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# EHL



## WALZ ELEKTRONIK GMBH

- Located in Rohrdorf near Stuttgart/ Germany.
- Development, production and service of lithotripsy devices for Urology, Gastroenterology and Industry.
- Pioneers in electrohydraulic lithotripsy (EHL) with nearly 40 years of experience.
- More than 20 property right (patent) applications.
- More than 2.000 devices sold.
- Certifications
  - ISO 13485
  - Appendix II of the directive 93/42/EWG

### History

- 1973** Diplom-Ingenieur Volker Walz develops the first EHL device and related probes at the University of Stuttgart.
- 1974** Walz sells the first commercial EHL device.
- 1994** The first combined EHL/EKL (electrokinetic lithotripsy) device enters the market.
- 2003** The LithoRapid is an EKL-only device with improved effectivity.
- 2012** Bernd Vollmer enters Walz Elektronik GmbH as successor of Volker Walz.
- 2015** New thin EHL probe, especially for endoscopes with small working channels.
- 2018** Development and market launch of a proximally reinforced EHL probe, which allows easier insertion into the endoscope.
- 2021** Improved EL 27 version for better probe lifetime.

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# When stones cause trouble

## Endoscopical large stone management in Gastroenterology and Urology



Lithotron EL 27 Compact  
State-of-the-Art Technology made in Germany  
Walz EHL Electrohydraulic Lithotripsy

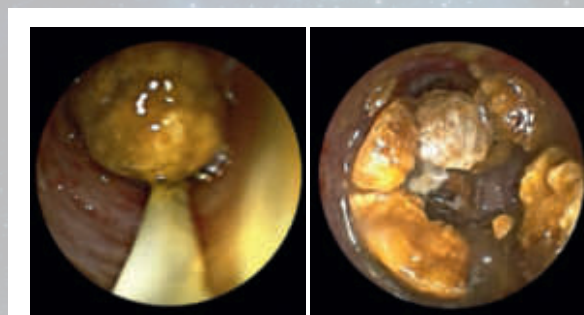
# EHL - a simple and effective method for endoscopic large stone management



Ready to use: the complete Walz EL 27 Compact device

High Tech in touch with the stone

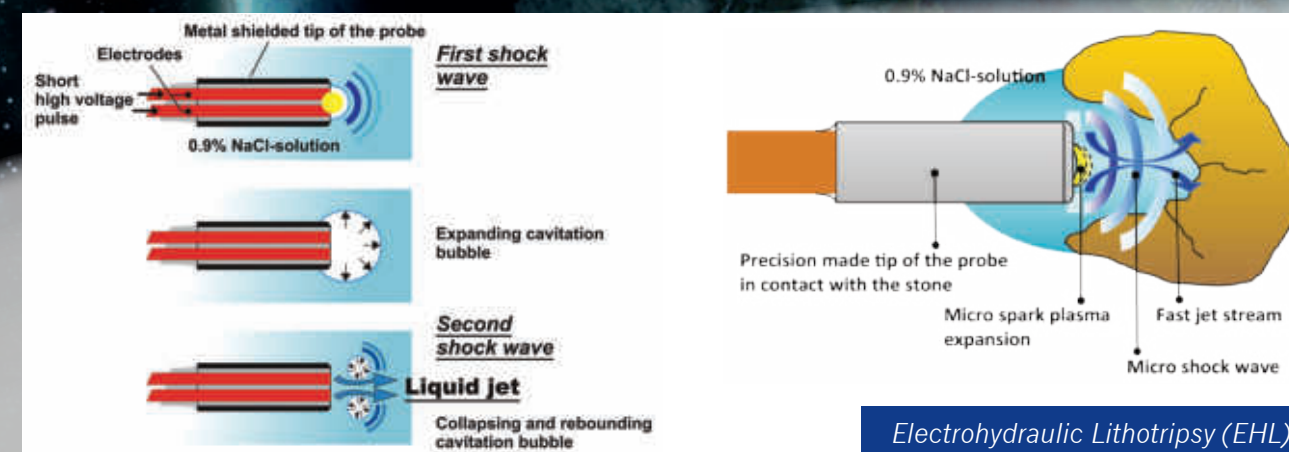
Fragmenting hard stones while treating soft tissue with care is like peeling raw eggs! And that's exactly what you can do with our Lithotron EL 27 Compact. Walz devices represent state-of-the-art-technology of the highest quality made in Germany.



before after

Practical application of the Walz EL 27 in the common bile duct

Reference: Prof. Dr. Pohl, Hamburg



Electrohydraulic Lithotripsy (EHL)

### The Technology:

Micro-spark plasmas are produced between bipolar electrodes at the centre of the tip of the flexible probes by short high voltage pulses. The rapidly expanding and collapsing spark plasma bubbles generate micro shock waves with steep edges and minimized tensile phases in the surrounding liquid. Additionally, micro liquid jets with high velocity are produced which are directed at the stone.

### The Effects:

These micro shock waves in combination with the impacts of the micro liquid jets destroy the stone with highest dual effectiveness – while the minimized tensile phases and the short range of the micro shock waves help to treat the surrounding tissue with care.

### 40 years of experience pay off!

#### EHL-Sonden

- Highly flexible but keep their position
- Precisely worked probe tip for reproducible shock waves
- Centred micro spark plasmas keep distances to the tissue and facilitate targeting
- Endoscope protection through rounded edges at the tip of the probe, no breaking problem compared to laser fiber



Article number	Diameter Ø		Length	Characteristics
	Fr.	mm		
P201400FST	2,0	0,7	1400	
P30950FST	3,0	1,0	950	
P45600FST	4,5	1,5	600	
P70450FST	7,0	2,3	450	
P243000FST	2,4	0,8	3000	
P243000SST - NEW	2,4	0,8	3000	proximally reinforced
P303000FST	3,0	1,0	3000	
P303000SST - NEW	3,0	1,0	3000	proximally reinforced
P453000FST	4,5	1,5	3000	

The Walz EL 27 Compact is the first choice when it comes to lithotripsy devices. Its features and benefits at a glance:

- **Highest efficiency** compared to other technologies, short operation times
- Stones are normally **disintegrated** with only **a few shock waves**
- **Security:** minimized tensile phases of the micro shock waves help to treat soft tissue with care.
- **Highly localized energy transfer** compared to laser and extracorporeal shock waves
- **Economical:** maintenance-free device
- **Endoscope protection** through rounded probe tips; no breaking problem compared to laser fibers
- **Controlled energy levels:** 3 intensities (up to 950 mJ) adjusted to usage in gastroenterology and urology
- Very fast pulses, sharply rising amplitudes for **most effective stone fragmentation**

#### Technical Specifications:

##### Dimensions

Width: 320 mm, Height: 120 mm, Depth: 240 mm  
Weight: 7,5 kg

**Power supply** Voltage Versions 100V ± 10% 1,4 A  
115V ± 10% 1,2 A  
230V ± 10% 0,6 A

##### EHL Electric charge

Intensity A 250 mJ  
Intensity B 500 mJ  
Intensity C 950 mJ