

**Surgical Usage :** **Dental** - Dental Implant, Periodontal Surgery  
**Medical** - Maxillo-facial Surgery, Nose Plasty & Other Plastic Surgery

ULTRASONIC PIEZO BONE SURGERY

**SurgyStar Plus** +





No.12-119



KTL-ABR-124186

- 2012**
  - Ultrasonic Piezo Implant Surgery (Surgystar) 510(K) FDA Registration
  - Ultrasonic Piezo Implant Surgery (Surgystar Plus) CE Certified
- 2011**
  - Registered Patent No. 1007192 Ultrasonic Surgery Tip
- 2009**
  - Certificate, The next generation of world-class product No.2009-322 / Industry and Energy
  - Design registration (Tips for dental ultrasonic surgery) Registration No. 30-0523914 No. / KIPO
  - Measurement device for scaler handpiece output, the Patent No. 10-0890233 / KIPO
  - Piezotome to operate Sinus Membrane lift Patent No. 10-0884211/ KIPO
- 2008**
  - Certified KGMB / KFDA
- 2007**
  - Ultrasonic Implant surgery and other 8 cases registered trademarks Article No. 40-0717170 by KIPO
- 2006**
  - Ultrasonic scaler (Cleanse S +) 510(K) FDA Registration
  - Superior technology company / Technology Credit Guarantee Fund
- 2005**
  - Dmetec laboratory Certificate No.20051621 / Korea Industrial Technology Association
  - LED Curinglight (Skylight) 510(K), FDA Registration
- 2004**
  - Registered Patent No. 0418734 ultrasonic tartar Eliminator / KIPO
  - Venture company NO. 041627031-1-01224
  - Ultrasonic scaler (Cleanse S) FDA Registration
- 2003**
  - Selected as a promising small and medium companies by GSBC
- 2002**
  - ISO9001, ISO13485 and CE MARK international certification
- 2001**
  - Food and Drug Administration permission No. 1026 - Medical equipment manufacturing
  - Corporate conversion Dmetec.co.Ltd
  - Utility Model Registration No. 0245005 - Pneumatic Grinder dental injection device
- 2000**
  - Name of company changed to DAEIL Dentech. - Dental equipment manufacturer and trader
- 1983**
  - DAEIL trade (imports and exports dental equipment) is established.

## Main Unit

- Dimension : 189mm(W) X 265mm(D) X 175mm(H)



## Autoclavable Tray

- Autoclavable with handpiece&cable, tip,  
- water connecting tube, handpiece holder



## Transformer

- Medical Power Supply  
- Input: 100-240V, 50-60Hz  
- Output: +24V, 2.7A



## Optic Handpiece with Cable

- Autoclavable



## Foot Switch

- Foot Lock function with Menu of water, power  
and vibration adjust.  
- Foot control to keep the hands free



## Dental Tips



## Medical Tips



### LCD Screen

- Soft and Easy way to touch.
- Color TFT 4.8 inch touch screen.
- Adjustable function during operation.



### Foot Switch

- Foot Lock function is easy & convenient with its adjustable menu for water, power & boost.
- Adjustable function during operation.



# ULTRASONIC PIEZO BONE SURGERY





- ▶ Working Frequency : 20 KHz ~ 30 KHz
- ▶ Dimension : 189mm (W) X 265mm (D) X 175mm (H)
- ▶ Good design with built in Peristaltic Pump.
- ▶ Self cleaning Function : enables cleaning cycles to be carried out on the water tubing.
- ▶ Automatic Protection Control : Shut down power and water supply in case of incorrect use of the handpiece and insert tip.



### Water Pump

- Easy to connect and change tubing.
- Adopting peristaltic pump, a certain amount of water supply is available.

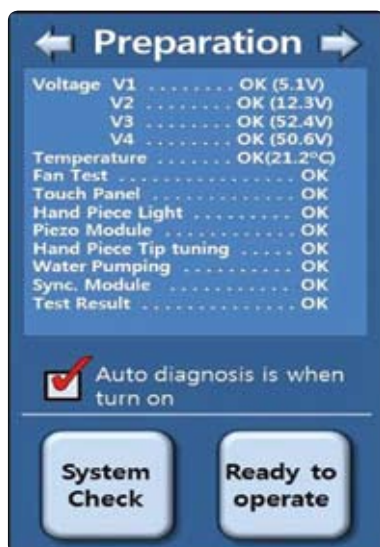
### Optic Handpiece

- Better visibility with optic handpiece (100,000 Lux)

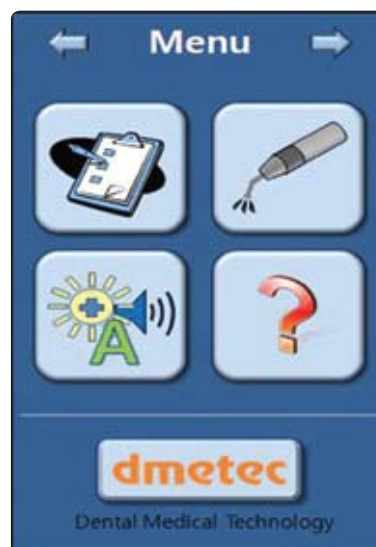
## Preparation

### Preparation MODE

- **SYSTEM CHECK** : Check the system.
- **READY to Operate** : Ready for operation. If you check Auto diagnosis, device will check the system automatically at the time of turning on.



## Menu



## Surgery

### Surgery (-Example of User program)

- **User Program** : Name of user program.
- **Saved level of Power / Boost / Water**.
- **Foot Free** <-> Foot Lock changing by touch.
- **Save** : Move to screen of Save function.
- **▲/▼** : Adjust Power / Boost / Water.



## Surgery Save

### Save Choose the number which is supposed to be save program.

- 001 ~ 999 Programs are available..
- **New** : Set new name.
- **Edit** : Edit name
- **Delete** : Delete name and saved levels.
- ※ **PBW** : Saved level of Power / Boost / Water.



## Surgery Save/Edit

Save keyboard. Can set the name of program.

- A/a : Upper/Lower case letter..
- 123 : Choose Number.
- SP : Space.
- ← : Backspace .
- OK : Save



## System

### SYSTEM CONFIG

- Adjust hanpiece light.
- Adjust sound.
- Adjust LCD brightness.
- BAR : Display Surgery Screen by Bar graph.
- Icon : Display Surgery Screen by Icon
- Text : Display Surgery Screen by Text
- Default : Back to initial setting status.
- Touch Screen Setup : Touch Panel set up. <Must follow the technician's instruction>.



## Help

### Help

- Tip selection guide
- Maintenance
- Warning
- Program information



## Help Tip Guide\_1

### Help / Tip Selection Guide

#### Tip information





## Surgistar Plus<sup>+</sup> • Bony Saw

### Bony Saw



BS01



BS1S



BS2L



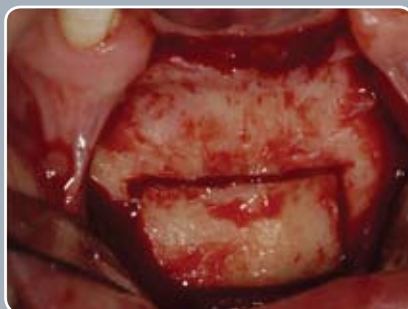
BS2R

- Sawing or cutting for autogenous block bone.
- Sawing or cutting for distraction osteogenesis.
- Sawing or cutting in narrow site.
- Sawing or cutting or separation where handpiece can not be reached
- Removal of "torus"
- Ridge Splitting.
- Lateral Window Technique
- Orthodontic Corticotomy

### Block Bone Graft



*Micrometric & precise cut for ramal block bone with BS tip like BS01, BS1S, BS2L, BS2R*



*Micrometric & precise cut for chin block bone with BS tip like BS01, BS1S, BS2L, BS2R*



## Orthodontic Corticotomy



*Aspect of the initial case without arch wire on the posterior teeth*



*Lingual aspect of the pre-operative case*



*Surgistar+ used for buccal corticotomy between Canine and First Premolar*



*Vertical and Horizontal Buccal corticotomies completed*



*Final suture after surgery*



*Case completed 3 months after corticotomy*



*Close-up case completed 3 months after corticotomy*

## Torus Removal



## Ridge Split



*Ridge splitting & simultaneous implants placement combined GBR*

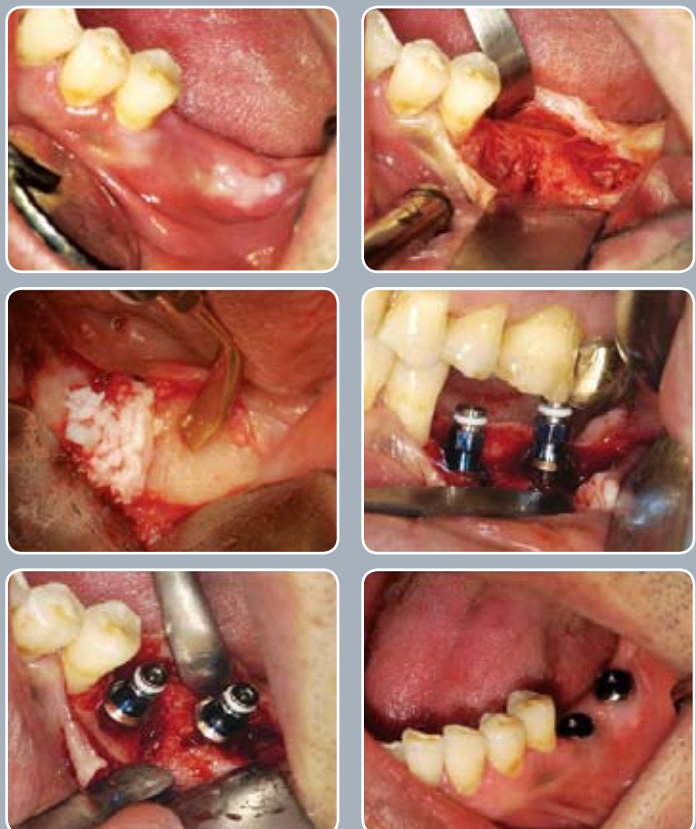


*5 months healing state after surgery & follow-up prosthesis*

## Bone Harvesting



- Mess for osteoplastic operation or collecting bone chip.
- Osteoplasty for high precision.
- Osteoplasty of sinus lift without any damage to soft tissue.





## Sinus membrane elevator



SL01

- Applied to the initial separation of the maxillary sinus membrane
- Able to separate the membrane surrounding the window without leaving perforations
- Making the insertion of an instrument for lift and augmentation of the sinus membrane easy

## Sinus Graft Lateral Window Technique by Piezoelectrics

► Maxillary sinus bone grafting using the lateral approach technique.



*Formation of windows around the maxillary left premolars and molars using a BS Piezo Tip.*



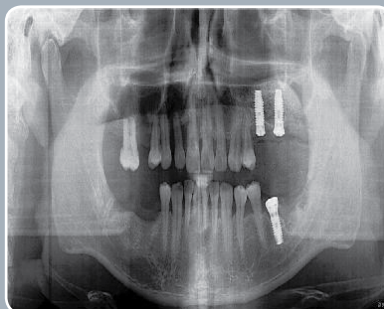
*Figure showing the safe formation of a window on the lateral maxillary sinus.*



*Separating the maxillary sinus membrane around the window at the initial stage using the SL01 after taking out the window bone block and thus preventing the tearing of the membrane resulting from a subsequent use of an instrument at the time of the initial separation of the sinus membrane*



*Figure showing the lift and augmentation of the sinus membrane without any rip and tear*



*Picture displaying a perfect elevation and the ensuing placement of dental prostheses (after nine months)*

## Apicoectomy



EX01



EX02



EX03

- When extracting remaining root rests
- Easy removal can be made even in case of impacted third molars as well as of other hard to-extract teeth
- Easy extraction of teeth without damaging the bone of the thin Labial Plate and Buccal Plate about the anterior teeth
- Applied to Ridge expansion techniques aimed at narrow areas
- Used for bone surgery for both orthopedic and cosmetic purposes

## Apicoectomy



Case of Apicoectomy on the Mx. ant. Teeth with EX01, EX02



Case of Apicoectomy on the Mn. post. Tooth with EX02, EX03

## Periotome



Extraction can be simply made without damage on the alveolar bone by putting the EX01 Tip between the root of a tooth to be removed and its alveolar bone and severing the periodontal ligament fiber holding its root.



Figure showing the removal of the tooth without any damage on the labial plate



## Genioplasty



- Applied to the secondary bone cutting of chin
- Minimize bleeding during narrow bone cutting
- Applicable to the sensitive and dangerous area in bone cutting
- Protective effect to the nerve and vessel damage

### Genioplasty I



S.Y.HAN, MD, DDS, PHD

### Genioplasty II (Deviated chin surgery)



S.Y.HAN, MD, DDS, PHD

### Zygoma reduction surgery



S.Y.HAN, MD, DDS, PHD

### Zygomatic arch cutting



S.Y.HAN, MD, DDS, PHD

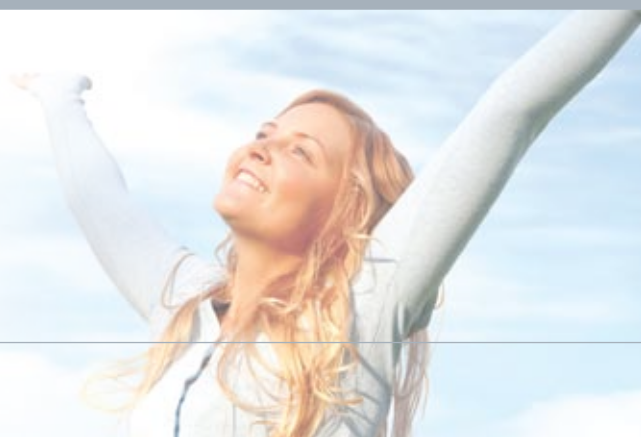


## Rhinoplasty



P01

- Applicable to the aquiline nose bone polishing
- Offering useful & effective surgical treatment without damage
- Perfect ideal solution for rhinoplasty



**DMETEC.CO.,LTD**  
**www.dmetec.com**

***ULTRASONIC PIEZO  
BONE SURGERY***



**dmetec**

**DMETEC.CO.,LTD www.dmetec.com**

601~603, 605, #402 Technopark Bldg., 655 Pyeongcheon-ro(193 Yakdae-Dong),  
Wonmi-Ku, Bucheon City, Gyunggi-Do, 420-734 Korea

**Tel:** +82-32-234-0011 **Fax:** +82-32-234-1444 **E-mail:** sales@dmetec.com