up to 125 mm penetration depth
- Constantly high energy dynamics: 0.01 – 0.55 mJ/mm²
- Optional: handpiece with extended energy range for wound healing and pseudoarthrosis treatment: 0.03 – 1.24 mJ/mm²

Treatment of shoulder with F-SW

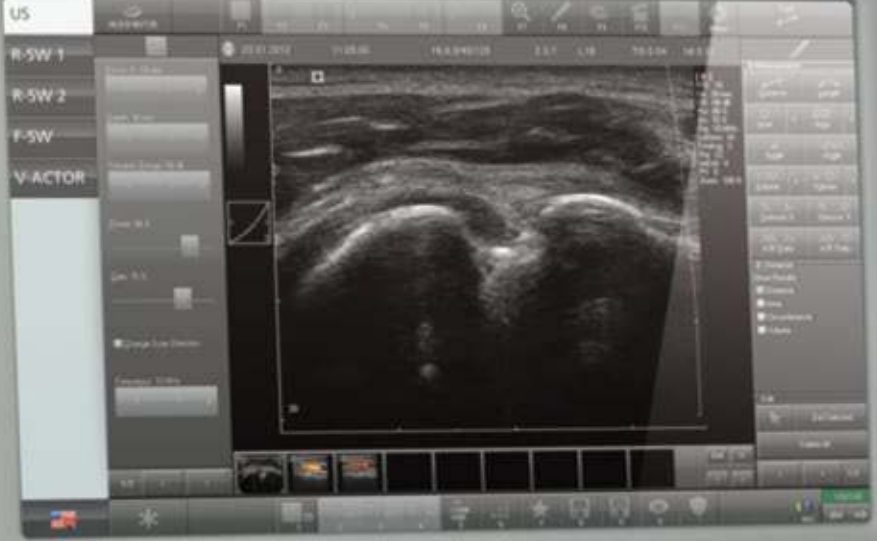


STORZ MEDICAL cylindrical coil



Focused »SEPIA« handpiece with and without stand-off





STORZ MEDICAL

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DUOLITH® SD1 »ultra« – Diagnostic Ultrasound Imaging (optional)

Accurate diagnosis of the indication and identification of the pain zone are prerequisite to achieving the most successful treatment. Therefore, STORZ MEDICAL offers the option of an integrated diagnostic ultrasound imaging system with colour Doppler for the DUOLITH® SD1 »ultra«, thus combining diagnosis and treatment in one system.

All possible adjustments for localizing the treatment area and its optimal representation by ultrasound images can be done on the screen. Ultrasound images can be saved directly in the integrated patient management system and retrieved in later sessions.

Highlights

- Diagnosis and therapy combined in one system
- Colour Doppler »Standard«: 2 – 10 MHz or Colour Doppler »High resolution«: 1.5 – 15 MHz
- Saving of ultrasound images directly in the patient management system
- DICOM interface (optional)
- GDT (German medical data exchange format) interface (optional)

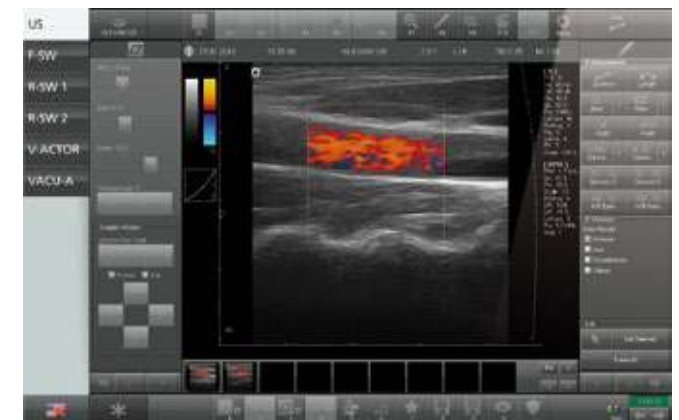
»Standard« version: ultrasound image, lateral shoulder scan



»High resolution« version: ultrasound image, lateral shoulder scan



Colour Doppler »Standard«: blood flow imaging



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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« – Optional Accessories

As regards colour, the DUOLITH® SD1 »ultra« fits into every surgery and can be adapted individually to the surgery surroundings. The exchangeable coloured 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.

The focused handpiece with extended energy range is also suited for wound healing and pseudoarthrosis treatment.

Shock wave therapy and V-ACTOR® vibration therapy are complemented by VACU-ACTOR® vacuum therapy.

Highlights

- Focused handpiece with extended energy range: 0.03 – 1.24 mJ/mm²
- Individual choice of colour (green, blue, black)
- Drawer module »Store Case«
- V-ACTOR® vibration therapy: 1 – 35 Hz
- VACU-ACTOR® vacuum therapy
- VACU-Cups for vacuum therapy, available in 4 sizes (Ø 25 mm, Ø 33 mm, Ø 47 mm, Ø 62 mm)

Drawer module »Store Case«



Vibration therapy with V-ACTOR® handpiece



VACU-ACTOR® vacuum therapy



Trigger Rollen / Criniosopannies

F15 »White Soft«

Focus Lens



Penetration depth: 0 - 30 mm
Intensity: [Scale]

T10 »Fingers«

Trigger Transmitter



Penetration depth: 0 - 40 mm
Intensity: [Scale]

Myofascial Treatment

D20-S »Standard Oscillator«

D-ACTOR



Penetration depth: 0 - 50 mm
Intensity: [Scale]

A6 »Point«

Akust Transmitter



Penetration depth: 0 - 20 mm
Intensity: [Scale]

D115 »Golden Depth«

Deep INSERT



Penetration depth: 0 - 50 mm
Intensity: [Scale]

D20-T »Golden Oscillator«

D-ACTOR



Penetration depth: 0 - 50 mm
Intensity: [Scale]

Ro40 »Beam«

Beam Transmitter



Penetration depth: 0 - 35 mm
Intensity: [Scale]

C15 »Ceramic Energy«

CERAMA 4"



Penetration depth: 0 - 30 mm
Intensity: [Scale]

D35-S »Large Oscillator«

D-ACTOR



Penetration depth: 0 - 60 mm
Intensity: [Scale]

Not for sale in Germany



Optional Accessories – Transmitters for the Radial »FALCON« Handpiece

Standard transmitters

The standard transmitters have been used successfully for years and are especially suited for the treatment of all typical shock wave indications such as tendinopathies, heel and shoulder pain and myofascial trigger points.

Nine different standard transmitters for the treatment of typical indications



PERI-ACTOR® fascia transmitters

The PERI-ACTOR® transmitters according to Swart/Di Maio have been developed especially for fascia treatment. The »knuckle«, »scoop«, »sphere« and »scraper« versions allow adapting the treatment to the individual fascia structure. Thanks to the special shapes of the transmitters it is possible to dissolve clots in the fasciae, as well as to prevent and eliminate pain.

PERI-ACTOR® transmitters in four different shapes for fascia treatment



SPINE-ACTOR® transmitters

The SPINE-ACTOR® transmitters come in different sizes and make a special treatment of painful functional disorders in the paravertebral region possible. Owing to the forked »Double Tip« shape of the transmitters, the paravertebral muscles of the entire spine in the cervical, thoracic and lumbar zones can be optimally reached.

SPINE-ACTOR® transmitters in three sizes for paravertebral treatments (span widths 20 mm; 27.5 mm and 35 mm)





DUOLITH SD1® »ultra« – Individual Modularity

1. R-SW + Control + US

Radial shock wave with integrated colour Doppler diagnostic ultrasound imaging

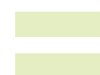
- STORZ MEDICAL »Top View« display with touch screen
- Radial »FALCON« handpiece
- VACU-ACTOR® vacuum therapy
- Vibration therapy with V-ACTOR® handpiece (optional)
- Colour Doppler diagnostic ultrasound imaging (optional):
2 – 10 MHz or 1.5 – 15 MHz



2. F-SW + Control + US

Focused shock wave with integrated colour Doppler diagnostic ultrasound imaging

- STORZ MEDICAL »Top View« display with touch screen
- Focused »SEPIA« handpiece
- Colour Doppler diagnostic ultrasound imaging (optional):
2 – 10 MHz or 1.5 – 15 MHz



1. R-SW + 2. F-SW + Control + US

Radial and focused shock wave with integrated colour Doppler diagnostic ultrasound imaging

- Combined shock wave therapy for treatment in near-surface and deep target areas of the body
- Advantages of configuration 1. – Radial shock wave with integrated colour Doppler diagnostic ultrasound imaging
- Advantages of configuration 2. – Focused shock wave with integrated colour Doppler diagnostic ultrasound imaging

Handpieces:

R-SW + V-ACTOR® + US + VACU-ACTOR®



Handpieces:

F-SW + US



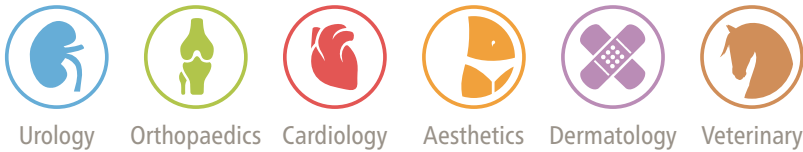
Handpieces:

R-SW + F-SW + V-ACTOR® + US + VACU-ACTOR®





HUMANE TECHNOLOGY – TECHNOLOGY FOR PEOPLE



Urology Orthopaedics Cardiology Aesthetics Dermatology Veterinary

STORZ MEDICAL

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Subject to change without notice. The information in this brochure is only intended for medical and healthcare professionals. This brochure provides information on products/indications that may not be available/relevant in all countries. The following aforementioned products of technology partners complement the DUOLITH® SD1 »ultra« system: ultrasound, Visible Body®, VACU-ACTOR® available in autumn 2017.