



maXium[®] smart Vac

The innovative system for
efficient smoke evacuation



Enhanced visibility and maximum safety at the operating site – surgical smoke is a trouble of the past!

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KLS Martin has a huge expertise in laser- and electrosurgery. With the innovative smoke evacuation system maXium® smart Vac, KLS Martin is setting a new standard in the evacuation of surgical smoke.

In the recent years the demand for devices with the possibility to extract the smoke directly from the OR field has grown. The smoke evacuator maXium® smart Vac in combination with our innovative high-frequency generators are reliable partners in your operating theatre.

Convince yourself!

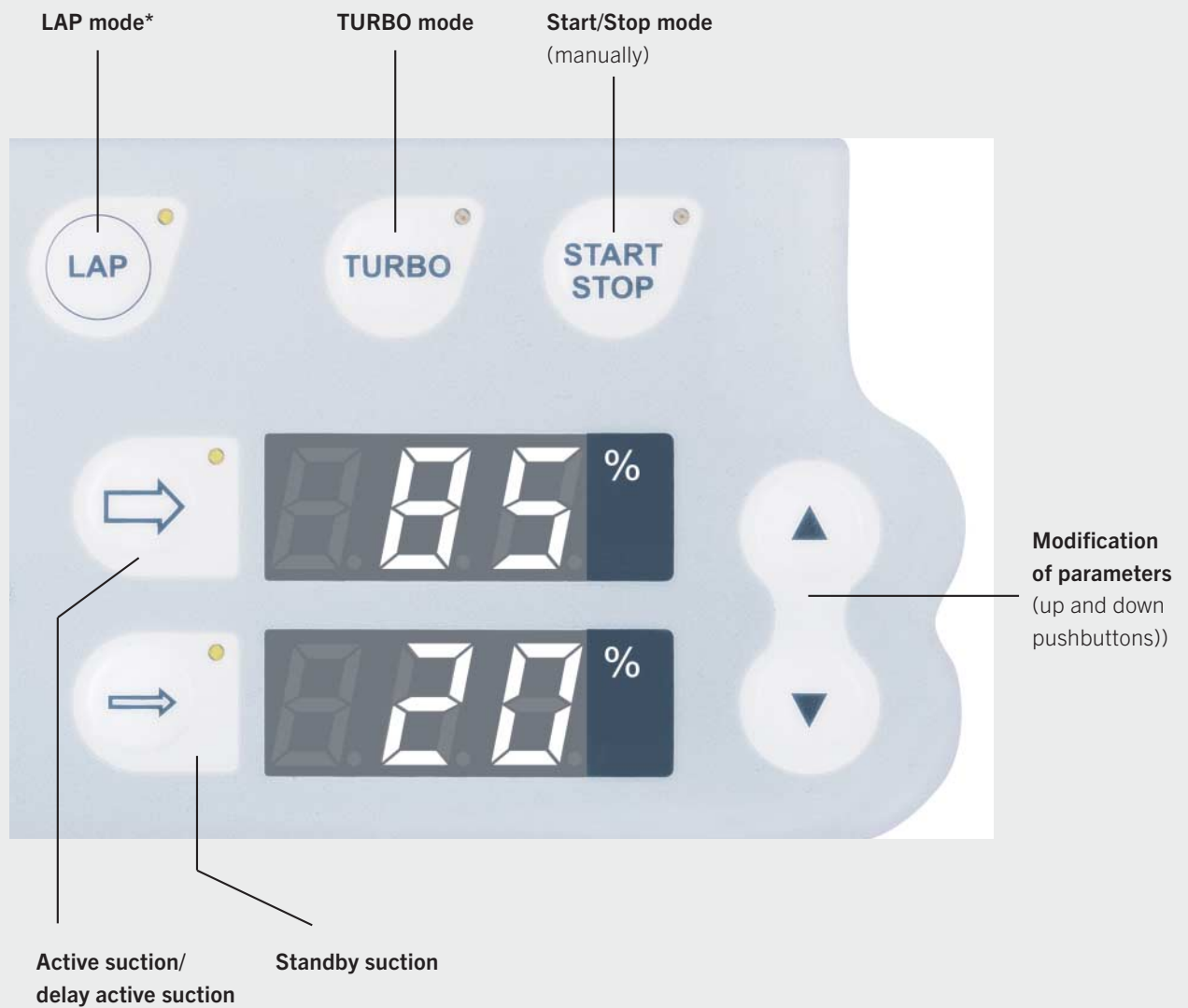
The advantages at a glance

- Simultaneous evacuation to high-frequency activation
- Individual parameters can be memorized in the user program of the maXium®
- Extended filter-capacity due to special filter technology
- Two suction hoses can be connected, each individually or simultaneously
- TURBO mode
- LAP mode
- Obstruction control
- Connection to central suction device possible

maXium® smart Vac

Easy selection and adjustment of parameters

The smoke evacuator maXium® smart Vac offers reliable protection from particles, viruses, gases and carcinogenic substances capable of invading the lung. When used in automatic mode, the smoke evacuator is only active when needed, triggered by HF- or laser activation.





TURBO Mode

Huge quantity of smoke can be eliminated effectively from the OR field.



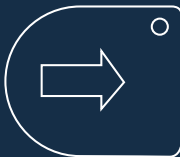
LAP Mode*

Specially designed for laparoscopic procedures; suction parameters will be automatically limited and the reflux of gas will be reduced to a minimum.



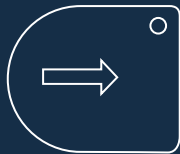
START/STOP

Alternatively, the smoke evacuator can also be activated manually.



Active suction / standby suction

Active suction, stand-by suction and delay time can be selected as required before and during the surgical procedure.



These parameters can be easily adjusted by pressing the up and down buttons.



Modification of parameters

(up and down pushbuttons)

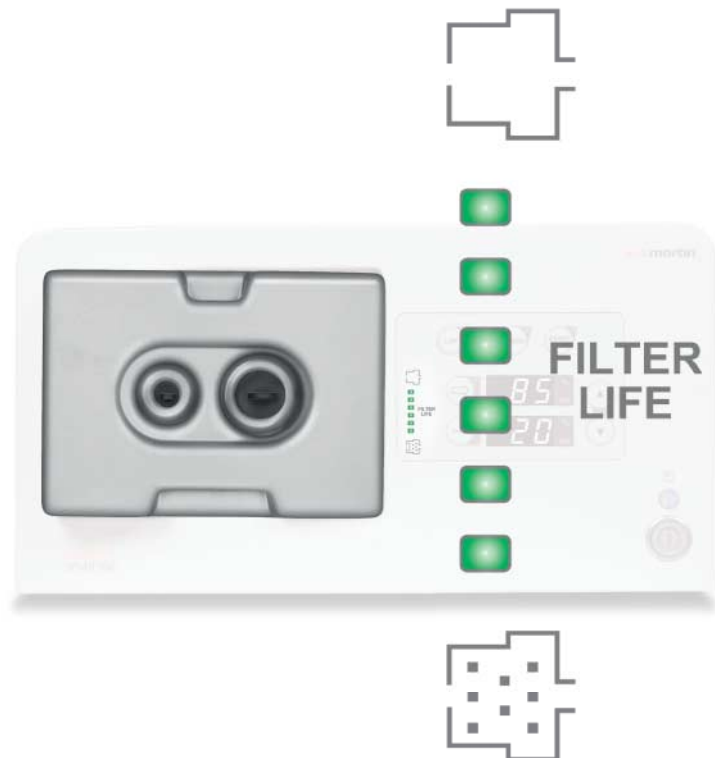
* only when ordering maXium® smart Vac with LAP mode

maXium® smart Vac Changeable main filter unit

The specially designed filter system which corresponds to **ULPA*** standard provides safe and effective protection in the operating theatre. The large inner-filter-surface provides a long-lasting lifetime.

The main filter unit provides two different connections. Suction tubes with \varnothing 22 mm as well as with \varnothing 10 mm can be connected individually or simultaneously.

The filter status will be measured permanently and shown on the indicator. A required filter change will be displayed by the smoke evacuation system, early in advance.



If required, the smoke evacuator can be connected to a central-OR-suction system. This optional feature can be ordered on request.

* **ULPA** = **U**ltra **L**ow **P**enetration **A**ir

maXium® smart Vac maXium® maXium® smart Cart

The HF generator as well as the smoke evacuation system can be positioned on a specially designed trolley. Alternatively, the system can be placed on a pendant.



User-friendly set-up of parameters via MCB (=Martin-Communication-Bus)

The parameters for the maXium® smart Vac can be selected and adjusted through the HF generator maXium® and memorized in the user-program.*



maXium®

* Please consider that maXium® HW06 and software V3.398 are required.

High Efficiency – Surgical smoke can be extracted directly from the surgical site, where it is created.

KLS Martin offers a wide range of accessories for the elimination of surgical smoke created from electrosurgery or medical laser systems.

Various clip-on attachments offer in combination with the smoke evacuation system **maXium®** smart Vac reliable protection from surgical smoke.



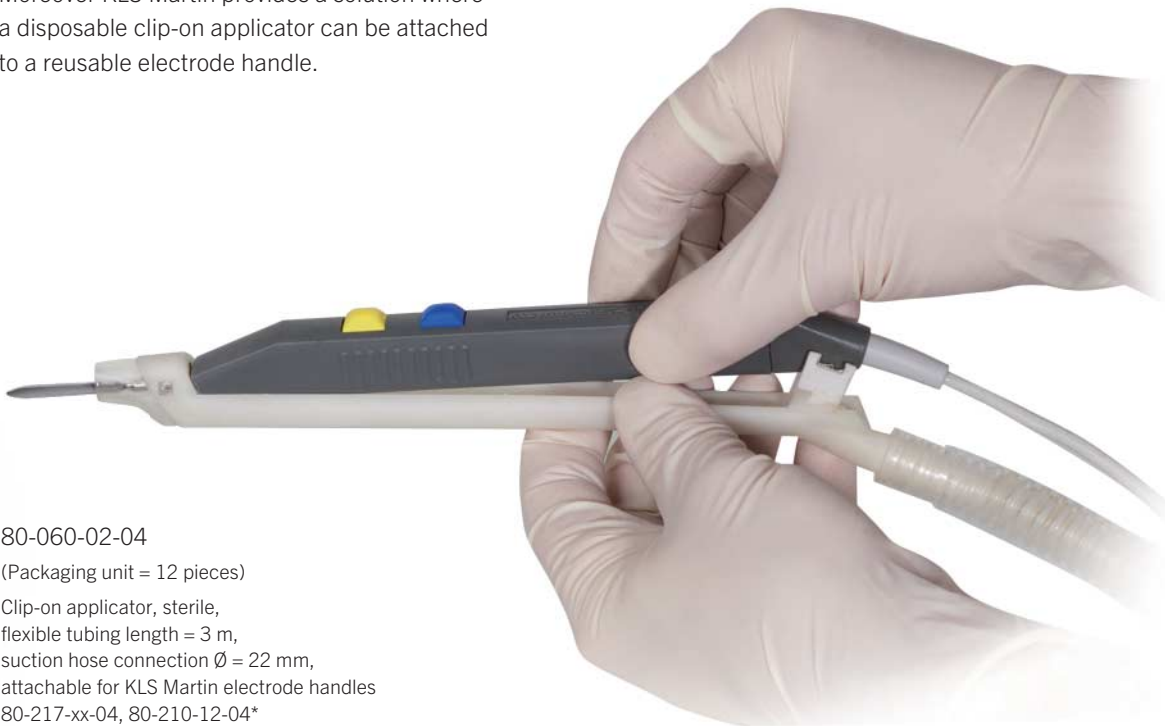
80-060-03-04

(Packaging unit = 12 pieces)

Electrode handle with electrode \varnothing 2.4 mm,
with attached clip-on applicator, sterile,
flexible tubing length = 3 m,
suction hose connection \varnothing = 22 mm



Moreover KLS Martin provides a solution where a disposable clip-on applicator can be attached to a reusable electrode handle.



80-060-02-04

(Packaging unit = 12 pieces)

Clip-on applicator, sterile,
flexible tubing length = 3 m,
suction hose connection \varnothing = 22 mm,
attachable for KLS Martin electrode handles
80-217-xx-04, 80-210-12-04*

* Electrode-handle needs to be ordered separately.
Please find more accessories on page 10.

Ordering information for smoke evacuation system **maXium®** smart Vac and accessories

Item No.	Product Description
80-062-00-04	Smoke evacuation system maXium® smart Vac with LAP-Mode , 220 V incl. main filter unit (item 80-060-01-04)
80-062-00-10	Smoke evacuation system maXium® smart Vac with LAP-Mode , 100 V incl. main filter unit (item 80-060-01-04)
80-062-01-04	Smoke evacuation system maXium® smart Vac, 220 V incl. main filter unit (item 80-060-01-04)
80-062-01-10	Smoke evacuation system maXium® smart Vac, 100 V incl. main filter unit (item 80-060-01-04)

Item No.	Individual components
80-060-01-04	Main filter unit for smoke evacuator maxium® smart Vac (ULPA standard)
80-811-50-04	Single-pedal foot switch for manual activation
80-060-06-04	Adapter for connection to a central suction (Ø 22 mm)

Item No.	Connection options for automatic operation (HF generator or laser)
80-091-01-04	MCB connection cable (maXium® and maXium® smart Vac)
80-060-05-04	Adapter for mains current detection
76-100-60-04	Extension cable for smoke evacuation with laser
80-091-02-04	Connection cable ME MB2/3 with maXium® smart Vac
79-800-02-04	Interlink cable to Limax® 60/diomax® 980/1550®

Item No.	Accessories and Consumables
80-060-02-04	Clip-on applicator, sterile, disposable, flexible tube length 3 m, Ø 22 mm for reusable electrode handles KLS Martin 80-217-xx-04 and 80-210-12-04 (packaging unit = 12 pieces)
80-060-03-04	Clip-on and electrode handle, Ø 2.4 mm, sterile, disposable, flexible tube length 3 m, Ø 22 mm (packaging unit = 12 pieces)
80-060-04-04	Air hose, sterile, Ø 10 mm with Luer-Lock connection, 2.5 m long, (e.g. for connection of trocar) (packaging unit = 20 pieces)
79-225-02-04	Funnel, flattened on one side, with Ø 22 mm connection, can be autoclaved 50 times at max. 134°C (273°F)
79-225-03-04	Plastic suction tube with cone connection for suction hose Ø 22 mm, can be autoclaved 50 times at max. 134°C (273°F)
79-225-06-04	Hose connector, straight, Ø 22 mm (female) to Ø 10 mm (male); can be autoclaved 50 times at max. 134°C (273°F)
79-225-07-04	Hose connector, straight, Ø 22 mm (female) to Ø 22 mm (male); can be autoclaved 50 times at max. 134°C (273°F)
79-225-08-04	Air hose Ø 22 mm, 3.0 m long, multi-use; can be autoclaved 50 times at max. 134°C (273°F)
79-225-09-04	Air hose Ø 10 mm, 2.0 m long, multi-use; can be autoclaved 50 times at max. 134°C (273°F)
79-225-10-04	Suction hose, sterile, Ø 22 mm, single-use (packaging unit = 25 pieces)
79-225-11-04	Prefilter (HEPA standard), Ø 22 mm, sterile, single-use (packaging unit = 20 pieces)

Technical specifications	
Power supply	100-240 V ± 10%; 50/60 Hz
Appliance air flow	> 750 l/min
Power input	< 500 W / 740 VA
Activation	Automatic activation, front-panel button, optionally by foot switch Mains current detection (adapter)
Interfaces	Foot switch, MCB (Martin Communication Bus), USB
Protection class	I
Classification acc. to MDD	Ila
Type of applied part	CF; defibrillation-proof
Main filter	ULPA efficient 99.9999% @ 0.1 micron for tube size Ø 22 mm and Ø 10 mm
Filter lifetime	40 hours. Filter change will be indicated at the unit.
Weight	Smoke evacuation system maXium® smart Vac, 220 V: 10.0 kg Smoke evacuation system maXium® smart Vac with LAP mode, 220 V: 11.0 kg Smoke evacuation system maXium® smart Vac, 100 V: 12.4 kg Smoke evacuation system maXium® smart Vac with LAP mode, 100 V: 13.4 kg
EMI	Keeps limits according to EN 55011 and IEC 60601-1-2 Immunity according to IEC 801
Dimensions	Width 390 mm Height 218 mm Depth 460 mm (with main filter)
Environmental conditions for transportation and storage	Ambient temperature -25°C to +70°C (-13°F to 158°F) Relative humidity 10% to 100% Atmospheric pressure 500 hPa to 1060 hPa
Environmental conditions for operation	Ambient temperature +10°C to +40°C (+50°F to 104°F) Relative humidity 30% to 75% Atmospheric pressure 700 hPa to 1060 hPa
CE-marking: conform with 93/42/EEC	Classified acc. to MDD (Medical Device Directive) Ila

KLS Martin Group

KLS Martin Australia Pty Ltd.

Sydney · Australia
Tel. +61 2 9439 5316
australia@klsmartin.com

KLS Martin India Pvt Ltd.

Chennai · India
Tel. +91 44 66 442 300
india@klsmartin.com

Martin Nederland/Marned B.V.

Huizen · The Netherlands
Tel. +31 35 523 45 38
nederland@klsmartin.com

KLS Martin LP

Jacksonville · Florida, USA
Tel. +1 904 641 77 46
usa@klsmartin.com

KLS Martin do Brasil Ltda.

São Paulo · Brazil
Tel. +55 11 3554 2299
brazil@klsmartin.com

Martin Italia S.r.l.

Milan · Italy
Tel. +39 039 605 67 31
italia@klsmartin.com

Gebrüder Martin GmbH & Co. KG

Moscow · Russia
Tel. +7 499 792-76-19
russia@klsmartin.com

Gebrüder Martin GmbH & Co. KG

Shanghai · China
Tel. +86 21 5820 6251
china@klsmartin.com

Nippon Martin K.K.

Tokyo · Japan
Tel. +81 3 3814 1431
nippon@klsmartin.com

Gebrüder Martin GmbH & Co. KG

Dubai · United Arab Emirates
Tel. +971 4 454 16 55
middleeast@klsmartin.com

KLS Martin France SARL

Mulhouse · France
Tel. +33 3 8951 3150
france@klsmartin.com

KLS Martin SE Asia Sdn. Bhd.

Penang · Malaysia
Tel. +604 505 7838
malaysia@klsmartin.com

KLS Martin UK Ltd.

London · United Kingdom
Tel. +44 1189 000 570
uk@klsmartin.com

Gebrüder Martin GmbH & Co. KG

A company of the KLS Martin Group

KLS Martin Platz 1 · 78532 Tuttlingen · Germany
P.O. Box 60 · 78501 Tuttlingen · Germany
Tel. +49 7461 706-0 · Fax +49 7461 706-193
info@klsmartin.com · www.klsmartin.com

