

VARIO
ULTRASOUND
HANDPIECE

EMS

EMS

SWISS LITHOCLAST® MASTER

EMS 
ELECTRO MEDICAL SYSTEMS

SWISS LITHOCLAST® MASTER

STATE OF THE ART



reddot design award
winner 2003



SWISS LITHOCLAST® MASTER

STATE OF THE ART

ORIGINAL SWISS LITHOCLAST® MASTER

COMBINED ULTRASOUND
AND PNEUMATIC LITHOTRIPSY
TAKEN TO ITS BEST
BY THE INVENTOR
OF THE SWISS LITHOCLAST® METHOD

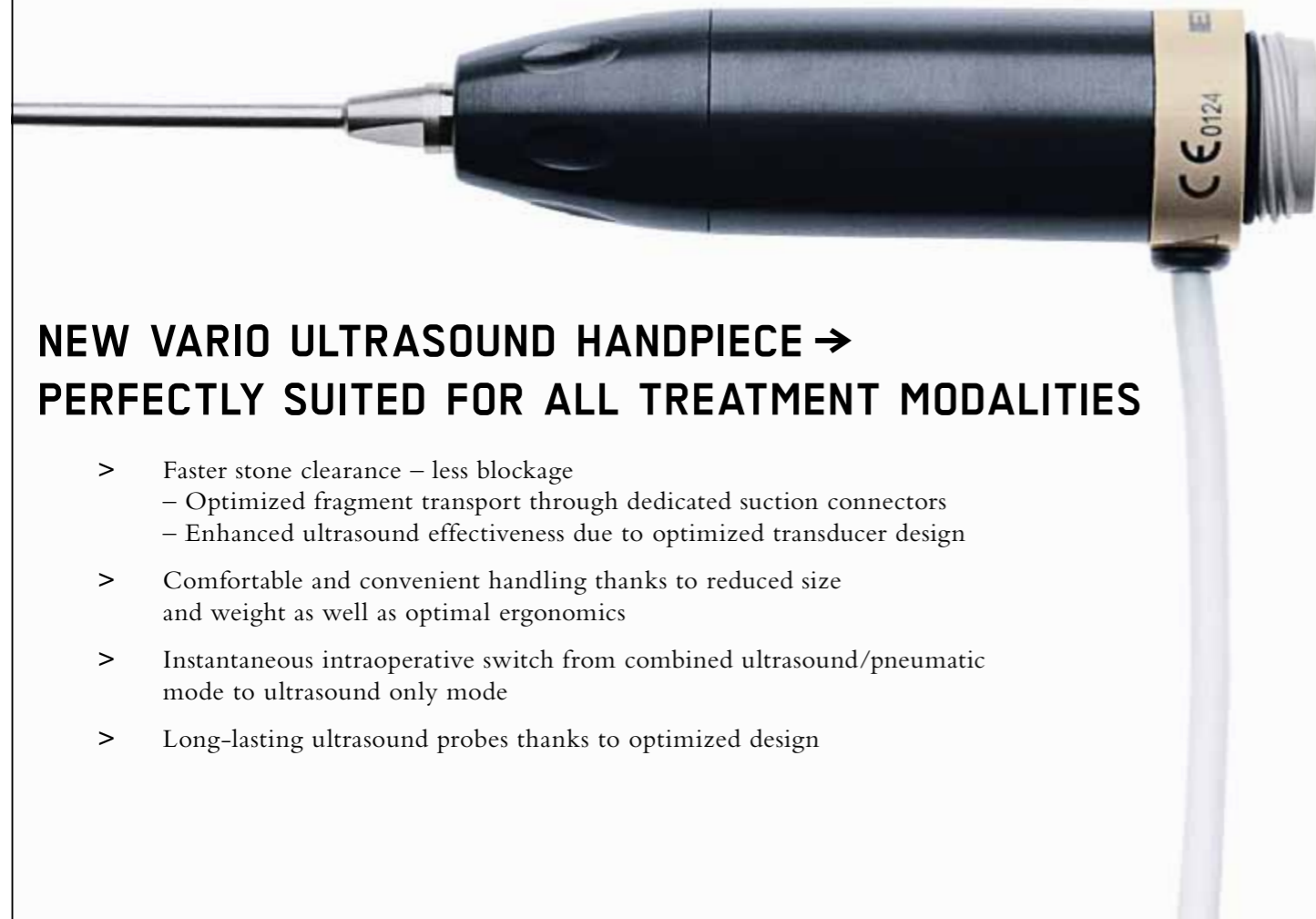
- NEW → VARIO ULTRASOUND HANDPIECE
- NEW → ADDED FEATURES WITH NEW SOFTWARE
- NEW → EASIER HANDLING
- NEW → MORE ACCESSORIES

ULTIMATE STONE THERAPY

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



NEW 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



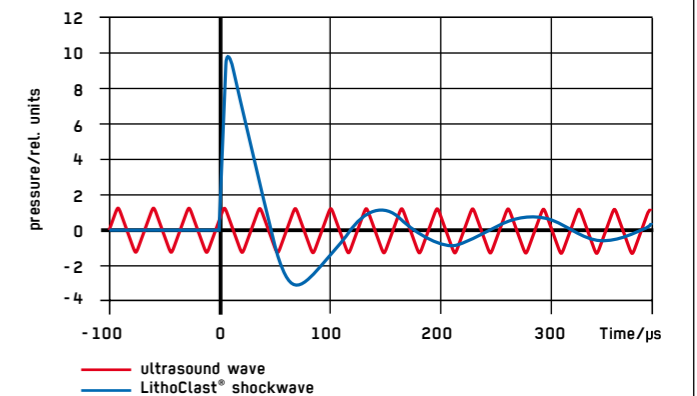
- > Reduced probe displacement
 - less push-back
 - greater fragmentation control
- > Optimum operator control thanks to light weight and perfect ergonomics
- > Easy reprocessing thanks to sealed system
 - no moisture-related handpiece failure
- > Easy, fast and sterile probe change due to quick-connection 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

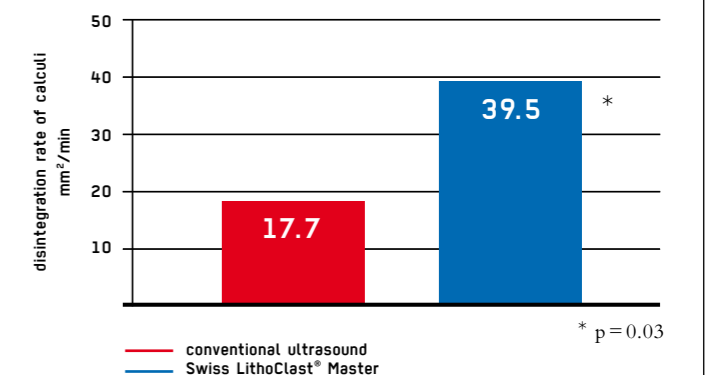


THE IMPACT →

- > 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
ECONOMICAL



STAND-ALONE ULTRASOUND UNIT → “ULTRASOUND ONLY”

- > High-performance ultrasound with vario ultrasound handpiece and latest-generation probes
 - enhanced ultrasound stability and output due to optimized transducer design
 - safe and reliable application
 - increased lifetime due to optimized handpiece and probe design
- > Faster stone clearance through straight suction connector – no accumulation of stone fragments
- > Intelligent software for probe failure detection

UPGRADEABLE → SWISS LITHOCLAST® MASTER ALL-IN-ONE SOLUTION

- > pn3 Update Kit with all components for upgrading to the full functioning combined ultrasound and pneumatic Swiss LithoClast® Master lithotripter

SWISS LITHOCLAST® MASTER
OPTIMIZED

SWISS LITHOPUMP®

FOR ALL SWISS LITHOCLAST® DEVICES



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

DEDICATED SUCTION

DEVICES, OPTIONS, ACCESSORIES → DESIGNED FOR HIGHEST EXPECTATIONS AND SUCCESS IN STONE THERAPY

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#

SWISS LITHOCLAST® MASTER “ULTRASOUND ONLY”

Swiss LithoClast® Master basic unit incl. single foot pedal, vario ultrasound handpiece, stone catcher and a selection of ultrasound probes

FT-190#

pn3 UPDATE KIT FOR ULTRASOUND STAND-ALONE UNIT

Includes pneumatic pn3 handpiece, compressed air connection, dual foot pedal and a selection of Swiss LithoClast® probes

FR-156#

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

SWISS LITHOCLAST® PROBES

Probe Ø 2 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-254 B

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

EL-304 B

PNEUMATIC COMBINATION PROBES

Probe Ø 1.0 mm, 570 mm length for combination with ultrasound probes FR-083 and FR-084

EL-220

Probe Ø 1.3 mm, 570 mm length for combination with ultrasound probe FR-083

EL-255

Probe Ø 1.0 mm, 497 mm length for combination with ultrasound probes 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

Probe Ø 1.5 mm, 573 mm length

FR-102

Probe Ø 1.9 mm, 360 mm length

FR-103

STERILIZATION TRAY

Sterilization tray 700x120x75 mm, autoclavable

FR-112



**ALL-IN-ONE
ON THE
NEW SWISS LITHOCART →**
Complete setup
of Swiss LithoClast® Master,
Swiss LithoPump®,
suction accessories
and compressor

READY FOR ALL-IN-ONE



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