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

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.

Reference: Prof. Dr. Pohl, Hamburg

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

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 extracorporal 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
WALZ ELEKTRONIK GMBH

- Located in Röhrdorf 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.