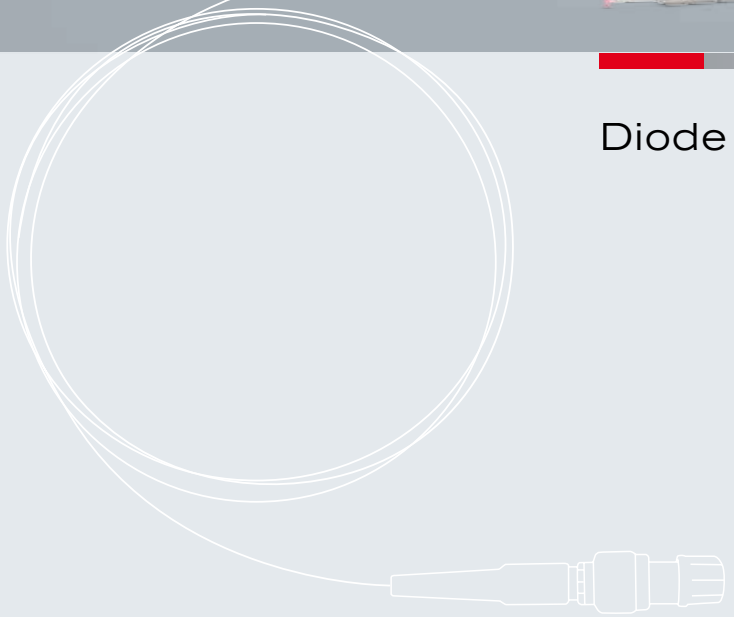
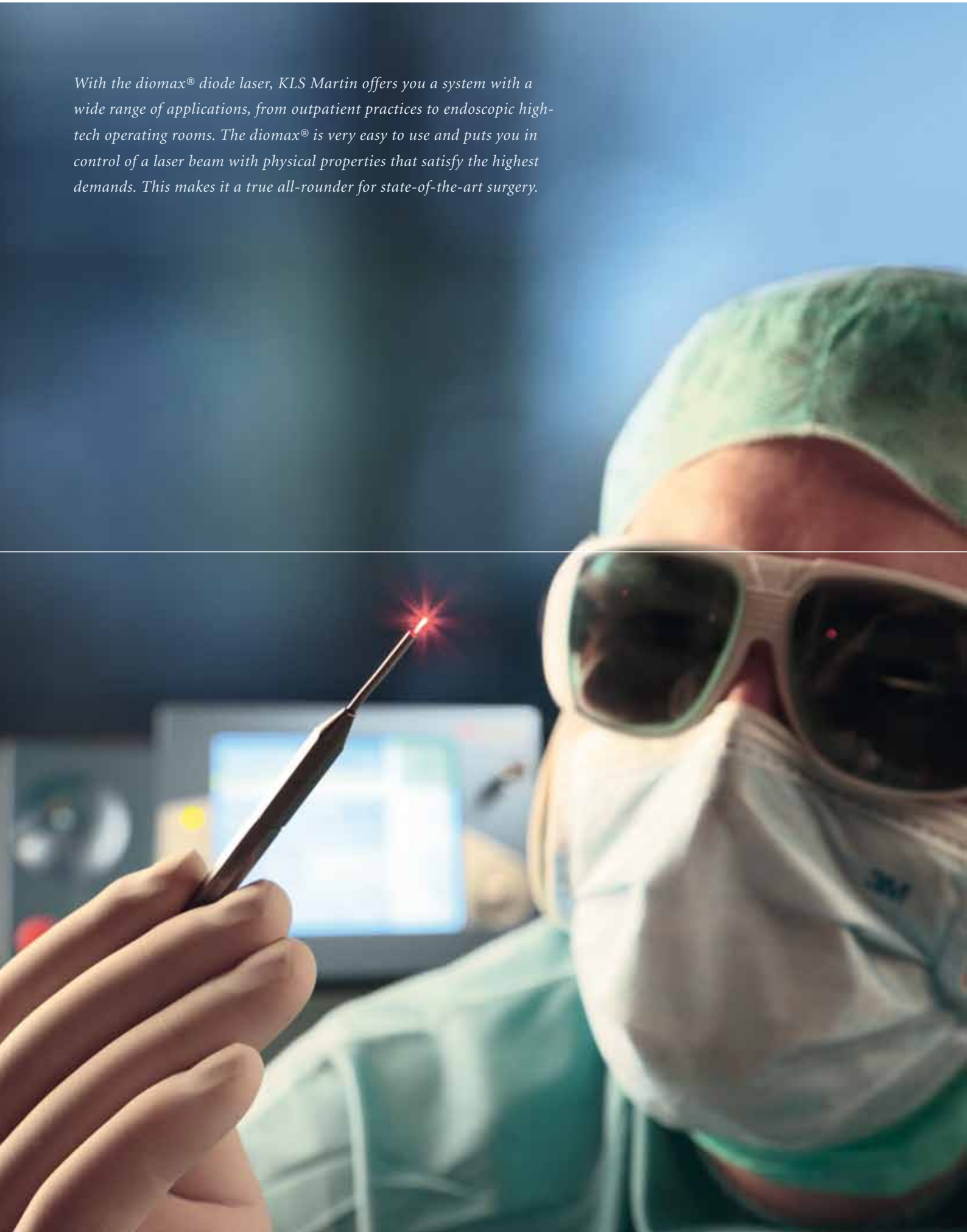
Diode Laser diomax®

The "all-rounder" for advanced laser surgery



KLS martin GROUP

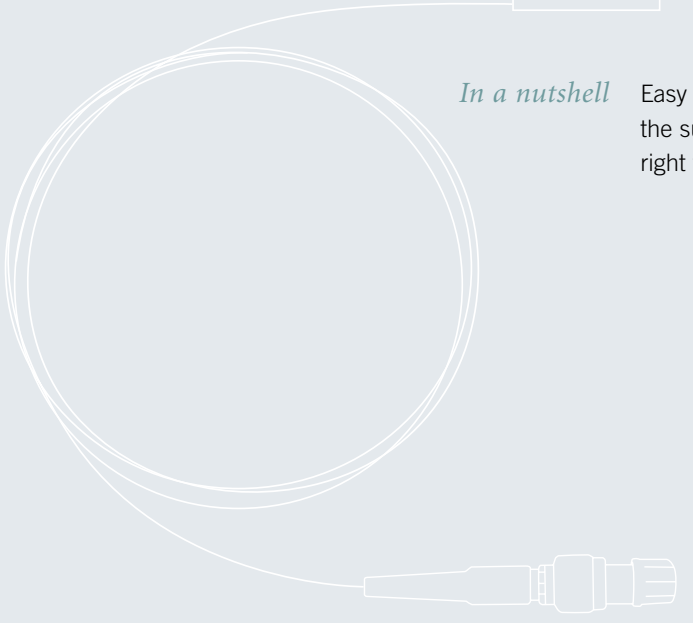
With the diomax® diode laser, KLS Martin offers you a system with a wide range of applications, from outpatient practices to endoscopic high-tech operating rooms. The diomax® is very easy to use and puts you in control of a laser beam with physical properties that satisfy the highest demands. This makes it a true all-rounder for state-of-the-art surgery.



The New Diode Laser –
Impressive in Quality and Flexibility

The greatest assets of the diomax® are its well-thought-out design concept and its intuitive handling. The unit offers memory space for up to 50 user-defined programs. All parameters can be easily set by means of a single rotary switch and all settings are clearly displayed on the large color screen. No cluttering, no cumbersome sub-menu structures – you have everything under control at a glance.

Laser beam quality marks another field where the diomax® sets new standards. With its numerical aperture of 0.22 – the "quality characteristic" for laser radiation – the diomax® offers a beam quality previously available only with solid-state lasers.



In a nutshell Easy to use, first-rate beam quality. This enables the surgeon to concentrate fully on the surgical job – right from first use of the unit!

diomax® – Great Versatility

Matching a Wide Range of Indications

What makes the diomax® diode laser so versatile is its wavelength of 980 nm, which allows it to be used in almost any surgical field.

ENT

- *Oral tumors*
- *Leukoplakia*
- *Polypectomy*
- *Conchotomy*
- *Hemangiomas*

OMF

- *Hemangiomas*
- *Oral tumors*
- *Leukoplakia*
- *TMJ arthroscopy*

DERMATOLOGY
PLASTIC AND AESTHETIC SURGERY

- *Hemangiomas*
- *Telangiectasia*
- *Tumors*
- *Condylomas/warts*
- *Leukoplakia*

PHLEBOLOGY
VASCULAR SURGERY

- *Endovenous laser occlusion (EVLO) of varices (VSM, VSP, perforating veins)*
- *Hemangiomas*
- *Telangiectasia*

OPEN SURGERY I ENDOSCOPY
LAPAROSCOPY I GYNAECOLOGY

- *Tumors*
- *Stenoses*
- *Adhesions*
- *Hemorrhages*
- *Hemorrhoids*

For detailed information on individual indications, please refer to the corresponding application instructions provided.

Excellent absorption

The hallmark of the 980-nm wavelength is its excellent absorption in hemoglobin and water.

Short pulse time

Another prominent feature of the diomax® that sets it apart from any other diode laser is its extremely short pulse time of 5 ms. This keeps patient strain very low.

Wide application range

Whatever your surgical specialization – the diomax® meets any challenge. Thanks to its comprehensive range of accessories, it can be used for open as well as endoscopic or endoluminal applications, in contact or non-contact mode.

The Laser, the Handpiece
and the Catheter Sets

The Advantages at a Glance

- 980-nm wavelength for high absorption in hemoglobin and water
- Easy, straightforward handling
- Large color display for perfect parameter overview even in darkened ORs
- Top-notch beam quality for precise cutting
- 50 memory locations for standardized treatment programs
- Comprehensive range of application accessories for open as well as endoscopic or endoluminal surgery

Ordering Data

Diode laser diomax® 980 nm, 20 W, incl. foot switch	79-520-00-04

Technical Data

Laser power	0.1–20 W
Laser wavelength	980 nm
Operating modes	continuous (CW) and pulsed
Pulse modes	Single pulses, pulse trains and cyclical pulse
Operation	Soft keys plus rotary pushbutton (double-function switch)
Display/indicator	TFT color display, luminous ring
Programs	50 memory locations
Memory	Activation and error registers (logs)
Laser class	4

Power Density

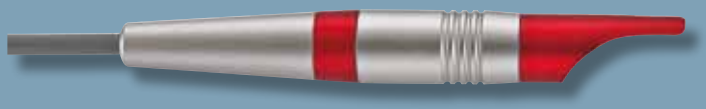
as a function of beam spot diameter and laser power

	Power density kW/cm² at a power setting of		
Spot Ø (µm)	5 W	10 W	20 W
500	2.55	5.09	10.19
1000	0.64	1.27	2.55
1500	0.28	0.57	1.13

Energy Density

as a function of pulse time and beam spot diameter when using a laser power of 20 W

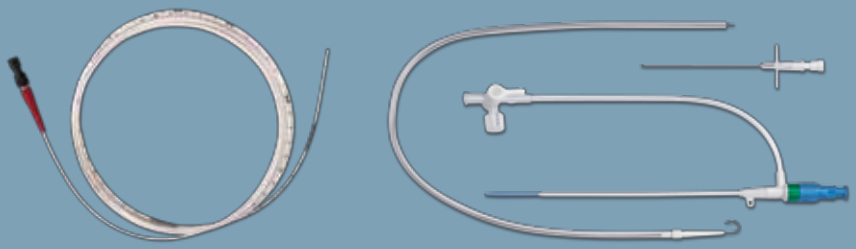
	Energy density kJ/cm² at a power setting of 20 W / pulse time (ms)		
Spot Ø (µm)	10 ms	100 ms	1000 ms
500	0.10	1.02	10.19
1000	0.03	0.25	2.55
1500	0.01	0.11	1.13



Focusing Handpiece

Set including laser focusing handpiece and 3 distance sleeves for superficial laser application in non-contact mode

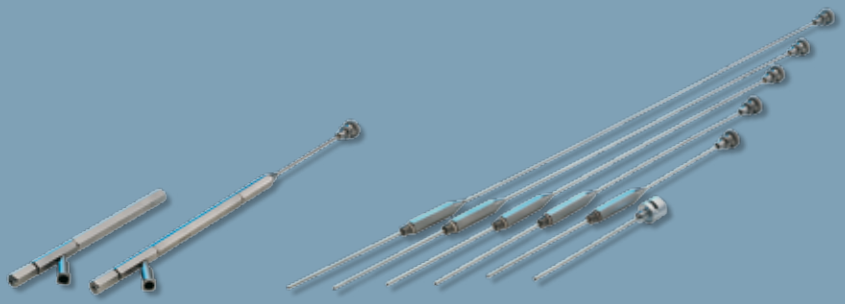
diomax® focusing handpiece 79-600-00-04
Distance sleeves for focusing handpiece:
0.5 mm 79-600-05-04
1.0 mm 79-600-10-04
1.5 mm 79-600-15-04



VENEX Catheter Sets

Catheter set for EVLO operations (endo-luminal treatment of varicose veins) – includes a puncture needle, a guide wire, an extremely thin, ultra-sonically visible venous catheter and a thin laser fiber

VENEX 360° (set is delivered in pack. of 5 ea.) 79-350-00-04



Fiber Holders

Modular system consisting of handpiece and attachment tips (5–28 cm) for all types of interventions using the laser fiber in contact mode on the skin surface or in body cavities

Handle 78-300-10-04
Handle spare parts set 78-300-01-04

Detachable tips with bending mandrel
5 cm 78-310-05-04
8 cm 78-310-08-04
13 cm 78-310-13-04
18 cm 78-310-18-04
23 cm 78-310-23-04
28 cm 78-310-28-04
Tip with Luer-Lock connector 78-310-01-04

Flexible Quartz Fibers, Bare Fibers

Extremely thin and powerful, flexible fibers for highly efficient bare fibers offering excellent beam characteristics

Core diameter 300 µm, fiber length 3 m, 5 pcs/pack 79-700-30-04
Core diameter 400 µm, fiber length 3 m, 5 pcs/pack 79-700-40-04
Core diameter 600 µm, fiber length 3 m, 5 pcs/pack 79-700-60-04
Fiber preparation set, autoclavable 79-111-00-04

Laser Protective Goggles

Effective eye protection with high wearing comfort

Laser protective goggles 79-100-56-04
cover the following wavelenghts:
- 800-<840 DIRM LB4 (OD4+)
- 840-<880 DIRM LB5 (OD5+)
- 880-<960 DIRM LB6 (OD6+)
- 960-<1064 D LB6 + IRM LB7 (OD7+)
- 1064-1400 D LB6 + IRM LB8 (OD8+)
- >1400-2000 DR LB3 + I LB4 (OD4+)
- >2000-3600 D LB3 + I LB4 (OD4+)
- >3600-4800 DI LB3 (OD3+)
- >4800-11500 DI LB4 (OD4+)
- 640-700 0,01W 2x10E-6J RB1 (OD1-2)
- LV CE F

KLS Martin Group

KLS Martin France SARL
68200 Mulhouse · France
Tel. +33 3 89 51 3150
france@klsmartin.com

KLS Martin UK Ltd.
Reading RG1 3EU · United Kingdom
Tel. +44 1189 000 570
uk@klsmartin.com

KLS Martin do Brasil Ltda.
CEP 04.531-011 São Paulo · Brazil
Tel.: +55 11 3554 2299
brazil@klsmartin.com

Gebrüder Martin GmbH & Co. KG
Representative Office
121471 Moscow · Russia
Tel. +7 499 792-76-19
russia@klsmartin.com

Martin Italia S.r.l.
20864 Agrate Brianza (MB) · Italy
Tel. +39 039 605 67 31
italia@klsmartin.com

Nippon Martin K.K.
Osaka 541-0046 · Japan
Tel. +81 6 62 28 90 75
nippon@klsmartin.com

KLS Martin Australia Pty Limited
Artarmon NSW 2064 · Australia
Tel.: +61 2 9439 5316
australia@klsmartin.com

Gebrüder Martin GmbH & Co. KG
Representative Office
201203 Shanghai · China
Tel. +86 21 5820 6251
china@klsmartin.com

Martin Nederland/Marned B.V.
1271 AG Huizen · The Netherlands
Tel. +31 35 523 45 38
nederland@klsmartin.com

KLS Martin L.P.
Jacksonville, Fl 32246 · USA
Tel. +1 904 641 77 46
usa@klsmartin.com

KLS Martin SE Asia Sdn. Bhd.
14100 Simpang Ampat, Penang · Malaysia
Tel.: +604 505 7838
malaysia@klsmartin.com

Gebrüder Martin GmbH & Co. KG
Representative Office
Dubai · United Arab Emirates
Tel. +971 4 454 16 55
middleeast@klsmartin.com

Gebrüder Martin GmbH & Co. KG
A company of the KLS Martin Group
KLS Martin Platz 1 · 78532 Tuttlingen · Germany
Postfach 60 · 78501 Tuttlingen · Germany
Tel. +49 7461 706-0 · Fax 706-193
info@klsmartin.com · www.klsmartin.com

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