

Your Expectation is Our Priority

ELMSTech



elith

Extracorporeal Shock Wave Lithotripsy System

ELMSTech, Inc. is committed to offering high quality systems for more effective treatments.

ELITH features includes motorized control of the treatment table in the vertical, longitudinal and transverse directions. These movements as well as other control features are initiated from ELITH's mobile console, which can be placed next to the machine, behind a radiation barrier or even in an adjacent room, according to the requirements of the customer. The treatment table is X-ray transparent, allowing for other radiological procedures.

The standard ELITH model includes an integrated U-arm X-ray with motorized oblique movements (manual control, optional).

The operation of the U-arm is also initiated from the console's soft-touch control panel. A major advantage of the stable X-ray is that, unlike non-attached systems, the second focal point (F2) does not need to be checked prior to the treatment procedure, saving the operator time in the preparation process.



Elith Extracorporeal Shock Wave Lithotripter is designed to enhance the accuracy of the stone localization. Unlike the ESWL units using separate C-arm X-ray devices, Elith unites the U-arm X-ray unit, the table and the main unit. Thanks to this compact structure, the operator can easily manipulate the X-ray unit without any further reorientation.



ELMSTech's Long-Life Electrodes: last approximately 150,000 shocks, or 50 sessions of 3,000 shocks, are easy to adjust and replace, increase the effectiveness of the shock waves, and have a very low cost.

Elith is able to increase effectiveness while decreasing discomfort due in part to its unique long-life electrode system. ELITH's electrode system eliminates the problems of the traditional spark gap electrodes. The long-life electrodes have been designed so that they begin thin and stay thin throughout their lifetime. There is no thick part to disrupt the focusing efficiency of the spark to the second focal point. Even if the distance is greater, after approximately 1,000 shocks, the spark maintains its focusing strength much better than the traditional electrodes.



The other major advantages of the ELITH's long-life electrodes is that they are adjustable. Without disrupting the treatment, the doctor can simply adjust the distance between the electrodes with an equally slight turn of both electrode handles, making the electrodes "as good as new" even after thousands of shocks have been administered.

Besides long-life electrodes, another factor that increases effectiveness while decreasing discomfort is ELMSTech's computer-designed ellipsoids. The size and shape of these reflectors, made from an especially strong alloy, have been chosen to maximize the amount of shock waves that reflect off the deep ellipsoid.



The ELITH's user-friendly, soft-touch panel places many special features at the operator's fingertips. It is divided into three main sections:

The ESWL Section

- ▶ Alphanumeric LCD Screen (describing current operating condition)
- ▶ Ellipsoid Fill/Drain
- ▶ Shock Counter Set/Clear
- ▶ Adjustable Shock Power
- ▶ Adjustable Frequency Control
- ▶ Single Shock Generation
- ▶ Choice of Automatic, Remote, ECG or Respiratory Modes
- ▶ Start/Stop

The Treatment Table Section

- ▶ Vertical Adjustment
- ▶ Longitudinal Adjustment
- ▶ Transverse Adjustment

The X-ray Section

- ▶ LED Displays (indicating levels of kV, mA and minutes of use)
- ▶ Icon Buttons Controlling kV, mA and Timer
- ▶ Motorized Oblique Movement (manual control, optional)
- ▶ Manual/Automatic, Pulse and Snapshot Mode Selection
- ▶ Image Control Buttons (providing normal view, horizontal flip and vertical flip, image rotation mode, edge enhancement, noise reduction filter, print, I.I. field selection (optional), previous and next image selection, image save mode)
- ▶ Collimator Control Mode (iris control modes, blade control modes, automatic collimator control mode, collimator zero mode)
- ▶ System Warning Indicators

ESWL Unit

Energy source	Electro-hydraulic spark gap system	
Focusing	Ellipsoidal	
Patient coupling	Dry water cushion coupling	
Localization	X-ray fluoroscopy and/or ultrasound system	
Operating voltage	7.5 to 24 kV, adjustable	
Ellipsoid aperture	Ø 8.66"	(220 mm)
Focal distance	5.11"	(130 mm)
Focal pressure	550 to 850 bar	
Water cushion capacity	2.77 usgallon	(10.5 lt)
Water tank capacity	3.43 usgallon	(13 lt)
Height	36.5"	(920 mm)
Length	42.5"	(1070 mm)
Width (wheel base)	31"	(780 mm)
Weight	661 lbs (300 kg) with integrated treatment table and U-arm	

Treatment Table

Patient surface	75" x 20"	(190 cm x 50 cm)
Height adjustment	12"	(30 cm)
Longitudinal adjustment	6"	(15 cm) ; 8" (20 cm), optional
Transverse adjustment	6"	(15 cm) ; 8" (20 cm), optional
Patient size (max)	353 lbs	(160 kg)
Weight	331 lbs	(150 kg)

U-arm X-ray

Tube power rating	3.5 kW @ 110 kVp DC
Power rating	3.5 kW @ 110 kVp - 110 mA
kV range	40 - 110 kV
mA range	0 - 3 mA
Image Intensifier	6" (17 cm)
Monochrome Monitor	17"; CCIR/EIA standard; medical grade; 850+ TV line; contrast, brightness, horizontal and vertical hold adjustments

Power Requirements

Power voltage	110 AC/60 Hz or 220V AC/50 Hz, 3kVA, single phase
Power voltage fluctuation	± 10%
Grounding	100V Ω or less in grounding resistance
Electrical isolation	Transformer protection, current leakage interrupter
Safety standard	IEC 601.1 class 1, type B
Quality standard	ISO 9001, CE0123, FDA approved

Environmental Conditions

Operating temperature	50°F to 86°F	(10°C to 30°C)
Humidity	35% to 85%	
Non-operating temperature	5°F to + 104°F	(-15°C to +40°C)
Space requirement	13' x 10'	(4 m x 3 m)

The technical specifications and design are subject to change without prior notice.



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