



Neuro



**Söring**

INNOVATIVE SURGERY

Ultrasonic tumor aspiration:  
**LEVICS – for precision specialists**



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## → Excellence in design: **LEVICS Micro instrument**

The resection of intracranial and spinal tumors requires an accurate proceeding to preserve the surrounding structures as much as possible. The neurosurgical LEVICS Micro instrument from Söring has been specially developed for this challenge and is therefore characterised by its excellent design. With its working frequency of 35 kHz, it fragments tumors of different consistencies precisely and effectively.

Thanks to its integrated aspiration the tumor fragments are immediately removed. Additionally, the instrument impresses with its low weight which was reduced by ten percent compared to its predecessor device. This supports a safe working over long periods of surgery. Above all, the filigree and angled shape of the instrument body ensures an optimum view of the surgical field.

### **Surgical precision in a highly sensitive environment:**

- *10% reduced instrument weight<sup>1</sup> supports long procedures*
- *angled instrument body allows optimum view of the surgical field*
- *efficient aspiration ensures a continuous workflow*



### **Flexibility thanks to modularity**

The LEVICS Micro instrument features three sonotrodes with different lengths and diameters to allow optimised treatment of a range of different lesions. These sonotrodes can be easily mounted and replaced at any time.



<sup>1</sup> compared to predecessor series

# Click & Start: secure and fast sonotrode assembling

The LEVICS Micro instrument is ready for use in a minimum of time thanks to its special concept for sonotrode assembling. Using the intuitive torque wrench the sonotrode can be mounted rapidly and easily without any additional tools. A clearly audible click signals that the sonotrode and instrument body are securely connected.

## Easy assembling:



1. Ensure the torque wrench is ready to use, ...



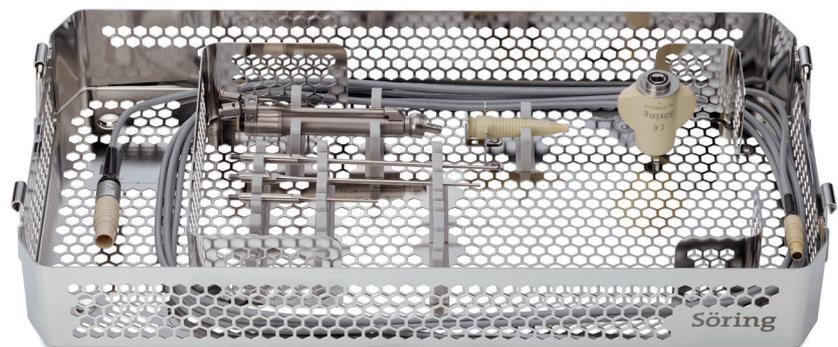
2. place the torque wrench onto the sonotrode ...



3. and turn. **C L I C K!** Finished!  
The sonotrode is securely fastened.

## Each component has its place in the LEVICS instrument tray

The LEVICS instrument tray offers space for each individual product – from the instrument body with a separate instrument cable, to the sonotrodes and the torque wrench. This enables effective sterilisation and ensures the components are tidily arranged and ready at hand in the operating theatre.



# At a glance: LEVICS product overview



## LEVICS Micro instrument

Article no.	92-501
Length	170 mm
Weight	67 g
Angle	15°
Handle material	titanium
Irrigation & aspiration	yes
Scope of delivery	with separate cable
Reprocessing	150 cycles



## LEVICS instrument tray

Article no.	616S0100
Reprocessing	reprocessable

## LEVICS torque wrench



Article no.	616K0006
Reprocessing	150 cycles

## Procedure kits for LEVICS Micro instrument

1 x sonotrode, 5 x double tubing, 5 x flue



Article no.	616K0040	616K0041	616K0042
LEVICS sonotrode			
Working length	36 mm	98 mm	109 mm
External Ø   Internal Ø	2.0 mm   1.4 mm	2.0 mm   1.4 mm	2.3 mm   1.7 mm
Reprocessing	5 cycles	5 cycles	5 cycles
Double tubings + flues			
Reprocessing	single-use	single-use	single-use

## The SONOCA 300 ultrasonic generator

The SONOCA 300 is characterised by its high reliability and ease of use. During start-up it performs an automatic self-test which indicates the user that all functions are available. When the LEVICS Micro instrument is connected to the ultrasonic generator, initial operating parameters are suggested. These settings comprise ultrasonic power as well as aspiration and irrigation. All values can be easily adjusted at any time to allow a prompt and controlled response if conditions change. Due to its multifunctional application, the SONOCA 300 is suitable for use in all specialities focused by Söring.

### The advantages:

- offers an integrated irrigation and aspiration function
- provides a quick set-up with automatic self-test
- allows easy adaptation of operating parameters thanks to the intuitive user interface
- supports all Söring ultrasonic instruments

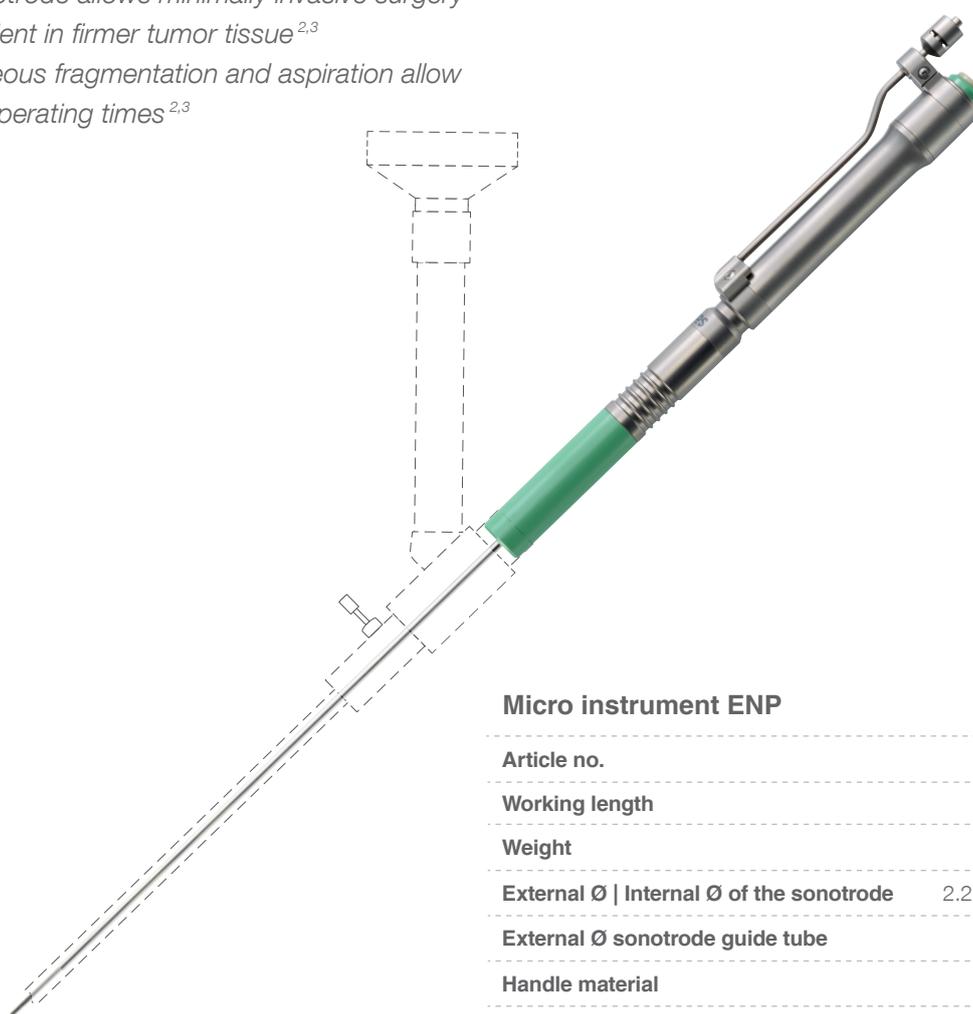


# Unique resection of deep-seated tumors: endoscopic Micro instrument ENP

When removing intra- and paraventricular lesions, a minimally invasive approach may be favoured over open surgery. By providing the “Endoscopic Neurosurgical Pen (ENP)”, Söring offers the world’s only endoscopic ultrasonic aspirator whose exceptionally long sonotrode is guided through the working channel of an endoscope (Model GAAB from KARL STORZ). This allows tumors to be simultaneously fragmented and aspirated through a narrow access path in a patient-friendly<sup>2</sup> procedure. Finally, this technique supports a reduction of surgery time and opens up new possibilities for minimally invasive tumor resection<sup>3</sup>.

## Efficient tumor resection in and around the ventricle system

- long sonotrode allows minimally invasive surgery
- also efficient in firmer tumor tissue<sup>2,3</sup>
- simultaneous fragmentation and aspiration allow shorter operating times<sup>2,3</sup>



### Micro instrument ENP

Article no.	92-030
Working length	213.5 mm
Weight	105 g
External Ø   Internal Ø of the sonotrode	2.2 mm   1.4 mm
External Ø sonotrode guide tube	2.9 mm
Handle material	titanium
Irrigation   Aspiration	via endoscope   yes
Reprocessing	150 cycles

## Extended range of treatments in neuroendoscopy

**“The endoscopic ultrasonic aspiration with the Micro instrument ENP is a safe and reliable technique for extensive decompression or complete removal of intra- and paraventricular lesions.”**

Prof. Giuseppe Cinalli, Head of the Department of Neurosciences and Head of the Division of Pediatric Neurosurgery, Santobono-Pausilipon Children’s Hospital, Naples, Italy

<sup>2</sup> Ref: Ibáñez-Botella G, et al.: Purely neuroendoscopic resection of intraventricular tumors with an endoscopic ultrasonic aspirator, Neurosurg Rev 1-10, 2018

<sup>3</sup> Ref: Cinalli G, et al.: Initial experience with endoscopic ultrasonic aspirator in purely neuroendoscopic removal of intraventricular tumors, J Neurosurg Pediatr 19:325–332, 2017

# Trusted performance: **over three decades of family-run business in ultrasonic surgery**

Headquartered in Quickborn, Germany, Söring GmbH was founded in 1985 by Holger Söring, and has been manufacturing high-end products for ultrasonic surgery ever since. The family-owned company stands at the global cutting edge of ultrasonic technology with its numerous established applications for liver surgery, neurosurgery and spine surgery as well as for wound debridement. At Söring, everything is "Made in Germany": from development and production to distribution. The wide range of products is always optimised and expanded in close cooperation with leading surgeons to achieve maximal customer satisfaction. Following this understanding, the company offers a comprehensive maintenance and servicing programme.



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