

# TADs

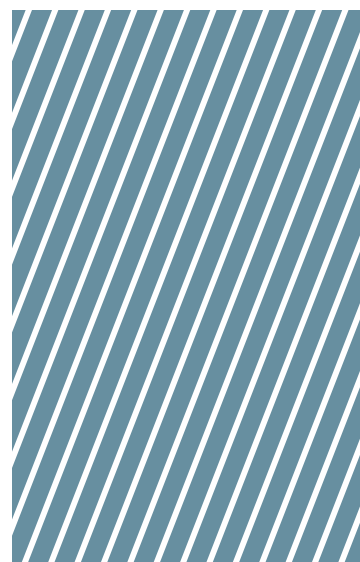
## TEMPORARY

## ANCHORAGE

## DEVICES



0



TADs PA are mini screws made specifically for palatal anchorage of expanders, distalizers or other orthodontic devices. The terminology itself indicates the most common intended use, which is palatal anchorage (PA = Palatal Anchorage). Made of medical grade 5 titanium, they can be used following two methods that are distinct from each other, both as protocols or conceptually. The integral TAD PA is inserted into the palate after cementation of the device in the oral cavity, thus closing the operative protocol: this type of approach is called TAD *last* because the TAD is inserted as the last operative step. TADs PA Biphasic, on the other hand, are inserted into the palate before the actual design of the device and, very often, following a planning and subsequent guided surgery; this type of approach is called TAD *first* because the TAD is inserted as the first operative step followed by a conventional or digital impression and the device fabrication.

## TAD PA INTEGRAL

MADE OF MEDICAL GRADE 5 TITANIUM



STERILE PACKAGE  
VIAL CAP WITH TITANIUM  
SUPPORT FOR TAD

## TAD PA BIPHASIC

MADE OF MEDICAL GRADE 5 TITANIUM



STERILE PACKAGE  
VIAL CAP WITH TITANIUM  
SUPPORT FOR TAD



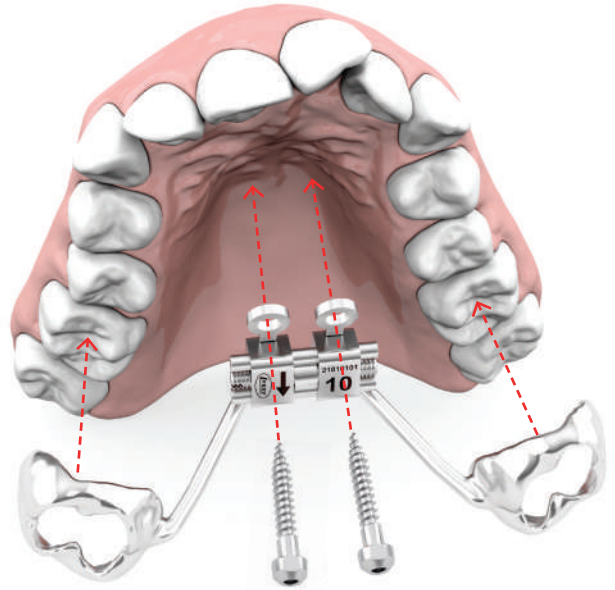
SELF-DRILLING THREAD  
ENSURES A SIMPLE SURGICAL PROCEDURE  
AND HIGH PRIMARY STABILITY



**TAD PA INTEGRAL**



STOP HEAD  
FOR INSERTION IN CONJUNCTION  
WITH THE APPLICATION OF THE DEVICE  
DUE TO THE GEOMETRY OF THE  
EMERGING PORTION



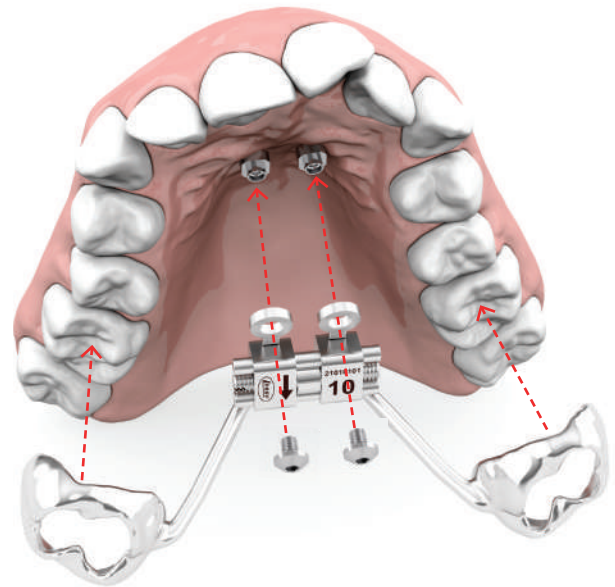
**TAD PA BIPHASIC**



INNER THREAD  
IN THE EMERGING PORTION FOR  
FIXING THE EXPANDER BY MEANS  
OF FIXING SCREW



FIXING SCREW  
TO ENSURE THE CORRECT ANCHORAGE  
OF THE EXPANDER




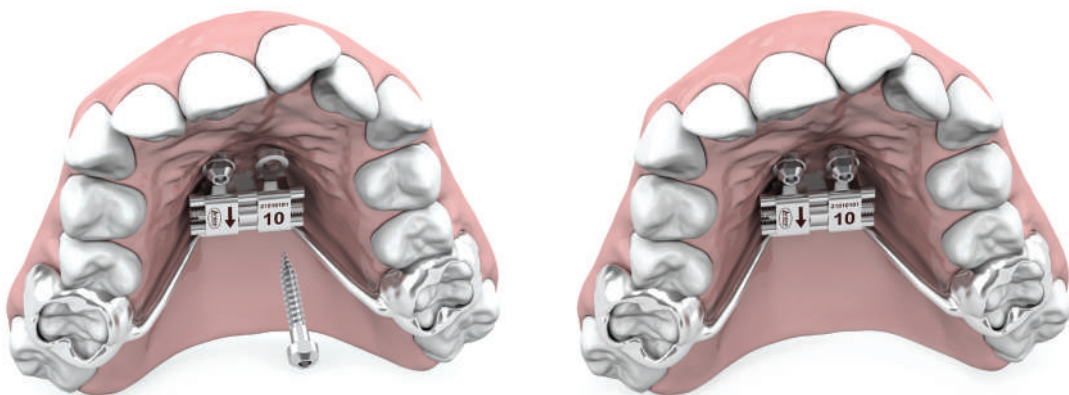
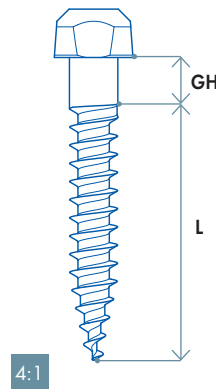
## TAD PA INTEGRAL

The TAD PA is a mini screw designed specifically for palatal anchorage of devices when the surgical placement of TADs is chosen in conjunction with the application of the appliance. The self-drilling tip and the special thread geometry ensure a simple, minimally invasive surgical procedure and an excellent primary stability. Made of medical grade 5 titanium, available in two lengths, with a diameter of 2 mm, the mini screws are provided sterile and should be used with the proper Leone surgical accessories and instruments.

**Packs of 1 or 2**



	∅	L		pkg.
	mm	mm		
	<b>GH</b> 2,5 mm	8	<b>004-2008-10</b>	1
			<b>004-2008-20</b>	2
	<b>GH</b> 2,5 mm	10	<b>004-2010-10</b>	1
			<b>004-2010-20</b>	2




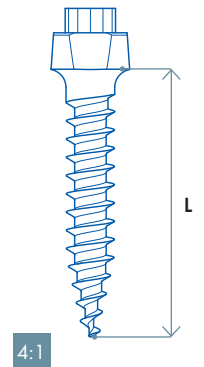
**TAD PA BIPHASIC**



The TAD PA biphasic system is designed specifically for palatal anchorage of devices when a protocol involving mini screw placement, impression taking, and subsequent fabrication and application of both hybrid and totally Bone-Borne expanders is adopted. Made of medical grade 5 titanium, available in four lengths with a diameter of 2 mm, the mini screws ensure a simple, minimally invasive surgical procedure and an excellent primary stability, thanks to the self-drilling tip and the special threaded geometry. The exposed portion has an internal thread and is specifically designed to ensure anchorage with the expander by tightening the appropriate fixing screw. Once positioned in the most suitable anatomical region, an accurate model with analogs for TAD PA biphasic can be achieved by using accessories for both traditional and digital impression to create an accurate maxillary device. Provided sterile, to be used with the proper Leone surgical accessories and instruments.

Packs of 1 or 2

	∅	L		
	mm	mm		pkg.
	2	7	003-2007-10	1
			003-2007-20	2
	2	9	003-2009-10	1
			003-2009-20	2
2	11	003-2011-10	1	
		003-2011-20	2	
2	13	003-2013-10	1	
		003-2013-20	2	



**023-1702-20**

2:1

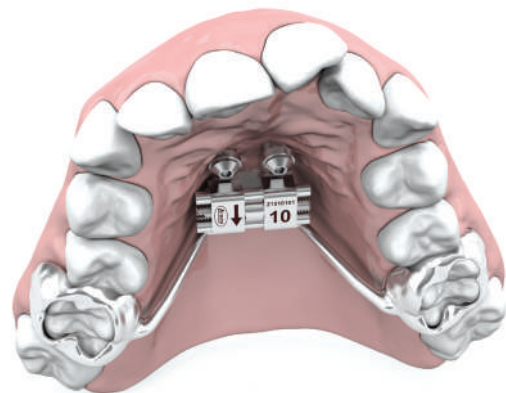
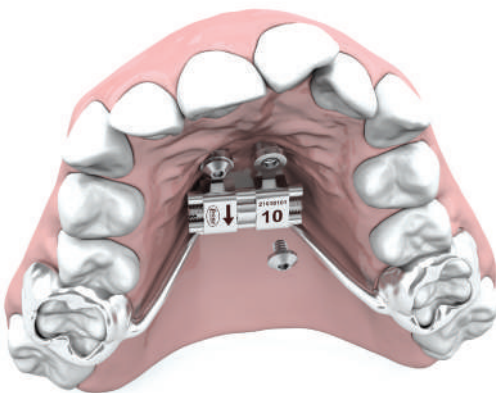
**FIXING SCREW**



**033-3203-20**

2:1

**CYLINDER AND FIXING SCREW**



1:1



Ø	1,1 mm
L	9 mm

**090-1134-00  
DRILL FOR TADs**

Made of stainless steel. To create the pilot hole in case of high bone density. Can be used for both hand insertion and guided surgery procedure with the corresponding sleeve (REF 083-1008-20).  
**Pack of 1**



1:1

**083-1008-20  
SLEEVE  
GUIDED SURGERY FOR TAD PA BIPHASIC**

Made of medical grade 5 titanium. For use in guided surgery by inserting it into the properly planned surgical template. It allows guided pre-drilling in the cortical bone using the Ø1.1 mm drill (REF 090-1134-00) and insertion of the TAD PA biphasic using the handpiece adapter for TADs PA (REF 083-1006-01). Autoclavable.  
**Pack of 2**



1:1



**083-1005-01    083-1006-01  
HANDPIECE ADAPTERS  
FOR TADs PA**

**Both for TAD PA Biphasic and TAD PA Integral.**  
Made of stainless steel.  
To safely tighten or loosen the TADs with the contra-angle handpiece, thanks to the centering system. Available in two lengths. Autoclavable.  
**Pack of 1**

1:1



**156-1019-00  
DRILL  
EXTENSION**

Made of stainless steel.  
To increase the total length of the drill or handpiece adapters by 16 mm if needed. (Product in the Leone Implant System Catalogue).  
Autoclavable.  
**Pack of 1**

1:1



**083-1007-01  
HAND SCREWDRIVER  
FOR TADs PA**

**Both for TAD PA Biphasic and TAD PA Integral.**  
Made of stainless steel.  
To tighten or loosen the TADs PA thanks to the fan-type handle. It can also be used by the laboratory for the placement of analogs in the prototyped model.  
Autoclavable.  
**Pack of 1**



**080-1000-25  
LONG**

1:1

**080-1000-24  
SHORT**

1:1

**NEW**

**ADAPTERS  
FOR TADs PA**

Both for TAD PA Biphasic and TAD PA Integral.

Made of stainless steel. To safely tighten or loosen the TAD PA with the screwdriver for adapters (REF 080-1000-00). It can also be used by the laboratory for the placement of analogs in the prototyped model. Available in two lengths. Autoclavable.

**Pack of 1**



1:2

**080-1000-00  
SCREWDRIVER  
FOR ADAPTERS**

Made of aluminum. To safely tighten or loosen the TADs with adapters. Autoclavable.

**Pack of 1**



**NEW**

1:2

**080-1000-03  
HAND SCREWDRIVER  
FOR HANDPIECE  
FOR TADs PA**

Both for TAD PA Biphasic and TAD PA Integral.

Made of medical grade 5 titanium. To safely tighten or loosen the TADs PA with a contra angle handpiece (blue ring 1:1). Autoclavable.

**Pack of 1**

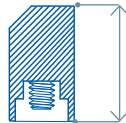


2:1

**043-0001-00  
TRANSFER  
FOR TAD PA BIPHASIC**

Made of stainless steel, with a threaded metal insert. Coupling with the internal threading of the emerging part of the TAD, it allows precise and accurate detection of the position of the TAD with the traditional impression taken with a tray. For use with screwdriver for fixing screws. Autoclavable.

**Pack of 2**



L 7,8 mm

2:1

**043-0000-35  
SCAN BODY  
FOR TAD PA BIPHASIC**

Made of PEEK with a threaded metal insert. Coupling with the internal threading of the emerging part of the TAD, it allows precise and accurate detection of the position of the TAD with the digital impression or scan of the dental cast.

For use with the positioner for Scan Body (REF 083-0004-00). Autoclavable.

**Pack of 2**



1:1

**083-0004-00  
POSITIONER  
FOR SCAN BODY  
FOR TAD PA BIPHASIC**

Made of stainless steel. To tighten or loosen the Scan Body for TAD PA Biphasic, both on the TAD or on the analog for TAD. With a hole for the insertion of the safety wire. Autoclavable.

**Pack of 1**



2:1

**053-0001-00**  
**ANALOG**  
**FOR TAD PA BIPHASIC**

Made of stainless steel. To reproduce the position of the TAD PA Biphasic in the dental cast, or for insertion in a 3D-printed model created by a digital impression of TADs.

**Pack of 1**

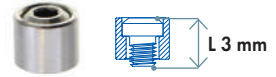


2:1

**023-1702-20**  
**FIXING**  
**SCREW**

Made of medical grade 5 titanium, it ensures the correct anchorage of the expander on the TAD PA Biphasic. For use with screwdrivers for fixing screw.

**Pack of 2**



2:1

**033-3203-20** 2 pieces  
**CYLINDER**  
**AND FIXING SCREW**

Cylinder in stainless steel with embedded screw for the welding of expander arms or sintered metallic framework to ensure the expander anchorage onto the TAD PA Biphasic.

**Pack of 2**

L 12,5 mm



L 20 mm



1:1

**083-0001-00**    **083-0002-00**  
**SCREWDRIVERS**  
**FOR FIXING SCREW**

Made of stainless steel. For use with the prosthetic hand screwdriver to tighten or loosen the fixing screws and transfers. Available in two lengths. Autoclavable.

**Pack:**

- 1 screw adapter
- 1 hand screwdriver



1:1

**083-0003-00**  
**SCREWDRIVER**  
**FOR HANDPIECE**  
**FOR FIXING SCREW**

Made of stainless steel. For use with the contra angle handpiece to tighten or loosen the fixing screw and transfers. Set a max. torque value of 20 Ncm.

Autoclavable.

**Pack of 1**



**070-8000-01**

**SURGICAL AND PROSTHETIC KIT FOR TADs PA**

Made of PPSU plastic material, it has been designed to sterilize and keep organized only the instruments necessary for the insertion of TADs and their prosthetics on the surgical field.

The cover when opened tilts the position of the kit and allows an easy access to instruments.

The kit is made up of 7 instruments (it can be filled up to 12):

- screwdriver for fixing screw, short
- screwdriver for fixing screw, long
- screwdriver for handpiece for fixing screw
- positioner for scan body for TAD PA Biphasic
- hand driver for TADs PA
- handpiece adapter for TADs PA, short
- handpiece adapter for TADs PA, long

Entirely autoclavable.



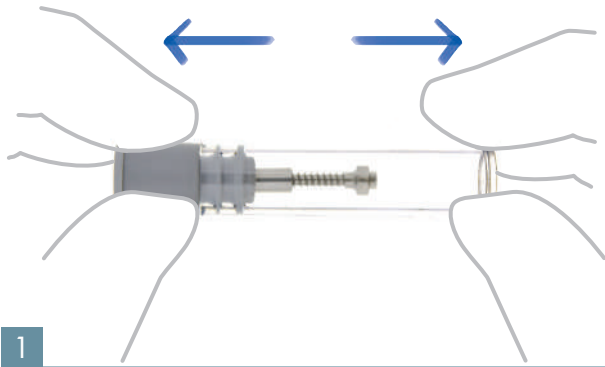
**070-0000-00**

**EMPTY KIT**

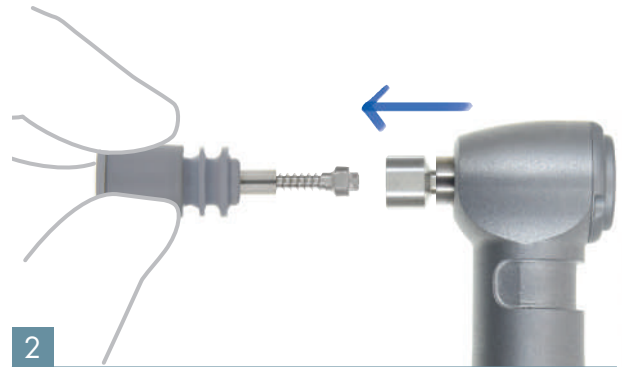


## SURGICAL PROCEDURE

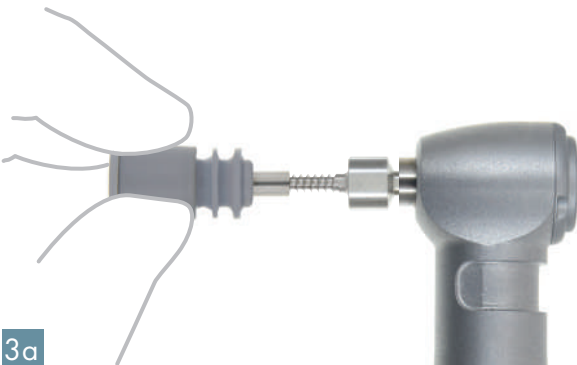
The design of the orthodontic appliance with bone anchorage requires accurate therapy planning by the clinician, who will take all factors that can emerge from a series of preoperative exams into consideration, such as patient history, objective, radiographic and laboratory exams. Once the implant site is determined and the most appropriate TAD PA is chosen, properly anesthetize the surgical area. The TADs PA are self-drilling; however, in case of high bone density and thick cortical bone, it is recommended to pre-drill a hole using one of the two available drills (REF 090-1134-00 or REF 090-1334-00) to facilitate the insertion of the TAD PA.



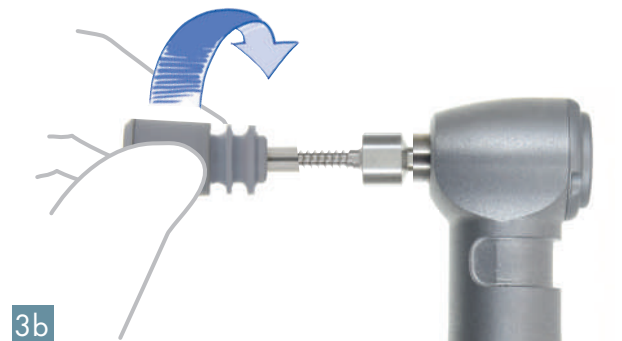
**1**  
Exert a gentle traction on the vial cap, remove the TAD PA from the sterile vial.



**2**  
Connect the dedicated handpiece adapter to the TAD PA head.

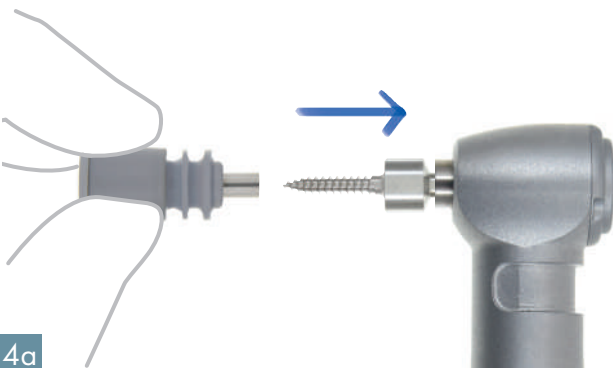


**3a**

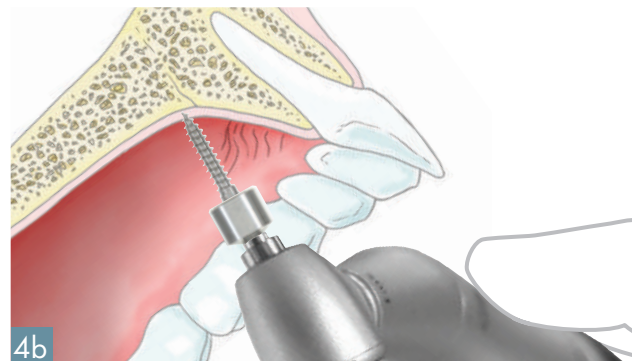


**3b**

Once positioned into the instrument, remove the implant cap with a gentle counterclockwise rotary movement.



**4a**

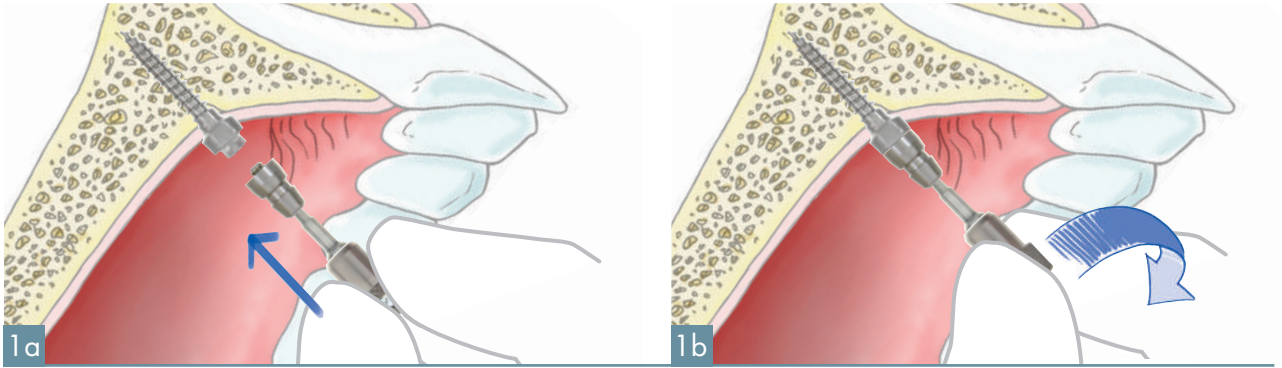


**4b**

Set a maximum speed of 25 rpm and a maximum torque of 40 Ncm, start drilling the TAD PA along the entire length of the endosseous part.

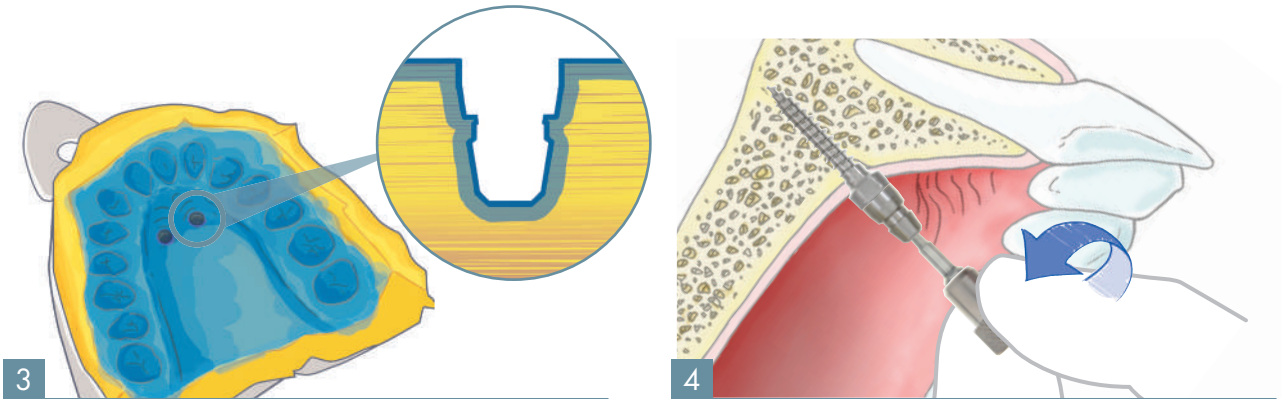
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**CONVENTIONAL IMPRESSION TAKING**



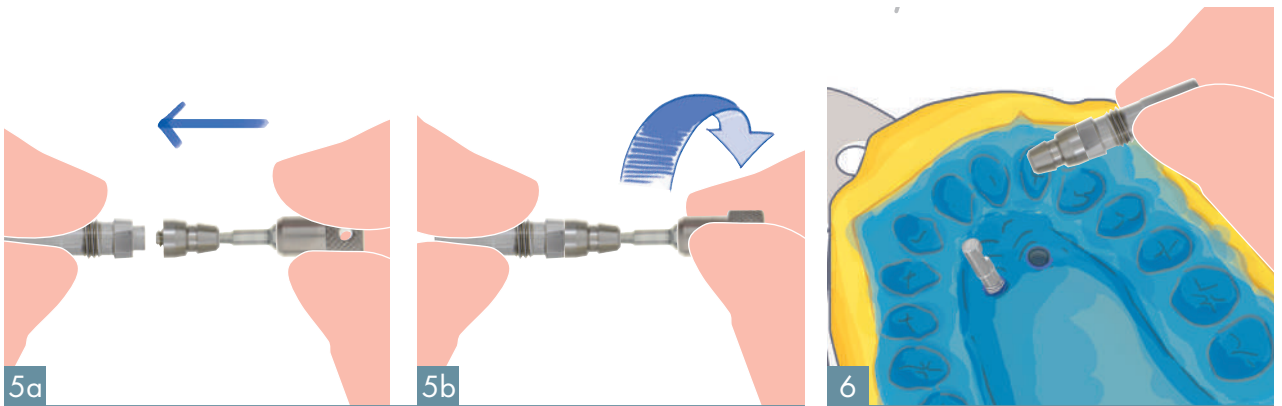
Screw the transfer in the emerging portion of the TAD PA Biphasic using the dedicated screwdriver for fixing screw.

**2** Take an impression with elastomeric material.



After the removal of the impression, the transfer remains on the TAD's head, while the negative reproduction of their shape is created in the impression material.

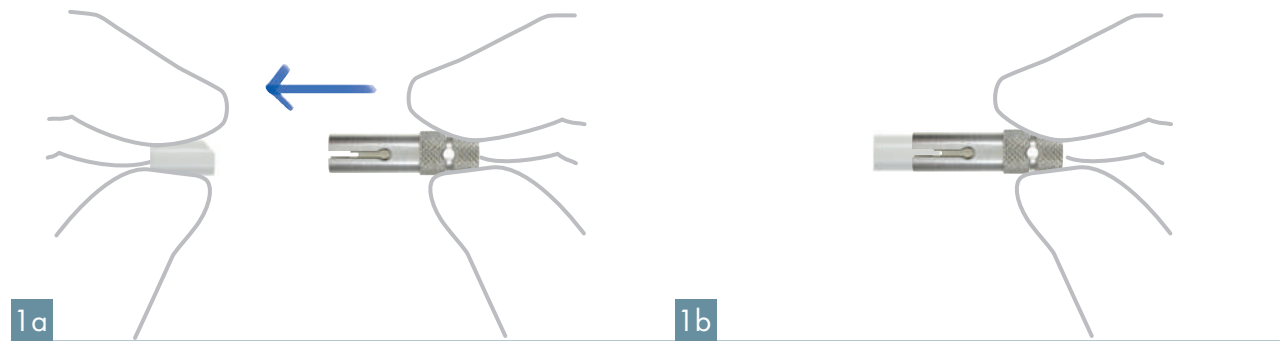
Unscrew the transfer using the screwdriver for fixing screw.



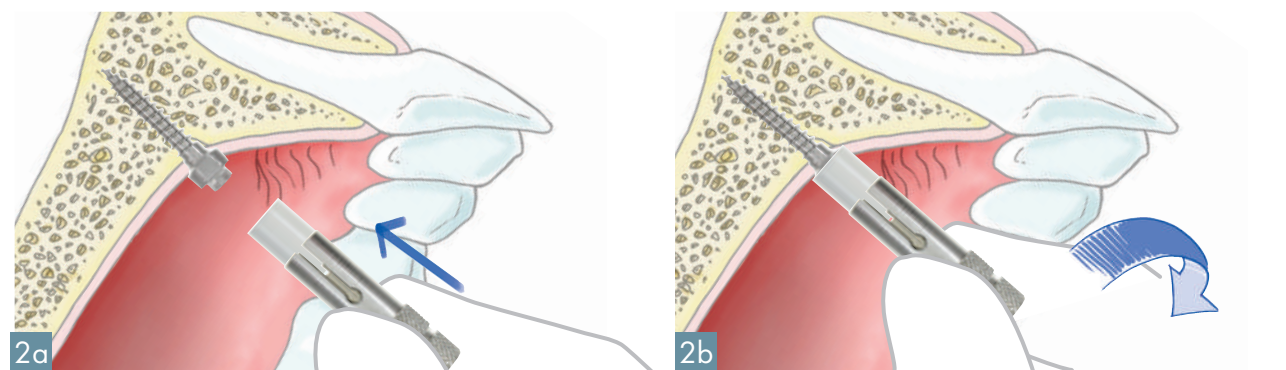
After sterilization, screw the transfer on the analogs for TAD PA Biphasic.

Replace the assembly analog+transfer into its seating in the impression. The specific shape of the transfer allows to easily perceive when a correct insertion is achieved. Make a dental cast where the analogs are embedded.

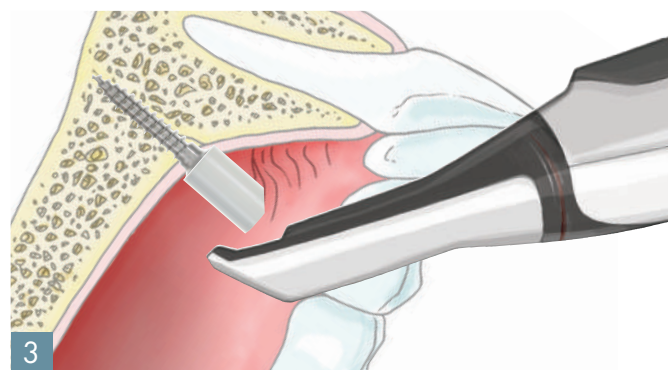
## DIGITAL IMPRESSION TAKING



Insert the Scanbody in the dedicated positioner for Scanbody, ensuring the achievement of the perfect coupling.



Screw the Scanbody for TAD PA Bhifasic on the emerging portion of the TADs.



Take a digital impression to create a digital model.



Proc. 08\_04-21 April 1, 2021

**NEW**

TADs VL are mini screws specifically designed for fixed vestibular or lingual anchorage of appropriate devices or for the use of wire segments and/or springs to facilitate tooth movement by means of an orthodontic traction. Made of medical grade 5 titanium, thanks to the self-drilling tip and the special threaded geometry with a diameter of 2 mm and a length of 8 mm, they guarantee a simple, minimally invasive surgical procedure and an excellent primary stability.

**TAD VL WITH DOUBLE SLOT**

MADE OF MEDICAL GRADE 5 TITANIUM



**TAD VL WITH BUTTON HEAD**

MADE OF MEDICAL GRADE 5 TITANIUM



BUTTON AND THROUGH-HOLE FOR EASY APPLICATION OF CHAINS, ELASTICS, ETC.

SELF-DRILLING COIL ENSURES A SIMPLE SURGICAL PROCEDURE AND HIGH PRIMARY STABILITY



STERILE VIAL WITH IMPLANT CARRIER IN COLOR CODE ACCORDING TO HEIGHT AND TITANIUM SUPPORT



**NEW**

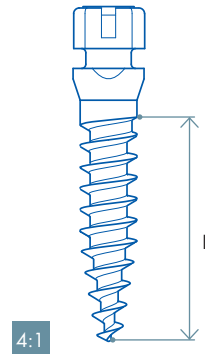


**TAD VL WITH DOUBLE SLOT**

The head of the mini screw is available in two transmucosal heights (low head and high head) and features a double closed slot for the application of wire segments and/or springs. The double slot section is .019" x .025", suitable for round or rectangular wires. The surgical procedure is minimal invasive, single stage, transmucosal, with an excellent primary stability for immediate orthodontic traction application. The TADs VL with double slot are provided sterile, ready to use with the corresponding Leone accessories and surgical instruments.

**Pack of 1**

	Ø	L	
	mm	mm	
	2	8	<b>low head</b> <b>005-2008-13</b>
			<b>high head</b> <b>005-2008-14</b>



DUAL CROSS SLOT





**NEW**

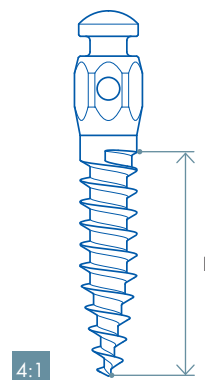


**TAD VL WITH BUTTON HEAD**

The mini screw head is available in two transmucosal heights (low head and high head) with a button-shaped morphology and a through-hole to facilitate the application of elastic tractions and coil springs. The surgical procedure is minimal invasive, single stage, transmucosal, with an excellent primary stability for immediate orthodontic traction application. The TADs VL with button head are provided sterile, ready to use with the corresponding Leone accessories and surgical instruments.

**Pack of 1**

	Ø	L	
	mm	mm	
	2	8	<b>low head</b> <b>005-2008-11</b>
			<b>high head</b> <b>005-2008-12</b>



BUTTON AND THROUGH-HOLE



**090-1134-00 090-1334-00**

1:1



∅	1,1 mm	1,3 mm
L	9 mm	12 mm

**DRILLS FOR TADs**

Made of stainless steel. They allow a pilot hole to be made in case of high bone density. **Pack of 1**



**080-1001-00 MUCOTOME FOR TAD VL**

Made of medical grade 5 titanium. The cutting edge with a diameter of 2.2 mm allows adequate tissue flap creation. It is attached to the screwdriver for adapters (REF 080-1000-00). Autoclavable. **Pack of 1**



**080-1001-01 CIRCULAR SCALPEL FOR HANDPIECE**

Made of medical grade 5 titanium. The cutting edge with a diameter of 2.2 mm allows adequate tissue flap creation using the contra-angle handpiece. Autoclavable. **Pack of 1**



**080-1002-00 HANDPIECE ADAPTER FOR TADs VL WITH BUTTON**

Made of stainless steel, with elastomer blue ring. It allows the insertion of TADs VL with button using the contra-angle handpiece, even in hard-to-reach areas. Autoclavable. **Pack of 1**



**080-1002-01 HANDPIECE ADAPTER FOR TAD VL WITH DOUBLE SLOT**

Made of stainless steel. It allows the insertion of TADs VL with double slot using the contra-angle handpiece, even in hard-to-reach areas. Autoclavable. **Pack of 1**



**080-1003-00**  
**ADAPTER**  
**FOR SCREWDRIVER**  
**AND RATCHET**  
**FOR TAD VL WITH BUTTON**

Made of stainless steel, with elastomer blue ring. It allows the insertion of TADs VL with button in rear hard-to-reach areas with the hand surgical screwdriver (REF 156-1001-01) or ratchet (REF 156-1014-00). Autoclavable.

**Pack of 1**



**156-1001-01**  
**HAND SCREWDRIVER**

Made of medical grade 5 titanium. To tighten or loosen the TADs VL with button with screwdriver adapter and ratchet (REF 080-1003-00). With a through-hole for the safety wire. (Product in the Leone Implant System Catalogue). Autoclavable.

**Pack of 1**



**156-1014-00**  
**RATCHET**

Made of medical grade 5 titanium. To tighten or loosen the TADs VL with button with screwdriver adapter and ratchet (REF 080-1003-00). Do not disassemble. (Product in the Leone Implant System Catalogue). Autoclavable.

**Pack of 1**

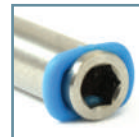


1:2

**080-1000-00**  
**SCREWDRIVER**  
**FOR ADAPTERS**

Made of aluminum. To tighten or loosen the TADs with the use of adapters. Autoclavable.

**Pack of 1**

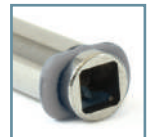


1:1

**080-1000-22**  
**ADAPTER FOR TAD VL**  
**WITH BUTTON**

Made of stainless steel, with elastomer blue ring. To tighten or loosen the TADs VL with button with the screwdriver for adapters (REF 080-1000-00). Autoclavable.

**Pack of 1**



1:1

**080-1000-23**  
**ADAPTER FOR TAD VL**  
**WITH DOUBLE SLOT**

Made of stainless steel, with elastomer grey ring. To hand tighten or loosen the TADs VL with the screwdriver for adapters (REF 080-1000-00). Autoclavable.

**Pack of 1**



**070-0001-06**  
**SURGICAL KIT**  
**FOR TADs VL**

**NEW**

Made of PPSU plastic material, it has been designed to sterilize and keep organized only the necessary instruments on the surgical field for the insertion of TADs VL both with contra-angle and hand instruments.

The hinged cover when opened tilts the position of the kit and allows an easy access to instruments.

The kit is made up of 6 instruments (it can be filled up to 13):

- screwdriver for adapters
- adapter for TAD VL with button
- adapter for TAD VL with double slot
- handpiece adapter for TAD VL with button
- handpiece adapter for TAD VL with double slot
- adapter for screwdriver and ratchet for TAD VL with button

Entirely autoclavable.



**NEW**

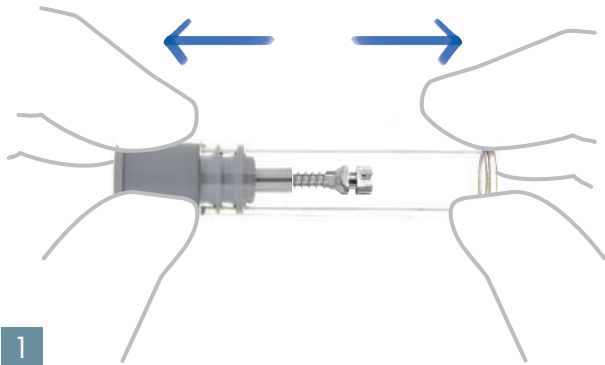
**070-0001-00**  
**EMPTY KIT**



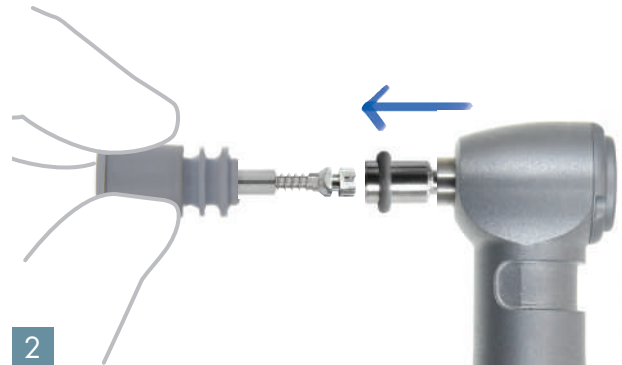
## SURGICAL PROCEDURE

The design of the orthodontic appliance with bone anchorage, requires an accurate planning of the therapy by the clinician, who using his judgment, opinion, and preparation, case by case, will take all the factors that might arise from pre-surgical exams into consideration, such as: anamnesis, objective exams, radiological, instrumental and laboratory investigations.

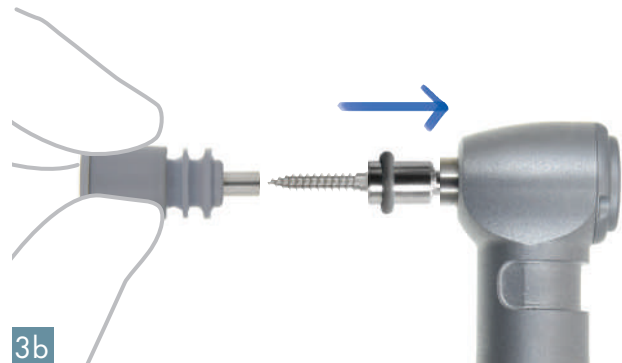
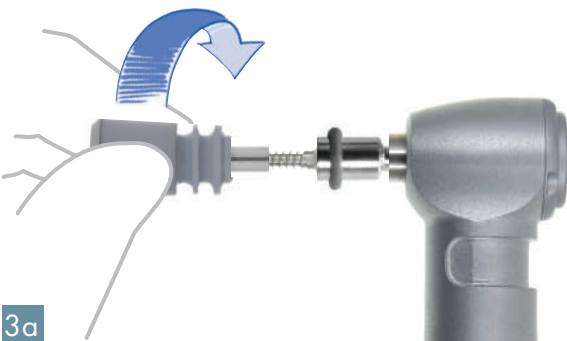
Once the surgical site and the more appropriate TAD VL have been determined, anesthetize the anatomical site. TADs VL are self-drilling, however in case of high bone density or thickness, it is suggested to pre-drill the cortical bone with one of the two drills available for mini implants (REF 090-1134-00 or REF 090-1334-00) to insert the TAD VL more easily.



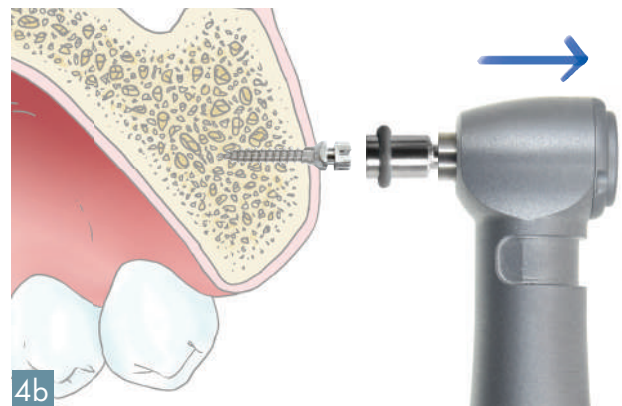
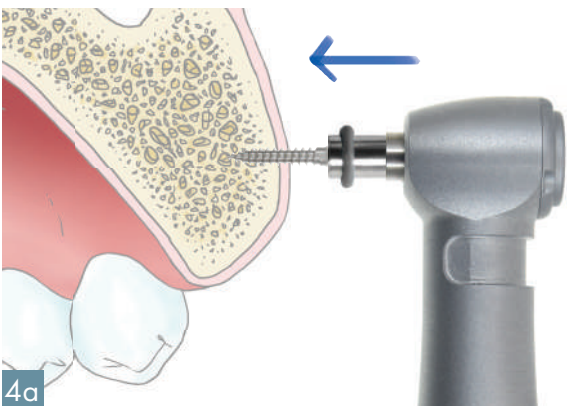
**1**  
Exert a gentle traction on the vial cap, remove the TAD VL from the sterile vial.



**2**  
Connect the dedicated handpiece adapter to the TAD VL head.



**3a**  
Once positioned the TAD VL into the instrument, remove the implant cap with a gentle counterclockwise rotary movement.



**4a**  
**4b**  
Set a maximum speed of 25 rpm and a maximum torque of 40 Ncm, start drilling the TAD VL along the entire length of the endosseous part.

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