



**joimax**<sup>®</sup>  
Endoscopic Spine Experts

**PRODUCT  
OVERVIEW**

# DEVICES

## FOR MINIMALLY INVASIVE ENDOSCOPIC SPINE SURGERY



[www.joimax.com](http://www.joimax.com)

## JOIMAX® ENDOSCOPIC ELECTRICAL DEVICES | GENERATION 4

The expert solution for endoscopic spinal surgery. All devices work in unison with each other and feature special "spine settings" optimized for the joimax® operation methods for safe treatment of sensitive structures.

### 1 Vitegra®

Visual Integration System

FULLY INTEGRATED DIGITAL  
DOCUMENTATION SYSTEM

### 2 Camsource® LED

Camera & Light Source System

BRILLIANT IMAGES UP TO 4K

### 3 Intracs® em

Integrated Navigation Tracking & Control System

SIMPLE AND PRECISE  
ELECTROMAGNETIC NAVIGATION

### 4 Shrill®

Shaver Drill System

MULTI-FUNCTIONAL DRILL AND  
RESECTION SYSTEM

### 5 Endovapor® 2

Multi Radio Frequency System

COMBINES A VARIETY OF DIFFERENT  
ELECTRO-SURGICAL APPLICATIONS

### 6 Versicon®

Versatile Irrigation Control

MULTI-RANGE IRRIGATION PUMP  
FOR CLEAR VISIBILITY AND FLEXIBLE USE

### 7 JFMS 2620 | 3220 | 314KB

HIGH DEFINITION MEDICAL DISPLAYS FHD AND 4K





## Vitegra<sup>®</sup> Visual Integration System



### FULLY INTEGRATED DOCUMENTATION AND COMMAND SYSTEM

- Wireless tablet to control the system from anywhere in the operation room
- Video and snapshot function via camera head buttons
- Multiple simultaneous video inputs for different signal sources like endoscopic camera, X-Ray, ultrasound, microscope, OR camera
- Voice control and voice-over video function
- Easy export of all patient data via Blu-ray, USB, LAN, DICOM

#### Vitegra<sup>®</sup> *Docu*

- Customized reporting options as Word or PDF file
- User accounts with individual settings
- Multiple export options

#### Vitegra<sup>®</sup> *Command*

- Remote control of all new generation joimax<sup>®</sup> endoscopic devices via tablet
- Wireless tablet allows control of the devices from anywhere in the OR
- Monitoring of the endoscopic devices during the surgical procedures by real time display of all important parameters on the main screen



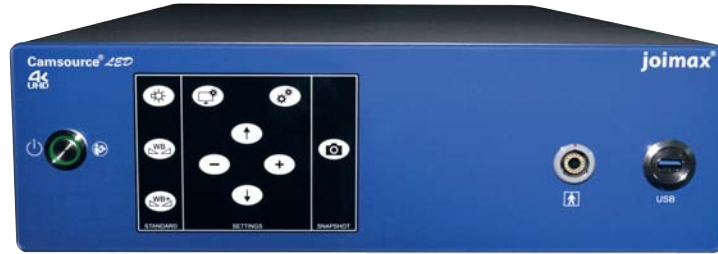
Live view in the documentation function



Device remote control in the command function

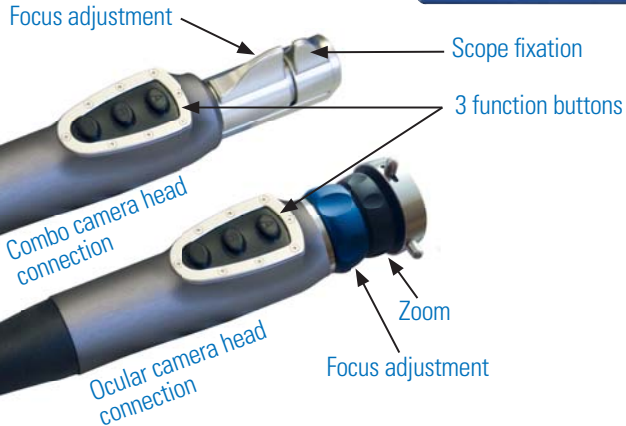
# Camsource® LED

Camera & Light Source System



## TRUE BRILLIANCE – UP TO 4K

- Latest CMOS technology
- Full HD/4K resolution via DVI, HD-SDI, 3G-SDI and HDMI
- Integrated LED long-life light source, maintenance-free
- Combo and ocular camera heads available
- Single cable technology
- Freely assignable camera head buttons (e.g. operation of Vitegra®)



### FUNCTIONS OF THE CAMERA SYSTEM

- "White Balance+" including automatic scaling optimization
- One-screen-display (OSD) with settings of all parameters
- Stepwise zoom function
- Flip (↔) and mirror (⇄) function
- Adjustment functions of sharpness, contrast, saturation, color, window and boost
- Image capture function

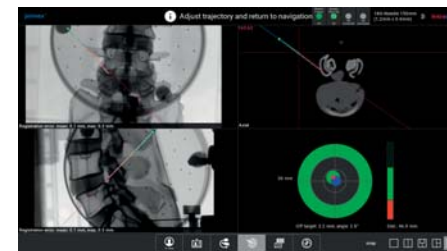
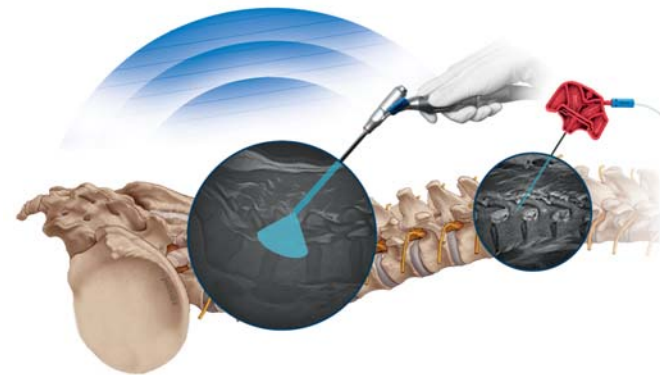


# Intracs® *em*

## Integrated Navigation Tracking & Control System

### INSTRUMENT NAVIGATION DIRECTLY AT THE TIP – IN 2D AND 3D IMAGING

- The Intracs® *em* Navigation System can be integrated in the Endoscopic Tower or used as a stand-alone solution.
- Existing installations can be easily upgraded.
- The high-quality medical grade PC with 22" touch display is completely sealed and, therefore, easy to clean and disinfect.
- Navigation directly at the instrument tip with the special sensorwire technology.
- Several instruments can be used and navigated simultaneously.
- The Intracs® *em* Field Generator is mounted onto the specially designed Intracs® *em* Mounting Arm.
- Various joimax® instruments are navigated with highest accuracy via Intracs® *em* sensors.



Definition of target point and trajectory for controlled access.

# Vector-Tip-Target



#### BENEFITS OF INTRACS® *em*

Electromagnetic navigation is the latest surgical technique for minimally invasive spinal procedures. It eliminates the need for constant X-ray control. **As a result, the intervention time and radiation exposure are drastically reduced.**

# Shrill® Shaver Drill System



## MULTIFUNCTIONAL DRILL AND RESECTION SYSTEM

- 2 types of handpieces available:
  - Shaver handpiece
  - Universal motor handpiece
- 3 memory slots for individual user settings

### SHRILL® HANDPIECES

- Speed regulation directly on the handpiece
- Quick connection for various attachments
- Autoclavable
- Suction regulation



Shrill® Shaver Blade Diamond Abrasor for secure bone resection near nerves

### UNIVERSAL MOTOR HANDPIECE

**Quick-connect for all attachments**  
allows a quick and safe change

**Activation key**  
including speed control

**Shift key**  
right or left rotation

**Drill chuck, keyless**

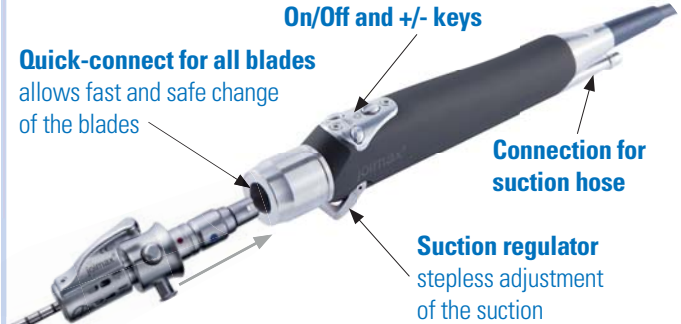
**Drill chuck, keyless, AO**



Wire driver adapter



### SHAVER HANDPIECE



- Moderate speed with high torque for controlled ablation of tissue with continuous flushing.
- Automatic detection of the Shaver Blade by magnetic detection.

- Universal motor handpiece for multiple orthopedic applications
- Quick-connect system for rapid, reliable changing of attachments
- Operation via handpiece buttons



## Shrill® SHAVER BLADES



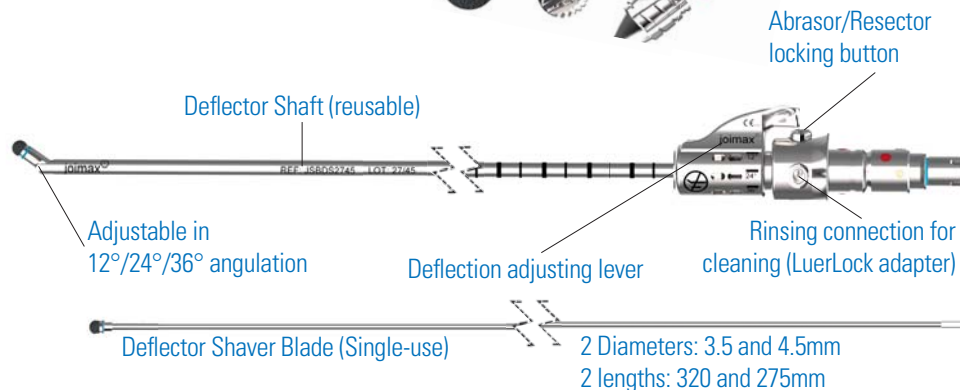
### SIMPLE HANDLING WITHOUT COMPLEX MECHANISM

- Gentle ablation of soft tissues (cysts, hypertrophic ligaments).
- Efficient ablation of bone and hypertrophic ligamentum flavum in the case of stenoses.
- Tissue-specific design of the attachments: milling, cutting, abrasing.
- Color-coded for fast and easy identification
- Depth graduation for higher safety during use.



joimax®

## Shrill® DEFLECTOR SHAVER BLADES



### EVEN MORE PRECISE ANGULATION AND EVEN EASIER APPLICATION

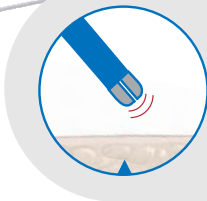
- Safe and convenient angulation via lever on the shaft.
- Angle can be adjusted precisely to 12°, 24° or 36°.

# Endovapor<sup>®</sup> 2

## Multi Radio Frequency System

### COMBINES A VARIETY OF ELECTRO-SURGICAL MODES AND EFFECTS

- Specially integrated programs for spine surgery; cutting and coagulation; bipolar and monopolar
- All-in-one generator with interdisciplinary application
- 4 sockets: 2 x monopolar, 2 x bipolar
- Easy, intuitive touch operation
- Arc control for optimized treatment effect
- Neutral electrode monitoring

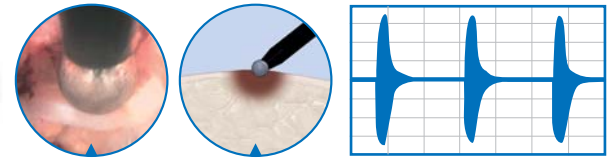
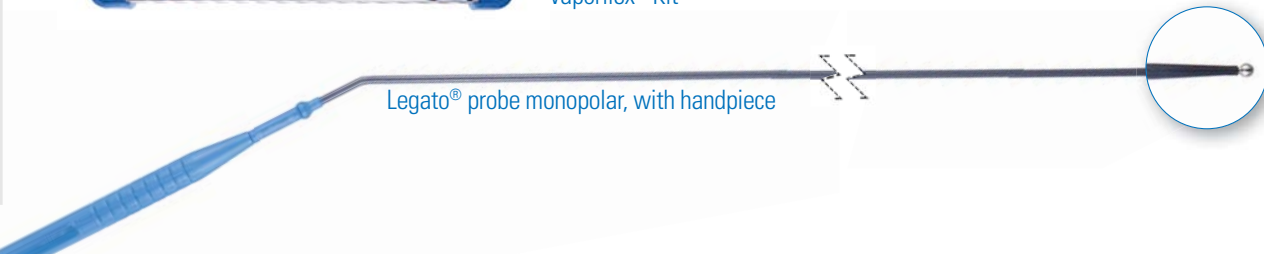
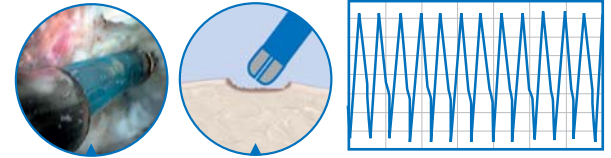
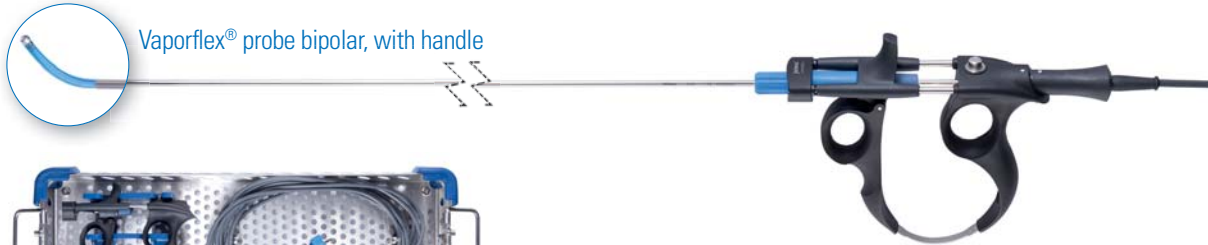
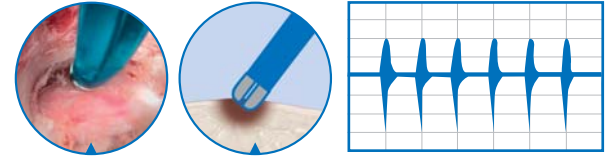


#### THE ARC REGULATION

The integrated arc regulator automatically adjusts the power output depending on tissue and handling of the probe, which leads to continuous cutting and avoids sticking of the electrode to the tissue.



# VAPORFLEX® AND LEGATO® – BIPOLAR AND MONOPOLAR PROBES FOR SAFE AND EASY APPLICATION



# Versicon®

## Versatile Irrigation Control

### MULTI-RANGE IRRIGATION PUMP FOR FLEXIBLE USE

The Versicon® pump is optimized for minimally invasive spinal surgeries. Flow and pressure are under constant automatic control. In addition, the pump features an integrated flush function which can be activated by foot switch.

- Integrated spine mode for optimal flow and pressure
- Additional integrated Arthro Mode
- Permanent control of flow and pressure
- Easily insertable, disposable tube set
- Replaceable patient line with check valve

	Spine program	Arthro program*
Flow range	0 - 750 ml/min	0 - 2500 ml/min
Pressure range	0 -100 mmHg	0 - 200 mmHg

\* Arthro mode not available on the US market.



#### PERFECTLY FLUSHED: THE DISPOSABLE TUBING SET

A disposable tube set for the spine irrigation pump, including Y-connectors for IV-bags and patients tubes.

# JFMS 2620 | 3220 | 314KB



## FHD AND 4K UHD – HIGH DEFINITION MEDICAL DISPLAYS

Whether ultrasound or endoscopy – the best visualization technology is only as good as the screen that it is displayed on. The high-resolution 26" and 32" flat-screens meet even the most demanding requirements.

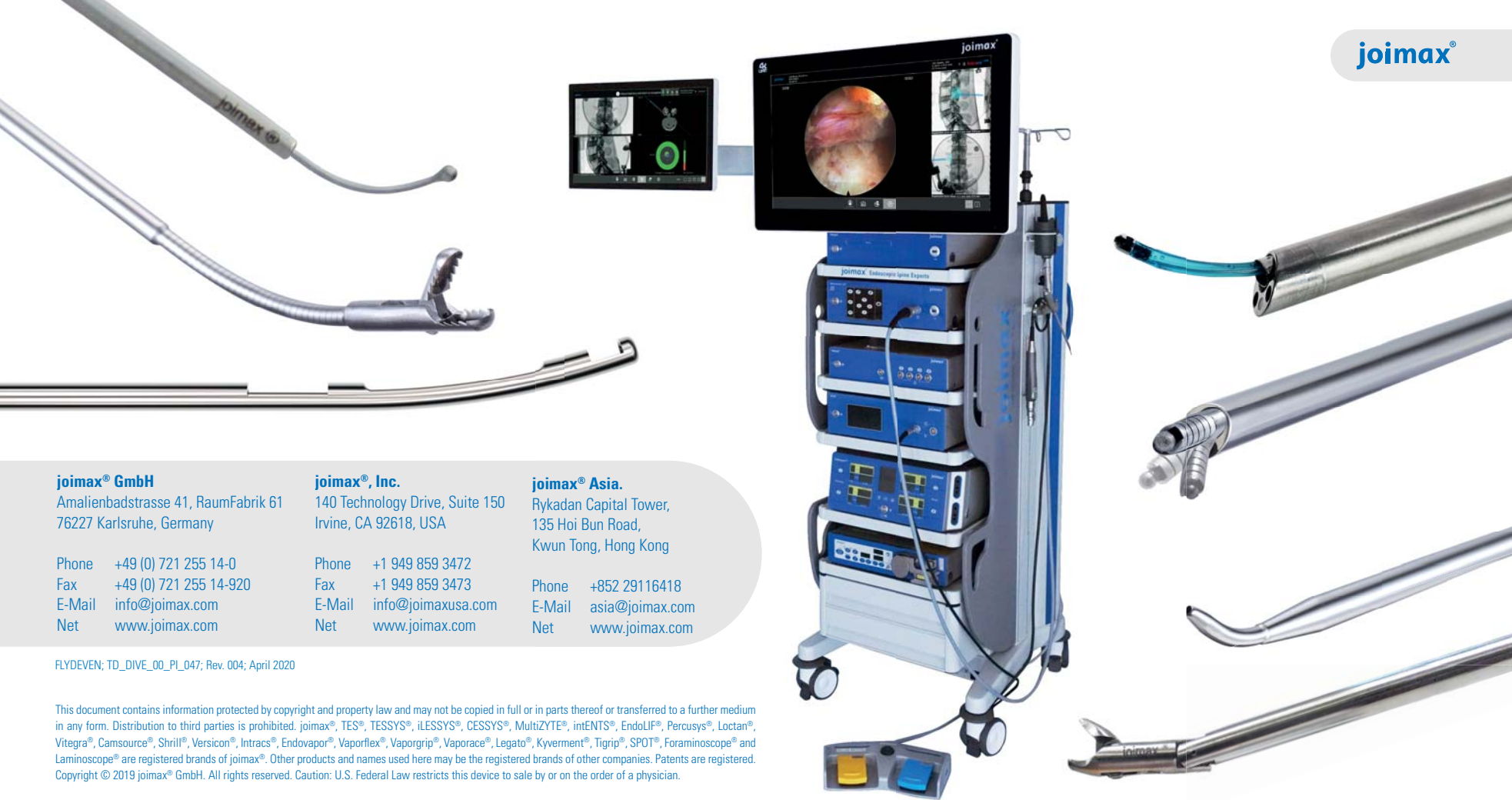


### EVERYTHING AT A GLANCE

They are splash-proof and offer an OSD (On-Screen Display) menu and number of practical features such as the image-in-image function.

### TECHNICAL DETAILS

- TFT-monitor 26" (FHD) and 32" (FHD and 4K UHD)
- High resolution:
  - 1920x1080 pixel Full HD
  - 3840x2160 pixel 4K UHD
- Maximum viewing angle: horizontal 178°, vertical 178°
- Smooth overall surface, EMV tested, splash water protected
- Connections: DVI, SDI, RGB, S-Video, Video, HDMI
- Picture-in-picture function
- OSD Touch control panel



**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](mailto:info@joimax.com)  
Net [www.joimax.com](http://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](mailto:info@joimaxusa.com)  
Net [www.joimax.com](http://www.joimax.com)

**joimax® Asia.**

Rykadan Capital Tower,  
135 Hoi Bun Road,  
Kwun Tong, Hong Kong

Phone +852 29116418  
E-Mail [asia@joimax.com](mailto:asia@joimax.com)  
Net [www.joimax.com](http://www.joimax.com)

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