



A line drawing of the EMS Piezon Master Surgery unit and handpiece assembly. The unit is a rectangular box with a control knob on the left and a row of indicator lights on the right. A handpiece is connected to the unit by a cable. A coiled cable is also shown. A yellow starburst graphic is positioned above the unit.

**ORIGINAL  
PIEZON<sup>®</sup>  
METHOD**

# PIEZON MASTER SURGERY<sup>®</sup>

**EMS**   
ELECTRO MEDICAL SYSTEMS

PIEZON MASTER SURGERY®  
INNOVATION



PIEZON MASTER SURGERY®  
COMPLETE SYSTEM

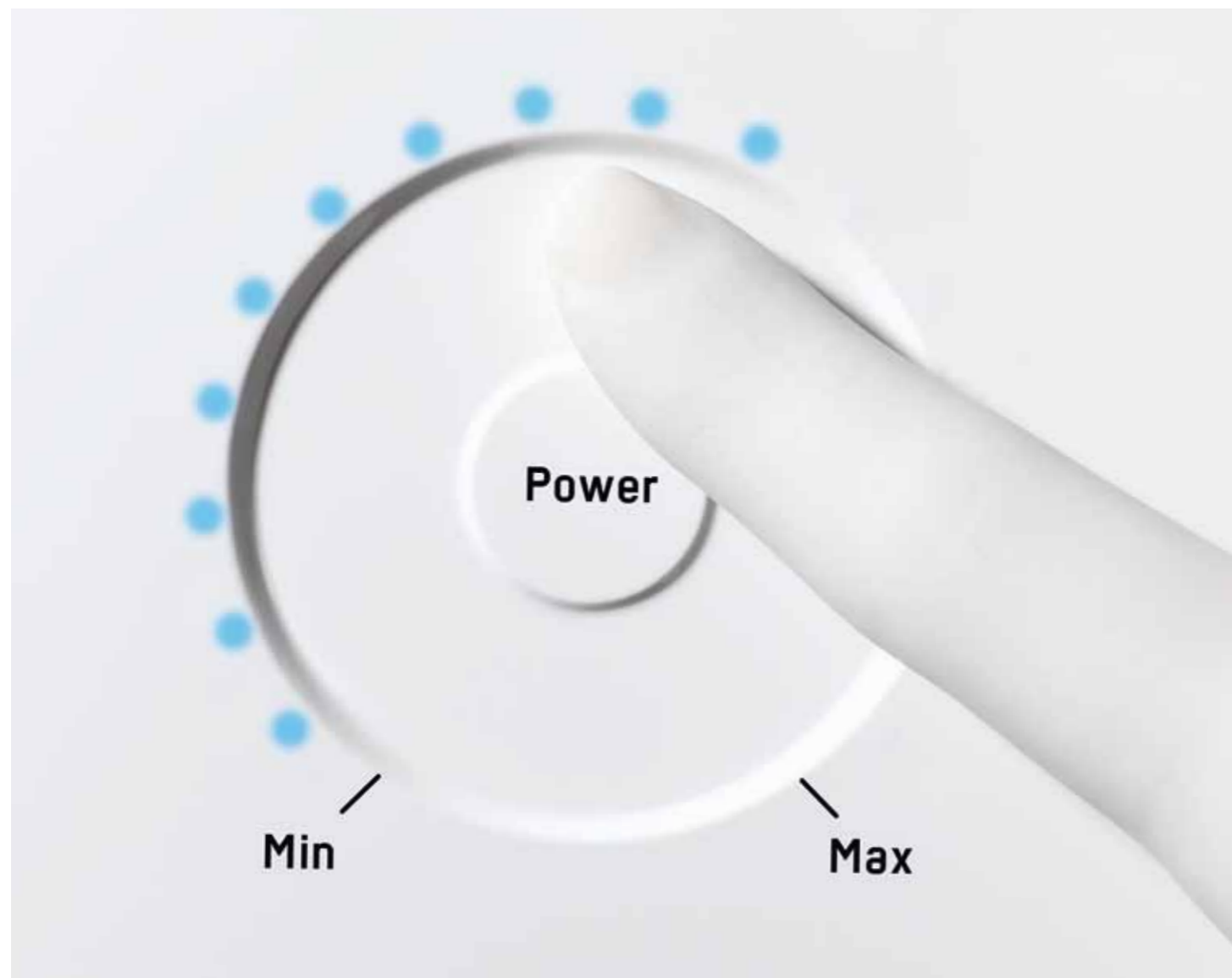
# PIEZON MASTER SURGERY®

ORIGINAL PIEZON® METHOD  
FOR DENTAL  
AND ORAL SURGERY

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- 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

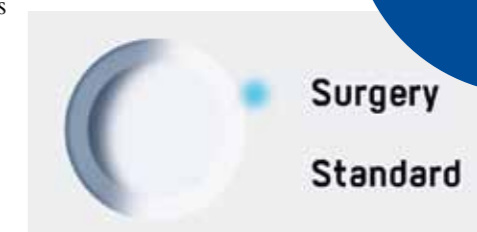
Contamination virtually impossible

- > thanks to a closed system without edges or gaps

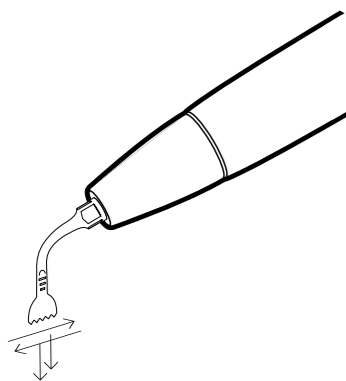
Switch directly with just one touch

- > 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

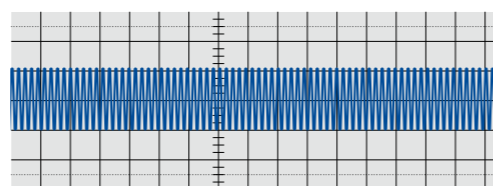
- > Extraction, root resection, syndesmotomy, orthodontic surgery

## MAXILLARY SURGERY

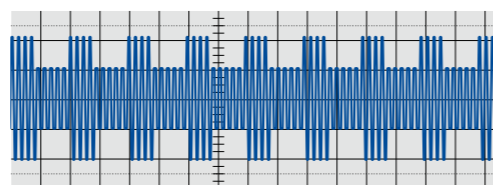
- > Extraction of bone cylinders, osteogenetic distraction, nerve transposition, sinus elevation, distraction osteogenesis

## 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



**STANDARD MODE →**  
WHEN WORKING IN SENSITIVE AREAS – CONSTANT AMPLITUDE AND VIBRATION



**SURGERY MODE →**  
HARD TISSUE – MODULATED AMPLITUDE AND CONTINUOUS VIBRATION ENSURE OPTIMUM INSTRUMENT PERFORMANCE FOR FAST AND EFFECTIVE BONE CUTTING

## HIGH TECH IS IN YOUR HANDS

- ELEGANT DESIGN, OPTIMAL VIEW OF SURGICAL SITE
- NO HEAT GENERATION, NO TREATMENT INTERRUPTION



# DESIGNED FROM EXPERIENCE → PIEZON® INSTRUMENT FOR NEW STANDARDS IN SURGERY

→ DESIGN EXCLUSIVELY TAILORED TO THE SPECIFIC CHARACTERISTICS  
OF THE PIEZOCERAMIC ULTRASOUND DRIVE

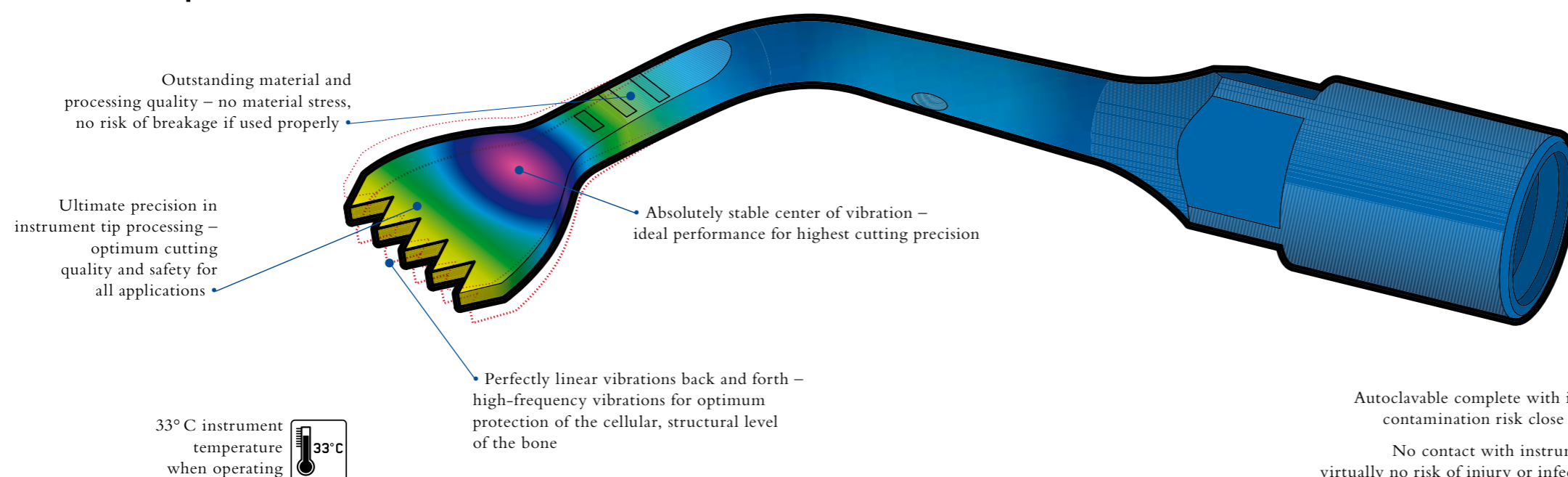
→ MATERIAL AND PROCESSING ACCORDING TO THE HIGHEST STANDARDS  
OF SWITZERLAND'S WORLD-ACCLAIMED WATCHMAKING INDUSTRY

→ BASED ON 25 YEARS OF EXPERIENCE WITH THE ORIGINAL PIEZON® METHOD  
AND THE ONGOING DEVELOPMENT OF THIS UNIQUE TECHNOLOGY

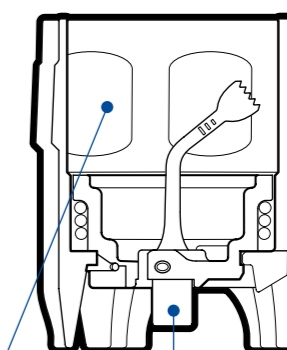
→ COMBINED KNOWLEDGE FROM THE SUCCESSFUL WORLDWIDE USE  
OF ULTRASOUND TECHNOLOGY IN UROLOGY (SINCE 1988) AS WELL  
AS IN ORTHOPEDICS (SINCE 1999)

→ INSTRUMENT FUNCTION PERFECTED BY AUTOCLAVABLE COMBITORQUE®  
MADE OF PEEK, THE MATERIAL USED IN SPACE TECHNOLOGY

## UNIQUE FEATURES →



## COMBITORQUE® →



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



Basic System, scale 5:1

# EMS SWISS INSTRUMENTS SURGERY<sup>PM</sup>

- EXCLUSIVELY DEVELOPED FOR PIEZON MASTER SURGERY®
- COMPLETE SYSTEMS FOR ALL APPLICATIONS
- ALWAYS SUPPLIED WITH COMBITORQUE® AND STERIBOX

## BASIC SYSTEM →

FIVE EMS SWISS INSTRUMENTS SURGERY<sup>PM</sup> 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



Photos by Dr. Frank Spiegelberg



**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

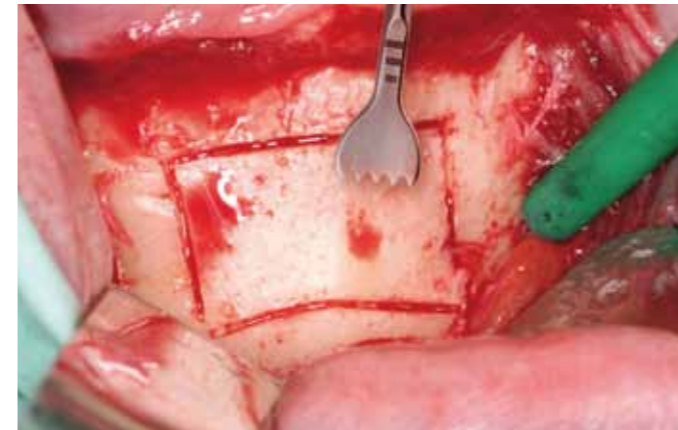


Photo by Dr. Frank Spiegelberg

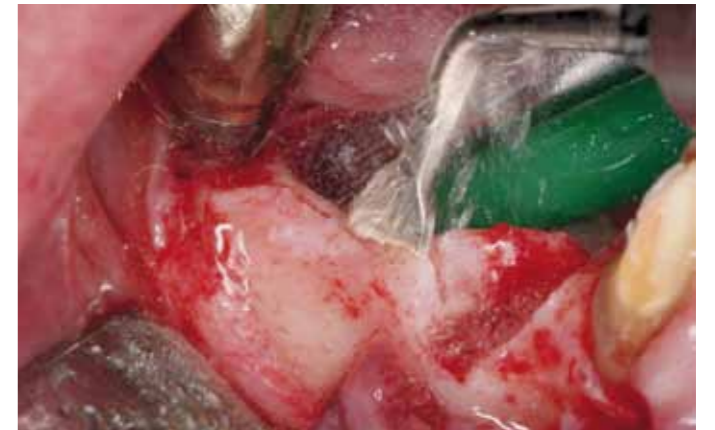


Photo by Dr. Frank Spiegelberg



Photo by Dr. Marc Hürzeler

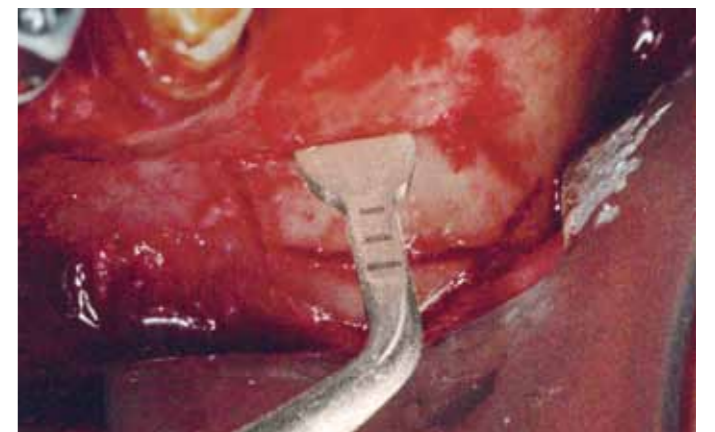


Photo by Dr. Sven Rinke

## 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



Photo by Dr. Frank Spiegelberg

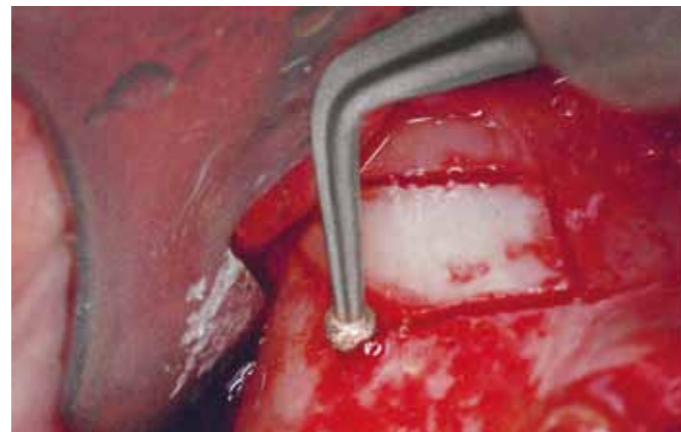


Photo by Dr. Sven Rinke



## 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



Photo by Dr. Frank Spiegelberg



Photo by Dr. Sven Rinke

## 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



Photo by Dr. Frank Spiegelberg



Photo by Dr. Frank Spiegelberg



Photo by Dr. Daniel Grubeanu



Photo by Dr. Frank Spiegelberg

**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 periosteal elevator for syndesmotomy and periradicular osteotomy
- INSTRUMENT EX1** → Titanium tip for vertical tooth extraction in the anterior area



Photos by Dr. Frank Spiegelberg

## 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

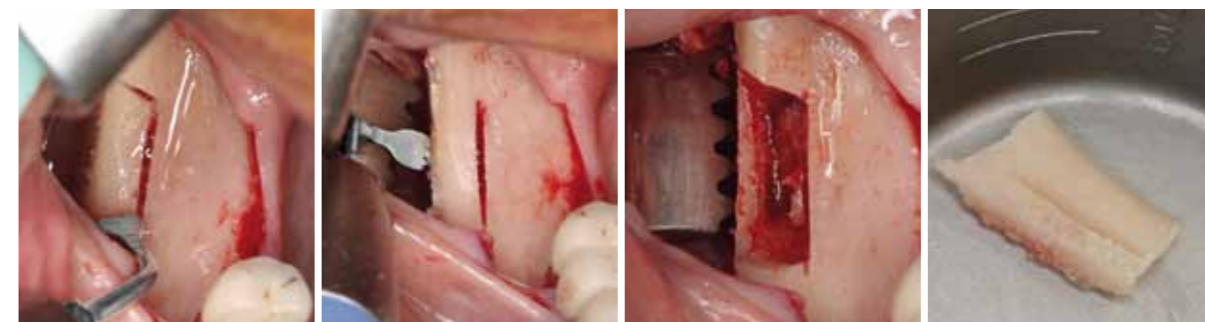


Photos by Dr. Wolf Richter

## 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

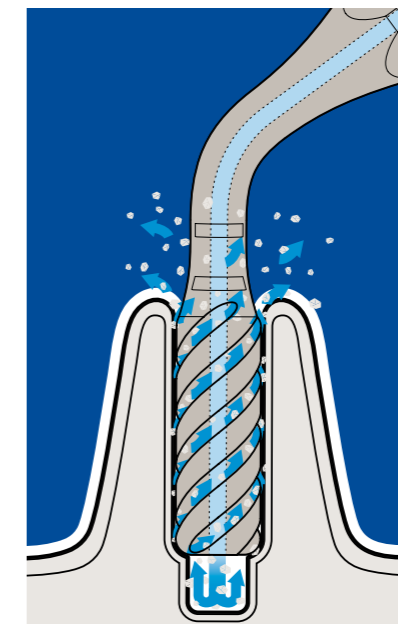
**INSTRUMENT MB4** → Diamond-coated cylindrical tip  
(Ø 2,80 mm) for secondary drilling in the maxilla

**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



Photos by Dr. Mauro Bovi



**INSTRUMENT MB4 / MB5 / MB6** →  
Vertical nozzle outlet for water cooling  
Vertical spiral for water cooling and debris evacuation



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

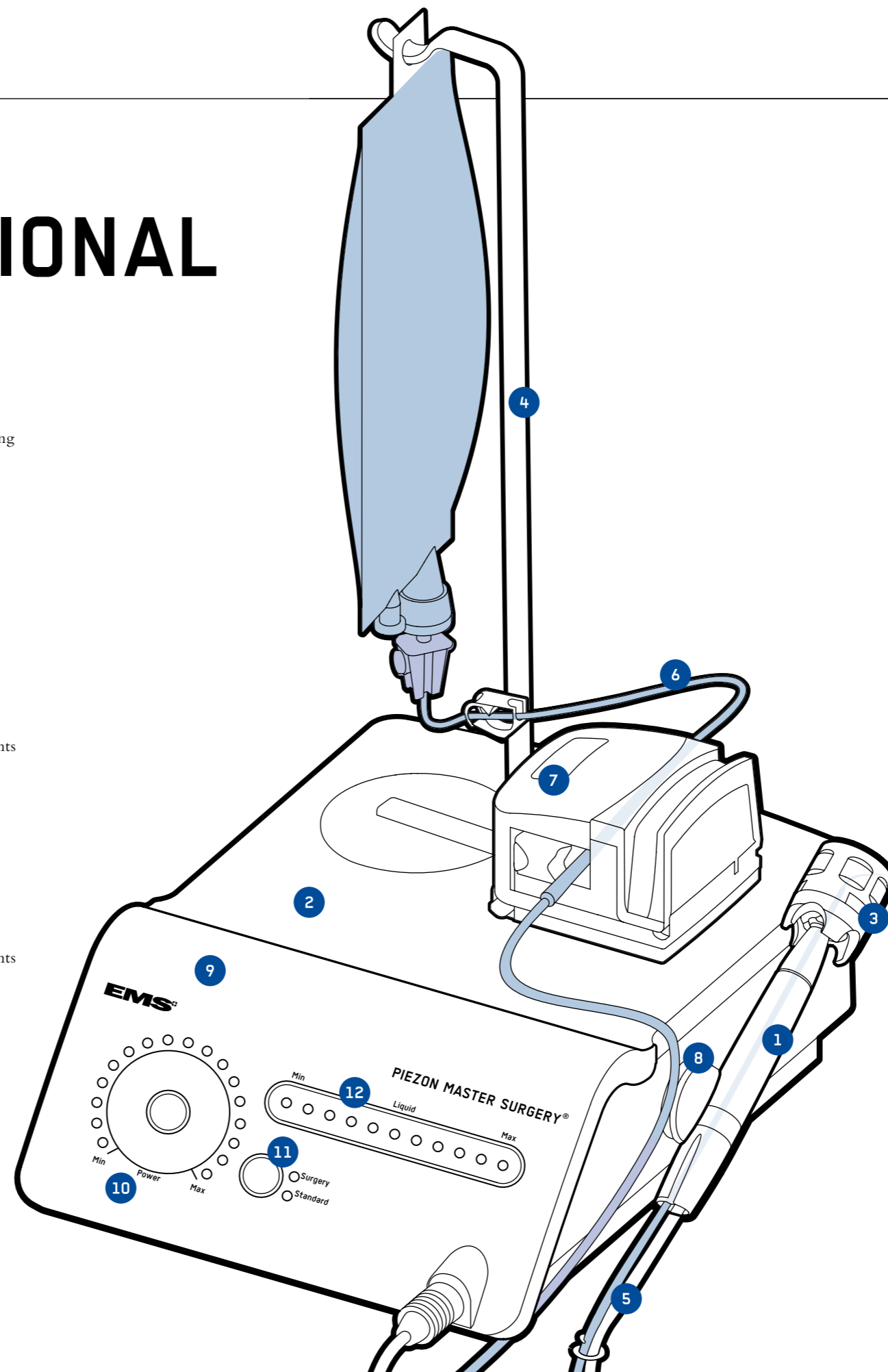
- > LED settings in 17 increments for individual clinical requirements
- > Clear and easy to understand

## 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



## 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

PIEZON MASTER SURGERY®  
INNOVATION IN DETAIL

## 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

## 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

## 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

## TOP RESULTS →

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



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