joimax®
Endoscopic Spine Experts

All-in-one generator with touchpad technology

Endovapor®2

Multi Radio Frequency System

**Integrated optimized spine programs –
for maximum effect at low temperature**

HIGH QUALITY MADE IN GERMANY SYSTEMS

For interdisciplinary use

The Endovapor®2 is a smart all-in-one RF generator that is winning over customers with its clearly understandable operating design and innovative functionalities. All device settings are pre-programed for numerous standard procedures and can be customized to your preferences. Inside, processors ensure optimum integrated electric arc regulation at all times, while self-checking programs continuously ensure maximum safety. Four separate outputs can be individually configured with ease and operating personnel can check the settings visually at any time.

Simply intuitive: Touchpad technology for enhanced assistance in the OR

With the Endovapor®2, you have direct finger tip control of all device functions via the interactive glass touchpad. Effects and individualized settings can be selected via the touchscreen area. Messages are issued in plain text supported by graphic symbols, ensuring that the team retains a clear overview at every stage throughout hectic everyday work in the OR.

Need to reset the power? Simply touch the respective figure with your fingertip. The glass touchpad of the Endovapor®2 is divided into four quadrants that correspond to the four sockets on the sides: The socket indicator identifies the socket on which the settings are to be altered.

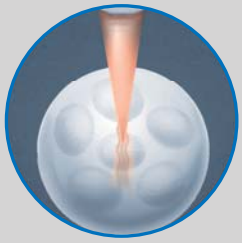
Highest level of security

The Plug'n Cut functionality of the Endovapor®2 enables the generator to automatically identify that several instruments are connected at the same time. The respective required output shall be selected by using the foot switch.

Cell-specific radio wave absorption

The high-frequency radio waves are absorbed by the intracellular water and evaporate the tissue. Structures are purposefully destroyed and the surrounding tissue is spared.

1 High-frequency radio waves have a strong affinity for water, which leads to higher energy levels in the tissue.
The intracellular pressure increases with the expansion of the water molecules.



2 The cell vaporizes. This creates low-temperature-steam, which promotes coagulation.

3 The cell-specific interaction ensures an accurate dissection while the surrounding tissue is preserved.

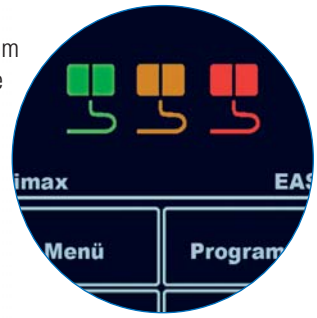
The Endovapor®2 represents a radio wave technology with high surgical precision, versatility and safety.

Clean and hygienic

The Endovapor®2 display is made of flat, wipe-resistant, shatter- and scratch-proof safety glass. The touchpad technology guarantees easy handling and hygienic cleaning.

EASY-monitoring

The traffic-light-color warning system informs about the current state of the contact of the neutral electrode pad (Green = Good, Orange = Sufficient, Red = Insufficient).



Arc regulation

The integrated arc regulator automatically adjusts the power output depending on tissue and handling of the probe. This causes a continuous cut and avoids a sticking of the electrode to the tissue.

With the triple action foot switch of the Endovapor®2, all indications and modes will be activated: Yellow pedal for CUT function, Blue pedal for COAG function and Black push button for selecting the active port.

With the joimax® Vaporflex® and Legato® probes, bleedings can be stopped and scar tissue can be removed.

Tissue shrinkage allows a closure of fissures in the annulus (up to 3 mm).

Vaporflex® and Legato® – bipolar and monopolar probes for safe

The Legato® and Vaporflex® bipoar probes are disposable RF electrodes and are designed especially for minimally invasive electro-surgical spinal interventions. The probes are guided through the working channel of the endoscope and the electrical power is transferred directly to the tissue at the surgical site. They are used to cut, coagulate, shrink and remove soft tissue or for the denervation of the surface and are operated with a suitable RF generator. Handles, cables and shafts are reusable and can be sterilized. More information is available in the appropriate user manuals.

Vaporflex® bipolar probe

HANDLE (REUSABLE)
- High stability for reliable positioning of the instrument at the target
- Easy to use in different positions (12 or 6 o'clock)
- Activated via foot switch

PROBE BIPOLAR (DISPOSABLE)
- Optimal tip design for enhanced mechanical stability
- Bending of the probe in all directions possible (320°)

VAPORFLEX® KIT
- Contains a sterilization tray, handpiece, shaft and cable

Vaporflex® shaft with 320 mm length and blue cap for usage with TESSYS® method

Vaporflex® shaft with 250/280 mm length und red cap for usage with the methods MultiZYTE®, iLESSYS®, iLESSYS® *Delta* and iLESSYS® *Pro*

Vaporflex® shaft with rinsing connection and 275 mm length and green cap for usage with intENTS® method

SHAFT (REUSABLE)
- Different lengths for a wide range of applications
- Color-coded caps for better differentiation
- Irrigation shaft available

CABLE + PLUG (REUSABLE)
- High durability with kink protection
- Integrated corrosion protection
- Solid plug-in connectors

e and easy application

Legato® bipolar probe

HANDPIECE (REUSABLE)
- Ergonomic
- Cable with plug for Endovapor® available

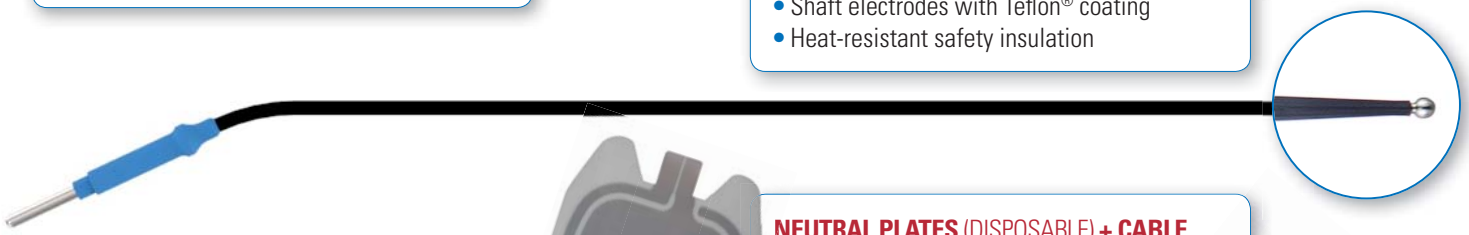
PROBE BIPOLAR (DISPOSABLE)
- High stability for reliable positioning of the instrument at the target
- Optimal tip design for enhanced mechanical stability

CABLE + PLUG (REUSABLE)
- High durability with kink protection
- Integrated corrosion protection
- Solid plug-in connectors

Legato® monopolar probe

HANDPIECE (REUSABLE)
- Ergonomic
- Cable with different plugs for several RF generators

PROBE MONOPOLAR (DISPOSABLE)
- Non-stick ball-tip surface
- Shaft electrodes with Teflon® coating
- Heat-resistant safety insulation



NEUTRAL PLATES (DISPOSABLE) **+ CABLE** (REUSABLE)
- Security for sticking on skin
- Anatomical design
- Adhesive safety frame
- High durability kink protection
- Integrated corrosion protection

CABLE + PLUG (REUSABLE)
- High durability with kink protection
- Integrated corrosion protection
- Solid plug-in connectors

Benefits of RF probes Vaporflex® and Legato®

- Ergonomic design for precise and safe handling
- Versatile use due to different lengths, diameters and probe tips
- High-quality materials, "Made in Germany"
- Optimized for use with joimax® endoscopes
- Cost savings due to reusable handle
- All components can be ordered separately
- Easy to install and convenient handling
- Optimal tip design for enhanced mechanical stability

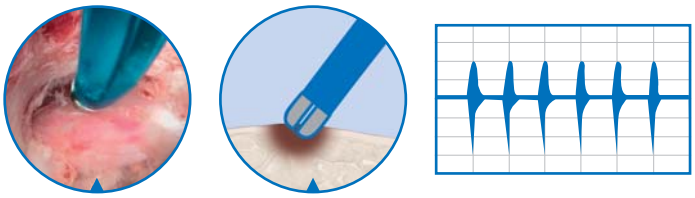
Diverse electrosurgical modes and effects

The surgeon has many standard modes available – all preset to recommended performance parameters. In addition, the Endovapor®2 offers indication-specific Spine Modes, which ensure a safe and easy use.

Vaporflex® bipolar probe with handle

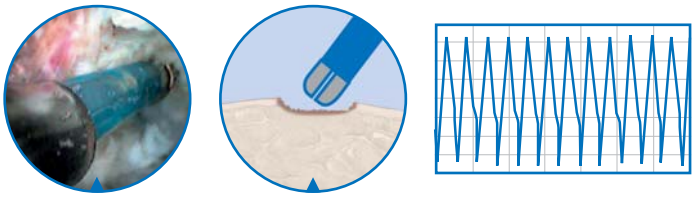
Legato® bipolar probe, with handpiece

Spine COAG (Bipolar COAG Mode) for
TESSYS®, iLESSYS®, iLESSYS® *Delta / Pro*, CESSYS®, MultiZYTE®



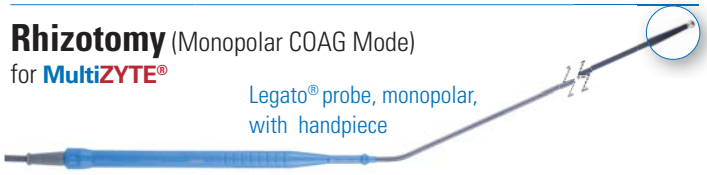
- Low temperature
- No carbonizing effects
- Precise preparation and coagulation of tissue
- Ideal for haemostasis and vaporization
- Gentle work in the vicinity of the nerve

Spine Vap (Bipolar CUT Mode)
for TESSYS®, iLESSYS®, iLESSYS® *Delta / Pro*, intENTS®

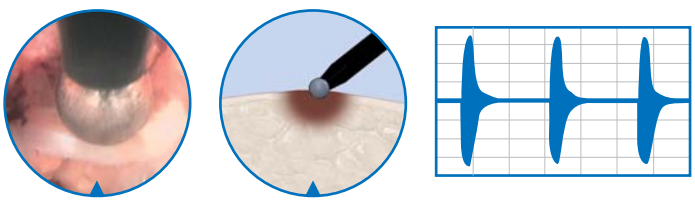


- Low temperature
- No carbonizing effects
- Fast vaporization of compressive tissue
- Ideal for cutting of scar tissue and bonding

Rhizotomy (Monopolar COAG Mode)
for MultiZYTE®

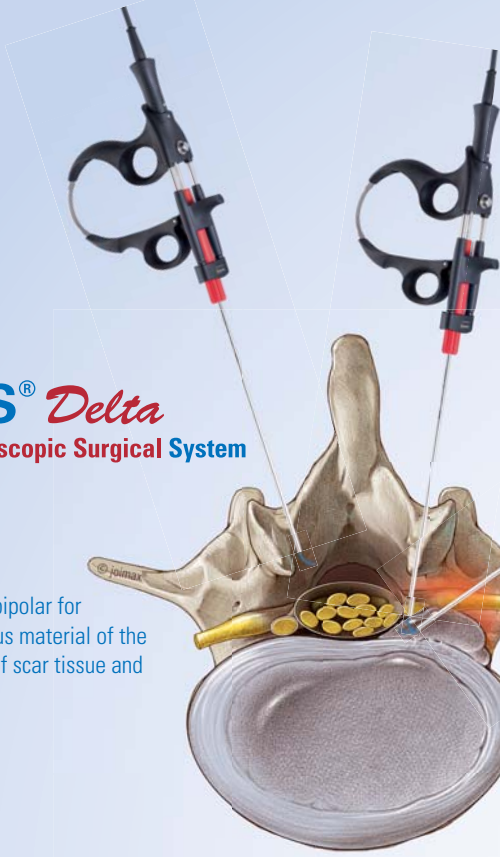


Legato® probe, monopolar, with handpiece



- Higher temperature and surface vaporization
- Ideal for facet joint treatment

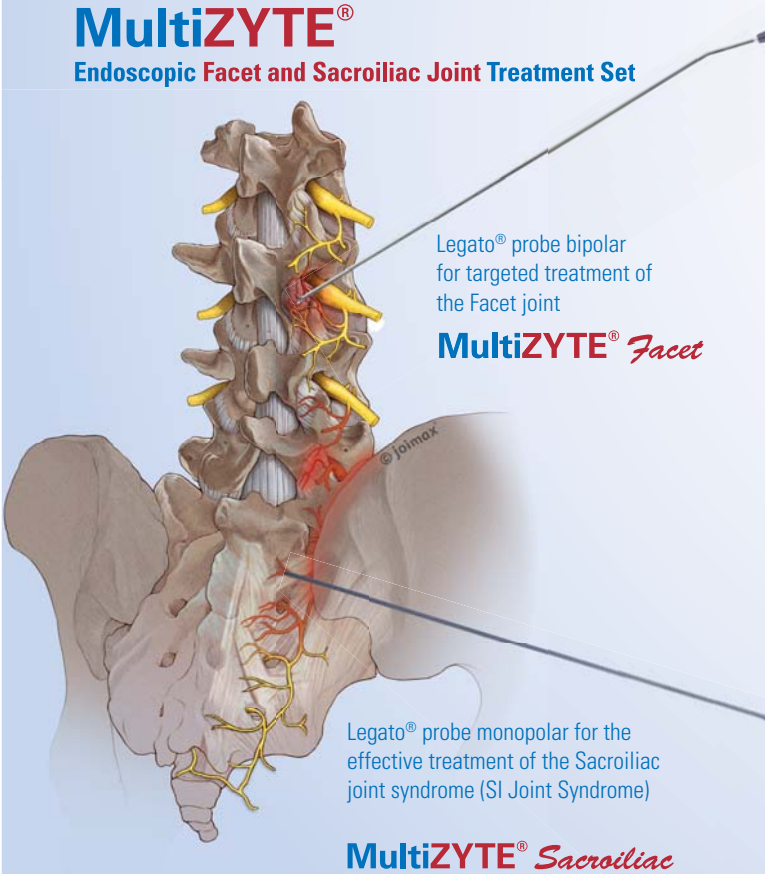
Always the fitting solution –



iLESSYS® *Delta*
Interlaminar Endoscopic Surgical System

Vaporflex® probe bipolar for shrinking of nucleus material of the disc, for removal of scar tissue and for hemostasis.

MultiZYTE®
Endoscopic Facet and Sacroiliac Joint Treatment Set



Legato® probe bipolar for targeted treatment of the Facet joint

MultiZYTE® *Facet*

Legato® probe monopolar for the effective treatment of the Sacroiliac joint syndrome (SI Joint Syndrome)

MultiZYTE® *Sacroiliac*

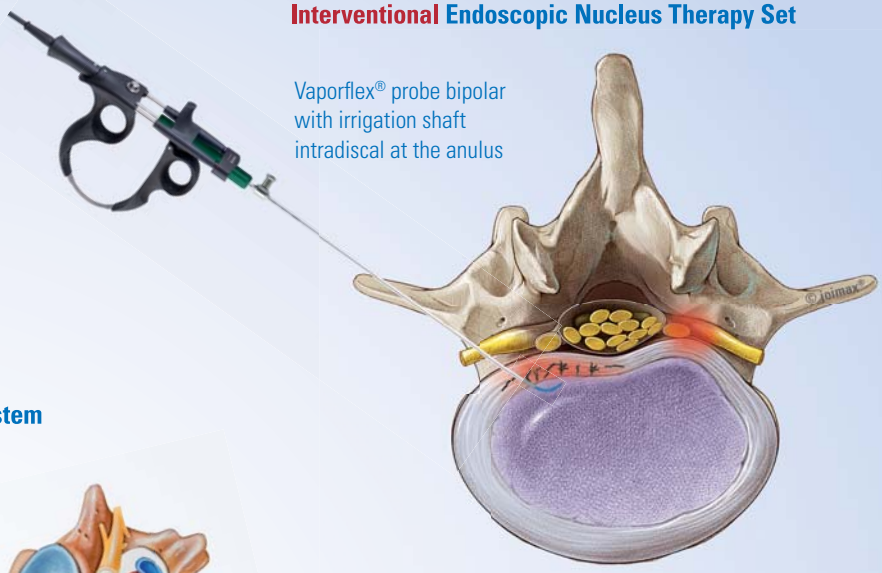
Application examples

iLESSYS® Pro
Interlaminar Endoscopic Surgical System

TESSYS®
Transforaminal Endoscopic Surgical System

intENTS® Lumbar
Interventional Endoscopic Nucleus Therapy Set

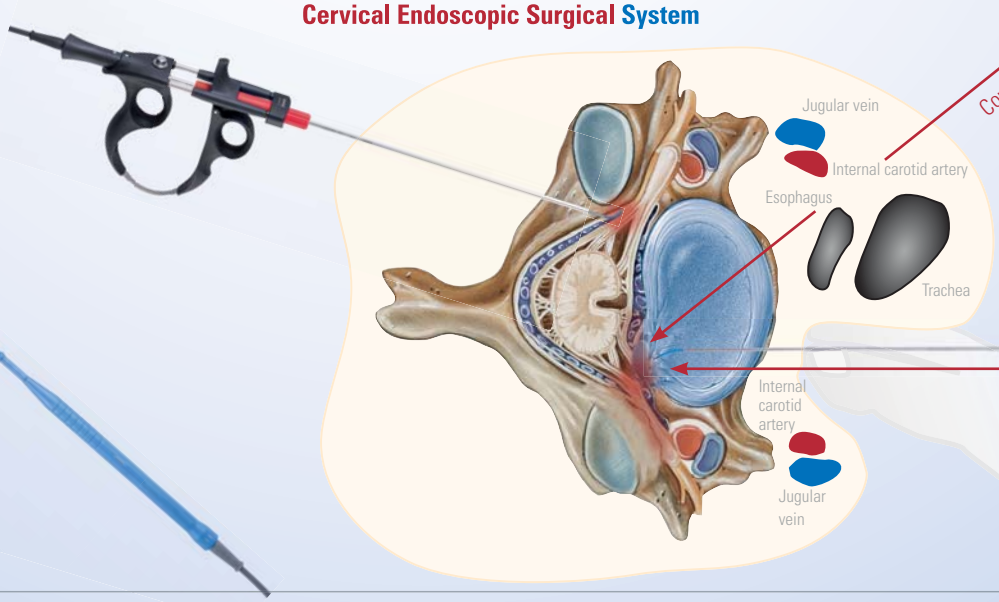
Vaporflex® probe bipolar with irrigation shaft intradiscal at the anulus



intENTS® Cervical
Interventional Endoscopic Nucleus Therapy Set

Legato® probe bipolar for transdiscal shrinking of nucleus material

CESSYS® Dorsal
Cervical Endoscopic Surgical System



CESSYS® Ventral
Cervical Endoscopic Surgical System

Ipsilateral access

Legato® probe bipolar for ipsilateral shrinking of nucleus material

Endovapor®2 – ORDER INFORMATION

joimax®

REF	Description
JEVS0201	Endovapor®2 (220-240V) incl. foot switch
JEVS0202	Endovapor®2 (100-127V) incl. foot switch
REFUSS01	Endovapor®2 foot switch, cable L 2.5 m
Probes, accessories and KITs	
JBPH352506	Legato® Handpiece, bipolar, cable L 3.5 m
JMPH352504	Legato® Handpiece, monopolar, cable L 3.5 m
JEVNC0001	Neutral eletrode connecting cable
JVK2-320	Vaporflex® KIT 2 contains handle and spare parts, shaft, cable and sterilization tray, for TESSYS®
JVK2-275	Vaporflex® KIT 2 Short contains handle and spare parts, rinsing shaft, cable and sterilization tray, for intENTS® Lumbar
JVK2-250	Vaporflex® KIT 2 Short contains handle and spare parts, shaft, cable and sterilization tray, for iLESSYS® systems
JVK2-280	Vaporflex® KIT 2 contains handle and spare parts, shaft, cable and sterilization tray, for iLESSYS® Pro
Disposables (sterile)	
JVP25024	Vaporflex® Probe bipolar, Ball Tip, WL 250 mm, ø 2.5
JVP28024	Vaporflex® Probe bipolar, Ball Tip, WL 275 mm, ø 2.5
JVP27525S	Vaporflex® Probe bipolar, Ball Tip, WL 275 mm, ø 2.0
JVP32024	Vaporflex® Probe bipolar, Ball Tip, WL 320 mm, ø 2.5
JBPP27025	Legato® Probe bipolar, Ball Tip, WL 240 mm, ø 2.0, angled
JBPP27020	Legato® Probe bipolar, Ball Tip, WL 270 mm, ø 2.0, straight
JMPP27025	Legato® Probe monopolar, Ball Tip, WL 270 mm, ø 2.8, angled
JMPP27025*	Legato® Probe monopolar, Ball Tip, WL 270 mm, ø 2.8, straight
JEVN0001	joimax® Neutral eletrode

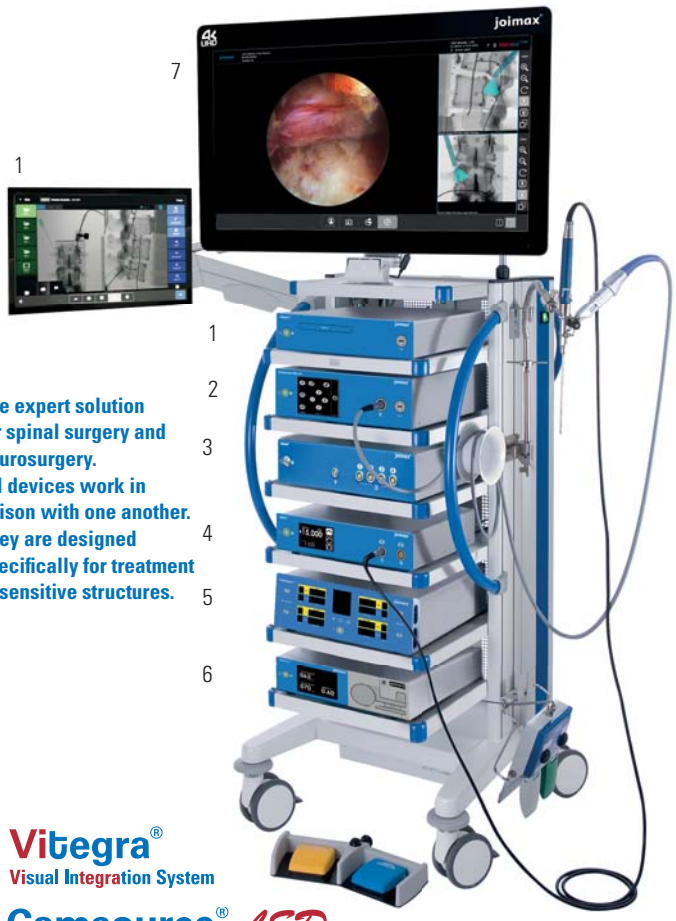
L = length, WL = working length, ø = diameter in mm

Declaration of Electrical Safety and Electromagnetic Compatibility (EMC)

joimax® electrosurgical equipment complies with all legal requirements regarding electrical safety, electromagnetic compatibility and usability. The equipment has been tested and certified according to IEC 60601-1 (electrical safety), IEC 60601-1-2 (EMC), IEC 60601-2-2 (HF surgery) and IEC 60601-1-6 (useability) by an accredited testing laboratory.

joimax® declares that the systems consisting of the combination of surgical RF generators, such as Endovapor®2, SurgiMax®, SurgiMax® Plus or Endovapor® with all joimax® Vaporflex® and Legato® probes, handpieces and handles are subject of internal manufacturer control as well as legal provisions.

Endoscopic Systems for Spine Surgery



The expert solution for spinal surgery and neurosurgery. All devices work in unison with one another. They are designed specifically for treatment of sensitive structures.

1 **Vitegra®**
Visual Integration System

2 **Camsource® LED**
Camera & Light Source System

3 **Intracs® em**
Integrated Navigation Tracking & Control System

4 **Shrill®**
Shaver Drill System

5 **Endovapor®2**
Multi Radio Frequency System

6 **Versicon®**
Versatile Irrigation Control

7 **JFMS 2620 | JFMS 3220**
High Definition Flatscreen Monitor

The image shows one of various mounting options.

Intracs® is not yet FDA cleared.

joined minimal access

joimax® GmbH
Amalienbadstrasse 41, RaumFabrik 61
76227 Karlsruhe, Germany

Phone +49 (0) 721 255 14-0
Fax +49 (0) 721 255 14-920
E-Mail info@joimax.com
Net www.joimax.com

joimax®, Inc.
140 Technology Drive, Suite 150
Irvine, CA 92618, USA

Phone +1 949 859 3472
Fax +1 949 859 3473
E-Mail info@joimaxusa.com
Net www.joimax.com

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