# THE CHOICE OF HIGH TECHNOLOGY

COMEG devices are **operating room certified**. Approved by independent notified body, each device fulfills the most demanding medical regulatory standards. The advanced electronics prevent any interfering emissions.
Find out more from your biomedical engineer.

PIEZOTOME SOLO M+ Piezo.Ultrasonic.Surgery.Unit

CONCENTRATED ULTRASONICS

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THE ULTRASONIC EXPERT

IMPLANTCENTER M+ Piezo • Ultrasonic • Surgery & Implantology Unit

THE ALLIANCE OF TECHNOLOGIES

OPERATING ROOM CERTIFIED

- Class IIb
- Equipontential plug
- IEC 60601-1 – 3rd Edition
- Footswitch certified IPX6 & IPX8
- BVS Safety Marking (USA only)

# ULTRASONIC PIEZO CLINICAL BENEFITS

Ultrasonic piezo bone surgery was initially used by CMF surgeons and then extended to many other specialties, due to its great clinical benefits in oral and extra-oral surgeries:

## Intraoperative

### Safety

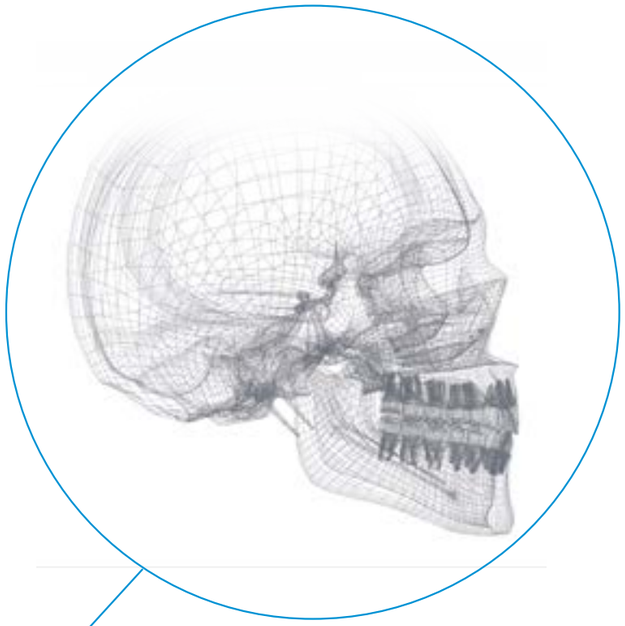
- Selective cut: soft tissues are preserved (nerve, arteries, dura mater)
- Avoid bone overheating

### Precision

- Thin & precise osteotomies
- Maximize bone volume

### Comfort

- No handpiece vibration
- Low pressure



## Post-operative

### Smoothness

- Reduced pain
- Less swelling and bruising
- More natural results

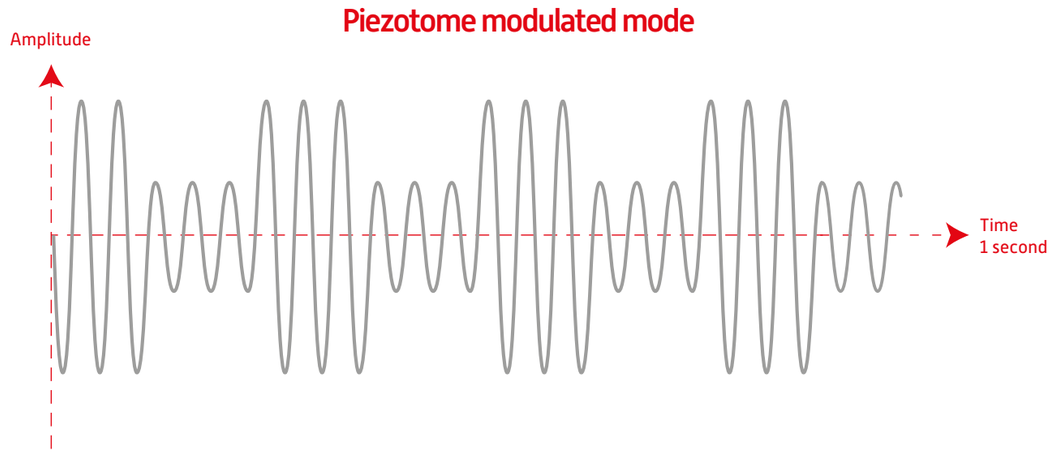
### Healing

- Favors bone regeneration
- Fast recovery
- Stable and long term results

# MINIMALLY INVASIVE SURGERY

## Safety

The generator produces a modulated frequency ranging from 28 to 36 kHz. This signal alternates between high and low amplitude, known as the PIEZOTOME® modulated mode. The bone is cut at a frequency close to its relaxation frequency, limiting the risk of injury to fragile anatomical structures [nerves, arteries]. Bone cutting is precise, cell regeneration is optimized and the healing is of high quality. The ultrasonic piezoelectric technology is suitable for any type of oral or extra-oral surgery where **precision and safety** is a must.





**References**

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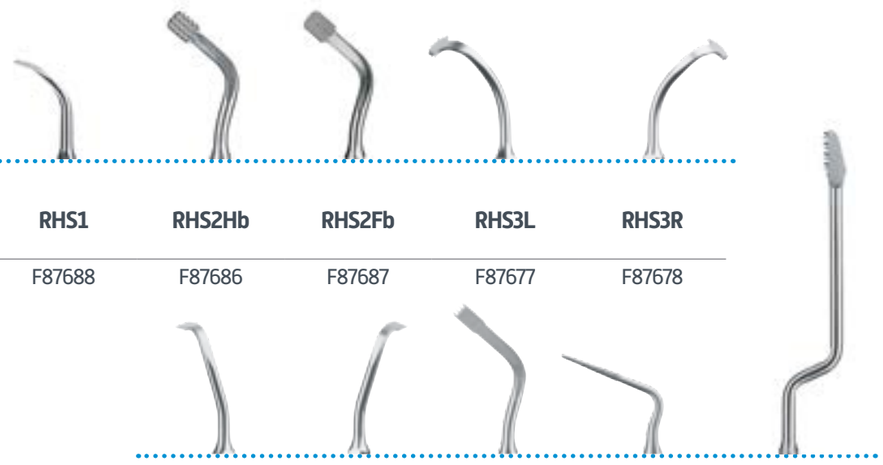
- A. Troedhan, MD, DMD, PhD. **Piezotome Rhinoplasty Reduces Postsurgical Morbidity and Enhances Patient Satisfaction: A Multidisciplinary Clinical Study**. Journal of Oral and Maxillofacial Surgery, Volume 74, Issue 8, 1659.e1 - 1659.e11
- Reside J, Everett E, Padilla R, Arce R, Miguez P, Brodala N, De Kok I, Nares S. **In vivo assessment of bone healing following PIEZOTOME® ultrasonic instrumentation.** Clinical Implant Dentistry Related Research 2015;17(2):384-94. Doi: 10.1111/cid.12094. Epub 2013 jun 13.
- Compendium (upon request). **Ultrasonic Piezo Surgery.**


# When Safety & Efficacy Matter

# THE EXPERTS : GERBAULT RHINOPLASTY TIPS

The Expert kit provides unprecedented bone access and allows for safe treatment of the septum. Each tip has been designed specifically to answer the aesthetic and functional steps of bone treatment in rhinoplasty from bone rasping and cutting to treating the septum with a completely unobstructed and clear view.  Thus, any bone convexity or asymmetry can be assessed and treated.



| Rhinoplasty Gerbault Expert Kit | RHS1 | RHS2Hb | RHS2Fb | RHS3L | RHS3R |
|---|---|---|---|---|---|
| F87689 | F87688 | F87686 | F87687 | F87677 | F87678 |

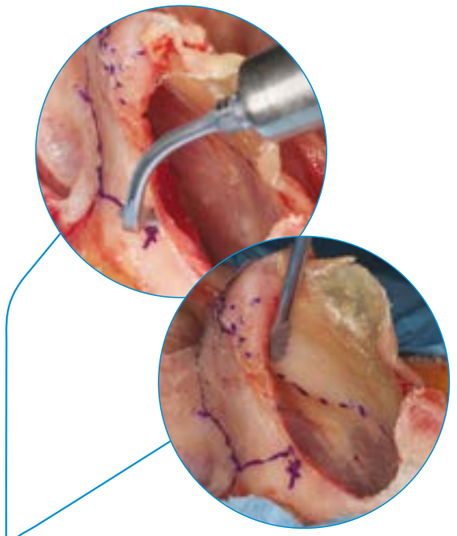
| RHS4L | RHS4R | RHS5 | RHS6 | RHL5 |
|---|---|---|---|---|
| F87683 | F87682 | F87679 | F87680 | F87684 |

*Dr Gerbault MD, Vincennes, France*

*" Rhinoplasty has dramatically changed with ultrasonic rhinoplasty: from a partially blind approach where bones were rasped and broken with the risk of unwanted fracture, it has become a completely visually controlled operation where bones are reshaped and mobilized without altering their stability. This accurate control on shape, position and smoothness of bones is achievable thanks to the use of piezoelectric instruments through a wide sub periosteal exposure of the whole bony vault, and is safe as they don't damage soft tissues and preserve bone supports. Ultrasonic rhinoplasty is an easy procedure. The dorsum and keystone smoothness is achieved by using very thin saws and rasps. Bones can be drilled to suture cartilages to bones, change their orientation or to improve their stability. Finally, long piezoelectric tips enable to straighten the septum or to harvest long pieces of septum without risking to destabilize it. Piezoelectric surgery is part of the current evolutions of 21st century surgery: aesthetic and functional rhinoplasty are profoundly impacted by this disruptive technology. "*

# SHAPED FOR ALL TYPES OF NOSE

COMEG miniaturized rhinoplasty instruments paired with M+ piezoelectric ultrasonic devices allow the reshaping and mobilization of bones without sacrificing bone stability as soft tissue is preserved.



## RHS1 - Scraper

Curved tip to remove important bone excess: ostectomy on dense bone and in case of thick skin

- Nasal pyramid remodeling
- Ostectomy of the dorsal hump and lateral convexity

## RHS2Hb - Hard rasp

Use on thick skin or dense bone

## RHS2Fb - Fine rasp

Use on thin skin or thin bone

- Fine reshaping of the nose pyramid
- Removal of the bony hump
- Smoothing of bone irregularities
- Smoothing of bone and hard cartilaginous graft

## RHS3L & RHS3R - Rounded saws

Left & Right angled saws

- Lateral osteotomies

## RHS4L & RHS4R - Angulated saws

Left & Right angled saws

- Transverse osteotomies
- Partial costal bone grafting

## RHS5 - Straight saw

Straight thin saw

- Median oblique osteotomy
- Costal bone grafting

## RHS6 - Diamond-coated drill

Diamond-coated tip dedicated to nasal bone drilling or nasal spine drilling

- Bone suture
- Septal suture to bone

## RHL5 - Long saw

Long straight saw for the treatment of the septum

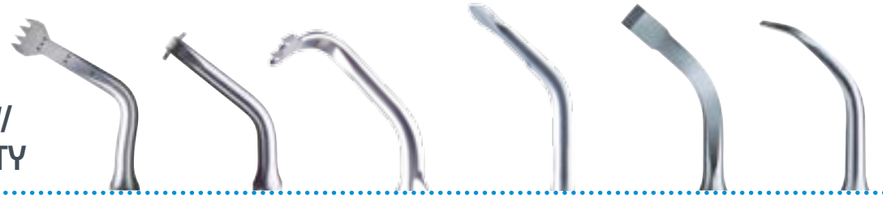
- Cephalic osteotomy
- Caudal osteotomy

*Courtesy of Dr Gerbault, Vincennes, France*

● 5x re-usable
● Single use

# A COMPLETE AND DIVERSIFIED RANGE

## OSTEOTOMY/ OSTEOPLASTY



Clean and thin cut for maximal bone volume

**Ref. F57805**

| BS1S | BS2L | BS2R | BS4 | BS5 | BS6 |
|---|---|---|---|---|---|
| F87611 | F87613 | F87614 | F87615<br>F87978 | F87616 | F87617 |

## LATERAL SINUS LIFT

Maximal comfort: selective and hemostatic cut

**Ref. F57806**

| SL1 | SL2 | SL3 | SL4 | SL5 |
|---|---|---|---|---|
| F87618<br>F87974 | F87619<br>F87973 | F87620<br>F87972 | F87621 | F87622 |

## SYNDESMOTOMY

For maximum bone preservation

**Ref. F57809**

| LC1 | LC1 -90° | LC2 | LC2L | LC2R | NINJA® |
|---|---|---|---|---|---|
| F87623 | F87624 | F87625 | F87626 | F87627 | F87628 |

## CROWN EXTENSION

Excellent precision and accessibility

**Ref. F57810**

| BS6 | CE1 | CE2 | CE3 |
|---|---|---|---|
| F87617 | F87651 | F87652 | F87653 |

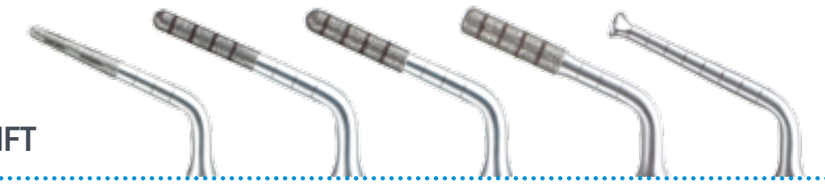
## CREST SPLITTING

Rapid and minimally invasive technique for controlled expansion

**Ref. F57808**

| CS1 | CS2 | CS3 | CS4 | CS5 | CS6 |
|---|---|---|---|---|---|
| F87629 | F87630 | F87631 | F87632 | F87633 | F87634 |

## CRESTAL SINUS LIFT



Minimally invasive surgery for smooth sinus floor fracture

**Ref. F57807**

| TKW1 | TKW2 | TKW3 | TKW4 | TKW5 |
|---|---|---|---|---|
| F87641 | F87642 | F87643 | F87644 | F87645 |

## BONE DRILLING & REMODELING

| DB1 | DB2 |
|---|---|
| F87610 | F87609 |

## DEEP BONE ACCESS

| LC1 XL |
|---|
| F87607 |

## LONG LENGTH TIPS

For minimally invasive techniques and easier access

| BS1 XXL | BS6 XXL |
|---|---|
| F87602<br>F87986 | F87604<br>F87987 |

Clinical Expertise

# ULTRASONIC CRANIO-MAXILLO-FACIAL SURGERY

Piezoelectric surgery is a new bone cutting technique increasing safety especially in anatomically difficult to reach areas.
Micrometric vibrations ensure very **thin and precise osteotomies** with stable and long term results for a broad range of clinical applications:

## Cranio

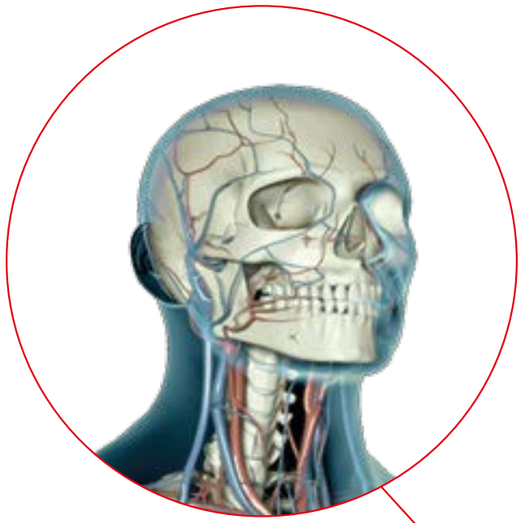
- Frontal sinus osteotomy
- Craniosynostosis
- Parietal graft

## Maxillo

- LeFort I osteotomy
- Bilateral Sagittal Split Osteotomy (B.S.S.O)
- Genioplasty

## Facial

- LeFort II & III osteotomy
- Zygomatic bone osteotomy
- Reconstruction



*v.Prof.Dr.Dr. Troedhan, Vienna, Austria*

*" The M+ Piezosurgical device, for the first time in the history of Piezoelectric-Surgery provides sufficient power for a fast surgical procedure in all cases of large osteotomies in orthognathic surgery, reconstructive surgery needing large autologous bone-transplants from the skull and in cosmetic surgery on facial hard-tissues. With its unrivaled precision and atraumaticity in bone-cutting CMF surgical procedures can usually be completed in less time than with traditional rotary or oscillating instruments with substantially less blood loss. In facial cosmetic surgery the application of newly developed ultrasonic surgical protocols provide a significant reduction of postsurgical morbidity and enhanced patient satisfaction with the outcome. "*

# FOR SAFER AND MORE ACCURATE SURGERY

| CMF kit | BS1L | BS2L XL | BS2R XL | BS1RD | SL1 | BS4 |
|---|---|---|---|---|---|---|
| F57803 | F87612 | F87605 | F87606 | F87608 | F87618 | F87615 |
| F57804 | F87982 | F87983 | F87984 | F87985 | F87974 | F87978 |

● 5x re-usable
● Single use

## BS1L - Saw

Saw (0.6mm) with laser marking at 3, 6, 9, 12 and 15mm

- Deep osteotomy

## BS2L XL & BS2R XL - Left & Right angled saws

Long lateral saws (39.5mm length) for easier access adapted to patients anatomy

- Osteotomy

## BS1RD - Rounded saw

With its rounded shape the tip is active on a 280° surface and its length (40mm) makes it possible to reach posterior areas easily

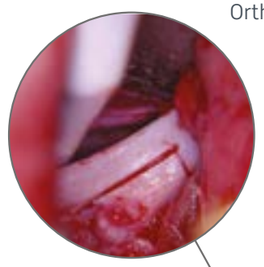
## SL1 - Diamond-coated

- Vestibular bone window cut
- Smoothing of sharp angles
- Bone incisions close to delicate structures

## BS4 - Circular scalpel

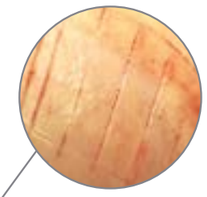
- Osteoplasty
- Bone harvesting

Orthognathic surgery



*Courtesy of*
*Dr Troedhan, Vienna, Austria*

Cranial surgery



*Courtesy of*
*Dr Solyom, Toulouse, France*

# OPEN ULTRASONIC RHINOPLASTY

A smooth and less traumatic procedure offering precise bone reshaping and controllable long term results.

### Precise bone treatment

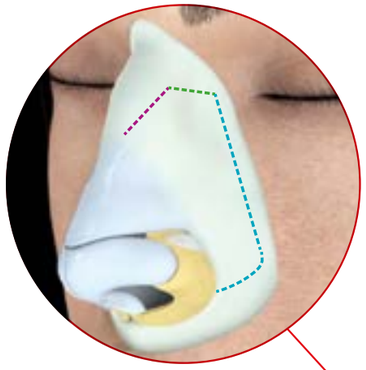
- The new ultrasonic rhinoplasty protocol allows default corrections (nose too hard, too wide or bumpy) with no unwanted fracture even on brittle, thin or unstable bones.

### Direct vision

- Surgery performed under direct vision for enhanced precision.

### Fast recovery

- Faster social-life re-integration: less ecchymosis and edema with more natural results.



### Ultrasonic rhinosculpture

RHS2H and RHS2F tips are designed to sculpt bones without fracturing them

### Rhinoplasty with precise osteotomies

--- Lateral osteotomy – RHS3L or RHS3R
--- Transverse osteotomy – RHS3L or RHS3R
--- Median oblique osteotomy – RHS5

*Dr Gerbault MD, Vincennes, France*

*" Piezoelectric surgery is a real disruptive technology in rhinoplasty, it allows a paradigm shift in the way of reshaping bones in rhinoplasty. It simplifies dramatically the way to perform hump reduction and osteotomies in rhinoplasty and adds a new dimension by allowing the possibility to sculpt and to polish nasal bones. Stable bones can be positioned with an unparalleled accuracy under direct vision and reshaped to achieve a perfect symmetry and smoothness of the bony vault. Moreover, this technique is easy, with a quick learning curve, simple to teach and the recovery is very fast as post-op ecchymosis is significantly reduced. For the first time in the history of rhinoplasty, a custom reshaping of the nasal bones is easily achievable. "*

# THE ESSENTIALS: GERBAULT RHINOPLASTY TIPS

Developed in collaboration with Dr. Gerbault, these tips are designed specifically for the nose anatomy; they do not alter the skin nor the blood vessels allowing for a quicker post-surgical recovery.

| Rhinoplasty Gerbault Kit | RHS2H | RHS2F | RHS3L | RHS3R | RHS5 | RHS6 |
|---|---|---|---|---|---|---|
| F87681 | F87676 | F87675 | F87677 | F87678 | F87679 | F87680 |

● 5x re-usable

### RHS2H - Hard rasp

Use on thick skin or dense bone

### RHS2F - Fine rasp

Use on thin skin or thin bone

- Fine reshaping of the nose pyramid
- Removal of the bony hump
- Smoothing of bone irregularities
- Smoothing of bone and hard cartilaginous graft

### RHS3L & RHS3R - Rounded saws

Left & Right angled saws

- Lateral and transversal osteotomies

### RHS5 - Thin saw

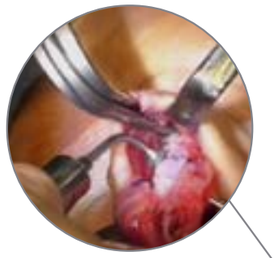
Straight thin saw

- Median oblique osteotomy
- Rib graft

### RHS6 - Diamond-coated drill

Diamond-coated tip dedicated to nasal bone drilling or nasal spine drilling

- Bone suture
- Septal suture to bone



*Courtesy of Dr Gerbault, Vincennes, France*