

MADE IN GERMANY

vela<sup>®</sup> XL



**Always the next wave!**

The 1.9  $\mu\text{m}$  laser

# vela® XL

Versatile and easy to use

The vela® XL is ideal for safe, precise application in endourology for a wide variety of procedures.

The vela® XL is the optimal device for many different surgical interventions in a variety of specialties:

## **BPH:**

- ✦ Enucleation
- ✦ Vaporization
- ✦ Vaporesection

## **Other endourological applications:**

- ✦ Tumor resection
- ✦ Partial nephrectomy
- ✦ Laparoscopic use, etc.

- ✦ Gynecology
- ✦ Otorhinolaryngology
- ✦ Pneumology
- ✦ Neurology
- ✦ Surgery

vela® XL –  
for broad therapeutic  
application



## vela® XL

### The special laser system

The vela® XL is the world's first thulium laser that uses a surgery-optimized 1.9 µm wavelength. This powerful, but at the same time very precise laser system is especially suitable for improved hemostatic cutting of soft and hard tissue. Especially in treating BPH, it is outstanding for its wide range of applications for both routine patients and for patients with a higher risk of bleeding.



- ✦ Versatility through an optimal wavelength
- ✦ A broad range of applications through high performance (up to 120 watts)
- ✦ Cool Cut® function for preserving tissue during treatment
- ✦ Intuitive user guidance
- ✦ Safety through automatic fiber recognition
- ✦ Attractive design

vela® XL –  
the medicine of the future

## 120 W output

Extra strong performance and precision

The 120 watt output on the tissue, along with the laser beam's high absorption, limits the laser's effect to the exposure area, with defined thermal penetration. This results in outstanding control and safety during use, a short learning curve and minimal side effects.

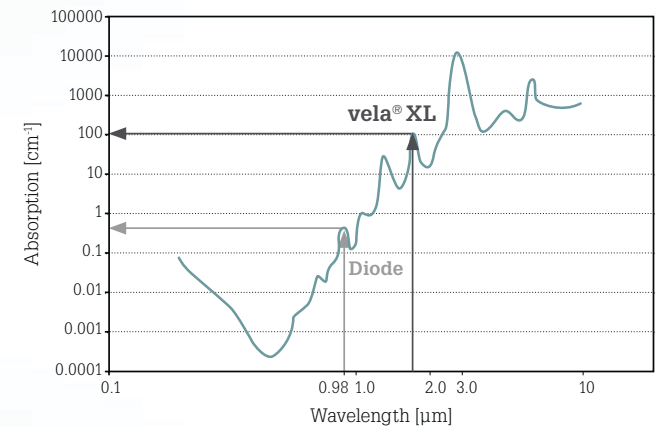
## 1.9 $\mu\text{m}$ wavelength

For the greatest efficiency

The wavelength is decisive for an efficient laser system. Biological tissue consists largely of water. High absorption of the laser light into water therefore leads to highly efficient tissue vaporization even at low output. That makes the 1.9  $\mu\text{m}$  wavelength especially suitable, because it matches the absorption peak of water.

The curve indicates the process of water's light absorption in relation to wavelength. The maximum absorption of wavelengths transmittable over highly flexible fibers is 1.9  $\mu\text{m}$ . Comparison to other laser systems, such as a diode laser (980 nm) shows a distinct difference: The vela<sup>®</sup> XL's 1.9  $\mu\text{m}$  wavelength is absorbed by water about 300 times better than that of the diode laser at about 1  $\mu\text{m}$  (shown as a logarithm).

vela<sup>®</sup> XL –  
safe to use with high performance  
and efficient application in surgery



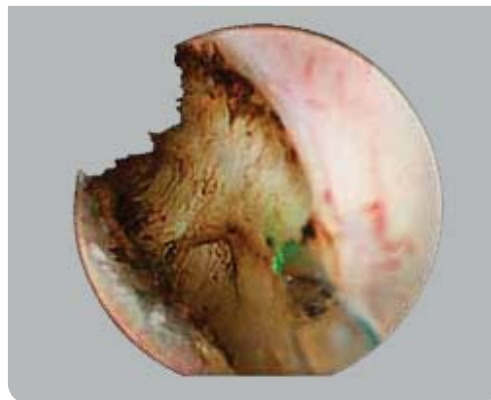
# Cool Cut®

Unique for increased precision and safety

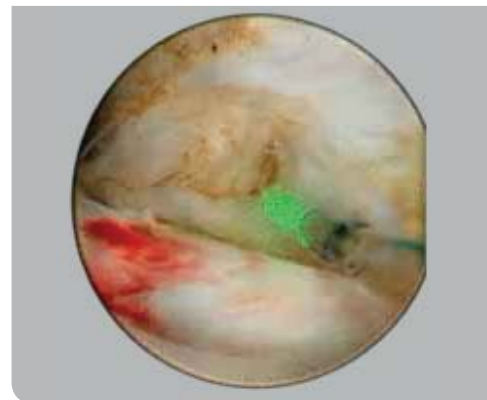
While during treatment of high-risk patients a maximum thermal effect leads to a desired, pronounced hemostasis, in other cases this thermal effect can be too strong or can even result in undesirable side effects. With the newly developed Cool Cut® system, the thermal effect can be

reduced simply, in steps, and thus be adjusted to the specific situation. In particular, undesired carbonization and tissue coloration are reduced or completely eliminated.

Prostate treatment  
**WITHOUT Cool Cut®**



Prostate treatment  
**WITH Cool Cut®**



Cool Cut® –  
The revolution in tissue  
preservation

Illustrations of prostate treatment courtesy  
of Prof. Knoll, Sindelfingen Clinics

vela® XL

## vela<sup>®</sup> XL 1.9 μm: A win for doctor and patient

- ✦ Interdisciplinary application
- ✦ Minimal bleeding
- ✦ Low carbonization through unique Cool Cut<sup>®</sup> function
- ✦ User safety through automatic fiber size recognition
- ✦ Wide range of available fibers
- ✦ Plug & Play: Can be used immediately without warm-up
- ✦ Portable, space-saving device
- ✦ Low-noise system
- ✦ Optimized 1.9 μm wavelength for high efficiency
- ✦ Green pilot beam for best contrast with tissue
- ✦ Pilot beam adjustable in fine increments
- ✦ Long maintenance intervals
- ✦ Standard 220–240 V connection
- ✦ Easier tissue structure identification through neutral gray safety glasses (creates no color distortion of the surgical site)

- ✦ Safe, low-risk treatment
- ✦ Shorter hospital stay for the patient
- ✦ Minimal recovery time, quick return to quality of life
- ✦ Post-operative catheter often not necessary
- ✦ Very low blood loss
- ✦ Sustainable therapeutic success (low recurrence rate)
- ✦ Possible treatment for high-risk patients (e.g., those taking anticoagulants)

✦  
**vela<sup>®</sup> XL –  
convincing features**



**vela® XL**

Technical data



- ✦ Intuitive user guidance
- ✦ Wide range of available fibers
- ✦ WVA color display
- ✦ Practical dimensions

<b>Laser data</b>	
Laser type	Thulium laser
Wavelength	1.9 µm
Output (max.)	5–120 W
Pulse duration	1 msec–cw
Pilot beam, green	532 nm, < 1 mW, adjustable in small increments
<b>Device data</b>	
Main supply	220–240 V 50 Hz; 200–230 V 60 Hz; 16 A (max. 3 kW)
Display	WVA (Wide View Angle) color display
Cooling	Closed, maintenance-free cooling system
Dimensions (W x D x H)	30 x 95 x 105 cm
Weight	150 kg
Fibers	230–800 µm bare fibers; side-fire fibers
<b>Standards and approvals</b>	
Laser class	4
Regulatory approval	FDA approval Conformity acc. MDD 93/42/EEC Ann. II
Quality management	EN ISO 13485:2003 + AC 2009