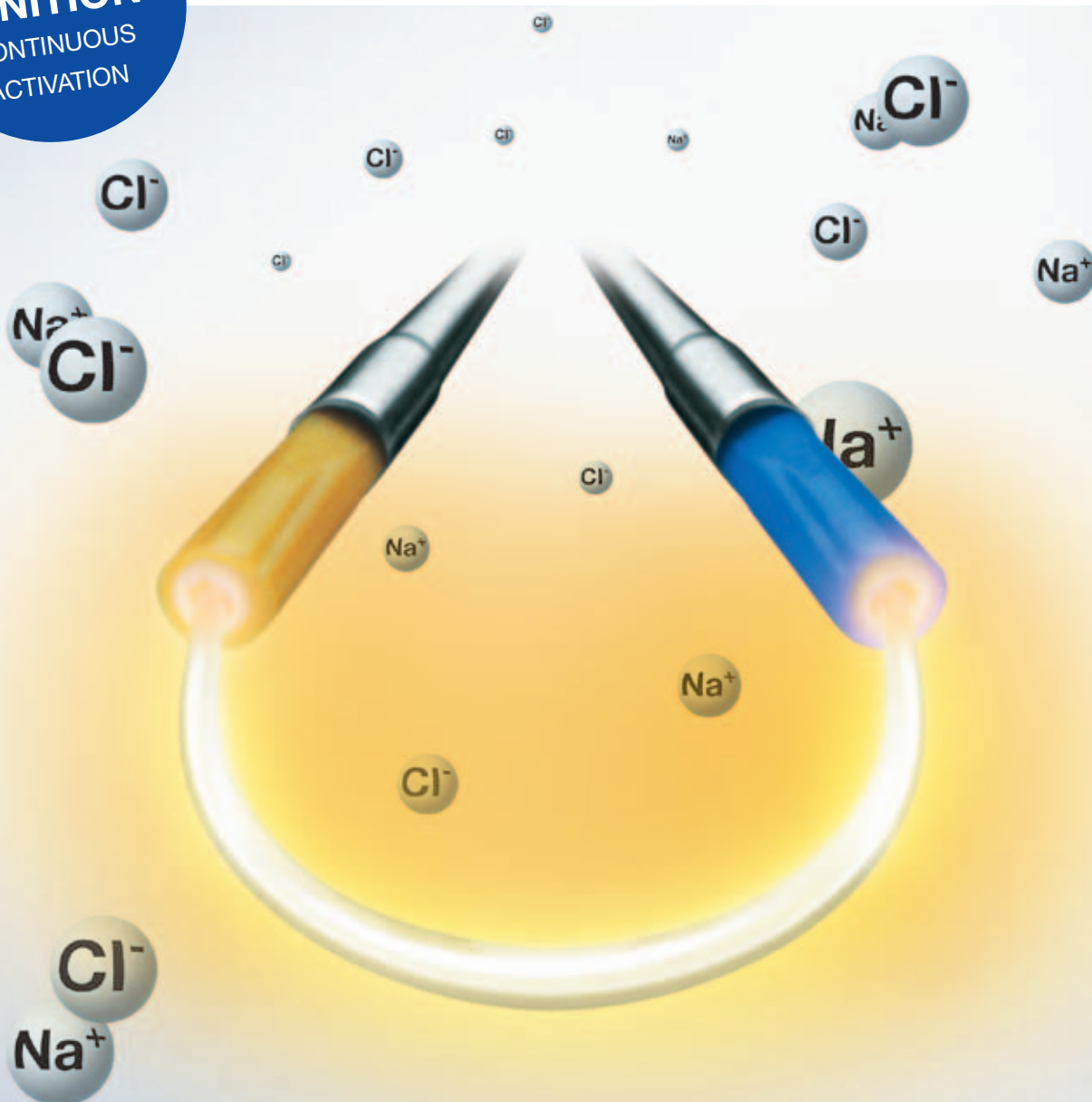


# OLYMPUS

Your Vision, Our Future

**INSTANT  
IGNITION**  
CONTINUOUS  
ACTIVATION

**TURiS 2.0**  
Bipolar resection in saline.



# MAKING BIPOLAR RESECTION IN SALINE THE NEW GOLDEN STANDARD

## Reduced OR times with bipolar safety\*

The next generation HF with the ESG-400 further improved the ignition performance of the Large Resection Loop. The greater resection surface leads to shortened OR times, maintaining all benefits of the bipolar resection in saline.

## Continuous plasma activation

Less set-up time, improved results and better haemostasis have already proven the plasma vaporisation beneficial. The new HF generation allows for lengthened application laser style for easy operating, while obtaining smooth post-operative tissue results, virtually no bloodloss and potentially shortened catheterisation and hospital stays.

## Improved ignition for all bipolar electrodes

A priority topic in designing this new generator was to extend Large and Band Loop ignition and make continous plasma vaporisation available.

## Smoother pathology

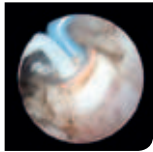
Smoother and more precise cutting effects allow for ideal pathology samples with minimal thermal spread with bipolar resection.

# BENEFITS OF TURIS



## Safety

- Reduced risk of TUR syndrome\*\*\*
- Minimised stimulation of obturator nerve
- The operation can be extended beyond monopolar resection times
- Improved teaching options
- No need for re-operation



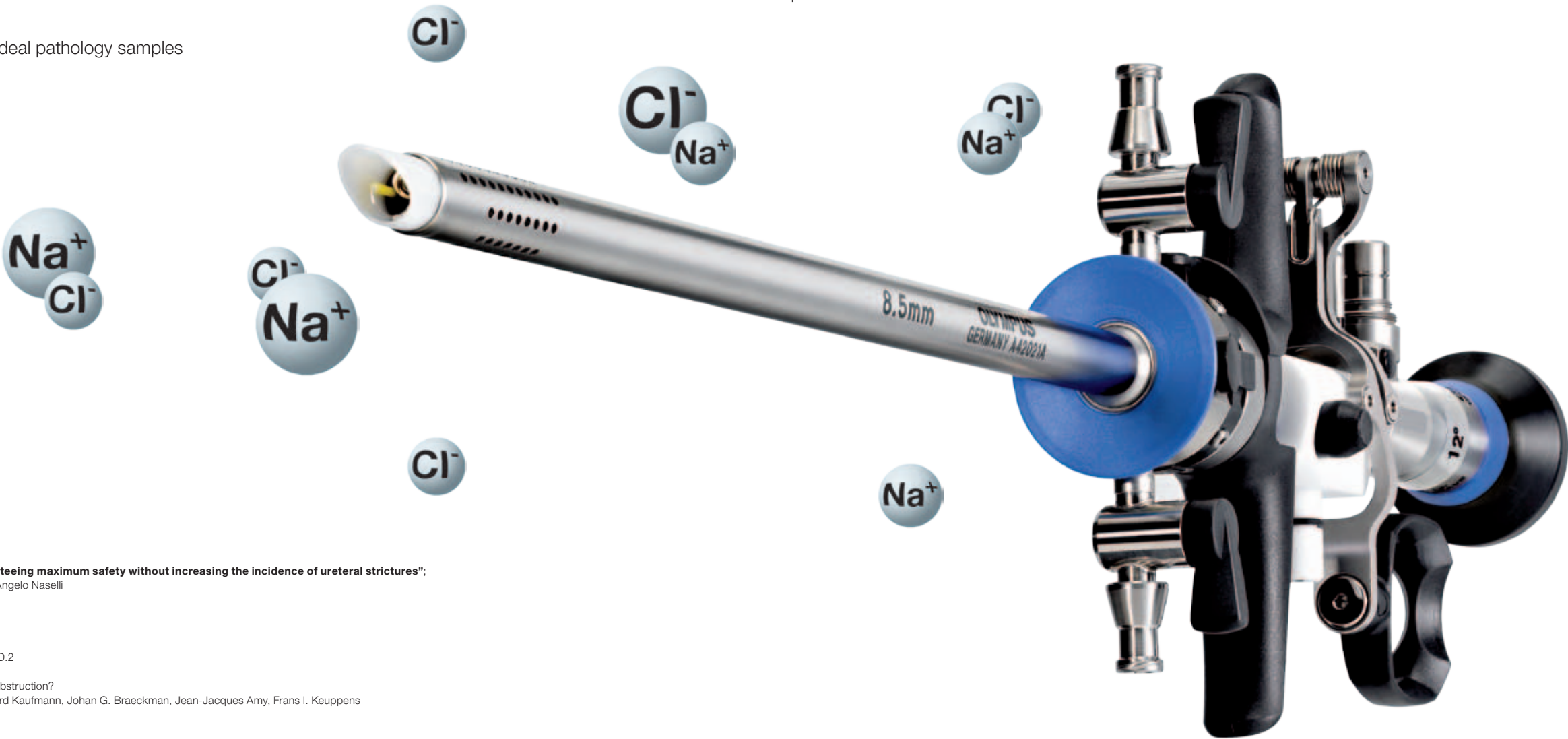
## Bloodless TURis\*\*

- The bipolar technique significantly reduces the perioperative blood loss



## Time saving

- Self-cleaning effect of loop-wire when plasma is activated saving cleaning time
- Faster postoperative recovery\*\*



**\*\*TURis offers the patient the same results as monopolar technology, guaranteeing maximum safety without increasing the incidence of ureteral strictures\*\*;**

Paolo Puppo, France Bertolotto, Carlo Intorinim Francesco Germinale, Luca Timossi, Angelo Naselli

Journal of Endourology, July 2009

\*\*Complications and Clinical Outcome

18 Months After Bipolar and Monopolar

Transurethral Resection of the Prostate

Tim Fagerström, M.D.,1 Claes R. Nyman, M.D., Ph.D.,1 and Robert G. Hahn, M.D., Ph.D.2

Journal of Endourology, June 2011

\*\*\* Bipolar Resection in Saline – An Alternative Surgical Treatment for Bladder Outlet Obstruction?

Dirk P.J. Michielsen, Tibaut Debacker, Veerle De Boe, Caroline Van Lersberghe, Leonard Kaufmann, Johan G. Braeckman, Jean-Jacques Amy, Frans I. Keuppens

European Urology, November 2007

# ESG-400: MAKING HF TECHNOLOGIES MORE INTELLIGENT

## The most versatile, advanced HF generator

The award winning OES Pro resectoscopes and the established range of TURis electrodes can now be powered by the new, latest generation universal HF generator – the ESG-400. Having analysed the market needs for endoscopic resection and surgery, Olympus developed the ESG-400 combining the best features available on the market today for open and laparoscopic surgery. In addition, the second generation of bipolar resection technology has been added, releasing more power when you need it, combined with higher safety and efficacy ensured by a constant output monitoring system.

In addition the ESG-400 will be part of the new Olympus Advanced Energy Platform featuring combined forms of energy for open and laparoscopic surgery including vessel sealing and cutting systems for vessels up to and including 7 mm in diameter. The ESG-400 is addressing virtually all needs in modern ORs.

## HF modes

- Bipolar saline modes (TURis 2.0)
- Bipolar modes (open and laparoscopic surgery)
- Monopolar modes (open and laparoscopic surgery and TUR)
- Monopolar and bipolar modes (GI and RFITT)

## Easy to use - at the touch of a finger

- Large illuminated touch screen panel
- Simple preset functions for up to 39 memory spaces
- Seperate user-friendly control panel for monopolar and bipolar procedures
- Two separate connectors for monopolar, one for bipolar accessories and one for Olympus proprietary technologies

## High power cut support - optimising resection in saline, laparoscopic and open surgery

The HPCS for instant and smooth cutting abilities and the reduction of the risk of thermal spread. This intelligent function enables the instant start of the cutting function and optimises the cutting process by applying an immediate dedicated power only until the spark is ignited.

## Fast Spark Monitor - constant cutting quality to optimised the tissue effect and reduce thermal spread to a minimum

The FSM ensures that only the amount of power necessary for the desired tissue effect is applied by measuring the actual impedance, voltage and current 4,000 times per second in a closed loop system. The FSM enables a smooth cut through fatty and highly vascularised tissue and also at changing tissue conditions.

## Three effect selection – to control the coagulation zone

In order to get the desired tissue results, three “effects” can be applied in all modes (including the saline mode). These effects ensure having the right haemostasis or cutting power at the right moment.

- **Automated saline detection to ensure a safe procedure**

- **Constant quality monitoring of the patient plate to increase operating safety, minimising the risk of thermal injury.**

- **Leakage protection sensor to permanently measures the leakage current to earth and offer the highest safety for user and patient.**

- **AutoStart (start on tissue contact) available for the bipolar SoftCoag mode for open surgery.**

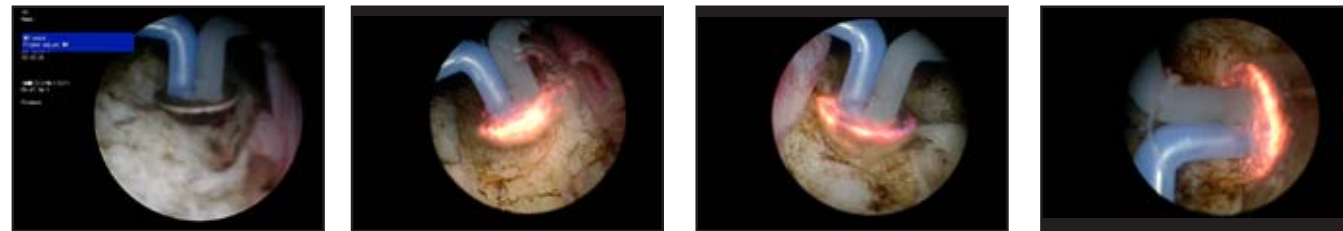




## PLASMA VAPORISATION

### From laser to plasma vaporisation – continuous and simple application

- Now faster–free continuous movement within the operating field ensured by the improved constant ignition
- Select from three effects to choose ablation rate
- Spherical design to match the anatomy for a more precise and controlled tissue vaporisation
- Fast and easy set-up
- Short learning curve
- Improved haemostasis
- Clear and unobstructed view throughout the operation as neither issue chips, nor laser impulses impair the vision
- Post-operative smooth tissue surface
- Potentially shortened catheterisation and hospital stay

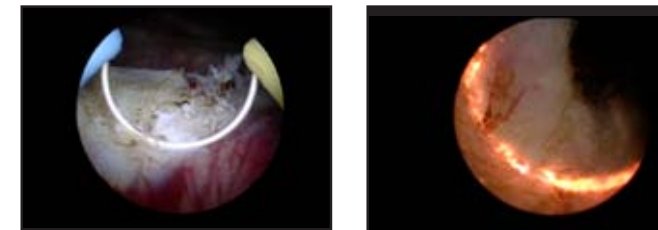


## LARGE AND BAND LOOP

### The Large Loop - faster resection through instant and reliable ignition

Combining the speed of monopolar resection with bipolar safety with the new ESG-400 resection with the Large Loop offers a greatly speedier and smoother operation suitable now also for large prostates.

- The loop diameter has been extended beyond the size of monopolar loops, offering bipolar safety with monopolar resection speed
- A faster resection with bipolar safety
- Three effect options to choose the coagulation zone desired
- Smooth cut and best pathological samples
- Easy and simple operating
- Virtually no TUR syndrome
- Less obturator nerve stimulation
- Faster operative recovery



### The Band Loop – reliable haemostasis and instant ignition

- Increased width of the band electrode allows cutting with more haemostasis
- Reliable and constant ignition with the TURis 2.0 platform under all flow conditions
- Suitable for TURis-P when a stronger haemostasis effect is desired



## Rotatable Continuous Flow Resectoscope

### Inner sheath

A22040\* for 26 Fr. outer sheath

A22041 for 27 Fr. outer sheath

### Outer sheath

A22026A 26 Fr., 2 stopcocks, rotatable

A22021A 27 Fr., 2 stopcocks, rotatable

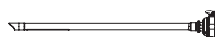


## Continuous Flow Resectoscope

### Inner sheath

A22040\* for 26 Fr. outer sheath

A22041\* for 27 Fr. outer sheath



### Outer sheath

A22027A 26 Fr., 2 vertical stopcocks, fixed

A22023A 27 Fr., 2 vertical stopcocks, fixed

A22025A 27 Fr., 2 horizontal stopcocks, fixed



## Standard Resectoscope

A22041\* Resection sheath, without irrigation port



### Irrigation port

A22051A 1 stopcock, rotatable

A22052A 1 luer-lock connector, rotatable

A22053A 2 horizontal stopcocks, rotatable

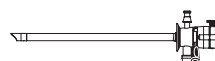
A22054A 1 vertical stopcock, fixed

A22055A 1 vertical luer-lock connector, fixed



## Resectoscope with Intermittent Irrigation

A22014\* Resection sheath, intermittent irrigation, 24 Fr.



\*Add A or T to the article number for the desired obturator:  
A220xxA standard obturator  
A220xxT obturator with deflecting tip

## Telescopes 4 mm, Autoclavable

A22001A 12° direction of view

A22002A 30° direction of view

WA03200A Light-guide cable, 3 mm, plug type

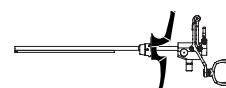


## Working Elements

WA22366A Working element, active



WA22367A Working element, passive



## HF-Resection Electrodes

WA22301D loop, 12°, small

WA22302D loop, 12°, medium

WA22305D loop, 30°, small

WA22306D loop, 30°, medium

WA22331D angled loop, 12° and 30°, small

WA22332D angled loop, 12° and 30°, medium

WA22351C roller, 12° and 30°

WA22355C needle, 12° and 30°, 45° angled loop



WA22503D loop, 12°, large

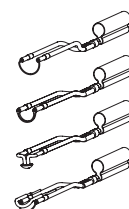
WA22507D loop, 30°, large

WA22521C band, medium, 12°

WA22523C band, medium, 30°

WA22557C button, for plasma vaporisation

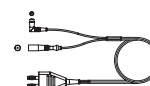
WA22558C angled loop, 12° and 30° for TUEB (Transurethral Enucleation)



For a detailed list of electrodes, see our Urology catalog

## Electro-Surgical Unit

WA00014A HF cable, bipolar, for ESG-400 SALINE mode



WB91051W HF unit ESG-400



Specifications, design and accessories are subject to change without any notice or obligation on the part of the manufacturer.