

ELMEDTM
MEDICAL SYSTEMS



RoboFlex Avicenna[®]

Robotic Flexible Ureterorenoscopy

RoboFlex Avicenna®

WHY ROBOFLEX?

fURS or RIRS are rapidly evolving in the last decade. This approach has become a viable alternative to extracorporeal wave lithotripsy and percutaneous nephrolithiasis even for large renal calculi.

The problem is that the surgeon has to perform this procedure mostly in a standing position with suboptimal ergonomic. It may be one of the reasons for the need of second session and frequent repair of the endoscopes and other problems.

THE MAIN BENEFITS OF USING ROBOFLEX

Surgeon perfect position and comfort during operation

Ergonomic and better control of the ureterorenoscopic intrarenal movements that are accurate, precise and fine movements

Less radiation for the surgeons during procedures

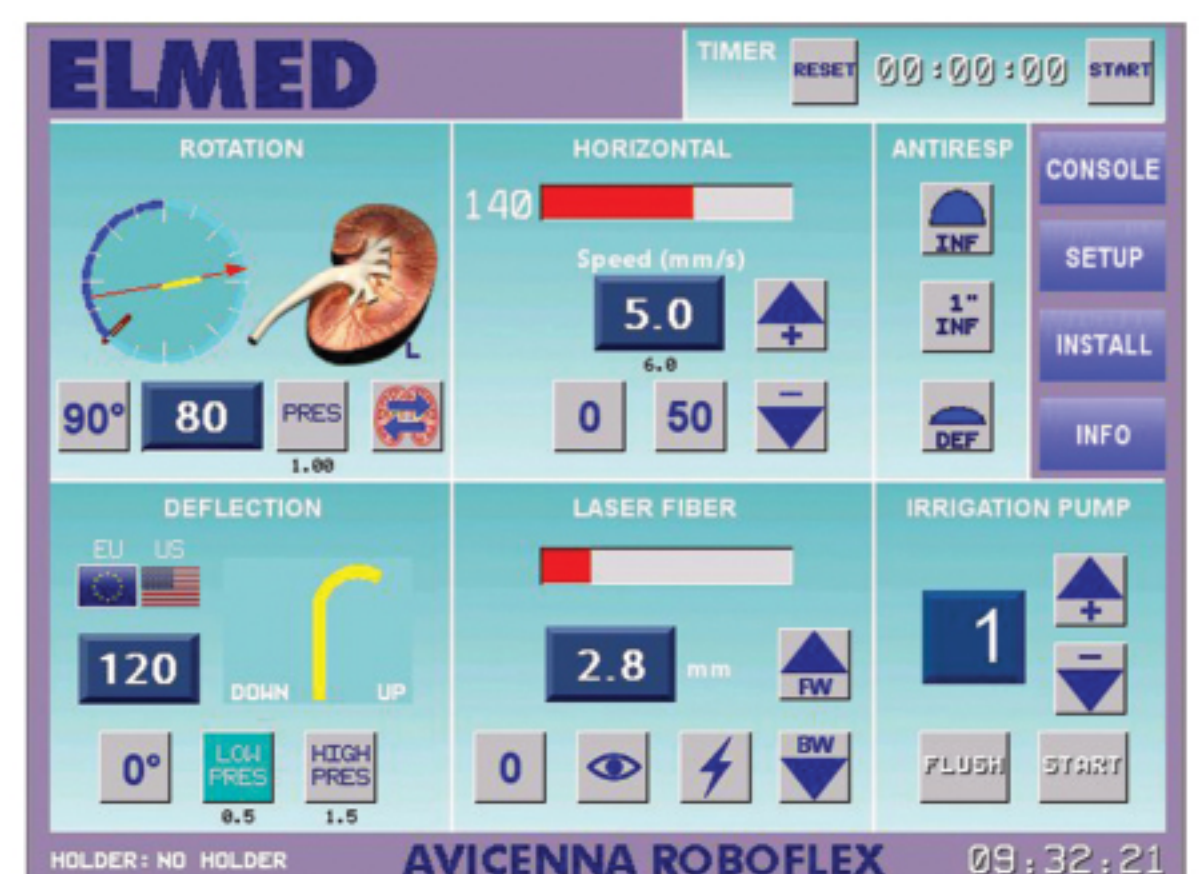
Extended life of the ureterorenoscopes

Fully control of irrigation flow during the whole procedure from a touch screen computer console

Integration of imaging (endoscopic and fluoroscopy) at the touch of a foot pedal from sitting position from the control station

fURS fast and easy, immediate learning curve for all users

*Why do it manually?
When you can ...*



Avicenna RoboFlex for Flexible Ureterorenoscopy (fURS)

Avicenna RoboFlex is the World's first endoscopy robot which has been invented and developed by ELMED for RIRS and FURLAS applications.

RoboFlex is a system which fragments and breaks any size of stone in calix of kidney by using natural the urinary tract without cutting or perforating the patient.

The procedures can be performed from an ergonomic sitting position, without wearing a lead apron and outside of radiation area thus eliminating fatigue.

All functions (forward-backward, rotation and deflection) of flexible endoscopy (fURS) can be controlled by system touch screen and manipulator controls on the console.

Additionally, laser fiber can be moved forward and backward. By pushing one button, the laser fiber can be moved back automatically to prevent breaking of the fiber and move fiber without touching the tissue. The tip of laser fiber does not exposure when it is close to fURS tip. By pushing just one button, the tip of device can be straight, thus laser fiber can be inserted easily without damaging endoscope.

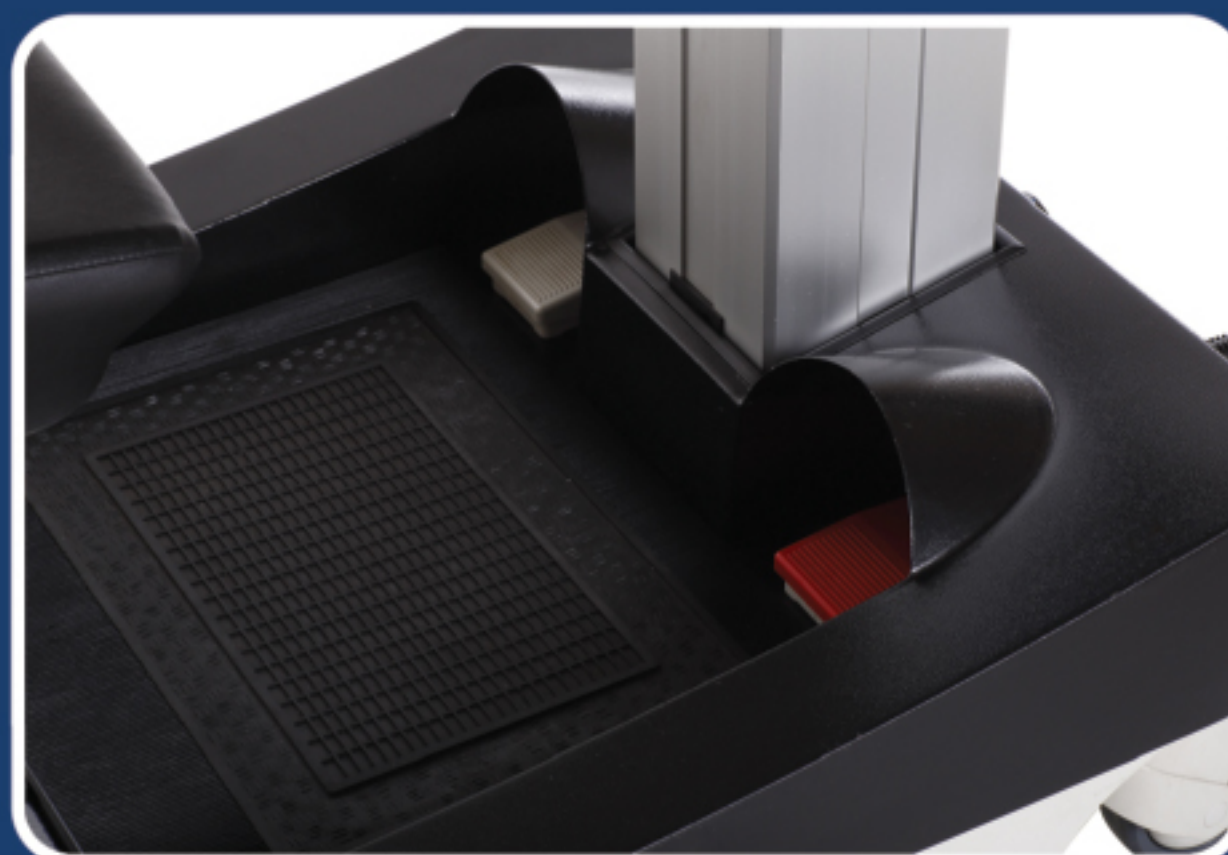
The speed of irrigation liquid can be easily adjusted and the European type of endoscope can be switched as US type.

System enables you to perform the treatment in straight position during the operation without bending the sheath and no breaking and distortion on the endoscope sheath.

With RoboFlex you can treat and dust all types and size stones with high success rate, doing it in short time, safely and efficiently!



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TECHNICAL SPESIFICATIONS

Manipulator

Rotation	± 220° INIT (Mounting Position)
Deflection	± 275° INIT(0°) Precise and Normal Control USA/EU User Options
Horizontal	228 mm INIT(0 mm) MID (50 mm)
Vertical	300 mm Height from Ground: 823 - 1123 mm
Flexible Adapters	Commercially available all reusable and single use flexible ureterorenoscopes
Laser Fiber	14 mm / INIT (0 mm)
Horizontal Speed	May be adjustment in 6 stage 0.5-1-3-5-10 -15 mm/sec
Irrigation Pump	12 Levels + FLUSH mode With 3.5 mm Hose 5-60ml/min
Dimensions	980mm x 500mm x 970mm (H)

Control Console and Chair

Chair:	Ergonomic and adjustable design
Forward / Backward	145 mm
Console	Touch Screen Command
Up / Down	290mm
Memory	6 memory, for positions Height of chair, Height of Console, Distance between chair and console, User's Name memory and user settings for operation such as precisions of rotation, deflection
Wheel Lock	Electro-mechanical
Camera and X-ray Visualization	Selectable and integrated imaging
Foot Pedal	Individual for X-Ray and Laser
Foot Pedal Unit Dimensions	308 mm (W) 170 mm (H) 650 mm (D)

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**Robotic flexible
ureterorenoscopy
is the future, now!**

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