



**MEGA** *Pulse*  
Stone Laser

# Desktop stone laser for laser lithotripsy of all urinary stones in the entire urinary tract

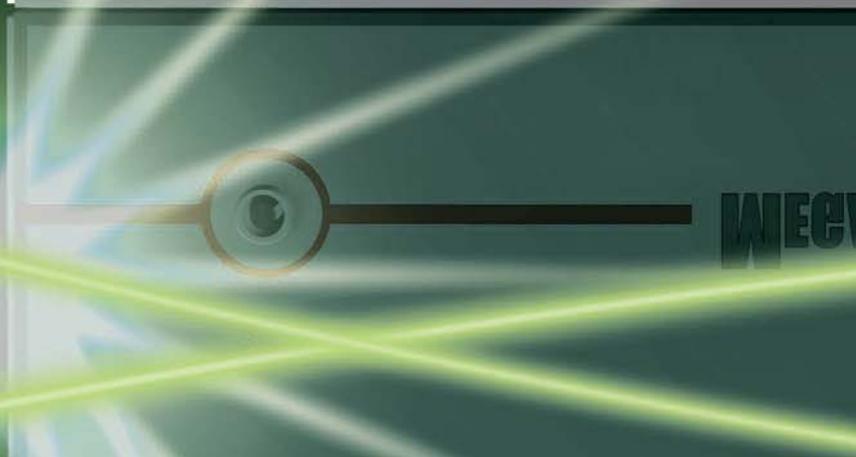
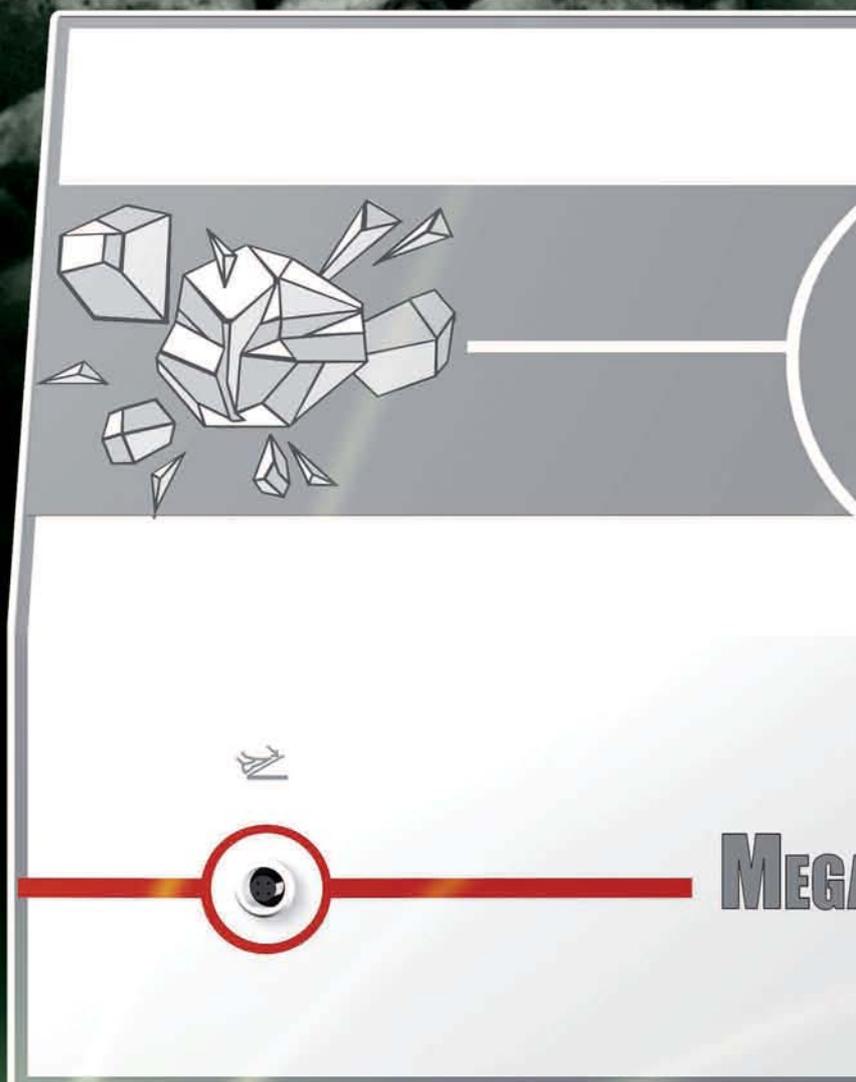
It is easy to find room for this small desktop device on a video trolley, in a ceiling lamp or on a side table. Thanks to its intuitive control concept, the MegaPulse is simple and quick to operate. An illuminated touch screen and very large menu buttons make it extremely safe to use in a darkened OR.

With its extremely effective cooling, its use in warmer climates presents no problem (room temperature up to a maximum of 32°C). This also allows the maximum power output possible for a desktop device.

A green pilot light makes orientation extremely simple even in difficult situations. Both the pulse frequency and the energy can be set manually using the convenient touch panel. Integrated fibre detection nevertheless automatically ensures the optimum generator setting.

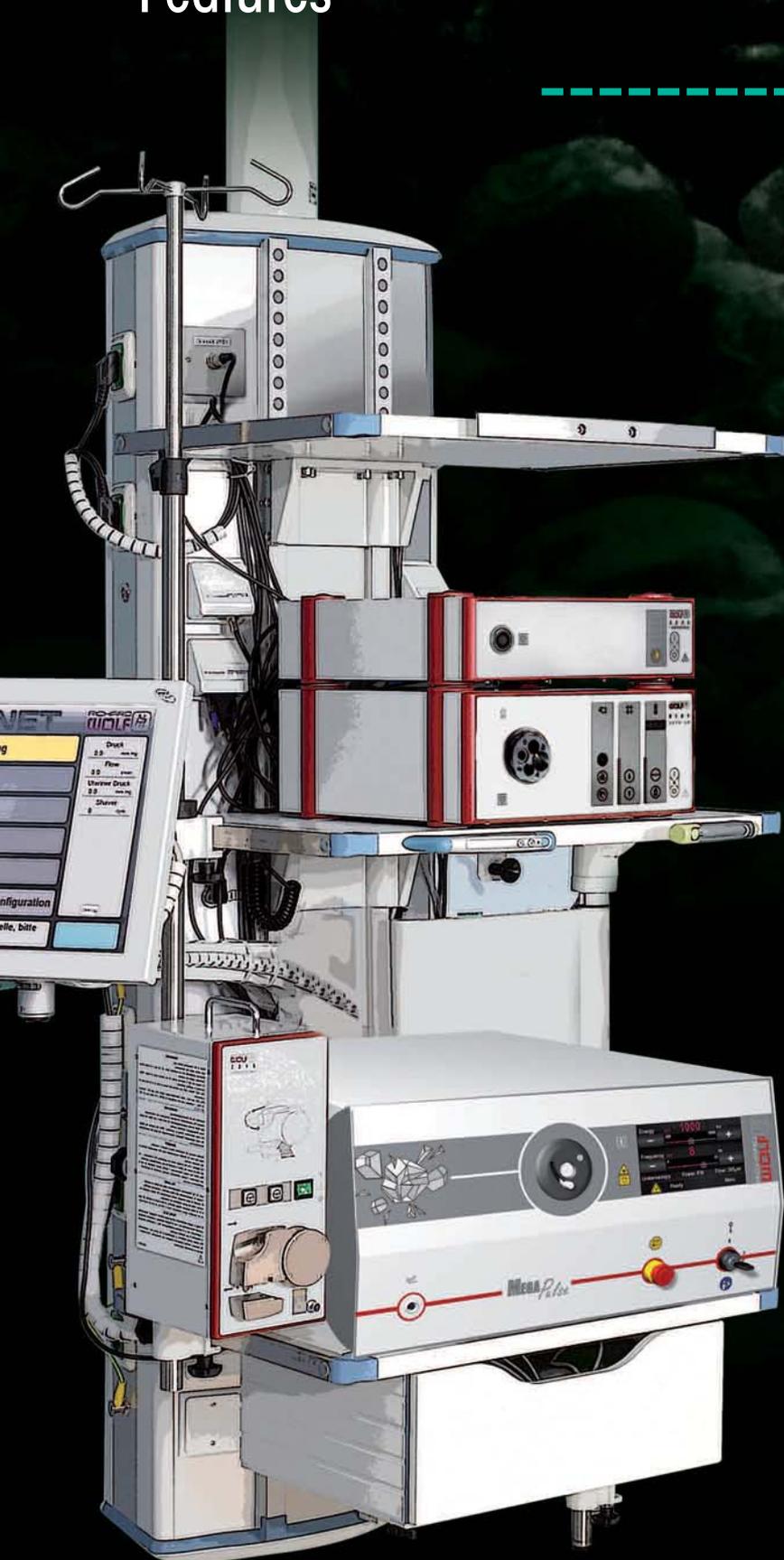
Outstanding benefits:

- Holmium YAG laser for efficient stone therapy in the entire urinary tract
- Elimination of strictures
- Vaporisation of tumours
- Vaporisation of condylomata
- Particularly advantageous when combined with flexible instruments
- Simple control on the touch screen
- Simple handling
- Automatic fibre detection
- Minimally invasive
- Desktop device for video trolley and ceiling lamp
- CAN-BUS





# MEGA *Pulse* Features



Modern, brilliant 6.5" colour TFT display in wide format with touch screen guarantees intuitive operator guidance and avoids operator error.

The display is easy to read in darkened surroundings - a unique feature of this brilliant TFT display. This not only increases patient safety but also saves time.

Even in stress situations, the design and size of the buttons make it easy to enter the required settings.

Multi-language display prevents input errors.

The large angle of view even at considerable distance ensures that the values are always clearly visible. This is enhanced further by the angled front panel of the device.

## **Size and design**

Due to its small dimensions and low weight for a laser, this laser can be located easily in any OR on a side table, video trolley or in a ceiling lamp.



**Leave your own footprint**

Apart from the default values of the automatic fibre detection, you can, of course, also save your own user settings.

This allows you to save your own menu settings perfectly adapted to your wishes and requirements, for example, for ureteric stones in conjunction with a 365 µm fibre.



**All the power you need!**

With the most modern components and a special fine tuning, we have succeeded in developing a desktop laser with a power of 15 W at a wavelength of 2.1 µm. Despite the small dimensions of the device, we still managed to integrate a cooling system. The device can be used wherever there is a power socket available. Special water or power connections are unnecessary.

**Automatic fibre size detection and power adaptation**

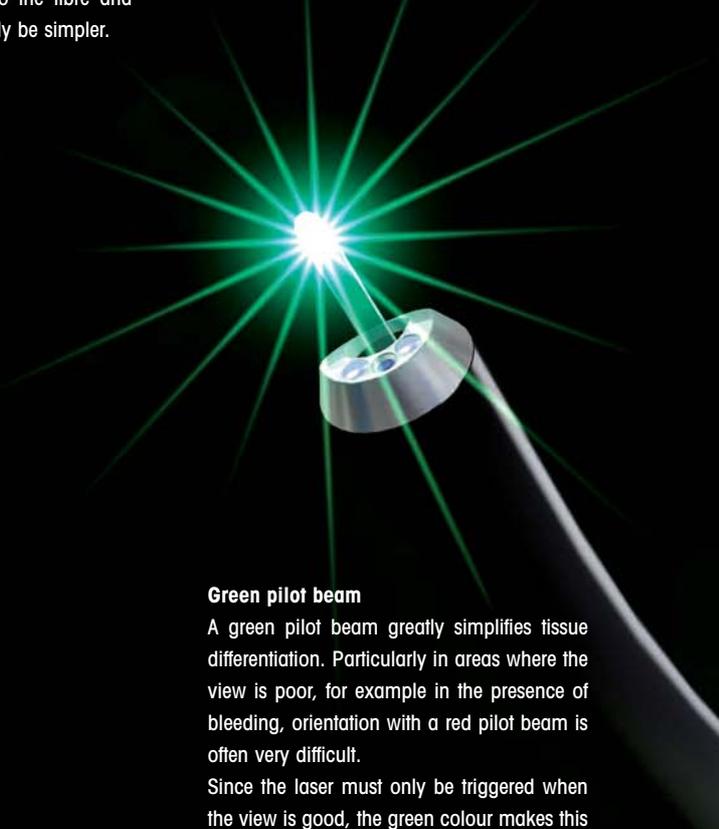
The automatic fibre size detection recognizes the inserted fibre immediately and makes the recommended parameter settings. This excludes the risk of working with the power set too high. This avoids damage to the fibre and device. Operating could hardly be simpler.

**Input errors out of the question**

An automatic fibre detection function in the device immediately signals whether or not a laser fibre is correctly connected. This protects the user from making input errors and makes operation extremely safe.

**Connectors and cooling**

A standard power socket 230 V / 16 A is all that is required to supply the device. A water connection for the cooling is unnecessary. The device has its own integrated cooling system. This allows it to be used in rooms with temperatures up to 32 °C.



**Green pilot beam**

A green pilot beam greatly simplifies tissue differentiation. Particularly in areas where the view is poor, for example in the presence of bleeding, orientation with a red pilot beam is often very difficult. Since the laser must only be triggered when the view is good, the green colour makes this much easier.

# MEGA *Pulse* Laser fibres

## Laser fibres

As the customer, you have the choice between disposable and reusable fibres. The advantage of disposable fibres is that they are always sterile and can be used at any time. Reusable fibres have economic advantages but they must be processed correctly and they can be damaged while being taken from or to sterilisation.

## Disposable fibres

### Laser fibre disposable

fibre diameter: 230  $\mu\text{m}$

pack of 5 .....487501235

### Laser fibre disposable

fibre diameter: 365  $\mu\text{m}$

pack of 5 .....487501365

### Laser fibre disposable

fibre diameter: 600  $\mu\text{m}$

pack of 5 .....487501605

## Reusable fibres

### Laser fibres reusable

fibre diameter: 230  $\mu\text{m}$

pack of 5 .....87501235

### Laser fibres reusable

fibre diameter: 365  $\mu\text{m}$

pack of 5 .....87501365

### Laser fibres reusable

fibre diameter: 600  $\mu\text{m}$

pack of 5 .....87501605

## Starter kit fibres disposable

comprising:

1 x laser fibre 230  $\mu\text{m}$ ,

1 x laser fibre 365  $\mu\text{m}$ ,

1 x laser fibre 600  $\mu\text{m}$  .....48750111



# MEGA *Pulse* Basic system

### MegaPulse BASIC SET

Holmium YAG laser for laser lithotripsy of bladder, ureter and kidney stones. Desktop device 230 V, 50 / 60 Hz, Incl. accessories (footswitch, key set, power cable, CAN-BUS connecting cable, door contact connector, laser safety glasses) .....22850010

### MegaPulse SET

Holmium YAG laser for laser lithotripsy of bladder, ureter and kidney stones. Desktop device 230 V, 50 / 60 Hz, Incl. accessories (footswitch, key set, power cable, CAN-BUS connecting cable, door contact connector, laser safety glasses), Incl. starter kit fibres (1 x laser fibre 230 µm, 1 x laser fibre 365 µm, 1 x laser fibre 600 µm) disposable.....22850011



## Basic sets for lasers

Since we at **Richard Wolf** want to make the right choice for the right system as easy as possible, we have put together various sets that ensure compatibility between laser systems and the instrument set.

The main factors are the type of application,

facilities in the OR, personal training background, focus of the department and collection of patients.

Based on the following packages, you will find set combinations that are useful in the OR and that make it possible to work efficiently.

The sets can, of course, be expanded as required. Because they are offered in sets, the prices are also more attractive than when purchasing single components.

## Basic set for kidney stones with flexible URS "the COBRA" and "the VIPER"

### A real time saver

The new flexible uretero-renaloscope is equipped with two separate working channels each of 3.3 Fr. and a special laser shifter.

Developed specially for laser lithotripsy, one working channel can be used exclusively for the laser fibre. The laser shifter in which the fibre is inserted and locked makes it extremely simple to advance the fibre to make contact with the stone. The stone is targeted with the uretero-renaloscope, the fibre is advanced and the stone disintegrated in the contact technique. To retrieve the stone fragments, you can insert a stone basket or other auxiliary instrument up to 3 Fr. at the same time through the second working channel. For you, this makes the extremely time-consuming changeover between laser fibre and stone basket unnecessary, making the intervention faster and more efficient. You still have the known advantage that the full deflection of 270° can be achieved without any restrictions with a 230 µm fibre and a 1.5 Fr. stone basket inserted.

### Brilliant viewing conditions

Have a look yourself and you'll be convinced by the excellent view achieved. Both irrigation and working channels can be used for continuous irrigation alone or both together with auxiliary instruments inserted for simple irrigation. You will be inspired by the clarity of the endoscopic image.

### MegaPulse BASIC SET for kidney stones (flexible) I

Holmium YAG laser for laser lithotripsy of bladder, ureter and kidney stones, desktop device, 230 V, 50 / 60 Hz, incl. accessories and flexible uretero-renaloscope 270° "the VIPER", 6 / 8.8 Fr., angle of view 0°, working channel 3.6 Fr., deflection down, WL 680 mm (7325071) .....22850024

### MegaPulse BASIC SET for kidney stones (flexible) II

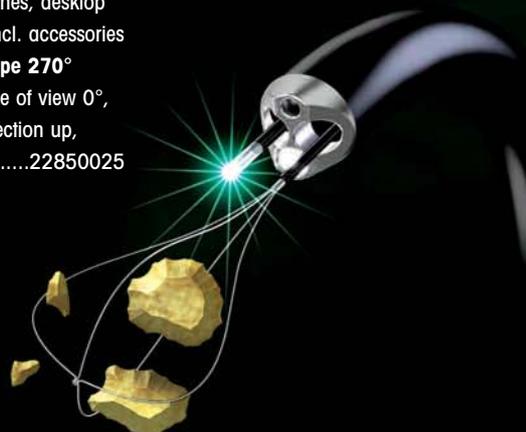
Holmium YAG laser for laser lithotripsy of bladder, ureter and kidney stones, desktop device, 230 V, 50 / 60 Hz, incl. accessories and flexible uretero-renaloscope 270° "the VIPER", 6 / 8.8 Fr., angle of view 0°, working channel 3.6 Fr., deflection up, WL 680 mm (7325076) .....22850025

### MegaPulse BASIC SET for kidney stones (flexible) III

Holmium YAG laser for laser lithotripsy of bladder, ureter and kidney stones, desktop device, 230 V, 50 / 60 Hz, incl. accessories and flexible 2-channel laser uretero-renaloscope "the COBRA", 6 / 9.9 Fr., angle of view 0°, working channel 2 x 3.3 Fr., deflection down, WL 680 mm (73260711) .....22850031

### MegaPulse BASIC SET for kidney stones (flexible) IV

Holmium YAG laser for laser lithotripsy of bladder, ureter and kidney stones, desktop device, 230 V, 50 / 60 Hz, incl. accessories and flexible 2-channel laser uretero-renaloscope "the COBRA", 6 / 9.9 Fr., angle of view 0°, working channel 2 x 3.3 Fr., deflection up, WL 680 mm (73260761) .....22850032



## Basic set for kidney stones with nephroscopes

The **Richard Wolf** nephroscopes are ideally suited for successful therapy of renal pelvis and calyceal stones.

### Universal application

The easy-to-handle instruments are suitable for use in infants, children and adolescents as well as in adults.

### Excellent picture quality

This is guaranteed by the maximum possible resolution and the largest possible image.

### Optimum, user-friendly handling

The low weight is achieved by using titanium and stainless steel. The safe introduction of auxiliary instruments is possible thanks to the automatic seal in the working channel.

### MegaPulse BASIC SET for kidney stones PCNL I

Holmium YAG laser for laser lithotripsy of bladder, ureter and kidney stones, desktop device, 230 V, 50 / 60 Hz, incl. accessories and **miniature nephroscope by Lahme**, angle of view 12°, with laterally offset eyepiece, working channel 6 Fr., WL 225 mm (89684211) .....22850026

### MegaPulse BASIC SET for kidney stones PCNL II

Holmium YAG laser for laser lithotripsy of bladder, ureter and kidney stones, desktop device, 230 V, 50 / 60 Hz, incl. accessories and **percutaneous nephroscope, model Dresden**, angle of view 12°, with parallel eyepiece, Working channel 14 Fr., WL 204 mm (89644011) .....22850027



## Basic set for ureter stones with semirigid URS

The **Richard Wolf** uretero-orenoscopes are suitable for successful therapy of ureteric stones.

Instruments with lateral or laterally offset eyepiece variants

### Little trauma

Thanks to the atraumatic head shape, slim profile and small outer diameter.

### Improved handling

Thanks to low weight and adaptable handles.

### Fast, simple operation

With automatic valve for introduction of the instrument, no need to close an instrument port.

### Improved optical system

Reproduction of the operating site as it really is due to use of 50,000 pixel image guides.

### MegaPulse BASIC SET for ureteric stones, semirigid URS I

Holmium YAG laser for laser lithotripsy of bladder, ureter and kidney stones, desktop device, 230 V, 50 / 60 Hz, incl. accessories and **uretero-orenoscope 4.5 / 6.5 Fr.**, angle of view 5°, with laterally offset eyepiece, working channel 3.3 Fr., WL 430 mm (8701534) .....22850020



# MEGA *Pulse*

## Basic sets for lasers

### MegaPulse BASIC SET

#### for ureteric stones, semirigid URS II

Holmium YAG laser for laser lithotripsy of bladder, ureter and kidney stones, desktop device, 230 V, 50 / 60 Hz, incl. accessories and uretero-reno-**scope 6 / 7.5 Fr.**, angle of view 5°, with laterally offset eyepiece, working channel 4 Fr., WL 430 mm (8702524) .....22850021

### MegaPulse BASIC SET

#### for ureteric stones, semirigid URS III

Holmium YAG laser for laser lithotripsy of bladder, ureter and kidney stones, desktop device, 230 V, 50 / 60 Hz, incl. accessories and uretero-reno-**scope 8 / 9.8 Fr.**, angle of view 12°, with laterally offset eyepiece, working channel 5 Fr., WL 430 mm (8703524) .....22850022

The E-line continuous irrigation uretero-reno-**scope** from **Richard Wolf** has been tried and tested in the diagnostic and therapeutic treatment of ureteric stones. Two working channels provide both optimum viewing and ideal working conditions thanks to the option of permanent irrigation without the risk of TUR syndrome or flushing a stone into the kidney.

#### Prevention of ureter perforation

The absolutely atraumatic rounded tip of the instruments makes perforation of the ureter practically impossible.

#### Large irrigation and instrument channels

allow simple introduction of flexible laser fibres and auxiliary instruments as well as excellent irrigation and suction.

#### Simple introduction

The outer dimensions of the instrument tip allow controlled insertion of instruments without dilatation.

#### Fast, simple operation

with automatic valve for instrument insertion.

#### Fatigue-free, safe handling

thanks to ergonomic, adjustable handle.

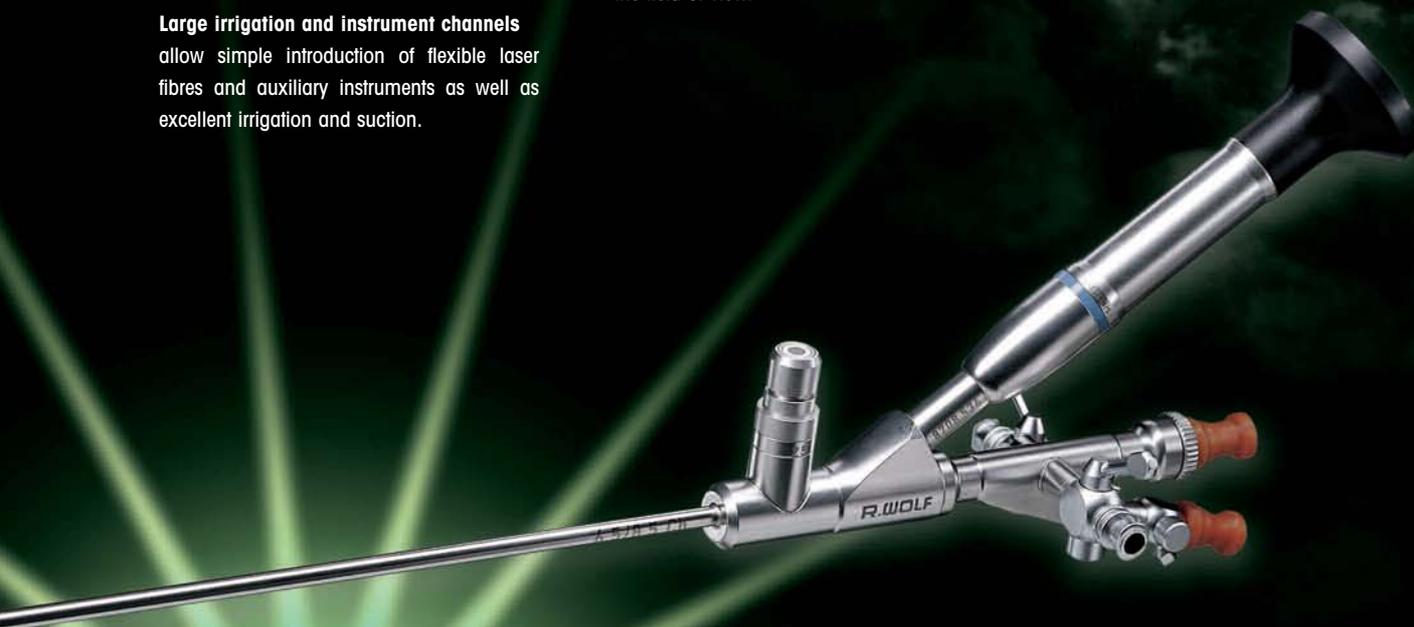
#### Prevention of the flush back effect

is possible by reversing the irrigation fluid in the field of view.

### MegaPulse BASIC SET

#### for ureteric stones, CF-URS

Holmium YAG laser for laser lithotripsy of bladder, ureter and kidney stones, desktop device, 230 V, 50 / 60 Hz, incl. accessories and uretero-reno-**scope continuous irrigation 6.5 / 8.5 Fr.**, angle of view 5°, with lateral eyepiece, working channels 1 x 4 Fr. and 1 x 2.4 Fr., WL 430 mm (8708534) .....22850023



# MEGA *Pulse* Basic sets for lasers

## Basic set for bladder stones with flex. video cystoscopes

A fundamental component of the overall package for successful kidney stone therapy is the flexible video urethro-cystoscope from **Richard Wolf**. This instrument is incomparable and can also be used as a flexible video nephroscope.

### Suction

A special suction valve allows fast, safe suction of the irrigation fluid at the touch of a button.

### Locking

To lock the instrument in a specific position, it is equipped with a brake.

### Atraumatic tip

Extremely short, atraumatic shape of the instrument tip for gentle and fast insertion into the urethra.

### Chip on the tip

A video chip located on the tip provides a permanently sharp and brilliant endoscopic image without pixels or Moiré effect.

### MegaPulse BASIC SET

#### for bladder stones, flex. video cystoscope I

Holmium YAG laser for laser lithotripsy of bladder, ureter and kidney stones, desktop device, 230 V, 50 / 60 Hz, incl. accessories and flexible video urethro-cystoscope, 9.8 / 15.9 Fr., angle of view 0°, working channel 6 Fr., deflection down, with suction, WL 400 mm (730800141) .....22850028

### MegaPulse BASIC SET

#### for bladder stones, flex. video cystoscope II

Holmium YAG laser for laser lithotripsy of bladder, ureter and kidney stones, desktop device, 230 V, 50 / 60 Hz, incl. accessories and flexible video urethro-cystoscope, 9.8 / 15.9 Fr., angle of view 0°, working channel 6 Fr., deflection up, with suction, WL 400 mm (730800641) .....22850029



## Basic set for bladder stones

The percutaneous nephroscope "model Dresden" is the first small-calibre universal endoscope that guarantees maximum user convenience and minimum patient discomfort. It is ideal equally for therapy of bladder stones and kidney stones.

**Large, oval working channel** for auxiliary instruments up to 3.5 mm diameter allows optimum working with effective irrigation.

### PANOVIEW PLUS rod lens system

The new rod lens system ensures optimum picture quality.

### Fatigue-free working and optimum handling

The ergonomic design and the automatic valve make the instrument particularly user friendly.

### Low-calibre sheath

This allows straightforward access and maximum efficiency.

### MegaPulse BASIC SET

#### for bladder stones III

Holmium YAG laser for laser lithotripsy of bladder, ureter and kidney stones, desktop device, 230 V, 50 / 60 Hz, incl. accessories and percutaneous nephroscope, model Dresden, angle of view 12°, with parallel eyepiece, working channel 14 Fr., WL 204 mm (89644011) .....22850030



# MEGA *Pulse* Accessories

- Footswitch .....2030121
- Power cable .....2440031
- Key set.....2285525
- Door contact connector .....2285520
- Laser safety glasses "Split shield",  
(also suitable for wearers of glasses)  
pack of 1 .....2285522
- Special accessories**
- Fibre stripper .....2285523
- Diamond scorer  
(for breaking the fibre) .....2285524



## MEGA *Pulse* Technical Data

- |   |   |
|---|---|
| <ol style="list-style-type: none"> <li>1. Laser type</li> <li>2. Wavelength</li> <li>3. Power</li> <li>4. Pulse energy</li> <li>5. Pulse frequency</li> <li>6. Dimensions (W x D x H)</li> <li>7. Power supply</li> <br/> <li>8. Design</li> <li>9. Operator control</li> <li>10. Cooling</li> <li>11. Target beam</li> </ol> | <p>Holmium YAG<br/>2080 nm<br/>15 W<br/>400 mJ - 2000 mJ<br/>4 Hz - 10 Hz<br/>520 x 485 x 285 mm<br/>220 V - 240 V +10%/-14% ~ 50 Hz<br/>220 V +10%/-14% ~ 60 Hz<br/>16 A (max. 2.3 kW)<br/>Desktop device<br/>Touch screen<br/>Integrated cooling system<br/>Green</p> |
|---|---|

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Specifications subject to change without notice.

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