

Mdbio

PRODUCTS

TUFF Tack

MCbio
super**Tack**
by Dr. Egon Euwe

MCbio
OSTEOSYNT

MCbio
specialist

Bone
Activation
DRILLS

by Dr. Egon Euwe

Osteo
STUDIO/line

T
UFF
T
ACK



The **Tuff-Tack** Line is the answer to all membrane fixation needs in both the jaw bone and mandible. Having been designed and developed with focus on the study of biocompatibility, the line uses only the highest quality of surgical grade materials. The tacks are fabricated of titanium alloy (TiGr5 according to ASTM F136) and the body of the tack applicator is manufactured in Aeronautical Alloy ASTM 7075. The kit tray is made of a special polymer, resistant enough for sterilization temperatures, provides maximum rigidity, and yet still allows delicate enough protection to prevent surface ruination for the precision tools.



PERSONALIZATION OF THE BOX





- Two colors: **blue** and **yellow**
- Aeronautical Aluminum



- **Non-sterile**
- Ti Gr5 ASTM F136
- **Natural** surface
- Regular load

- **High strength** Stainless steel tip
- **Removable** tip

Md**bio**

super  Tack

by Dr. Egon Euwe

SUPERTACK SURGICAL BOX



The **Supertack line** represents the “answer” to the top surgeons demanding Excellence in ergonomic design:

- Box produced in medical grade polymers.
- Surgical Stainless Steel applicator body coated by **Titanium Nitride**.
- Removable tack organizer.
- Hammer with precisely balanced weight.

- Two tips: **standard** and **long**





Head

(1) The top side, has a diameter compatible with most available existing systems. The carefully studied profile is easily grabbed with the tip of the applicator. (2) The unique beveled edge offers easy removal action, while the underside surface (facing the bone) is flat (3), which provides a stable, uniform pressure on the membrane.

Stem/Shank

(4) The conical shank rises from the head with a diameter substantially greater than that of other systems. This, along with the radius of the connection (5), greatly increases resistance to bending. The taper of the stem, which allows for easy removal, requires a retentive collar (6) that uses the natural elasticity of the bone for locking the tack. The calibrated tip (7) is sufficiently sharp for the penetration in dense bone and was developed at an angle close to 90° to obtain a high flexural strength. Incorporating these features (4-7) in a 3mm shank allows the **SuperTack** to penetrate a high-density cortical bone, where previously considered impossible.

The **cobalt blue** and the **bronze** color are result of an *anodization process of the titanium*. *Decontamination, plasma cleaning, clean room packaging and sterilization* , all follow parameters of absolute excellence.

Contained in a sterilized* blister, the **SuperTacks** can be positioned in the weighted and dynamically stable design of the **stainless steel organizer**. Together with a precisely balanced, ergonomic and elegantly design hammer and applicator all included in a practical surgical kit.

*CE Certification ONLY – not sterile for USA-FDA market



PIN



PIN EXS

Each size tack features a standard diameter of the head. The cone features an innovative design of the stem that has revolutionized the use and application of the new tack!

Supertack can be utilized in *hard mandible bone without danger of distortion or bending.*

No Pre-Drilling is required

TACK HANDLING

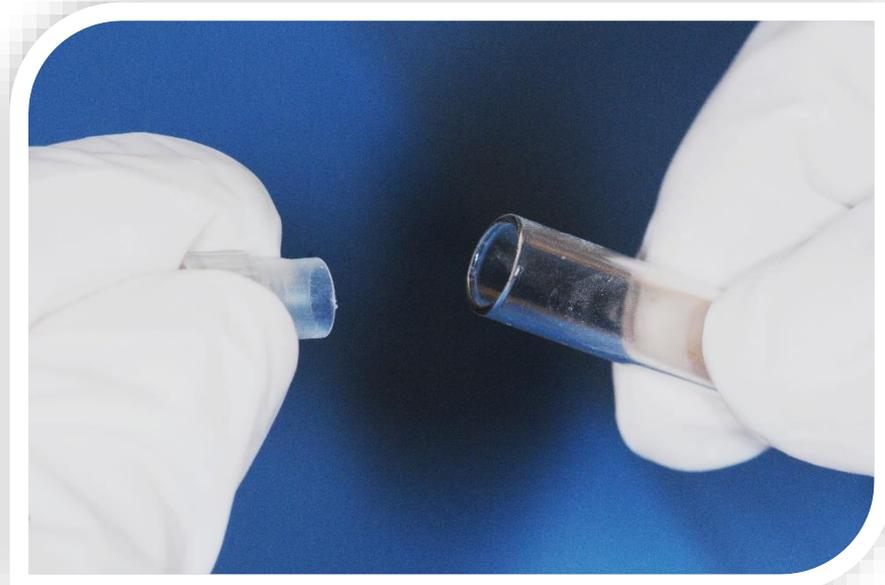


Storage Box



Blister with glass vial

TACK HANDLING

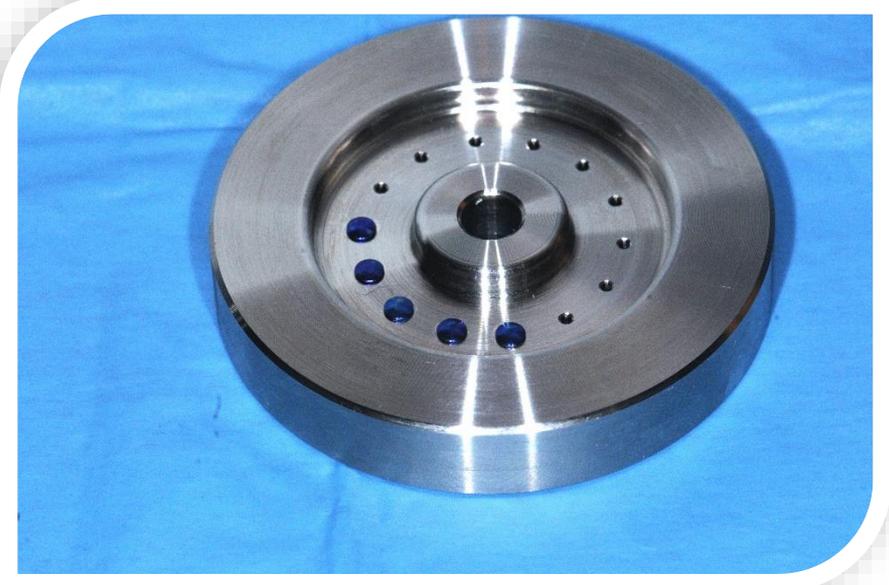
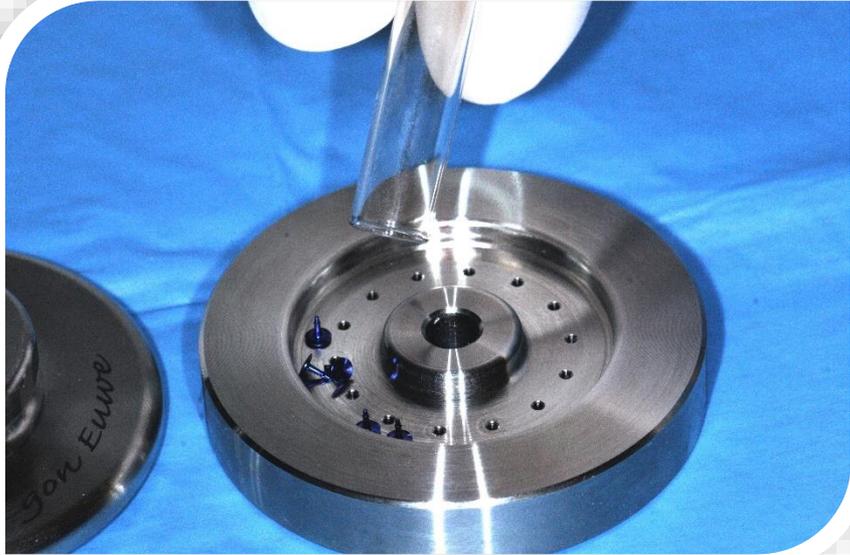


Vial opening



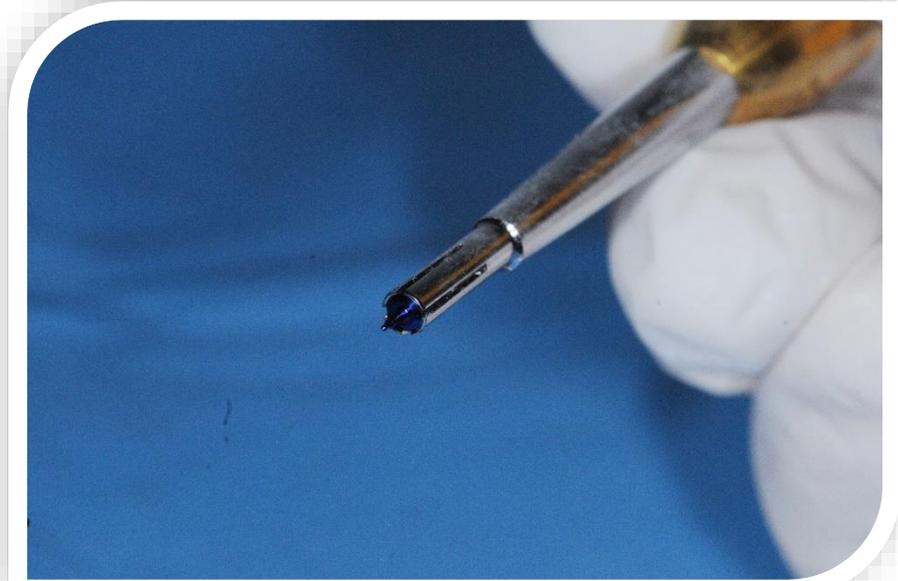
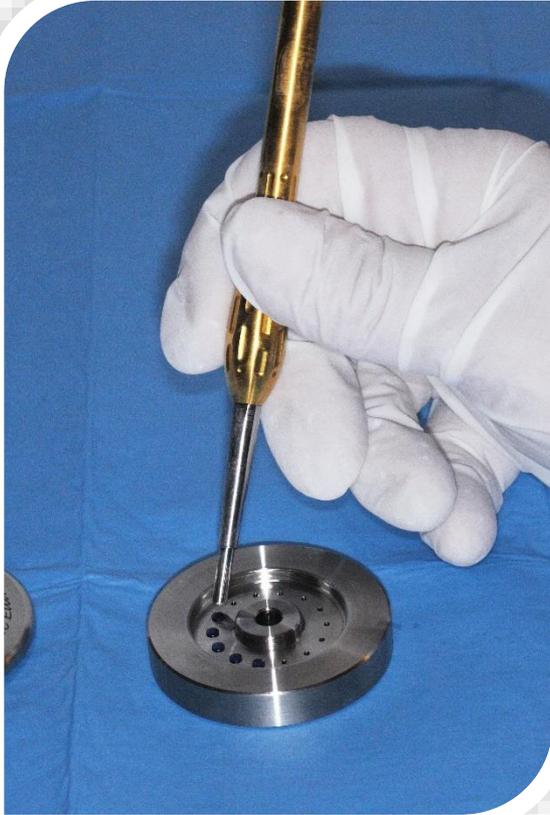
Vial, cap and tacks

TACK HANDLING



Tacks placed in organizer

TACK HANDLING



Tack pick-up

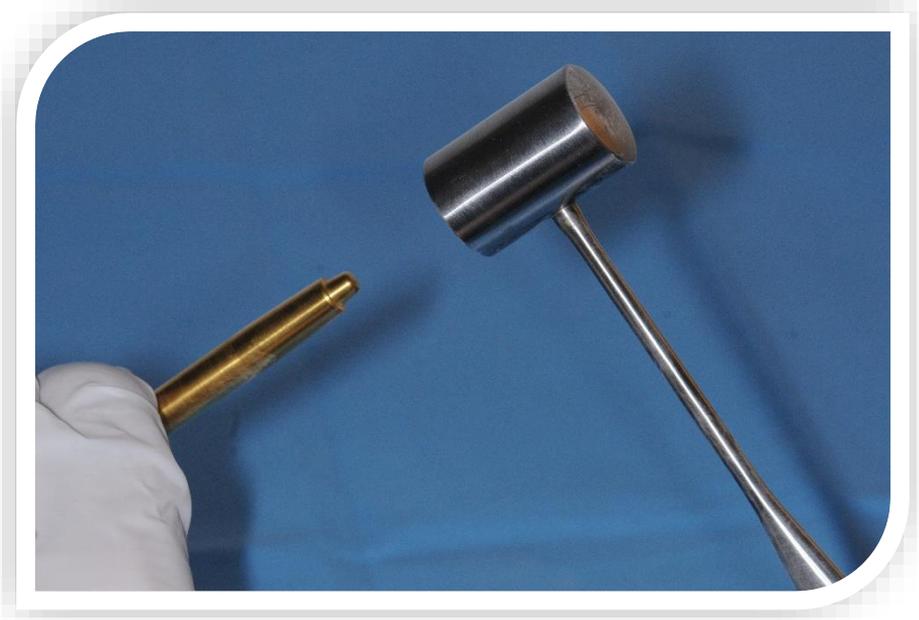


- Hold of tack in retaining tip (not too tight)
- Underside (bone side) of the tack over the tip lips
- One retaining tip fits all different tacks sizes

TACK HANDLING



View of correct connection



Tack insertion

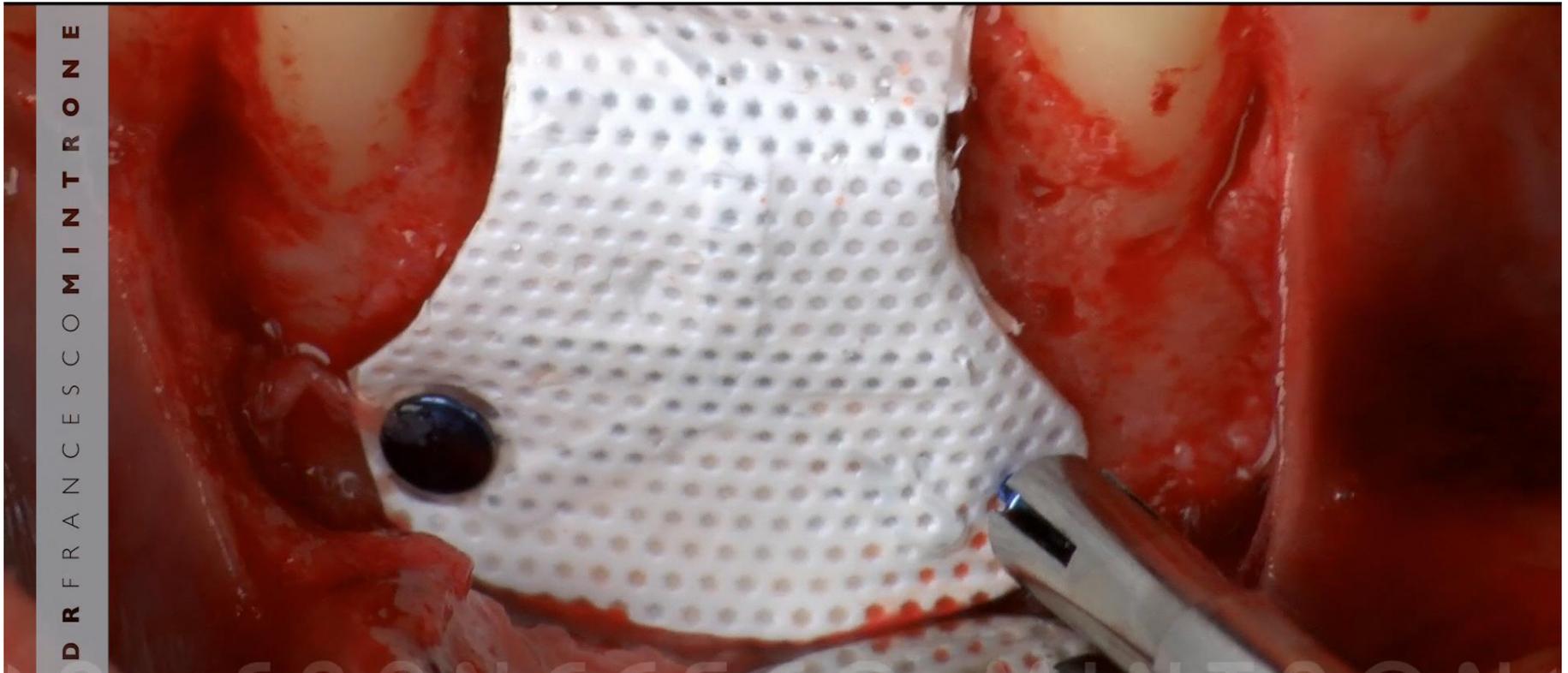
TACK INSERTION IN LOW JAW SURGERY BY DR. MINTRONE

DR FRANCESCOMINTRONE



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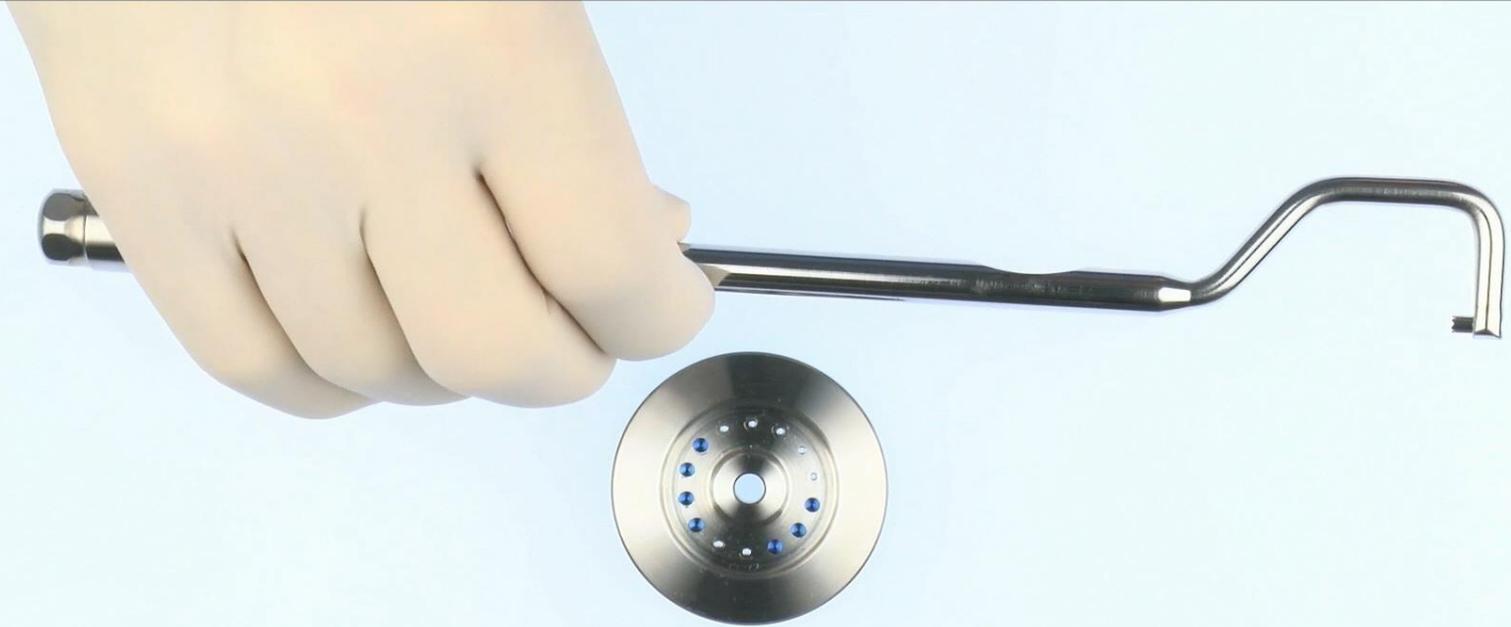
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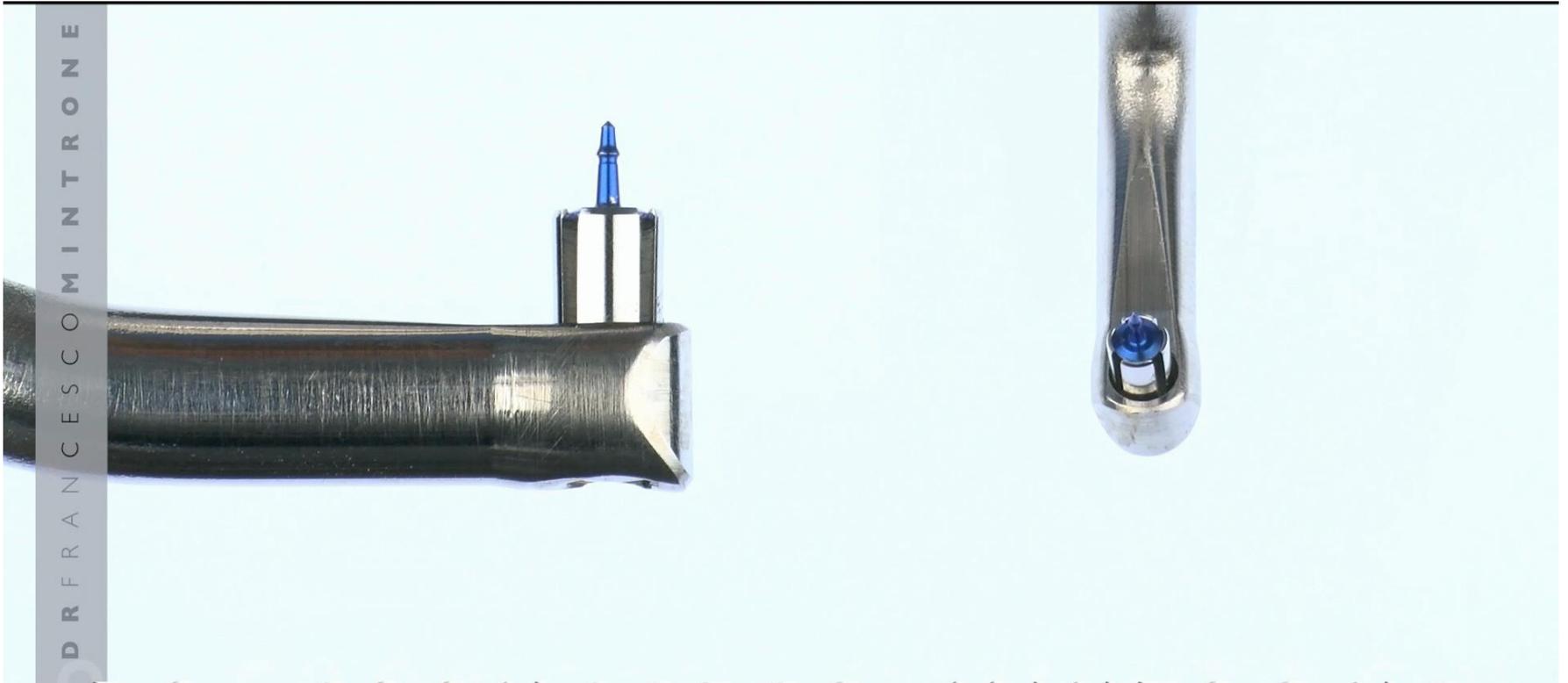
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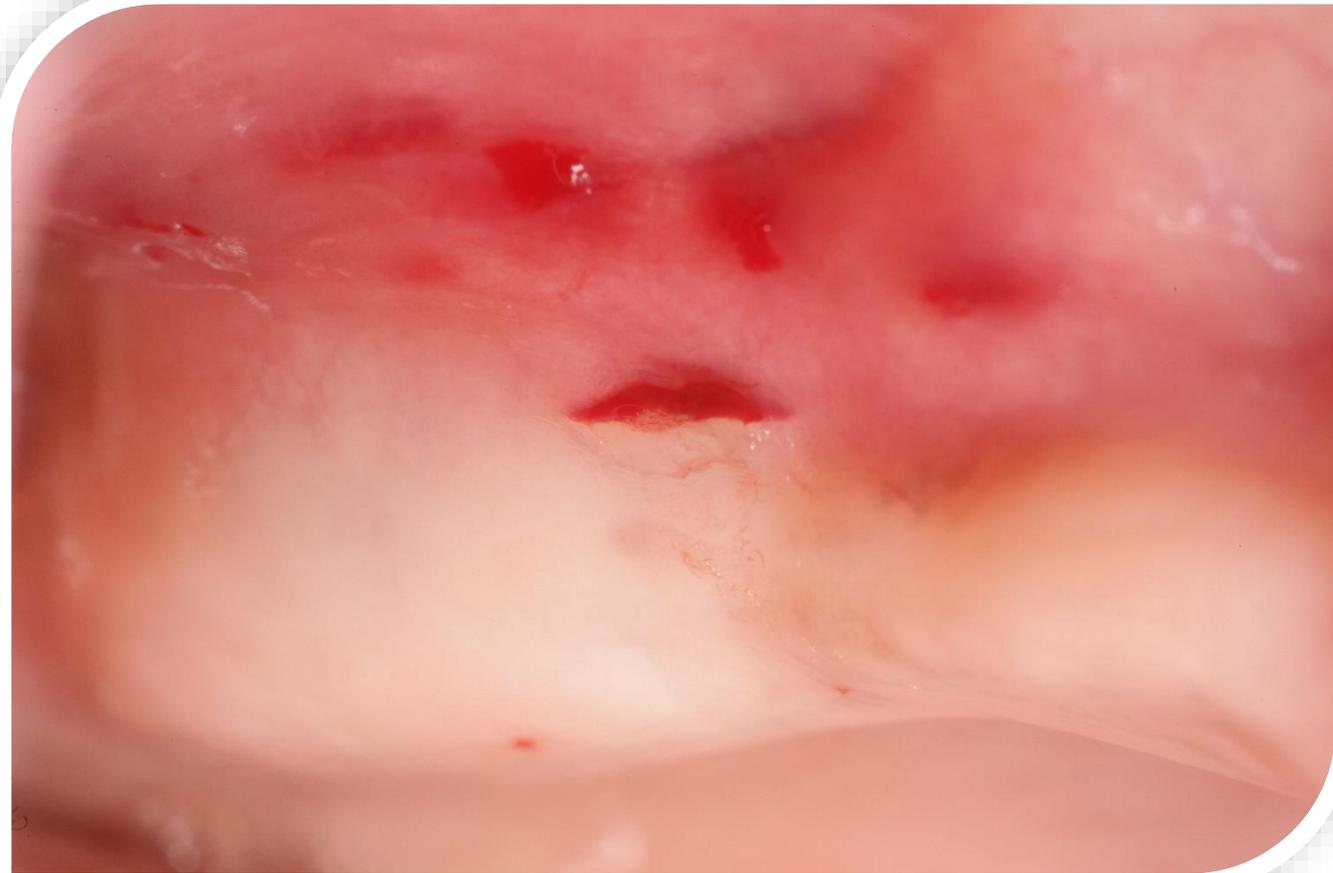
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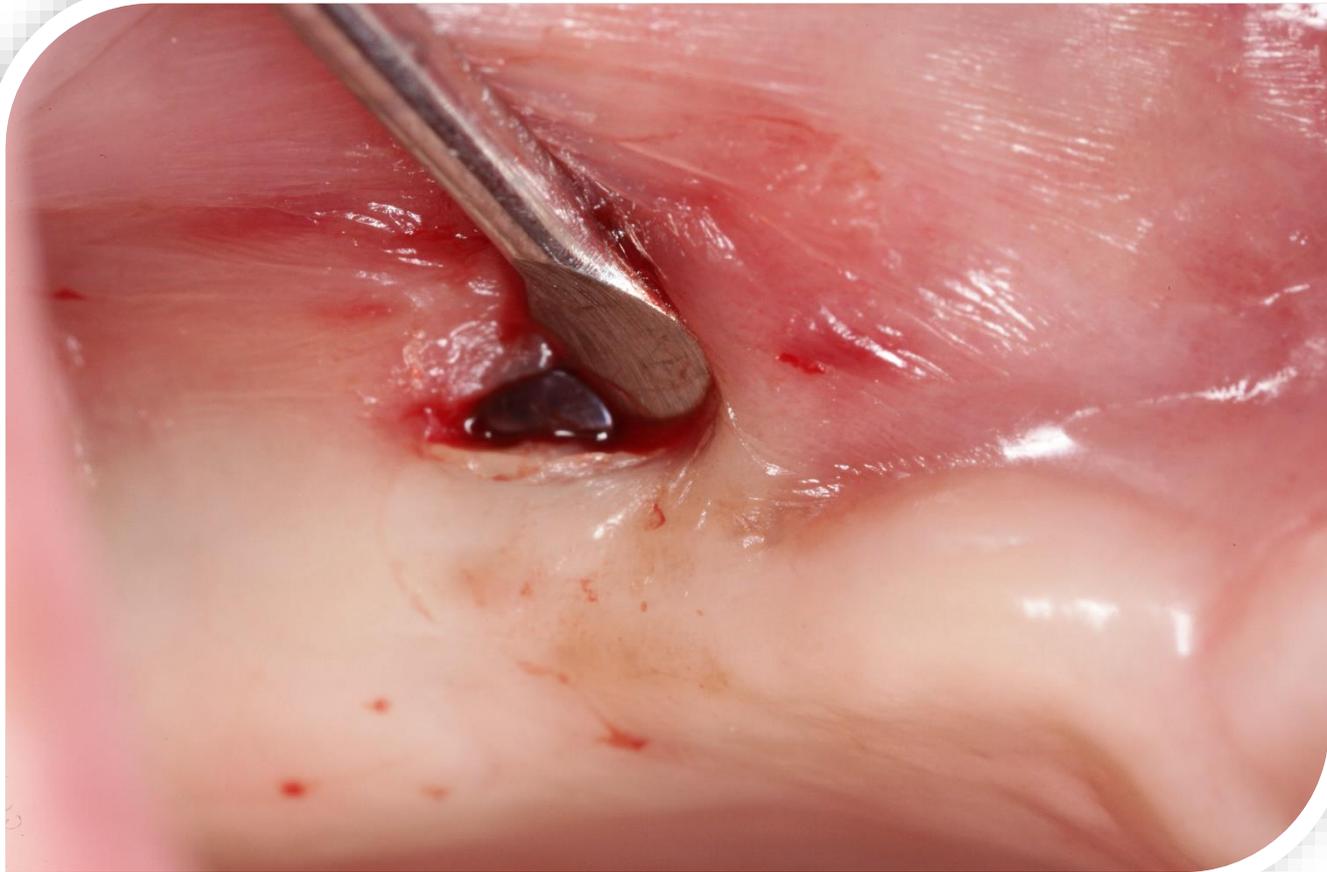
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**TACK REMOVING
SURGERY BY DR. E. EUWE**



MCbio
SUPER **Tack**
by Dr. Egon Euwe

**TACK REMOVING
SURGERY BY DR. E. EUWE**



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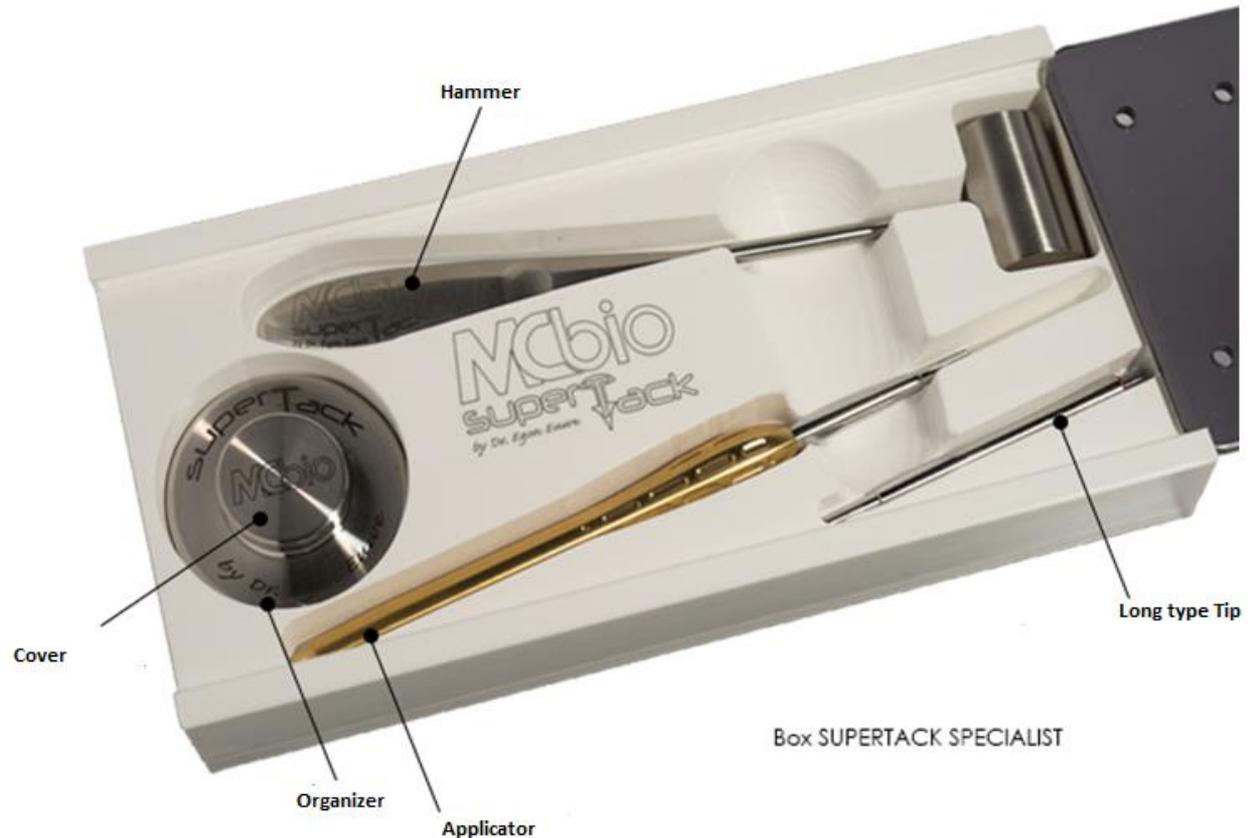


Mdbio
specialist

McBIO specialist

The **Specialist** line has been developed to provide surgeons with **exclusive** device designs.

*In both their elegance and functional refinements, this line distinguishes itself from the standard with its exclusive use of treatments coating: **PVD system** (Physical Vacuum Deposited) layers of **TiN** (Titanium Nitride). The extreme density and stability of this coatings process makes it impervious to contact with biological elements, without altering the chemical composition. The increased hardness also ensures an effective abrasion resistance while maintaining the aesthetic level over time and thru much use.*



McBio specialist

Long tack box



Specialist Back Applicator



Specialist Hand driver



Specialist Applicator





LONG TACK BOX

The box hold:

- 2 separate organizers for efficient separation of different tack sizes.
- i.e. 4mm and 5mm tacks.
- Fitted slots for two spare applicator tips (Long and Standard).

BACK APPLICATOR



- The solution for positioning at proper angle of tacks in remote/backward positions (tongue side).
- Easy to clean and sterilize.
- Smooth action.

(For optimal insertion action a simple counter support of patient jaw is advised)

SPECIALIST APPLICATOR (WITH STOPS)



- **3 different levels** of retention force/grip for the tack: **Regular**, **Medium** and **Hard**.

SPECIALIST APPLICATOR (ADJUSTABLE)



- A variable in **retaining force** of the tack serves to guarantee the best accuracy in surgical positioning and removal.

SPECIALIST APPLICATOR TIP CONTROLLED OFFSET



- **New** tip with a **CONTROLLED OFFSET**.
- The solution for positioning at the proper angle of the tack in remote positions

SPECIALIST APPLICATOR TIP CONTROLLED OFFSET



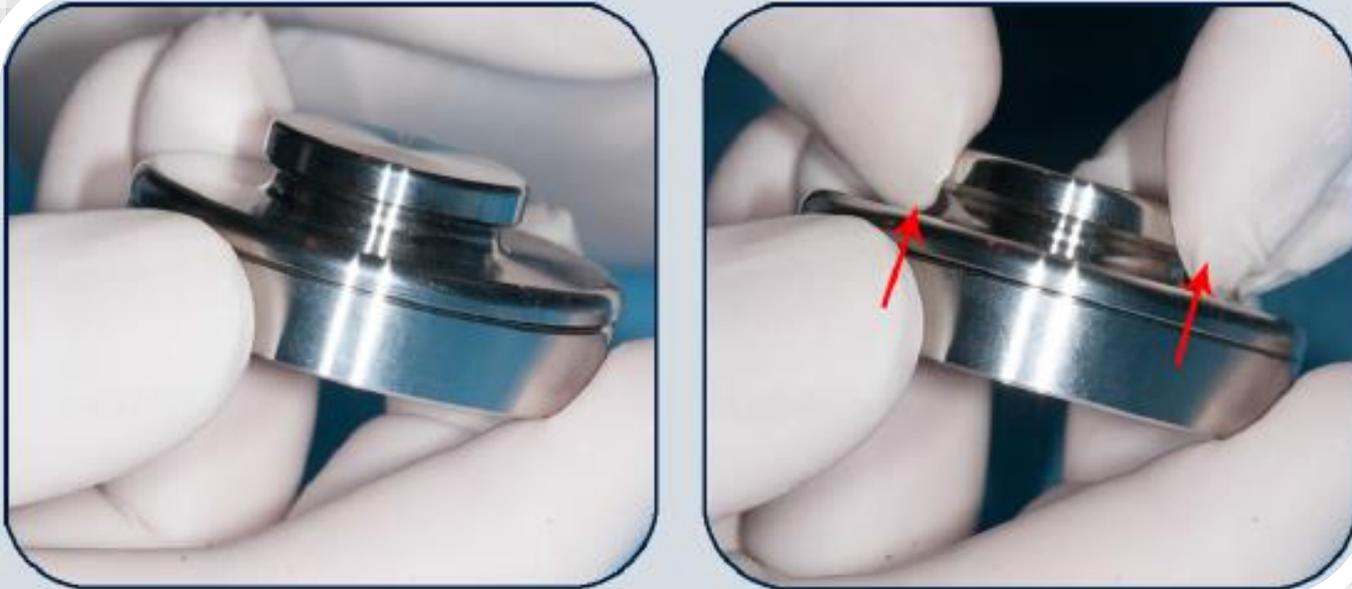
- Compatible with all the MC Bio applicators

SPECIALIST ORGANIZER



- Organizer with a **Self Lock Cover**.
- Compatible with all MC Bio tack surgical boxes.
- Easy to open

SPECIALIST ORGANIZER OPENING



SPECIALIST ORGANIZER OPENING



G-SPECIAL SET



- This set includes all the best and specialistic instruments for use of the tacks.

QUESTIONS AND ANSWERS

- ❑ What material are the tacks made of?
 - ***The tacks are produced using Ti GR5 ASTM F136 certified. The ASTM F136 standard specifies that this type of titanium is suitable for the production of medical devices to be implanted in the human body. Dental implants, orthopedic screws and hip prostheses are also produced with this material.***

- ❑ Is the blue and bronze colour of Supertack and Specialist tacks obtained by pigments?
 - ***The blue and bronze color of the surface of the tacks is obtained by a process of anodizing the titanium. The anodizing of titanium (a layer of controlled oxide) creates the colouring and is completely safe.***
 - ***No! Since no pigments have been introduced, there are no toxic elements on the surface but only titanium oxide. Titanium oxide is the main element that makes the “Titan family” extremely biocompatible.***

- ❑ May the colour of the tacks be toxic?

QUESTIONS AND ANSWERS

- ❑ Being a titanium alloy, can the Ti Gr5 be toxic?
 - ❑ Are anodized tacks (Supertack) more/less biocompatible than non-anodized tacks (Tuff Tack)?
 - ❑ Are Tuff Tack produced with materials and geometries different from Supertack?
 - ❑ Is the strength of the Tuff Tack less stable than the Supertack tacks?
- ***No! Biocompatibility is ensured by being at the ASTM F136 (U.S.A. normative system) standard.***
 - ***No! Their level of biocompatibility is exactly the same. The titanium is immediately covered with a layer of titanium oxide, which is the element that guarantees biocompatibility.***
 - ***The Tuff Tack and the Supertack tacks are produced with the same metal and with the same dimensions.***
 - ***No! The Tuff Tack and the Supertack tacks have the same resistance to bending since they are constructively the same.***

QUESTIONS AND ANSWERS

- ❑ Are Extra Strong tacks more resistant because they are produced with a better material?
 - ***No! The material is the same for all the tacks. The Extra Strong typology is more resistant to bending both because they have shank with a slightly larger diameter, than for the design and the radiuses present.***
- ❑ Why not use only Extra Strong tacks if they bend less?
 - ***Extra Strong tacks require greater insertion thrust. This means that the blows from the hammer will have to be stronger, resulting to greater discomfort for the patient.***
- ❑ When should I use Extra Strong tacks?
 - ***It is best to use this type of tack in the mandible, especially if you have to use lengths of 4 or 5mm, which is the hardest of the bones in question. ---
-Except for exceptional cases, Extra Strong tacks should never be used in the jaw.***

QUESTIONS AND ANSWERS

- ❑ Why are Extra Strong tacks only packaged in 5-piece boxes?
 - ***Because for 90% of cases the normal tacks have enough strength to penetrate the bone. So Extra Strong are used only exceptionally***
- ❑ Why is the tack applicator in two pieces?
 - ***The applicator is composed of handle and tip. This allows, in case of its damage, only need of top replacement . Different types of tips are also available to meet any technical demands of surgeons.***
- ❑ Should the tip be replaced frequently?
 - ***The tips are produced with special stainless steel alloys that guarantee excellent resistance to deformation and will withstand much use.***
- ❑ The gold colouring of the SuperTack applicator and Specialist are obtained with pigments?
 - ***The gold aspect of the two applicators is obtained by coating the handle of stainless steel in a very hard layer of titanium nitride . This nitride is the gold colouring***

QUESTIONS AND ANSWERS

- ❑ Why doesn't the hammer have plastic inserts?
 - ***The hammer without plastic inserts helps in the penetration of the tack in to the bone. This way, the causes that can lead to the bending of the tack are reduced.***

- ❑ When can the tacks be removed?
 - ***When the bone graft has come to final healing. There are no time limits, since the titanium used is classified for implantology uses.***

- ❑ Is a wide opening necessary to remove the tacks?
 - ***No. The tacks can be removed by making a very small incision through which the tacks can be taken out.***

- ❑ To insert the tacks in the front area on the lingual side, what can I use?
 - ***For this zone, a specific tool has been created: the Back Applicator.***

- ❑ What is the difference between the normal lingual applicator and the Specialist?
 - ***The Specialist applicator has the “hammer” that runs on PTFE bushes, therefore provides smoother movement.***

QUESTIONS AND ANSWERS

- ❑ To insert the tacks in the back area on the lingual side what can I use?
 - ***In order to enter that area, you can use the long tip, so as to cross the mouth wire fix the tack on the opposite side to the input. If this is not enough, you can use the offset tip that allows you to move 10mm closer to insertion point.***

- ❑ Why does the offset tip only have an offset of about 10mm?
 - ***This offset value does not create any special problems. The more you increase the offset value the more you create a thrust that tends to loosen the tack during insertion with the hammer.***

- ❑ How can I distinguish the tacks of different lengths once inserted in the organizer?
 - ***This is not possible. For this reason, if you use tacks of different lengths, the box for long tacks has been prepared. The surgical box organizer will insert only 3mm tacks, while the 2 "Long tacks" box organisers, the 4mm and 5mm, tacks will be inserted separately.***

QUESTIONS AND ANSWERS

- ❑ What differentiates the Specialist organizer from others?
 - ***The Specialist organizer has a retained cover, with a silicone rubber ring at the base. This allows the device to be used without danger that it will accidentally open and the tacks to come out.***

- ❑ Can the tacks be sterilized by inserting them into the organizer, and inserting the latter into the instrument box?
 - ***Yes! The important thing is that the machine is a class B steam autoclave. For the sterilization cycle, use the highest temperature and duration cycles (e.g. 134 °c / the Prion cycle of 18 min).***

- ❑ Does the plastic of the boxes withstand the sterilization temperatures?
 - ***Yes! The plastic polymers with which the MC Bio devices are manufactured, are all specific for medical use, so they tolerate the temperatures of the steam autoclaves (max 135 °c) with out issue.***

 - Attention! DO NOT use dry sterilizers these machines reach temperatures much higher than 135 °c and therefore damage the devices produced with plastic polymers or rubbers.-***