

25
YEARS
SWISS
LITHO
CLAST®
SINCE 1991



SWISS LITHOCLAST® MASTER

EMS 

SWISS LITHOCLAST® MASTER

STATE OF THE ART



reddot design award
winner 2003



SWISS LITHOCLAST® MASTER

STATE OF THE ART

ORIGINAL SWISS LITHOCLAST® MASTER

TAKEN TO ITS BEST
BY THE INVENTOR OF THE
SWISS LITHOCLAST® METHOD

- VARIO ULTRASOUND HANDPIECE
- ADDED FEATURES WITH NEW SOFTWARE
- EASIER HANDLING
- MORE ACCESSORIES

**COMBINED ULTRASOUND
AND PNEUMATIC LITHOTRIPSY**

ALL-IN-ONE LITHOTRIPSY →

THE ONE-OF-A-KIND SWISS LITHOCLAST® MASTER – A PERFECT COMBINATION OF ULTRASOUND AND PNEUMATIC LITHOTRIPSY FOR MANAGING STONES

- > Pneumatic effect for fast coarse fragmentation
- > Powerful ultrasonic lithotripsy for fine fragmentation and pulverization
- > Simultaneous use of both technologies for multiplied action



VARIO ULTRASOUND HANDPIECE → PERFECTLY SUITED FOR ALL TREATMENT MODALITIES

- > Faster stone clearance – less blockage
 - Optimized fragment transport through dedicated suction connectors
 - Enhanced ultrasound effectiveness due to optimized transducer design
- > Comfortable and convenient handling thanks to reduced size and weight as well as optimal ergonomics
- > Instantaneous intraoperative switch from combined ultrasound/pneumatic mode to ultrasound only mode
- > Long-lasting ultrasound probes thanks to optimized design



→VARIO ULTRASOUND HANDPIECE WITH
INTERCHANGEABLE LATERAL AND STRAIGHT
SUCTION CONNECTOR

COMPLEMENTARY TECHNOLOGIES

PNEUMATIC HANDPIECE pn3 → INNOVATION IN FUNCTION AND DESIGN



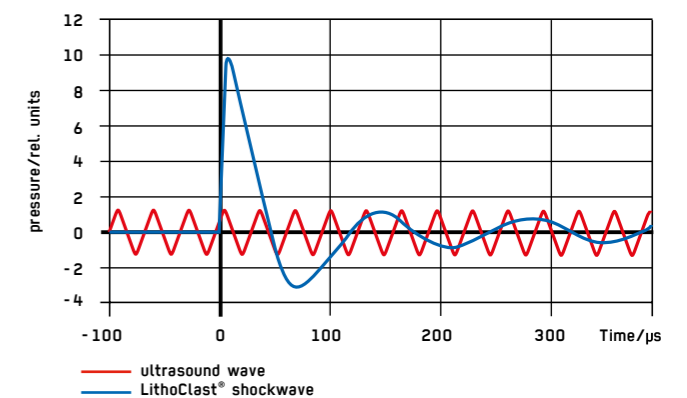
- > Reduced probe displacement
– less push-back
– greater fragmentation control
- > Optimum operator control thanks to light weight and perfect ergonomics
- > Easy reprocessing thanks to sealed system
– no moisture-related handpiece failure
- > Easy, fast and sterile probe change due to quick-connection probe cap
- > Extremely durable handpieces and probes in best material and manufacturing quality

THE BENEFITS OF THE EMS COMBINED LITHOTRIPTER PRINCIPLE AND IMPACT ARE CLEARLY DOCUMENTED IN SCIENTIFIC COMPARISONS

THE PRINCIPLE →

- > Acclaimed and proven ballistic lithotripsy – the Swiss LithoClast® principle – for coarse stone fragmentation
- > High-performance ultrasound lithotripsy for fine fragmentation and pulverization
- > Simultaneous use of both technologies for enhanced efficacy
- > Choice of the most effective method during treatment

COMPARISON OF SWISS LITHOCLAST® SHOCKWAVES
VERSUS ULTRASOUND WAVES → FORCE ACTING ON THE CALCULUS

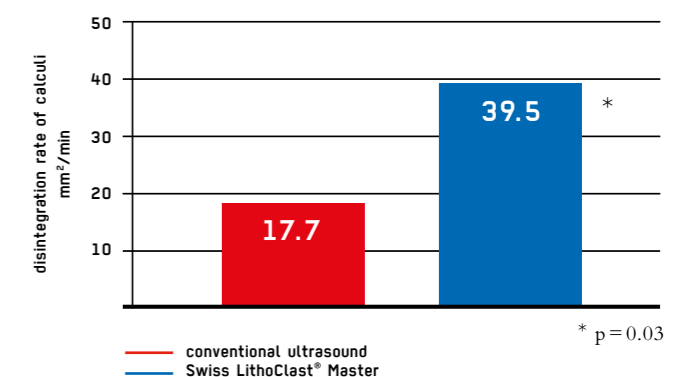


THE IMPACT →

- > Most effective method for the removal of large calculi
- > Faster stone removal: clinically proven four times faster than Swiss LithoClast® Standard and more than twice as fast compared to standard ultrasound lithotripters
- > Prevention of stone fragment blockage in the ultrasound handpiece and probes

Source:
Auge, Pietrow, Preminger et al.,
World Congress of Endourology (Genova 2002)

IN VIVO COMPARISON → CONVENTIONAL ULTRASOUND
VERSUS SWISS LITHOCLAST® MASTER PRINCIPLE



SUCCESS BY DESIGN

SWISS LITHOCLAST® MASTER
DEDICATED SUCTION

SWISS LITHOPUMP®

FOR ALL SWISS LITHOCLAST® DEVICES

VENTURI
PRINCIPLE



PRECISELY ADJUSTABLE FOR ALL SUCTION REQUIREMENTS OF LITHOTRIPSY PROCEDURES

- > Fail-safe, silent, no electricity, easy setup
– fully pneumatically driven pump based on the Venturi principle
- > Highly adjustable, controls negative pressure
– constant optimal view without pressure peaks
- > Hygienic and clean
– double bacteria retention filter system
- > Accessories by MEDELA
– complete configuration, either disposable or reusable

SWISS LITHOCLAST® MASTER
ULTIMATE STONE THERAPY



SWISS
LITHOCART →
Complete setup
of Swiss LithoClas[®] Master,
Swiss LithoPump[®],
suction accessories
and compressor

ULTIMATE STONE THERAPY

DEVICES, OPTIONS, ACCESSORIES →

SWISS LITHOCLAST® MASTER

Swiss LithoClast® Master basic unit incl. dual foot pedal, compressed air connection, pneumatic pn3 handpiece, vario ultrasound handpiece, stone catcher and a selection of Swiss LithoClast® and ultrasound probes

FT-128#

VARIO ULTRASOUND HANDPIECE UPGRADE KIT

Includes vario ultrasound handpiece, straight and lateral suction connector and software processor revision 3

FR-159#

SWISS LITHOPUMP®

Swiss LithoPump® basic unit incl. overflow protection filters, connection set, compressed air connection and exhaust connector kit

FT-184#

SWISS LITHOCART

DW-030

ALL-IN-ONE CART

DW-038

STERILIZATION TRAY

Sterilization tray 700x120x75 mm, autoclavable, for FR-107 and FR-108

FR-112

STERILIZATION TRAY

Sterilization tray 500x200x60 mm, autoclavable, for FR-082

FR-166

STONE CATCHER

Stone catcher sterile (box of ten)

DT-059

SWISS LITHOCLAST® PROBES

Probe Ø 2.0 mm, 425 mm length

EL-044

Probe Ø 1.6 mm, 605 mm length

EL-058

Probe Ø 1 mm, 605 mm length

EL-045

Probe Ø 0.8 mm, 605 mm length

EL-046

Probe Ø 3.2 mm, 425 mm length

EL-092

Probe cap for 3.2 mm probe

AD-425

Flexible probe Ø 0.89 mm, 940 mm length for flexible ureteroscopes

EL-254B

Flexible probe Ø 0.89 mm, 600 mm length for flexible nephroscopes

EL-304B

PNEUMATIC COMBINATION PROBES

Probe Ø 1.0 mm, 570 mm length

Combination with FR-083 and FR-084

EL-220

Probe Ø 1.3 mm, 570 mm length

Combination with probe FR-083

EL-255

Probe Ø 1.0 mm, 497 mm length

Combination with FR-105 and FR-106

EL-276

ULTRASOUND PROBES

Probe Ø 3.8 mm, 403 mm length

FR-083

Probe Ø 3.3 mm, 403 mm length

FR-084

Probe Ø 3.3 mm, 330 mm length

FR-105

Probe Ø 3.8 mm, 330 mm length

FR-106

ULTRASOUND DISPOSABLE PROBES

Probe Ø 3.8 mm, 403 mm length

FR-083/A

Probe Ø 3.3 mm, 403 mm length

FR-084/A

Probe Ø 3.3 mm, 330 mm length

FR-105/A

Probe Ø 3.8 mm, 330 mm length

FR-106/A

Probe Ø 1.5 mm, 573 mm length

FR-102/A

Probe Ø 1.9 mm, 360 mm length

FR-103/A

MILLIONS OF STONES CANNOT BE WRONG

THE SWISS LITHOCLAST® PRINCIPLE IS TODAY'S MOST COMMONLY USED ENDOSCOPIC STONE TREATMENT METHOD – ITS PROVEN SAFETY AND ITS SUCCESS RATES MAKE IT ALSO THE MOST EFFICIENT AND COST-EFFECTIVE MODALITY

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BEST RESULTS

FOUR HUNDRED AND TWELVE (412) PUBLISHED STUDIES ON THE SWISS LITHOCLAST® AND PNEUMATIC LITHOTRIPSY PROVIDE AMPLE CLINICAL EVIDENCE ON EFFICIENCY AND SAFETY OF THE SWISS LITHOCLAST® METHOD

HIGH STONE-FREE RATES

- > Up to 95% for ureteral stones using pneumatic lithotripsy
- > Up to 90% for PNL procedures using combination lithotripsy

HIGH TISSUE SAFETY

- > The highest tissue safety of all endoscopic lithotripters

BEST COSTS

A FASTER STONE CLEARANCE WITH THE SWISS LITHOCLAST® RESULTS IN A SHORTER OPERATING TIME FOR COST-EFFECTIVE OR MANAGEMENT

- > Save 28 minutes compared to laser lithotripsy¹
- > OR time costs 62 \$ per minute²
- > Save on average 1,736 \$ per PNL compared to laser lithotripsy

FAST FRAGMENTATION AND CLEARANCE TIME

- > Combination mode with the Swiss LithoClast® Master clears stones twice as fast as ultrasound-alone lithotripters
- > Pneumatic lithotripters with the Swiss LithoClast® fragments stones on average faster than Holmium laser

FIRST GENERATION



¹ Malik, Rizvi et. al, 2007: Comparison of HO-YAG laser and Swiss LithoClast® in percutaneous nephrolithotomy

² A. Macario, Stanford University USA, 2010: What does one minute of operating room time cost?



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