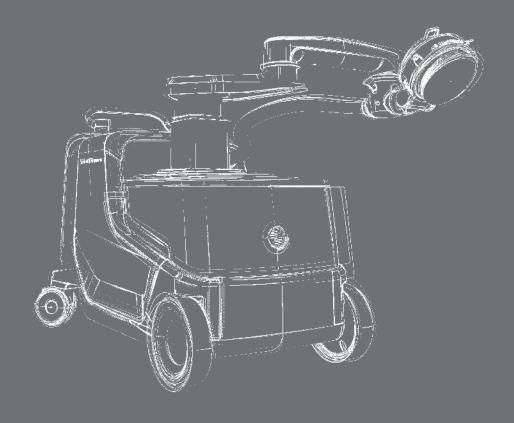
MODULITH® SLK »intelect«
THE VERSATILE LITHOTRIPSY SOLUTION









2016 WINNER EUROPEAN PRODUCT DESIGN AWARD

GOLD WINNER





# A tradition of success in urology

### KARL STORZ and STORZ MEDICAL

Established in 1987, STORZ MEDICAL AG is a Swiss member company of the KARL STORZ Group. At our headquarters in Tägerwilen, on the Swiss side of Lake Constance right in the heart of Europe, we develop innovative shock wave systems that meet the highest standards of precision.

Our lithotripters have proved their efficacy in urology in millions of cases. But with its technological innovations, STORZ MEDICAL also sets new standards in the fields of orthopaedics, cardiology, rheumatology, rehabilitation medicine, aesthetic medicine, dermatology and veterinary medicine.

Pioneering achievements such as the invention of the electromagnetic cylindrical source, the first application of shock waves in cardiac revascularization, or combined shock wave therapy (focused and radial shock waves) provide ample proof of the vast performance spectrum of STORZ MEDICAL in the field of shock wave therapy.

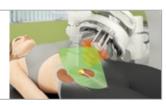
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# Electromagnetic cylindrical source

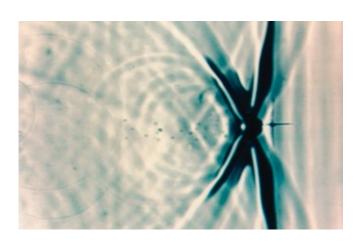
### The key to success

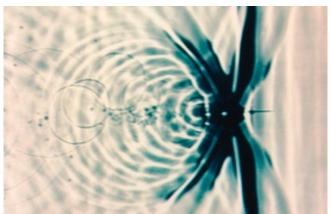
The therapy source is the core component of any lithotripter. It determines not only the stone fragmentation efficiency, but also the localization systems that can be tied into the lithotripter solution.

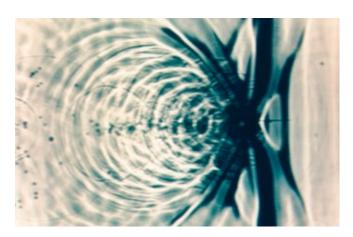
The STORZ MEDICAL therapy source is designed in such a way that inline localization and shock wave generation can take place simultaneously. This means that shock waves and, for example, ultrasound waves travel along identical paths. As a result, the treatment can be easily monitored by in-line ultrasound or fluoroscopic imaging. The therapy source offers an energy range hitherto unequalled in the world of shock wave technology. A total of 26 different energy levels are available so that the ideal shock wave intensity can be selected for each individual application.

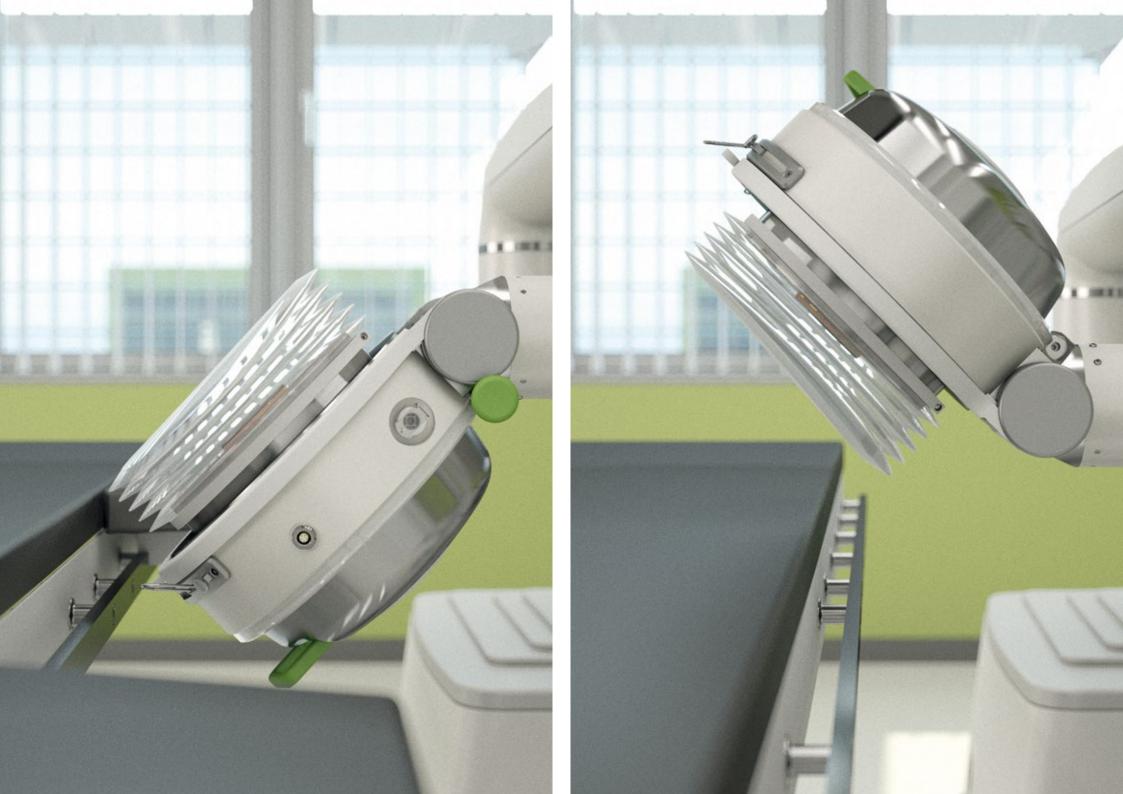
The 178 mm aperture diameter in the therapy head makes for a large shock wave coupling area of about 250 cm<sup>2</sup>. As a result, the energy density at the skin surface can be kept very low to reduce pain and minimize the need for analgesics.

- Electromagnetic cylindrical source
- High fragmentation efficiency
- Minimal side effects
- Constant energy output
- Long service life
- Low operating cost



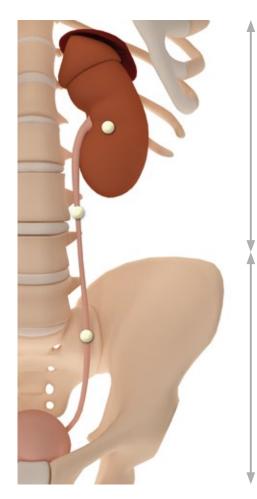






# Treatment flexibility

Therapy head in over-table and under-table position



Therapy head in under-table position

Therapy head in over-table position

The MODULITH® SLK enables extracorporeal shock wave lithotripsy (SWL) of all stones in the entire urinary tract. Depending on the stone location, the innovative therapy head can be moved into over-table or under-table position for maximum flexibility. As a result, patients can always remain in a comfortable supine position during stone treatment.

When performing treatments with urological X-ray workstations, the therapy arm can be moved into a position that enables in-line localization.

Therapy head in under-table position:

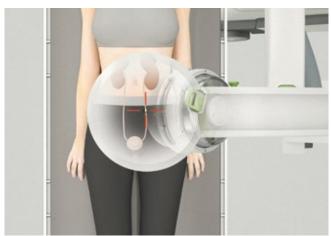
SWL of urinary stones in the kidney and proximal ureter



- Therapy head in over-table and under-table position
- Combination with X-ray workstations
- SWL adapted to stone location
- Patient always in a supine position

Therapy head in over-table position:

SWL of urinary stones in the distal ureter and bladder





# Modular lithotripsy

### Combination with tables and C-arcs

The MODULITH® SLK can be combined with various operating tables with lateral cutout and with surgical C-arcs. Alignment of the individual systems is accomplished by motorized movement of the lithotripter therapy source. As a result, it takes very little time to get the system components ready for treatment. The over-table and under-table positions of the therapy source can be conveniently saved during the focus check and recalled later as required. Markers on the therapy source enable a simple alignment check of the C-arc and lithotripter.

Designed with a small footprint, the MODULITH® SLK enables easy operator access to the patient and to the controls of the system components

- Simple alignment and focus check by motorized therapy source positioning
- Compact design
- Modular combination with tables and C-arcs
- Separate use of system components also possible

#### X-ray localization with C-arc



X-ray localization with C-arc



#### Motorized therapy source positioning





## **SWL** addition

### The ideal complement to urological X-ray workstations

The MODULITH® SLK is the ideal complement to urological workstations such as the PRIMERA ST360® system. With this combination, diagnosis and therapy can be performed without having to transfer the patient to another treatment room.

Patients can be treated with the compact lithotripter directly on the table of the urological workstation. With this system combination, the excellent image quality of the digital X-ray workstation facilitates

stone localization and in-line monitoring during the stone management procedure. Of course, the proven in-line ultrasound localization feature can also be used.

The lithotripter is positioned close to the X-ray workstation only when required. If not in use, the lithotripter can be stored without taking up much space, providing full access to the urological workstation.

- Treatment directly on the urological X-ray workstation
- Ideal complement to the PRIMERA ST360® system
- SWL immediately after the diagnosis
- Perfect use of space
- Application of shock waves as required

In-line X-ray localization with the PRIMERA ST360®

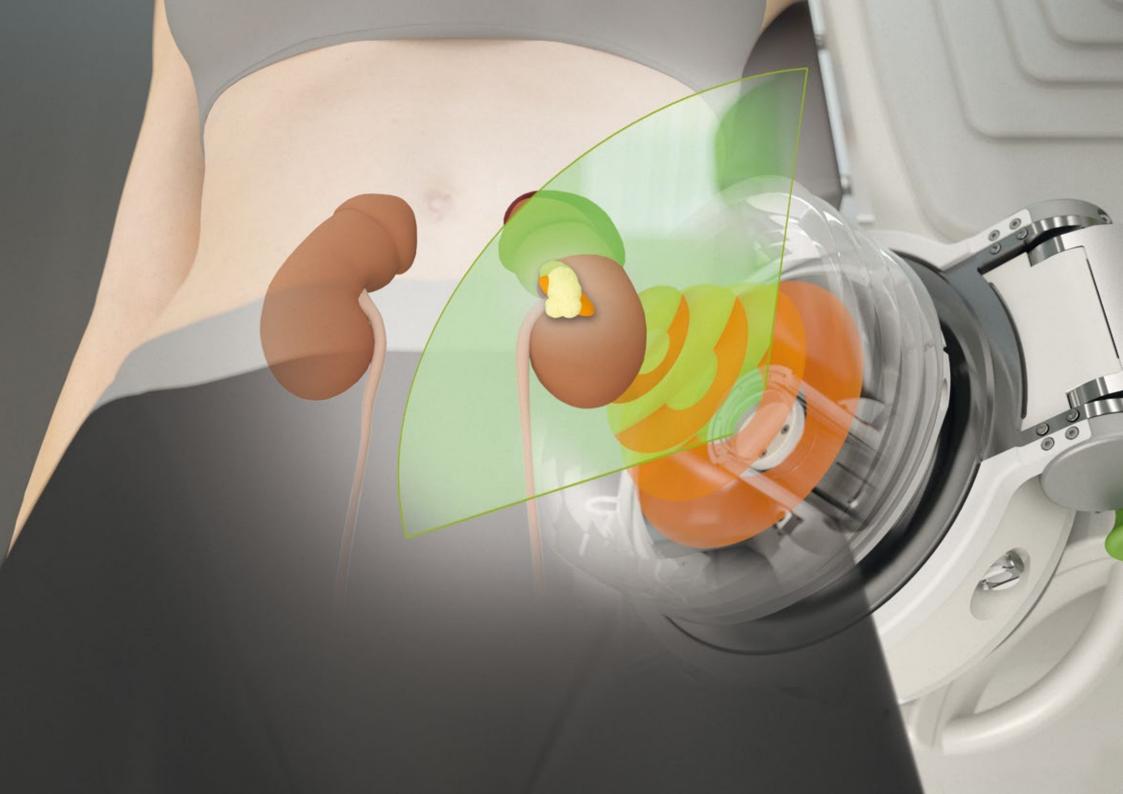


In-line ultrasound localization



Alternative position when used with the PRIMERA ST360®





## In-line ultrasound localization

### In-line localization principle

The cylindrical design of the STORZ MEDICAL therapy coil enables convenient installation of the ultrasound transducer in the centre of the therapy head. As a result, the calculus shown in the ultrasound image is displayed on the central therapy head axis.

The in-line configuration of the diagnostic ultrasound transducer in the therapeutic shock wave source ensures that shock waves and ultrasound waves pass through the same tissue regions, with only minimal deviations between them. The fact that the localized treatment area coincides with the shock wave focus provides maximum targeting precision and fragmentation efficiency.

This in-line arrangement ensures that obstacles such as ribs or the iliac wing are directly visible in the ultrasound image. Moreover, sensitive regions such as the lungs, heart or gas-filled organs can be reliably identified and by-passed during shock wave application. This allows even children to be treated with maximum care and without any significant risks.

#### **Dual imaging**

The combination of X-ray and ultrasound localization enables doctors to choose the localization method they consider best suited for a specific application or to use both localization methods simultaneously.

The ultrasound and X-ray images display the degree of stone fragmentation and clearly show whether the calculus is still located in the therapy focus. Unparalleled reliability and precision during localization and treatment are thus guaranteed.

- In-line ultrasound for exceptional targeting precision
- In-situ monitoring of stone localization
- Simultaneous X-ray and ultrasound monitoring
- »Snap-in technology«: simple installation of the ultrasound module









## **Smart solutions**

### Making daily routines easier

Operation of the MODULITH® SLK is intuitive and simple, which translates into a short learning curve. The system is ready for use immediately after the rapid start-up. All essential functions can be selected by simply touching the self-explanatory icons that are displayed in an easy-to-understand layout on the touch screen. Predefined positions can be recalled at the touch of a button. This feature accelerates workflows, e.g. when preparing the system for transport.

Smart solutions make daily routines much easier: The on-board focal gauge is ready for use at all times, so that system re-alignment during set-up is accomplished within seconds. When the system is not in use, the power cable can be stored neatly directly on the device.

The therapy head can be easily moved into the desired position for treatment or transport. As a result, the lithotripter can be stowed away without taking up much space or moved to a different room.

- On-board focal gauge
- Intuitive control
- Ease of use
- Touch screen operation
- Rapid system start-up

#### Cable storage



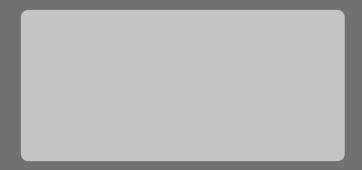
#### On-board focal gauge



### Intuitive touch screen panel



### **HUMANE TECHNOLOGY – TECHNOLOGY FOR PEOPLE**





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