

# E3000

REDEFINING ELECTROHYDRAULIC STONE MANAGEMENT





GROUNDBREAKING TECHNOLOGY
Within Your Reach

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#### **About Medispec**

- Founded in 1992
- Innovators and global leaders in the field of low intensity SW medical systems
- Focusing in Urology, Cardiovascular, Orthopedics as well as
   Veterinary patented equipment
- A leader of ESWL systems in the USA alone since 2001
- Thousands of medical systems installed worldwide



#### **Our Vision:**

To improve quality of people's lives everywhere, through meaningful profitable innovations

#### **Our Mission:**

To continuously explore new medical applications where Shockwave Therapy can be used to heal and better people's lives, wherever it's needed.



#### **Products Lines**



**UROLOGY** 

E3000 & EM1000

Extracorporeal Shock Wave Lithotripter



**SEXUAL MEDICINE** 

**ED1000** 

revolutionary treatment for ED

**Erectile Dysfunction Shock Wave Therapy** 



**CARDIOLOGY** 

Cardiospec

SWT for Cardiac Ischemic Diseases



**AESTHETICS** 

Slimspec

RWT for Cellulite Treatments



**ORTHOPEDIC** 

Orthospec

Orthopedic ESWT



**THERMOTHERAPY** 

Thermaspec

Thermotherapy for Prostate Problems



# E3000 – Optimal Electro-Hydraulic ESWL

# The Gold Standard in Lithotripsy Has Gone Platinum





#### **Numbers Talk**

1 FDA\*



Installations in 5 continents, and more than



30

Countries



500

Installations\*\*



1,000,000

Patients treated



<sup>\*\*</sup> Data updated Q4/16

# **FDA and CE Approved**







#### E3000 Highlights

- High-end, multi-functional, user-friendly solution
- Superior clinical results with low adverse event rate
- Optimal combination largest focal zone and pressure
- Fast treatment time
- Multi-functional system providing complete endo-urology capabilities
- Unique ability for treating stones in difficult areas
- Fully integrated, modular and compact systems
- Cost effective, reliable, low maintenance and consumable costs







# **Superior Clinical Results**

# FDA Proven Rate of Fragmentation\*

	Medispec**  Electrohydraulic	Dornier*** Electrohydraulic	Siemens***  Electromagnetic	Storz*** Electromagnetic
Stone free (at 3 months)	82.9%	65%	77%	74%
Re-treatment rate	< <b>7</b> %	32%	36%	24%



<sup>\*</sup> Lingeman, J. E., J. A. McAteer, et al. "Shock wave lithotripsy: advances in technology and technique." Nat Rev Urol 2009: 6(12): 660-670

<sup>\*\*</sup> Medispec source: FDA Clinical Study

<sup>\*\*\*</sup> Competitors source: Data submitted to the FDA

# **Large Focal Zone = Better Results**

According to Prof. Lingenman's presentation in the 2008 AUA (America Urological Association):

Larger focal zone lithotripters are more effective



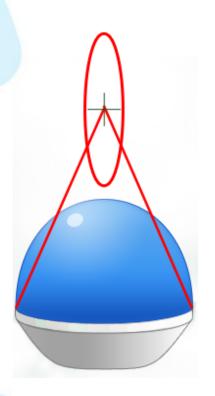
- Better membrane coupling yields better stone fragmentation
- Unified energy spread creates a lower pain level in the patient



# E3000 - Largest Focal Zone

#### Optimal combination of the industry's largest focal zone and pressure

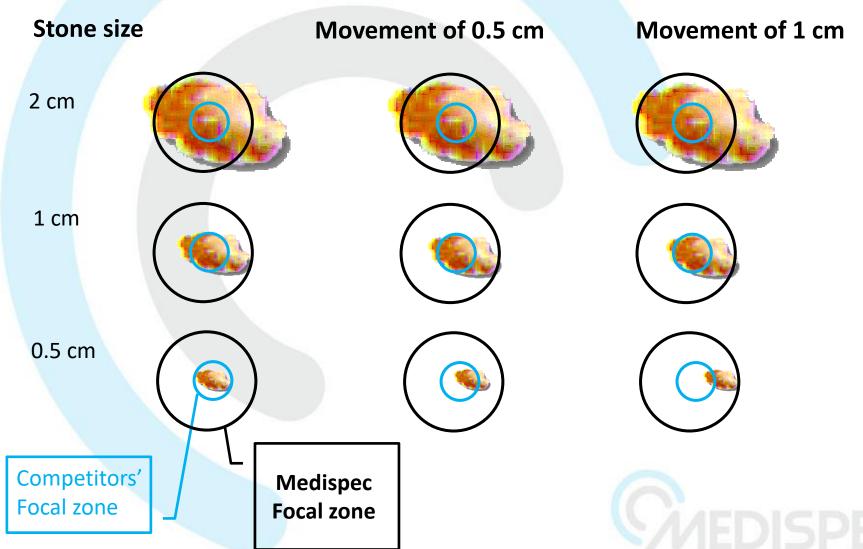
- Largest focal zones: 13x60 mm
- Pressure: 910 bar
- Short treatment time (up to 25 minutes)
- Easy patient positioning and stone localization
- Respiratory gating not required





# **Large Focal Zone Advantages**

#### **Respiratory Gating Not Required**



# **Large Focal Zone Advantages:**

#### **Cost Efficiency**

E3000 – Optimal combination of large focal zone and pressure

	Medispec	Competitors
No. of stones / 1 HVG	308*	Avg. 200
No. of shocks / 1 Stone	3210**	Avg. 5200

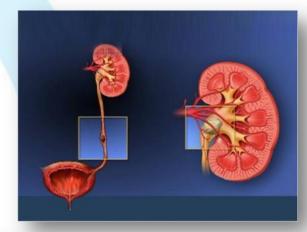


<sup>\*</sup> Based on 1 Million shocks

<sup>\*\*</sup> Based on FDA Study

# **Large Focal Zone Advantages**

- Treating stones in difficult areas
  - Suitable for treating lower and upper ureteral stones
  - Effective treatment for obese patients by extending the shockwave's penetration depth up to 175mm





# **Advanced Features**



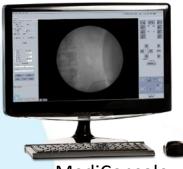
# **E3000 – System Components**



Visionspec C-arm X-Ray system



Can be used with most standard ultrasound systems in the market



MediConsole





#### **Unique Ultrasound Arm**

- **Ultrasound arm** enabling both on-line and real-time viewing of the treatment throughout the treatment procedure
- Can be used with most standard ultrasound systems in the market
- 360° Rotating ultrasound arm for improved clinical results



#### **Advanced Membrane**

 Easier positioning of the patient and localizing of the stone within the treatment area

Adjustable membrane for better patient coupling

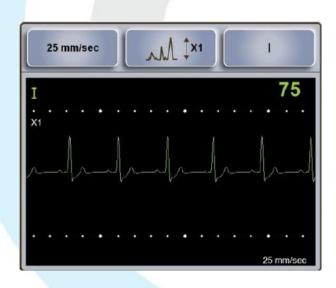
Less clinical complications due to optimal coupling pressure and wide entrance angle



#### **Touch Screen Control Panel**

#### **Easy to Operate Control Panel**

User friendly and easy to operate, allows full control over all the systems' features, including internal ECG





#### **MediConsole - Computerized Treatment Console**

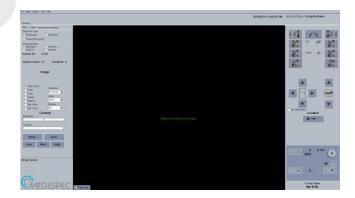
- Automatic stone localization
- Remote control of motorized treatment table, X-ray and lithotripter shock wave unit
- Allows operation of the system at a safe distance from X-ray and Electromagnetic field sources
- DICOM (optional)
- Patient data management software & storage
- 23" wide screen as a standard





#### **MediConsole Additional Features**

- Allows memory capacity according to the hard-disk size (for saving patients' stone pictures)
- Allows image processing features such as:
  - Dynamic on-screen ruler
  - Motion detection
  - Emphasize image resolution
  - Improve image contrast & brightness
  - Zooming in and full screen for better viewing
  - Flipping the image upside down for better stone location



# **Multi Functional: Real-Time Imaging**

Computerized Fluoroscopy

mobile motorized tilt C-arm -

Medispec's Visionspec is

specially designed for lithotripsy

purposes





#### **Visionspec for Intraoperative Imaging**

- Digital 1K<sup>2</sup> imaging (2K<sup>2</sup> optional)
- Fully motorized C-arm with a large orbital rotation of more than 140°
- Unlimited storage space (using a separate, external hard disk)
- 9" image intensifier high brightness and contrast
- Pulsed fluoroscopy guarantees the lowest possible dose
- Connectivity to DICOM network interface
- Two dedicated 23" monitors (live monitor and reference monitor) stationed on the device





# **Visionspec Standard comparison to Visionspec Pro**

	VISIONSPEC STANDARD	VISIONSPEC PRO		
Parameter	Cost Effective X-Ray system	Multipurpose Innovative X-Ray system		
Arm	Motorized U-Arm with tilt movement, for a more precise treatment	Fully Motorized C-Arm with a very large orbital rotation angle of 120°		
Purpose	Designed for Endo-urology and lithotripsy applications	Suitable for a variety of peripheral applications		
Mobility	Compact & Mobile			
Operation and Maintenance	simplicity in operation and maintenance			
Imaging	High quality 1K2 digital imaging (2K2 optional)			
	9" image intensifier offering high brightness and contrast			
	Pulsed fluoroscopy – to guarantee the lowest possible dose			
Monitors	23" monitors (live monitor and reference monitor) – on the device			
Calibration	Fast and Easy			
<b>Data Storage</b>	Unlimited storage for image			
Network	Connectivity to DICOM network interface			
Protocol				
<b>Remote Control</b>	Remote control abilities			

#### **Endo-Urology Treatment Table**

Specially designed to provide complete Endo-urology capabilities, using the same system:

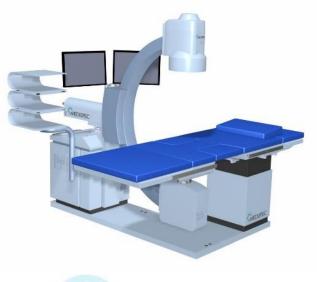
- Unique detachable treatment table for flexible use and patient positioning (highest weight capacity in the industry – 181 kg.)
- Full range of accessories
- X-ray system dedicated to lithotripsy and endo-urology purposes
- Optimal combination of X-ray and ultrasound on-line and real-time imaging capabilities during treatment



#### **ENDO-UROLOGY SUITE**

Designed to serve an independent solution for both lithotripsy and other Endo-urology procedures.

- Designed with the highest accessibility level to allow optimal patient positioning
- Modular, Accessible & Flexible system
- Equipped with the latest imaging technology
- High quality 1K2 digital
- Medispec lithotripters are modular and can easily fit in the endo-urology suite.







#### **Operation Costs Calculation**

- Each Treatment 3210 shocks avg.
- Generator:
  - Warranty for 1,000,000 shocks
  - Avg. Life time 2,500,000 shocks
  - Avg.» 833 patients



Single-use electrode – replace after each treatment



#### **ROI Calculations**

The Suggested model is based on patient fee which may vary from country to country

**ROI calculations** should be determined based on:

- Other treatment options
- Patient fee and budgetary concerns

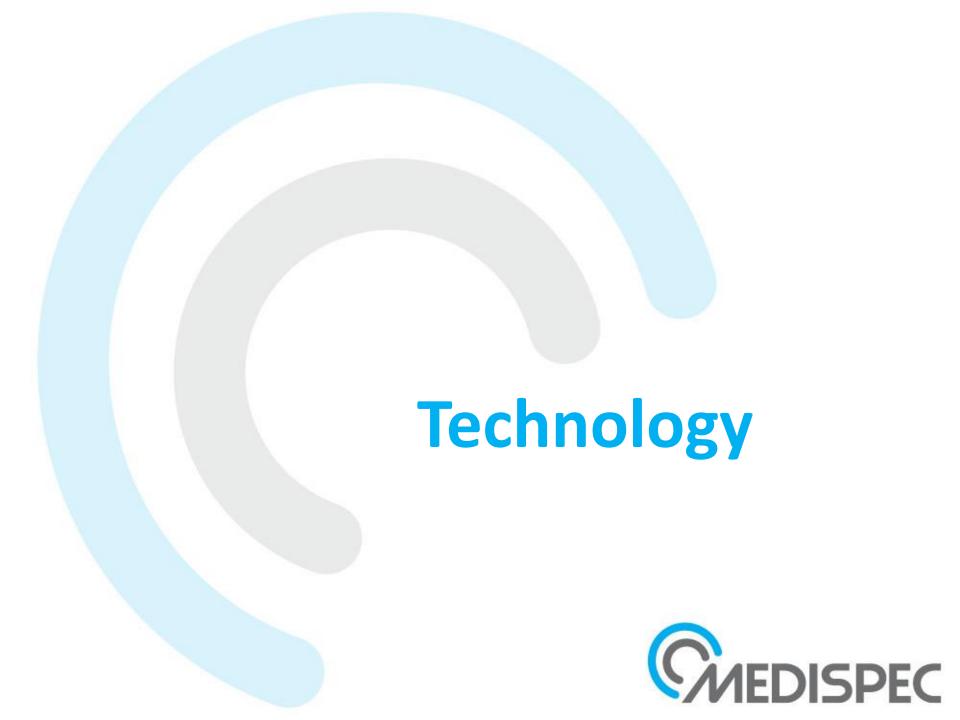
**Important:** The figures used in this model may vary due to the difference in price between the first unit in a country and the ones to follow







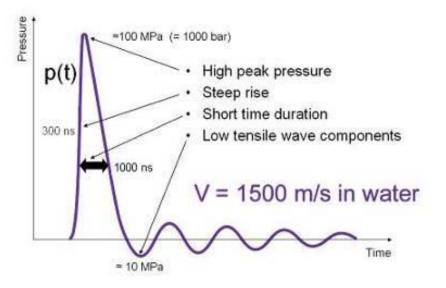




#### **Shock Wave Characteristics**

- Shock wave = energy in form of ultrasonic wave, that can be transmitted in liquid medium
- Peak pressure up to 100 Mpa.
- Steep rise time of approx.
   300ns 1000ns
- Short duration
- High Velocity 1500m / sec

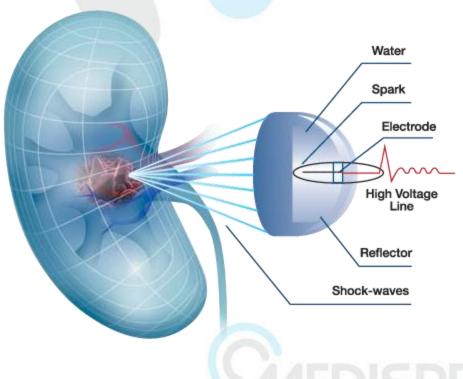
#### Medispec's Shock Wave Characteristics





# **Shock Waves: Electro-hydraulic Principles**

- The reflector has an elliptic curvature with electrode
- A membrane covers the reflector
- Explosion causes pressure expansion
- Pressure waves are focused





#### **Medispec Stone Center**

Lithospec intracorporeal lithotripsy system, complementing Medispec ESWL systems:

- Enables the doctor to perform complete lithotripsy procedures
- No compressor or air supply needed
- Safe and effective in fragmenting large & hard stones
- Uses standard endoscopes available in the market
- Off-the-shelf system (no consumables)



#### E3000 – Suitable Also for Mobile Services

E3000 system is modular, compact, light-weight and easily transportable



