PIEZON MASTER SURGERY®
ORIGINAL PIEZON® METHOD FOR DENTAL AND ORAL SURGERY

→ INNOVATIVE TECHNOLOGY
→ EASY TO OPERATE
→ MULTIPLE APPLICATIONS
→ EXCLUSIVE INSTRUMENTS
→ TOP RESULTS
→ EXTENSIVE EXPERIENCE

BEST OF EMS DENTAL AND MEDICAL EXPERTISE
FOCUS ON THE APPLICATION

➔ NO EASIER WAY TO OPERATE

PIEZON MASTER SURGERY® WITH TOUCHBOARD TECHNOLOGY – UNIQUE IN THE FIELD OF SURGERY. SIMPLICITY OF THE 3-TOUCH PANEL TO YOUR ADVANTAGE

Set the power and the flow rate of the sterile solution
➔ by simply sliding your finger over the indentations of the control elements
➔ by directly pressing the required power and rate value

LED follows the finger touch automatically with a quiet signal
➔ even when wearing surgical gloves
➔ even when additional protective foil is used

Operating errors virtually eliminated
➔ thanks to self-explanatory, easy and safe operation

Contamination virtually impossible
➔ thanks to a closed system without edges or gaps

Switch directly with just one touch
➔ to “Surgery” for hard tissue
➔ to “Standard” for soft tissue

➔ PERFECT HYGIENE INCLUDED
PRECISION, SAFETY, POWER AND INTELLIGENCE → NEW QUALITIES FOR SURGICAL APPLICATIONS AND PROCEDURES WITH THE ORIGINAL PIEZON® METHOD

PERIODONTAL SURGERY
→ Osteotomy and osteoplasty, extraction of autogenous bone for regenerative surgery

IMPLANTOLOGY
→ Alveolar ridge splitting, sinus lift, extraction of autogenous bone, implant site preparation

ORAL SURGERY
→ Extraction, root resection, syndesmotomy, orthodontic surgery

MAXILLARY SURGERY
→ Extraction of bone cylinders, osteogenetic distraction, nerve transposition, sinus elevation, distraction osteogenesis

INNOVATION IN THE HANDS OF THE ORAL AND BONE SURGEON →

→ Autopiloted frequency and power for maximum comfort – perfectly straight vibrations, back and forth as well as up and down

→ Maximum intraoperative precision and safety, hardly any bone loss – micrometric cutting in the 60–200 µm range

→ Optimum cutting of hard tissue without affecting soft tissue – selective cutting

→ Unique temperature control, little loss of blood during surgery – high-frequency vibrations with permanent cooling

HIGH TECH IS IN YOUR HANDS
DESIGNED FROM EXPERIENCE →
PIEZON® INSTRUMENT FOR NEW STANDARDS IN SURGERY

- DESIGN EXCLUSIVELY TAILORED TO THE SPECIFIC CHARACTERISTICS OF THE PIEZOCERAMIC ULTRASOUND DRIVE
- MATERIAL AND PROCESSING ACCORDING TO THE HIGHEST STANDARDS OF SWITZERLAND’S WORLD-ACCLAIMED WATCHMAKING INDUSTRY
- BASED ON 25 YEARS OF EXPERIENCE WITH THE ORIGINAL PIEZON® METHOD AND THE ONGOING DEVELOPMENT OF THIS UNIQUE TECHNOLOGY
- COMBINED KNOWLEDGE FROM THE SUCCESSFUL WORLDWIDE USE OF ULTRASOUND TECHNOLOGY IN UROLOGY (SINCE 1988) AS WELL AS IN ORTHOPEDICS (SINCE 1999)
- INSTRUMENT FUNCTION PERFECTED BY AUTOCLAVABLE COMBITORQUE® MADE OF PEEK, THE MATERIAL USED IN SPACE TECHNOLOGY

UNIQUE FEATURES ➔

- Absolutely stable center of vibration – ideal performance for highest cutting precision
- Perfectly linear vibrations back and forth – high-frequency vibrations for optimum protection of the cellular, structural level of the bone
- Ultimate precision in instrument tip processing – optimum cutting quality and safety for all applications
- 33°C instrument temperature when operating

COMBITORQUE® ➔

- Precise instrument assembly, always with optimum torque – instruments have a long clinical life
- Safe alternation of instruments, easy and efficient
- Autoclavable complete with insert – contamination risk close to zero
- No contact with instruments – virtually no risk of injury or infection
- Sterile mounting of the instruments

INNOVATION FROM THE INVENTOR OF THE ORIGINAL PIEZON® METHOD ➔
MATURE FROM THE VERY START
EMS SWISS INSTRUMENTS SURGERY™

- Exclusively developed for Piezon Master Surgery®
- Complete systems for all applications
- Always supplied with Combitorque® and Steribox

BASIC SYSTEM

Five EMS Swiss Instruments Surgery™ for virtually any type of implant preparation:
- Atraumatic bone incision
- Bone remodeling around implant sites
- Atraumatic bone osteotomy
- Elevation of Schneider’s membrane during sinus lift
- Harvesting of bone chips for bone augmentation

Complete with Combitorque®, original Piezon® handpiece and hose in the Steribox
INSTRUMENT SC
FOR ALVEOLAR RIDGE SPLITTING,
ATRAUMATIC VERTICAL BONE INCISION
AND SENSITIVE OSTEOTOMY

> Ideal for alveolar ridge splitting – the bone can be separated atraumatically in the upper as well as the lower jaw and stretched with the conical tip – a virtually lower risk of fractures even when bone is highly mineralized

APPLICATIONS

ONE BASIC SYSTEM
FIVE APPLICATIONS

INSTRUMENT SL 1
FOR BONE TRANSPLANTATION
AND ATRAUMATIC HORIZONTAL
BONE INCISION

> Ideal for preparing the lateral incision when bone walls are thick
> Ideal for osteotomy even for very small incision preparation
INSTRUMENT SL 2
FOR ATRAUMATIC BONE
OSTEOTOMY

> Ideal for preparing the incision to Schneider’s membrane on thin bone walls and in sensitive risk areas – ideal for difficult horizontal incisions

INSTRUMENT SL 3
FOR DETACHING SCHNEIDER’S MEMBRANE DURING THE SINUS LIFT

> Ideal for safely detaching Schneider’s membrane due to its plate-like shape – membrane is detached in a circular fashion around the incision – minimal risk of perforation between membrane and bone wall – the vibrations of the Original Piezon® Method seem to do all of the work automatically

INSTRUMENT SL 4
FOR HARVESTING BONE PARTICLES OR CHIPS FOR AUGMENTATION – FOR HARVESTING AUTOGENOUS BONE

> Ideal for the easy and fast harvest of high bone quantities with an ideal grain size of 500 µm – by scraping gently on the surface, the bone accumulates on the scoop of the instrument
> Also ideal for the sinus lift – in areas where access is difficult through a lateral incision

PIEZON MASTER SURGERY®
FULL RANGE WITH THE BASIC SYSTEM
OPTIONS ➔
EMS SWISS INSTRUMENTS SURGERY™ – EQUIPPED FOR ALL CASES

SIX ADDITIONAL APPLICATIONS – SIX OPTIONAL SYSTEMS
> Tooth extraction
> Retrograde root preparation
> Interventions on the bone
> Periodontal treatment
> Sinus lift
> Implant site preparation

EACH SYSTEM WITH COMBITORQUE® IN THE STERIBOX

EXTRACTION SYSTEM
UNIQUE ANATOMICAL DESIGN FOR ENHANCED PRECISION AND EFFICIENCY

INSTRUMENT EXL ➔ Left-oriented tip for access to posterior areas
INSTRUMENT EXR ➔ Right-oriented tip for access to posterior areas
INSTRUMENT EX2 ➔ Ultrasonic periosteum for syndesmotomy and periapical osteotomy
INSTRUMENT EX1 ➔ Titanium tip for vertical tooth extraction in the anterior area

RETRO SYSTEM
FINE DESIGN AND COOLING SYSTEM FOR MINIMALLY INVASIVE RETROGRADE ROOT PREPARATION AND IDEAL VIEW OF THE TREATMENT SITE

INSTRUMENT RS1 ➔ Diamond-coated tip for minimally invasive retrograde root preparation
INSTRUMENT RS2 ➔ Sand-blasted tip for minimally invasive retrograde root preparation
INSTRUMENT RS3 ➔ Diamond-coated tip for minimally invasive retrograde root preparation
INSTRUMENT SL4 ➔ Curved scalpel for osteoplasty and harvesting of bone particles or chips

BONE SYSTEM
SUPERIOR INSTRUMENT DESIGN FOR BONE BLOCK GRAFTING TECHNIQUES

INSTRUMENT BCL ➔ Left-oriented bone saw for cutting bone in the ramus area
INSTRUMENT BCR ➔ Right-oriented bone saw for cutting bone in the ramus area
INSTRUMENT SL1 ➔ Bone saw for in-depth cutting of cortical bone
INSTRUMENT BC ➔ Conical bone cutting tip for fine, precise cuts and osseous recontouring

Photos by Dr. Frank Spiegelberg
**PERIO SYSTEM**

**PRECISE AND RELIABLE IN RESECTIVE AND REGENERATIVE PERIODONTAL SURGERY**

- **INSTRUMENT PE1**: Diamond-coated ball tip for fast calculus removal
- **INSTRUMENT PE2**: Diamond-coated tip (70µm) for enlarging root furcations
- **INSTRUMENT PE3**: Diamond-coated tip (15µm) for gently enlarging root furcations
- **INSTRUMENT BC**: Conical bone cutting tip for fine, precise cuts and osseous recontouring

Photos by Dr. Mauro Bovi

**SINUS SYSTEM**

**ADVANCED SURGERY INSTRUMENTS FOR GENTLE AND STEADY LATERAL SINUS LIFTS**

- **INSTRUMENT SL1**: Bone saw for in-depth cutting of cortical bone
- **INSTRUMENT SL2**: Diamond-coated ball tip for smoothing the vestibular bone window and precise osteoplasty
- **INSTRUMENT SL4**: Curved scalpel for osteoplasty and harvesting of bone particles or chips
- **INSTRUMENT SL5**: Large diamond-coated ball tip for smoothing the vestibular bone window and precise osteoplasty
- **INSTRUMENT SL6**: Spatula designed for Schneider's membrane elevation inside the sinus

Photos by Dr. Mauro Bovi

**IMPLANT SYSTEM**

**EXCLUSIVE FULLY DIAMOND-COATED INSTRUMENTS WITH DUAL COOLING SYSTEM FOR LOW INTRA-OPERATIVE TEMPERATURE, OPTIMUM EVACUATION OF DEBRIS, FAST, PRECISE AND PREDICTABLE DRILLING**

- **INSTRUMENT MB1**: Diamond-coated tip (Ø 1,15 mm) for initial osteotomy in the maxilla
- **INSTRUMENT MB2**: Diamond-coated tip (Ø 1,95 mm) for preliminary drilling in the maxilla
- **INSTRUMENT MB3**: Diamond-coated tip (Ø 2,50 mm) for preliminary drilling in the maxilla
- **INSTRUMENT MB4**: Diamond-coated cylindrical tip (Ø 2,80 mm) for secondary drilling in the maxilla
- **INSTRUMENT MB5**: Diamond-coated cylindrical tip (Ø 3,05 mm) for secondary drilling in the maxilla
- **INSTRUMENT MB6**: Diamond-coated cylindrical tip (Ø 3,30 mm) for final osteotomy in the maxilla

**INSTRUMENT MB4/MB5/MB6**

- Vertical nozzle outlet for water cooling
- Vertical spiral for water cooling and debris evacuation

Photos by Dr. Mauro Bovi

**SIX OPTIONS FOR EVEN MORE EFFICACY**
COMPLETE ➔ COMPLETELY FUNCTIONAL

1 ORIGINAL PIEZON® HANDPIECE
- Lightweight and ergonomic
- Optimum visibility due to small size
- Metal cap for controlled precision
- Sterilizable up to 135°C

2 PIEZON® TECHNOLOGY
- Optimum instrument movements
- Feedback control
- Precise treatment results
- Virtually no heat transferred to the surgical instruments

3 EMS SWISS INSTRUMENTS SURGERY™
- Each with CombiTorque® for steady handling
- Broad scope of application
- Swiss-quality development and manufacturing

4 BOTTLE HOLDER
- Sterilizable up to 135°C
- Easy to install

5 CORD
- Removable from the unit
- Built with the handpiece in one piece
- Sterilizable up to 135°C
- Flexible and long lasting

6 STERILE LINE
- Single-use tubes for the sterile solution

7 PERISTALTIC PUMP
- For sterile liquid flow
- High flow rate for optimal cooling

8 HANDPIECE HOLDER
- Magnetic, removable
- Sterilizable up to 135°C

9 TOUCH PANEL
- Fast and precise settings
- Easy-to-read controls
- Hygienic

10 POWER
- LED settings in 17 increments for individual clinical requirements
- Clear and easy to understand

11 WORKING MODE
- “Surgery” for hard tissue
- “Standard” for soft tissue

12 LIQUID FLOW
- LED settings in 11 increments for individual clinical requirements
- Clear and easy to understand

PIEZON MASTER SURGERY®
INNOVATION IN DETAIL

RELIABLE
- CombiTorque® – for the safe storage and mounting of EMS Swiss Instruments™

STERILE
- Single-use tubes easy to connect to the handpiece

FLEXIBLE
- Magnetic handpiece holder for flexible use on all metal surfaces – not only on the housing!

SIMPLE
- ON/OFF foot control – allows to concentrate on the treatment site
INNOVATIVE TECHNOLOGY

ORIGINAL PIEZON® METHOD FOR EXCELLENT PERFORMANCE IN DENTAL AND ORAL SURGERY - WITH EFFICACY AND SUCCESS

ALL APPLICATIONS

BASIC SYSTEM COMPLETE WITH FIVE EMS SWISS INSTRUMENTS SURGERY® - OPTIONAL SYSTEMS FOR TOOTH EXTRACTIONS, RETROGRADE TOOTH PREPARATIONS, INTERVENTIONS ON THE BONE, PERIODONTAL TREATMENT, SINUS LIFT AND IMPLANT SITE PREPARATION

EASY TO OPERATE

3-TOUCH PANEL TECHNOLOGY FOR SETTING DIFFERENT FUNCTIONS AND PERFORMANCE RATES BY SIMPLY TOUCHING THE CONTROL ELEMENTS - SELF-EXPLANATORY, PERFECT HYGIENE GUARANTEED

EXCLUSIVE INSTRUMENTS

EMS SWISS INSTRUMENTS SURGERY® EXCLUSIVELY DEVELOPED FOR THE PIEZON MASTER SURGERY® - WITH THE EXPERIENCE OF 25 YEARS OF CONTINUOUS RESEARCH AND DEVELOPMENT

HIGH LEVEL OF EXPERIENCE

INCOMPARABLE EXPERTISE FROM THE INVENTOR OF THE ORIGINAL PIEZON® METHOD, ACCESS TO INTERNAL RESOURCES AND PRODUCTION ADVANTAGES THROUGH SYNERGIES - FOR A PARTICULARLY PROFITABLE INVESTMENT

TOP RESULTS

KNOWLEDGE OF ULTRASOUND TECHNOLOGY AND ITS APPLICATION IN DENTISTRY, ORTHOPEDICS AND UROLOGY, CONCENTRATED IN DENTAL SURGERY - QUALITY REDEFINED

Photo by University of Basel, Switzerland – Department of Oral Surgery, Oral Radiology and Oral Medicine