mectron

MT-BONE
THE PIEZO EVOLUTION CONTINUES



EXPERIENCE MT-BONE

From revolution to evolution: a new era of power, precision, and innovation in bone surgery

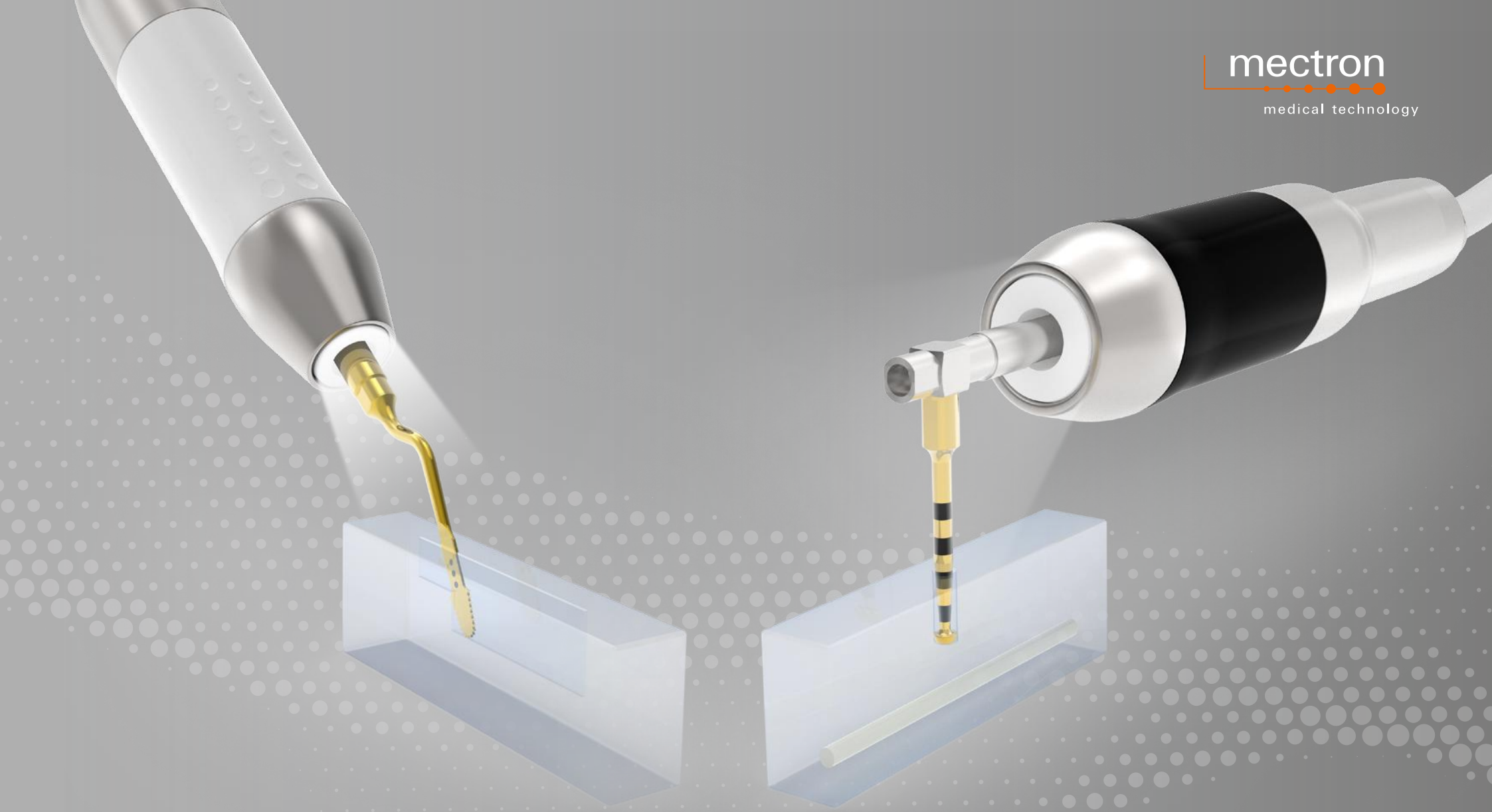
When mectron introduced PIEZOSURGERY® in 2001, the technology was revolutionary for bone surgery: a device that offered surgeons all over the world precision, safety, perfect ergonomics and the highest predictability. This new technology became the state of the art for bone surgery.

Thanks to the latest generation, we are now entering a new era. MT-BONE is not only introducing the new PIEZODRILL® technology but also ushering in a new era of PIEZOSURGERY® with enhanced power, improved insert control, and an innovative unit setting.



Watch the video

mectron
medical technology



PIEZOSURGERY®

PIEZODRILL®

EXPERIENCE MT-BONE – PIEZOSURGERY®

The evolution of the original technology

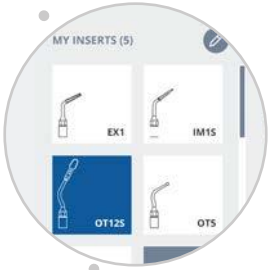
MT-BONE offers a new generation of PIEZOSURGERY® with improved ergonomics and optimized cutting efficiency.





NEW HANDPIECE

- Improved ergonomics, thanks to the addition of grooves
- New circular LED light (more than 90000 LUX)
- Fully compatible with all the available inserts



MY INSERTS LIST

- Customizable list of the most frequently used inserts
- Predefined settings are activated when each insert is selected
- Inserts are arranged by alphabetic order



PRE-SELECTED INSERTS SETTING

- Improved insert performance
- Optimization of the ultrasonic tuning on the most frequently used inserts

NEW IRRIGATION SYSTEM

- Just a click to open the peristaltic pump
- Disposable irrigation line

INCREASED CUTTING SPEED

- Up to 20% power increase with the most frequently used inserts
- Proven technology efficacy

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medical technology

Watch the
technical video

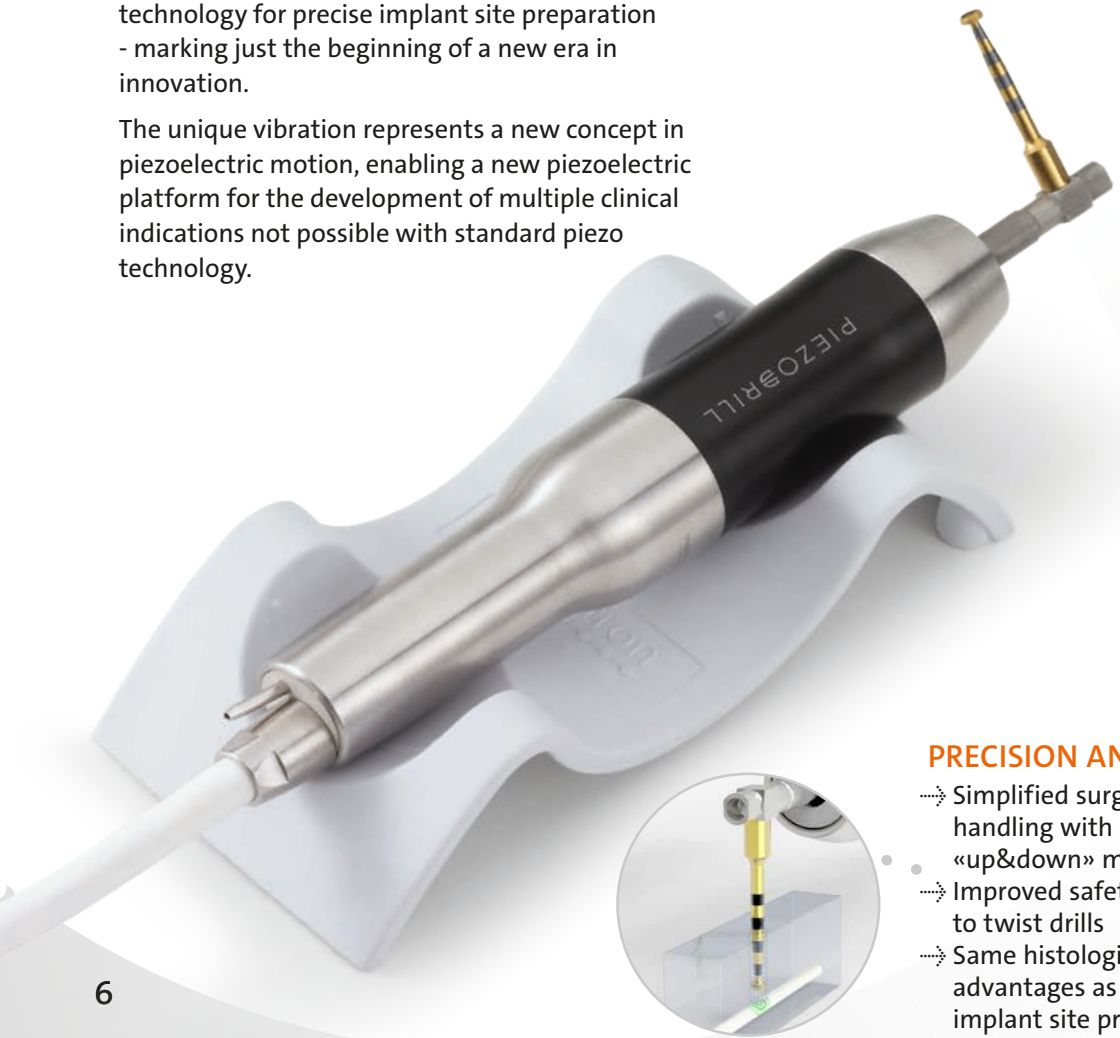


EXPERIENCE MT-BONE – PIEZODRILL®

The new innovative technology of piezoelectric bone surgery

MT-BONE offers a new patented piezoelectric technology for precise implant site preparation - marking just the beginning of a new era in innovation.

The unique vibration represents a new concept in piezoelectric motion, enabling a new piezoelectric platform for the development of multiple clinical indications not possible with standard piezo technology.





POWER LEVEL SETTINGS

- The power depends on the energy delivered by the generator
- 3 different power levels available



OPERATING STEP SETTINGS

- 2 different operating settings
  - Pilot hole
  - Enlargement
- Different frequency range



HANDPIECE

- Better access to surgical field due to 90°degrees inserts
- New transducer concept and wider piezoceramics
- Circular LED light (more than 90000 LUX)

PRECISION AND SAFETY

- Simplified surgical handling with only an «up&down» movement
- Improved safety compared to twist drills
- Same histological advantages as ultrasonic implant site preparation with PIEZOSURGERY® *

**Scan the QR code at the last page for the bibliography.*

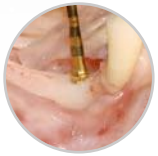

PIEZOSURGERY®
PIEZODRILL
WELCOME
FUNCTIONS
SETTINGS
INFO
IMPLANT SITE PREPARATION
PILOT HOLE
ENLARGEMENT
IRRIGATION
0
1
2
3
4
5
6
LIGHT
On
Off
Auto
PUMP
PIEZOSURGERY
PIEZODRILL
mectron
medical technology
PS
PD
PIEZODRILL

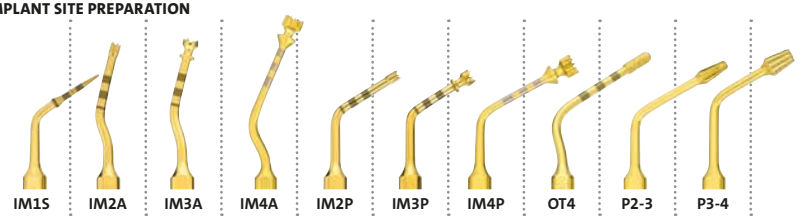
EXPERIENCE MT-BONE – PIEZOSURGERY® INSERTS

PIEZOSURGERY® offers inserts for a wide variety of clinical indications

PIEZOSURGERY® has over 120 inserts specifically designed for many applications in dental surgery and implantology, from sinus lift to ridge splitting, extractions and even endodontic procedures.

IMPLANT SITE PREPARATION



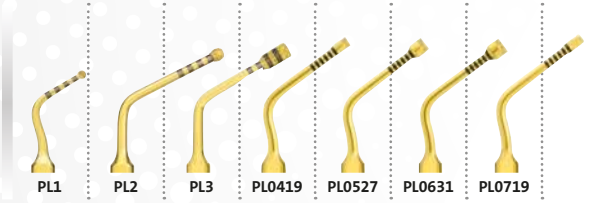






SINUS LIFT TECHNIQUE CRESTAL APPROACH

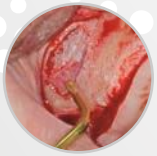




SINUS LIFT TECHNIQUE LATERAL APPROACH



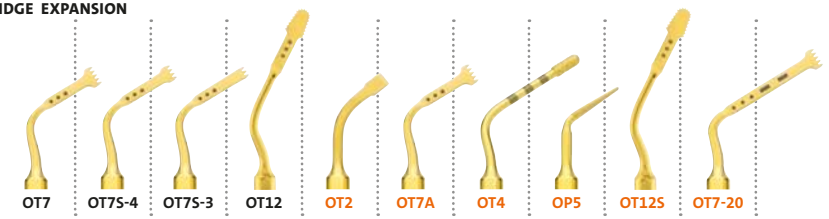






RIDGE EXPANSION



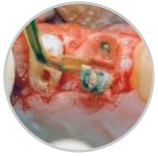


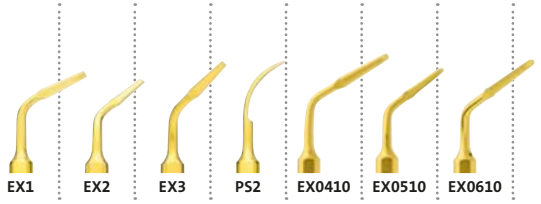
PERIOSTEUM PREPARATION





EXTRACTIONS





LEGEND

STANDARD
OPTIONAL

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medical technology

THIRD MOLAR EXTRACTION





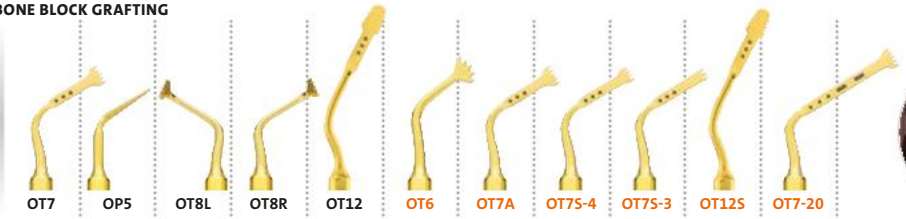
EXPLANTATION





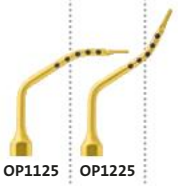
BONE BLOCK GRAFTING





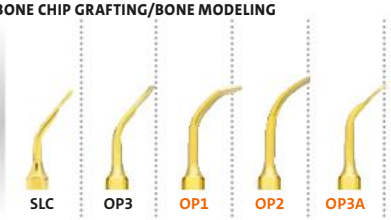
ALVEOLAR DEBRIDEMENT





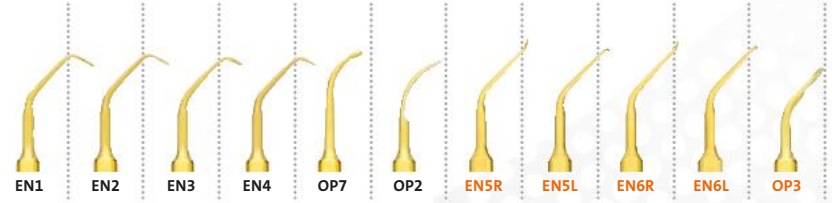
BONE CHIP GRAFTING/BONE MODELING





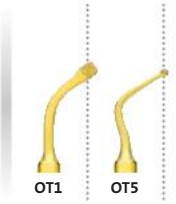
ENDODONTICS





OSTEOTOMY CLOSE TO NERVES



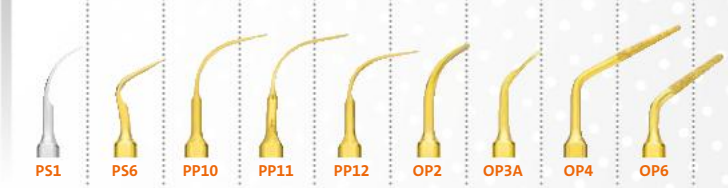


PERIODONTOLOGY



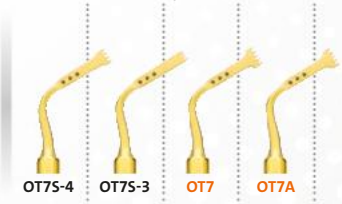






CORTICOTOMY TECHNIQUE





CROWN PREPARATION





DIAMETER	CHAMFER TECHNIQUE			VERTICAL PREPARATION TECHNIQUE	
	DIAMOND COATING 120	DIAMOND COATING 90	DIAMOND COATING 60	DIAMOND COATING 90	DIAMOND COATING 60
Ø 1,2 MM		TA12D90	TA12D60	TF12D90	TF12D60
Ø 1,4 MM	TA14D120	TA14D90	TA14D60		
Ø 1,6MM	TA16D120	TA16D90	TA16D60	TF16D90	TF16D60

EXPERIENCE MT-BONE – PIEZODRILL® INSERTS

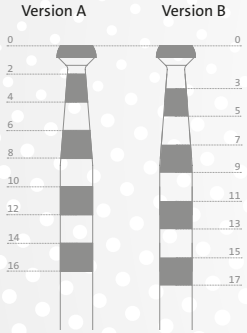
6 innovative inserts for the new PIEZODRILL® implant site preparation procedure

ENHANCED SURGICAL CONTROL

PRECISION AND SAFETY

CLINICAL AND HISTOLOGICAL ADVANTAGES

- Even and odd depth mark versions

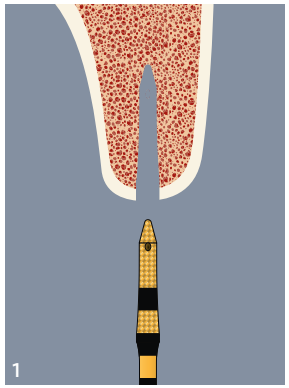


- Diamond coated
- Internal irrigation
- Fast connection
- Diameter from 1.8 to 3.5 mm





THE SURGICAL STEPS



PD0620A



PD0223A



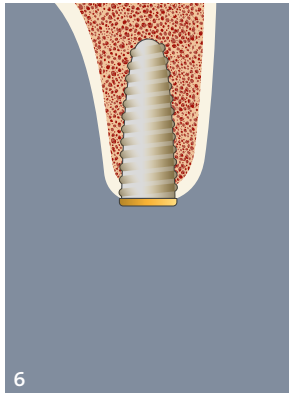
PD0328A



PD0432A



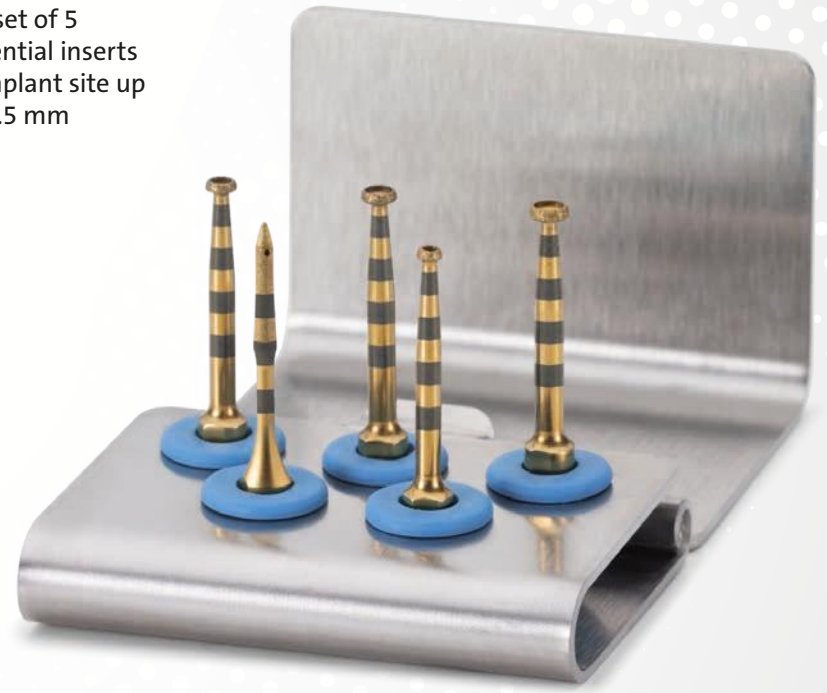
PD0535A



Implant placement

Watch the clinical animation

⇢ New set of 5 sequential inserts for implant site up to Ø3.5 mm



EXPERIENCE MT-BONE – INTERACTIVITY

Seamless control and monitoring: Your interactive surgical solution

MT-BONE is a versatile tool equipped with a touch-sensitive display and intuitive interface. Customized user profiles provide an efficient user experience, allowing the clinician to focus solely on the surgical procedure. Thanks to the built-in Wi-Fi module MT-BONE can be easily connected to mobile devices for software updates and additional services.

MT-BONE - the new intuitive solution to optimize the daily surgical routine.



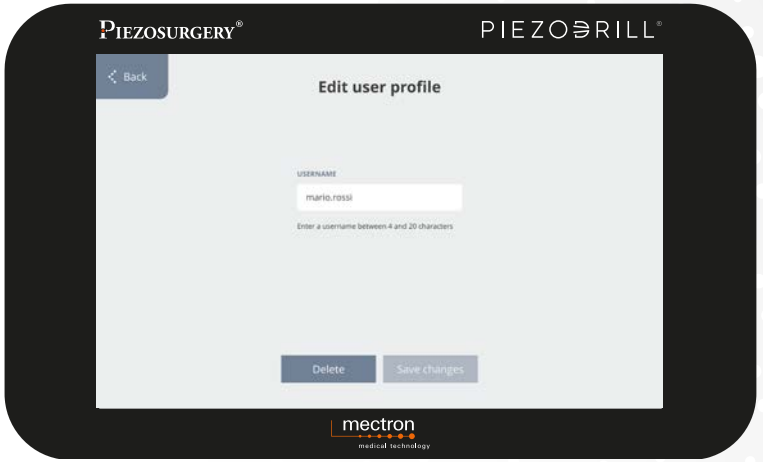
IOT

- Wi-fi available for easy updates
- Remote technical support and diagnosis



INTERACTIVE TOUCH SCREEN

- Creation of your own profile
- Configuration according to your daily surgeries
- Freedom to set additional user profiles



MyMectron APP

- Device activation via APP
- All device information are easily accessible
- Always up to date with the latest developments and news



WIRELESS FOOTPEDAL

Main functions:

- Irrigation level
- PS channel: insert list scrolling
- PD channel: power level
- Pump function



EXPERIENCE MT-BONE – CLINICAL BENEFITS

How PIEZOSURGERY® and PIEZODRILL® improve the clinical outcomes

PIEZOSURGERY® and PIEZODRILL® are superior to saws and burs, not only in terms of intra-operative precision, but also in regard to tissue healing. Burs and saws cut bone, but they are not selective: any soft tissue getting in their way will also be cut.

The special ultrasonic microvibrations of the original PIEZOSURGERY® and PIEZODRILL® techniques cut bone – and nothing else. No soft tissue is damaged, which allows you to work with a precision that facilitates not only surgery itself, but reduces postoperative discomfort for your patients at the same time.

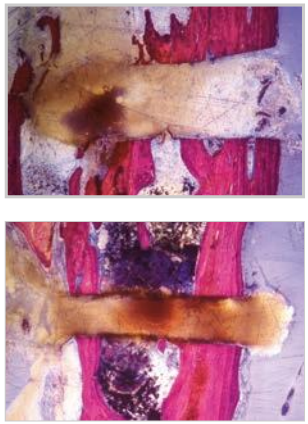
Choose MT-BONE for optimal precision and control – and minimal stress for you and your patients. Your perfect solution.

OPTIMAL CUTTING EFFICIENCY

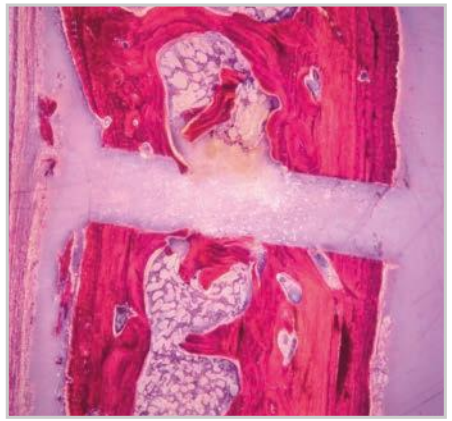
Balance between cutting performance and safe bone temperature

MACRO-VIBRATIONS

- Limited surgical control
- Lack of precision



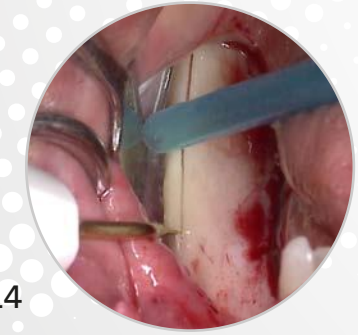
Bone saw or bur



PIEZOSURGERY®

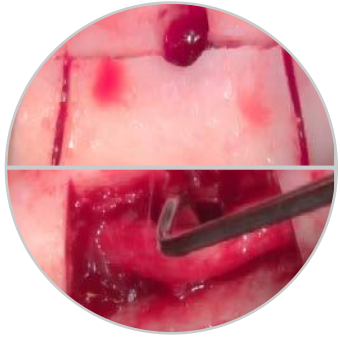
MICRO-VIBRATIONS

- High surgical control
- Precision and safety
- Clinical and histological advantages



MICROMETRIC CUTTING

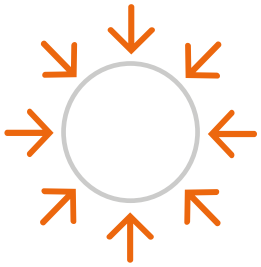
- Optimal surgical precision
- Instruments with a thickness of up to just 0.25 mm over the entire length of 10 mm
- Bone preservation due to thin cutting lines



SELECTIVE CUTS

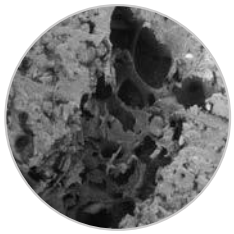
- Micro-vibrations will cut hard tissues (bone), but are absorbed by soft tissues
- Protects any kind of soft tissue:
  vessels ...
  nerves ...
  membranes ...
- Offering safety for you and your patients

BETTER AND MORE PREDICTABLE OSSEOINTEGRATION



CAVITATION EFFECT

- Free the cancellous bone lamellas
- Stimulating the bleeding perfusion towards the implant surface
- Aiding the osseointegration process



PIEZOELECTRIC OSTEOTOMY

- Earlier increase in BMP-4 and TGF-β2 proteins
- Reduction in proinflam-matory cytokines



MAX CUTTING EFFICIENCY

- Reduced inflammatory process
- Safe bone temperature

THE PATIENT'S BENEFIT THANKS TO PIEZOSURGERY® AND PIEZODRILL®

- Soft tissue will be protected





- Less swelling after surgery





- Faster and better osseointegration after implant site preparation

- Faster and less traumatic post-operative recovery



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Please contact your local sales representative for product availability.

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For graphic reasons the styling of the product names might be different. The registered product names correspond as following:

MT-Bone	MT-BONE
PIEZOSURGERY	PIEZOSURGERY®
PIEZODRILL	PIEZODRILL®

BIBLIOGRAPHY

DEDEP1057EN-2607