

# Sonosurgery®

INSERTS

Vibrating sonic inserts suitable in all applications of oral surgery, from simple tooth extraction to the most advanced oral surgical techniques. Suitable for any operator, from the less experienced who can perform the simplest techniques in all safety, to the most experienced surgeons who can perform very complex and sophisticated surgical techniques. Appropriate for corticotomy, osteotomy, osteoplasty, root separation, bone particulate harvesting, incision, abrasion, and bone trap-door detachment for Schneider membrane elevation used in sinus-lift technique, access, cleavage and emptying of cysts, implant site preparation etc..

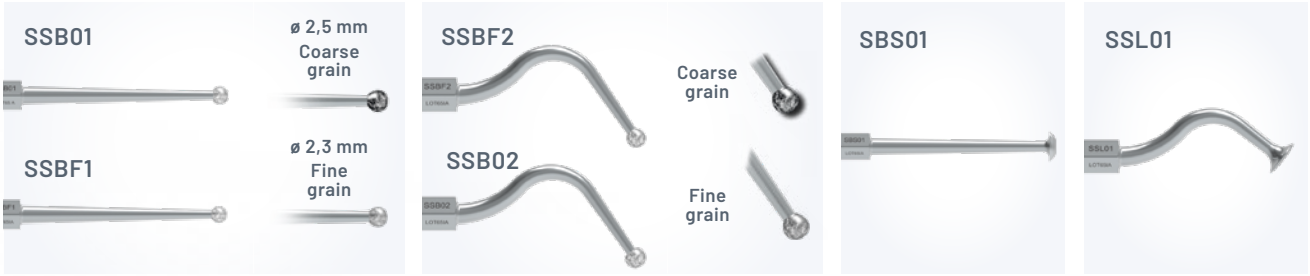
## MICRO-SAW INSERTS

All three micro-saw bone insert blades (registered model) are identical at any angulation. 10 mm total length established by 2 rows of teeth on both sides of blades, spaced 1 mm apart (see drawing). Micro-saws are a mere 0.20 mm in thickness from a maximum of 4 mm to 2.5 mm minimum in width, forming a triangular shape.



## SINUS-LIFT

Vibrating sonic inserts designed for lateral access sinus lift techniques. Both straight and angled diamond-coated ball inserts for trap-door bone cutting or erosion removal. Trap-door bone straight insert (scraper), removal also by erosion while forming bone particulate. Trap-door disc insert detachment for Schneider membrane lifting.



## IMPLANT SITE PREPARATION

Series of 7 diamond-coated angled shank inserts with increasing diameter for implant site preparation. Indicated for implants preparation at every mouth position, regardless of both maxillary and mandibular, anterior or posterior area. Smallest from 1.7 mm diameter to the largest of 4.0 mm diameter. Whole diamond abrasive surface insert 8 mm in length, marked notched every 2 mm, easily identifiable at 10, 12, 14, and 16 mm, to monitor bone insert depth. Another feature is the ISO color code diameter recognition, present on the hexagon and numeral diameter measurement conveniently reported on the shank too.

## IMPLANT SITE PREPARATION



# Sonosurgery®

TECHNICAL SPECIFICATIONS

Sonosurgery®	HANDPIECE	COUPLING
	REF 234.52	REF 316.40.08
Operating frequency:	4500 ÷ 6000 Hz	
Supply pressure:	3.2 ÷ 4.0 bar	
Max. consumption:	35 NI/min	
Thermodisinfection:	YES	YES
Sterilization:	Fino a 134 °C/2 bar	Fino a 134 °C/2 bar
Weight:	89 g	22 g
Compliance:	ISO 18397, ISO 10993-1, European Directives 93/42/CEE e 2007/47/CE	



SIMPLIFYING DENTAL MOTION

TeKne Dental srl

Via del Pescinale, 77 - 50041 Calenzano (FI) Italy  
Ph. +39 055 8825741 | info@teknedental.com  
www.teknedental.com - www.sonosurgery.it



SIMPLIFYING DENTAL MOTION

SONOSURGERY/Cat.087EN/2021



# Sonosurgery®

Sonosurgery® is an exclusively compressed air powered vibrating instrument system, hence totally free from all electrical elements. The absence of electromagnetic waves guarantees its use even in high risk patients, such as people with implantable pacemakers and defibrillators.

## Sonosurgery® AIR POWER

### Pneumatic sonic handpiece for oral surgery



### Sonosurgery®AIR POWER is a powerful pneumatic sonic handpiece

It is sealed, suitable for surgical use and compatible with Kavo Multiflex™ connection. It is connected to the cable of the handpiece of the UNIT through the connection Sonosurgery® STERIL. It has an elongated shape tapered at the tip, it has no sharp edges for easier cleaning and sterilization. It is adjustable on three levels of power through a revolving ring. It is designed exclusively for use in oral surgery. It's airtight to prevent air leaks and avoid embolism or emphysema.

The Sonosurgery® AIR POWER handpiece vibrates up to the maximum frequency of approximately 6 KHz, the required average operating thrust is about 200 g., enough to make inserts work optimally, reducing friction and consequent development of heat, so as to minimize the risk of thermal damage to the bone.

Unlike conventional rotary perforation, a small amount of axial thrust is required to advance the insert through the bone.

## Sonosurgery® AIR SURGICAL UNIT

### Patented air-powered unit for automatic control and sterile irrigation of the Sonosurgery® AIR POWER sonic handpiece.

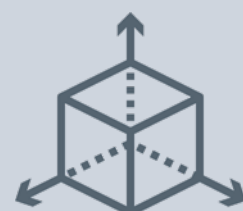
Autonomous unit, it automatically provides sterile irrigation to inserts. It works exclusively with compressed air (without electricity) and allows the control of all vibrating sonic handpieces. It is safe even for people with implantable pace-makers and can work without risks in flammable gases saturated environments (operating theatres).

#### GENERAL SPECIFICATIONS

The UNIT provides drive air through a detachable silicone hose with quick coupling for the handpiece. It provides irrigation with sterile liquid taken from a soft disposable bag. By pushing the inflatable pressing bag, the irrigation reaches up to the handpiece. The flow of irrigating liquid is constant and non-intermittent. The maximum pressures of the two utilities (air and water) may be fixed by using two different control knobs on the front panel; values are displayed on the corresponding air gauges.



#### THREE-DIMENSIONAL ORBITING OSCILLATION



The special orbiting oscillations in the three space planes of the Sonosurgery® AIR POWER handpiece make more efficient the work of both the tip and all the surfaces of inserts. It is enough to push the diamond-coated inserts into the desired lateral direction, as in the preparation of the implant site, in order to obtain a change in the position or axis of the implant seat.

## Sonosurgery® STERIL

### Quick coupling

Air-scaler handpieces are normally irrigated with non-sterile network water coming from dental chair units, but the law states: *in order to protect the health of the patient during the invasive surgical procedures, only sterile solutions in sterile distribution circuits must be used.*

Exclusive Kavo (Multiflex™) compatible quick coupling, to connect the handpiece to the UNIT or to the dental chair unit. It is a device supplied with the Unit. The Sonosurgery® STERIL side plug allows the sterile fluid of an external disposable bag to reach the handpiece and the inserts, while at the same time stopping the main water coming from the dental chair unit. However a system that enables the sterile fluid to be pushed up to the handpiece through the irrigation tubing was still missing; the AIR SURGICAL UNIT effectively solves this problem.



### Dynamometric wrench for fitting and locking inserts

The shape of the wrench is meant to host very angled and very long inserts with the possibility to screw-in and tighten them with appropriate torque and in total safety for the operator.

