



ELMED™

MEDICAL SYSTEMS



- Modular
- Compact
- Low noise
- Affordable
- Upgradable
- User friendly
- Transportable
- Cost effective
- Low noise level
- Small foot prints
- Anaesthesia free
- Efficient and safe
- Fully computerized
- Low installation cost
- Low maintenance cost
- Out patient treatment
- Short treatment time

MULTIMED EN

Electro-Magnetic Shock Wave Lithotripsy System

MULTIMED EN

ELECTRO-MAGNETIC EXTRACORPOREAL SHOCK WAVE LITHOTRIPSY SYSTEM



MULTIMED EM lithotripsy (ESWL) system offers a comfortable treatment for the user and the patient with its modular structure. MULTIMED EM has a flexible structure that allows AP/PA positioning in 4 different positions (the patient's supine and prone position from full bottom, full top and bottom-side and top-side).

The focus point does not change while the system is used in these positions. MULTIMED EM has a closed circuit water system and a "Degasing System" that takes air bubbles in the water. In order to increase patient comfort and stone breaking efficiency, the water is heated between 30 °C and 36 °C by the device.

MULTIMED EM ESWL can focus simultaneously and automatically with both X-Ray and ultrasound. All controls of the ESWL system are controlled via wired remote control. The system has been produced to be suitable for use in environments where anesthetic gases are present.

The MULTIMED EM Main Unit, Treatment Table and X-Ray imaging device (LITHOSCOPE) can also be controlled individually, all with a single wired touch remote control. The table has a universal feature that will allow endo-urolological (cystoscopy, urethroscopy, transurethral resection, urethral stenting, PCNL, biopsy) applications.

The treatment table is capable of radiolucent scopy from any part of the patient's lying surface. Optionally, the table can be adjusted in trendelenburg and lateral axis so that it can be used in urological studies, and it can be stopped and fixed at the desired angle on this axis. Optionally all kinds of urological accessories can be supplied.

In addition to its features, MULTIMED EM has the world's first "Dynamic Patient Recording and Reporting Program (DPRS)" ,a software that allows patient and treatment-related information to be recorded during treatment.



Multimed EM, presents the complete solution to the lithotripsy world.

Accurate and precise focusing of the stone in lithotripsy is an important feature that shows success.

With computer control, MULTIMED EM has a superior technology specially designed for precise focusing of stones. "U-Arm Fluoroscopy device" – LITHOSCOPE or any mobile C-arm device and "Computer Controlled Automatic Ultrasonic Localization System Robot Arm" (Optionally Computer Controlled Automatic Fluoroscopic Localization System) – can be combined with LITHORM developed by ELMED.

The Electromagnetic MULTIMED EM ESWL system, developed to meet the changing and developing needs of the user and to increase patient comfort, offers accurate and effective solutions in the treatment of urinal stones and has created a unique new standard. It has high and efficient stone crushing efficiency. Thanks to the electromagnetic shock generator, the pain level is low for the patient and the treatment is comfortable for the patient because the noise level of the shock wave is lower than other systems.

It is extremely easy to use. Thanks to its bellows water cushion and water pressure-controlled water system, it provides a more effective treatment opportunity by adapting itself to provide perfect contact with all types of patients. After the image of the stone is obtained with the help of the LITHOARM Computer Controlled Automatic Ultrasonic Localization System, the stone is automatically localized to the focal point by the system, and after the stone is brought to the focal point, the accuracy of its coordinates can be monitored by U-arm fluoroscopy. All types of stones, including low-density or non-opaque stones, can be treated with LITHOARM.

In the automatic ultrasonic stone focusing system, LITHOARM can be adapted to the convex probes of all kinds of diagnostic ultrasound devices.



MULTIMED EM

Energy Source	Electro-Magnetic System (1.000.000 shock warranty)
Focusing	Acoustic lens
Patient Coupling	Membrane (Dry Coupling)
Localization	Fluoroscopy and/or Ultrasound
Focal Distance	140 mm (up to 170 mm)
Focal Dimension	7 mm x 66 mm (50% isobar dim.)
Focal Pressure	Up to 70MPa
Operating Voltage	Max 20 level (Max 18 KV)
Frequency	Variable 40 to 150 shocks/min. (Optional)
Energy Density	6 – 85 mJ.
Triggering Modes	Automatic and Manual (EKG and respiration)
Water System	Closed loop circuit with water cushion pressure regulation and 8.5lt. water capacity with degassing
Height	1200 mm
Length	930 mm
Width	700 mm
Weight	200 kg

TREATMENT TABLE

Height	850-1150 mm
Patient Surface Width	600 x 2430 mm (different sizes optional)
Weight	155 kg
Table Adjustment Limiting	Electric motor movement in dimensions, 6 ways (tilting and trendelenburg optional)
Vertical Movements	300 mm
Longitudinal Movements	150 mm
Lateral Movements	150 mm
Lifting Capacity	200 kg.

LITHOARM Robotic Arm

Manipulator Type	Revolute type Articulated arm
End effector	Ultrasound Prob holder
Parameters	7 links, 6 joints ve 5 angles
Angle Sensors	Precision resistive angle sensors
Software	Windows
Application	Can adapted to all lithotripters
Ultrasonography Device	Can be used with 3.5 mHz convex probe of any ultrasound device.

LITHOSCOPE U-Arm Fluoroscopy

Power	3.5 kW (ops. 5 kW - 15 kW) HF Generator
Fluoroscopy Voltage (kV)	40-110 kV automatic brightness control (ops. 40-120 kV)
Fluoroscopy Current (mA)	0.2 – 5 mA –(ops. Rotating Anode 0.2 mA -10 mA) Automatic and manual two selection
Image Intensifier	9" (12" optional)
X-Ray Tube	Monobock, fixed anode, dual focus, Standart 0.6 -1.8 mm focal spot. (rotating anode optional)
Anode heating capacity	40 kHu (optional 0.5 – 1.5 mm or 0.3 – 0.6 mm rotating anode, 200 kHu anode heat capacity)
TV Camera	High Resolution CCD Camera (1024 X 1024 optional)
Monitor	21" Black – White 1920x1080 one monitor (Ops. Monochrome or color monitor added)
Contrast	35:01
Memory System	Last image hold, (LIH), (optional 4-128 image memory, DICOM 3.0 compitable recording system)
Height	2010 mm
Lenght	1380 mm
Width	500 mm
Weight	225 kg

GENERAL

Main Supply	230 VAC \pm %10, 50-60 Hz, Single Phase, (115 VAC optional)
The system complies with	According to IEC 60601-1; Class 1, Type BAccording to 93/42/EEC, class IIb

ELMED™
Medical Systems

ELMED™

Elektronik ve Medikal San. ve Tic. A.Ş.

Ostim Teknoloji Geliştirme Bölgesi

Ostim Osb Mah. 100.Yıl Bulvarı

Ostim Teknopark Turkuaz Bina No: 55/E-13

06374 Yenimahalle/ANKARA – Türkiye

Tel: +90 312 **256 92 22** • Faks: +90 312 **257 06 08**

www.elmed-as.com • sales@elmed-as.com

ELMED USA

3956 Town Center Blvd. Suite 217 Orlando,
Florida 32837, USA

Tel: +1 (424) **457 0002**

E-mail: elmedusa@elmed-as.com



CE

1984