



User's guide
Aesthetica+²

Surgery and Prosthesis

etk is the result of 23 years of clinical applications and 27 years of research and development confirmed by valuable help of international research laboratories.

The design of our implants is based on the skills of our teams which are both reactive and experienced in implantology:

- ▶ Technical and biomechanical skills of our engineers enabling to guarantee the resistance of the component and their adaptation to the oral environment thanks to modern means of simulation.
- ▶ Biological and physiological skills of the associated laboratories enabling to validate the capacity of osseointegration of our systems.
- ▶ Clinical and practical skills of our dentists advisers ensuring the ergonomics of our products, the confirmation of our protocols and the ranges adapted to the various clinical cases.

Aesthetica+² implants are relied on the most new advanced scientific knowledge regarding implant treatment, which provides this implant an optimal capacity of anchoring with a strong osseointegration, in particular in the cortical bone area.

To enable you to take the best advantage of the Aesthetica+² implant, we created this manual with a professional care. We invite you to read it with your best attention. Each detail, even the least important, has its importance and underlines even more the difference between the beginner and the specialist.

Warning	p. 6
General information	p. 7 to 9
Pre-implant study	p. 11 to 14
Surgical procedure	p. 15 to 39
FOREWORD	P. 16
AESTHETICA+ ² IMPLANT	P. 18
THE KIT	P. 22
PROTOCOL	
by bone density and implant diameter	P. 24
step by step	P. 26
Impression techniques	p. 35 to 39
WITH PICK-UP IMPRESSION COPING	P. 37
WITH POP-IN IMPRESSION COPING	P. 38
WITH POP-UP IMPRESSION COPING	P. 39
Prosthetic procedure	p. 40 to 62
FOREWORD	P. 42
CEMENTED PROSTHESIS	
abutment choice	P. 43
on trans-screwed abutment	P. 45
on Direct Clip abutment	P. 49
ZIRCONIA PROSTHESIS	
on Esthetibase interface	P. 55
SCREWED PROSTHESIS	
on ConOcta abutment	P. 59
OVERDENTURE	
on O'Ring abutments	P. 61

**For more information on etk,
implants, please visit our complete internet website,
www.etk.dental**

Warning

The placement of **etk** implants must be done by a practitioner who has been previously trained for the dental implantology techniques and in aseptic conditions specific to this type of treatment.

The following instructions will guide you throughout the different stages of your implantology treatments. They contain advice as precise as possible but cannot be used as «recipes», every clinical situation must be evaluated for each patient. A great number of factors acts independently to obtain success in an implantology treatment. It is up to the practitioner to recognize the key factors and to use his clinical experience. Among other aspects, the coordination between the prosthesis laboratory dental technician and the practitioner must be perfect so as to give the global treatment plan more consisting. Only the practitioner remains responsible for his different choices and decisions as to the treatment's feasibility, implants, prosthetic parts, materials used and settings... The technical specifications and clinical advice in this manual are given solely as a guideline and cannot give rise to any claims. All the essential information is indicated in the instruction for use supplied with products.

We have taken great care in the design and production of our products. However, we reserve the right to bring modifications or improvements arising from new technical developments in our implantology system. We will advise of any modifications having an implication in the operation mode. According to the importance of the modifications, a new manual will be issued. Indeed, a mark on the back page indicates the date of issue of your surgery manual, and enables us to check if you have the latest update version. You will also be able to access our web site to check the latest version of this manual.

The reproduction and distribution of all or part of this manual need previous agreement from **etk**.

GENERAL INFORMATION

Aesthetica+² implant GENERAL INDICATIONS

- ▶ Lack of retention of a prosthesis
 - ▶ Instability of a prosthesis
 - ▶ Functional discomfort with the prosthesis
 - ▶ Psychological refusal of the wearing of a prosthesis
 - ▶ Parafunctional practices which compromise the stability of a prosthesis
 - ▶ Inadequate localization and number of remaining abutments
 - ▶ Lack of dental abutment to perform a fixed prosthesis
 - ▶ Edentulous area with healthy adjacent teeth
 - ▶ Request for a treatment preserving the adjacent healthy teeth
 - ▶ Dental agenesis
 - ▶ Request for a preservation treatment (refusal of alteration of healthy teeth)
- ▶ The implant Aesthetica+² is a transgingival implant designed to be placed in one step surgery; its characteristics provide great primary stability and may allow for immediate loading.

Specific indications for 6 mm LONG IMPLANTS

As the anchorage surface of these implants is limited, they should be used only for the following indications:

- ▶ as complementary implants to longer implants in a multi-unit restoration,
- ▶ to support full prosthesis, in case of a very atrophied mandible,
- ▶ on implant sites of a bone quality higher to D4 according to the Misch classification.

Contra indications to the use OF THE IMPLANTS (REMINDER)

Absolute contra indications

- ▶ severe medical diseases
- ▶ bone metabolism disorders
- ▶ uncontrolled hemorrhagic disorders
- ▶ healing disorders
- ▶ major psychological disorders
- ▶ functional disorders
- ▶ risky cardiopathy
- ▶ incomplete maxillary and mandible growth
- ▶ uncontrolled systemic pathology (endocrine diseases, xerostomy, allergy to titanium)
- ▶ infectious, hematological and immune pathology (immune disorder)
- ▶ alcoholism, medication or drug addiction, regular steroid use)
- ▶ patients with little motivation or cooperation
- ▶ age of the patient (young patient during growth)
- ▶ poor hygiene of the patient

Relative contra indications

- ▶ use of anticoagulants, hemorrhagic diathesis
- ▶ Insufficient volume and / or an osseous quality
- ▶ a poor oral hygiene
- ▶ temporomandibular joint disorder
- ▶ an insufficient restorative space
- ▶ if a sinus lifting is needed with the implant
- ▶ a patient presenting risks (patient exposed to atomic radiation, bruxism, uncontrolled parodontitis, addiction to smoking)

Guarantee

In case of non osseointegration, you must inform your commercial representative so that we can examine the causes for the failure and bring the necessary corrective actions. An exchange may take place when the defect of the product is established; if the failure results from an incorrect clinical analysis, a surgical protocol not adapted to the case, from the use of blunt drills...or for any other reason independant from the product quality, the guarantee will not be taken into consideration.

Parts PACKAGING

Sterility and rule of asepsis

- ▶ Most of our parts are delivered sterile and can therefore be used straightaway. A reference indicator shows the components effective sterility on the packaging. The sterility is guaranteed for 5 years (from packaging date). A standard expiry date is indicated on the label.
- ▶ Only an undamaged packaging can guarantee the products imperviousness and sterility. Do not use implants with packaging which has been damaged or prematurely opened.
- ▶ Our products have been designed so as to enable handling without affecting their sterility. It is therefore important to follow a precise handling technique so as

not to compromise the conventional hygiene conditions associated with the implant practice.

- ▶ The non-sterile instruments and items delivered used for the implantology treatment must be decontaminated and, according to a tested process, sterilized at the practice.

	Sterile	No sterile
Implants	X	
Healing abutment (Supplied with Implant)	X	
Drills		X

Labels

Our implants are delivered with 2 principal labels and one removable label clearly showing the mark, the reference and the batch number (for a total of 3 labels):

- ▶ 2 labels for the patient's file of the practitioner who placed the implant and/or of the correspondent.
- ▶ 1 label for the patient.

QR code for rapid and simple access to the user manual



Manufacturing

Be careful see detailed description

Date of manufacturing

Use until

See the instruction manual

Product reference number

Serial number

Store in a dark place

Store in a dry place

Complying with European requirements directives regarding medical plan 93/42 CEE

Don't use if the packing is damaged

Sanitization method using radiation

Don't reuse

Don't sterilize twice

Storage OF THE PRODUCTS

The implants must be stored in a clean, dry and cool place.

Precautionary MEASURES

- ▶ It is strongly advised to keep in stock, implants which cover the most frequently used diameters as well as the different lengths.

It is important to be able to change an implant's choice during a procedure, to replace an implant which has been contaminated for any reason, to insert an extra implant in certain cases to insure the long term treatment success...

- ▶ We recommend the use of a safety system (floss attached to instruments or a suitable throat protection system) on the instruments in case of accidental dropping of tools in the patient's throat.

- ▶ It is strongly advised to put in place the receiving socket with **etk** instruments shown in this manual.

PRE-IMPLANT STUDY

IMPLANT treatment feasibility

This study takes different elements into consideration

- ▶ A patient's questionnaire to reveal potential health/ medications problems which could have a bearing on the treatment success, alcohol, use tobacco or drugs, general dental hygiene...
- ▶ An oral examination which will give details about the mouth opening, the ligne of the patient's smile (if is it a gingival smile), the coronary height and the volume of bone available, the type of occlusion...
- ▶ Biological tests (glycemy...)
- ▶ A complete X-Ray file showing the available bone's volumes
- ▶ Complete tests studies with the two dental arches in occlusion.
- ▶ An implant treatment cannot be started without a thorough cleaning of all the patient's infectious seats.

Guide for the IMPLANTS CHOICE

Available bone volume

In the mesio-distal plan

- ▶ Leave 2 mm between the implant's thread and natural teeth.
- ▶ Leave 3 mm between the thread of two implants.
- ▶ Leave necessary space to fit the implant's collar (Ø 4.8 or 6.5).

In the labio-lingual palatal direction

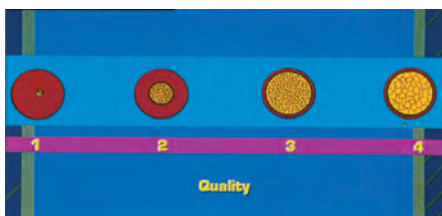
Leave, if possible, 1.5 to 2 mm of bone thickness around the labial, palatal & lingual surfaces.

Bone quality

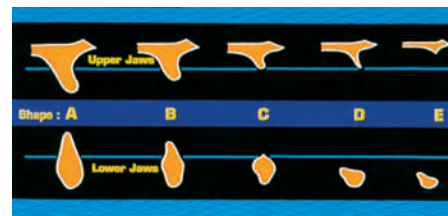
It is recommended to, use larger implants in low density bones to compensate the loss of surface contact bone/ implant due to sockets.

	Recommended length
D1	6 - 8 mm
D2	10 mm
D3	12 mm
D4	12 mm

The classification of osseous structures*

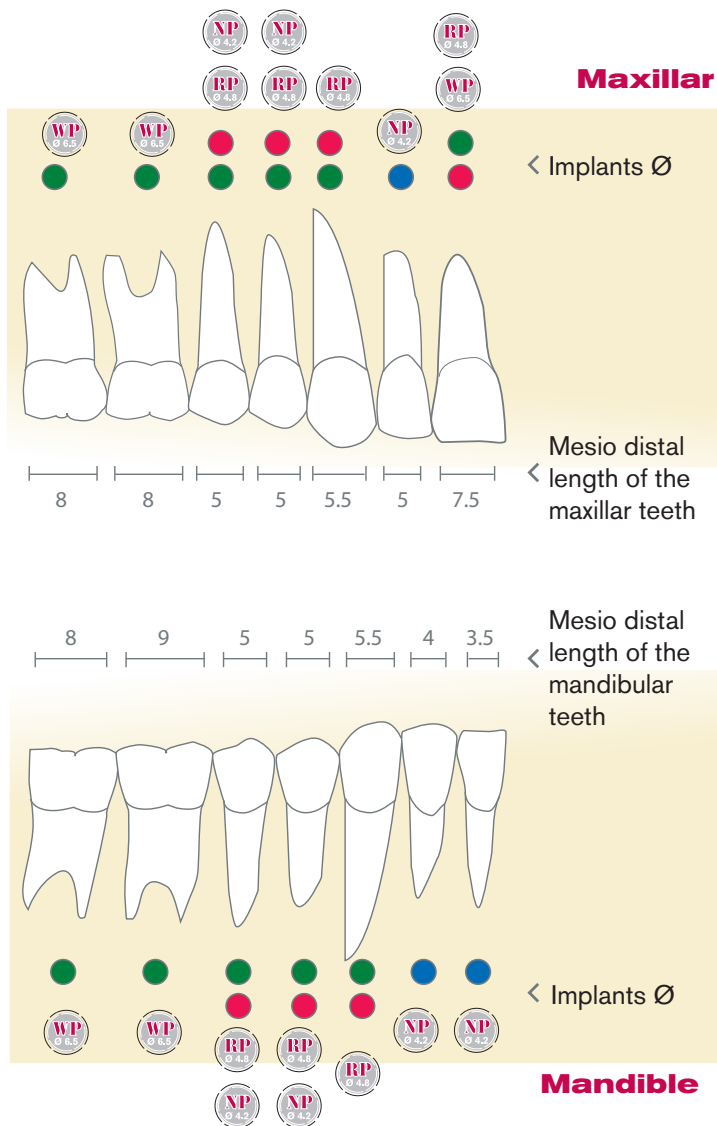


- 1 : very high density of compact bone
- 2 : thick layer of cortical bone around a dense core of spongy tissue
- 3 : thin layer of cortical bone around a big core of spongy tissue
- 4 : thin layer of cortical bone around a big core of low density of spongy tissue



- A : important quality of remaining alveolar bone
- B : limited resorption of the alveolar bone crest
- C : important resorption of the alveolar bone crest
- D : beginning of the basal resorption bone
- E : important resorption of the basal bone

* Misch, (1998) Lekholm and Zarb (1985), Classification of partially edentulous arches for implant dentistry.

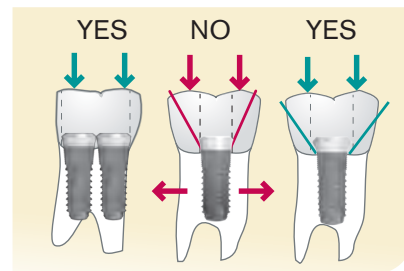


Caption

- Implant Ø 3,6
- Implant Ø 4,1
- Implant Ø 4,8
- NP Ø 4,2 = platform Ø 4,2
- RP Ø 4,8 = platform Ø 4,8
- WP Ø 6,5 = platform Ø 6,5

Dimensions of the crown and occlusal loads

- ▶ The implant platform must be, ideally, slightly smaller than the prosthetic crown to insure the widening of the soft tissues and the prosthesis emergence. The ratio crown height/implant length must always be below 1.
- ▶ A molar replacement must be done with either 2 implants of small diameters or with an implant of large diameter so the support cusps are located in the implant's axis (better distribution of the forces on the bone).



Use OF THE SURGICAL TRANSPARENCIES

In order to guide the choice of the implant in terms of length and diameter, **etk** has developed surgical transparencies that show the dimensions of its different implants. Thereby, the implants are represented with 1:1, 1.3:1 and 1.7:1 magnifications (magnifications correspond to the usual magnifications of the different types of medical imaging systems: retroalveolar X-ray, X-ray dental panoramic and tomography analysis SCANORA, CBCT (Cone Beam)).

When the practitioner accurately knows the magnification of the pre-surgical X-ray, and if this magnification is 1:1, 1.3:1 or 1.7:1, by a simple superposition of the corresponding template (1:1 template for a 1:1 magnification, 1.3:1 template for a 1.3:1 magnification and 1.7:1 template for a 1.7:1 magnification), it is possible to determine which type of implant can be placed in the available bone volume.

When the practitioner does not know the magnification of the X-ray or to avoid any mistakes, he may place a reference object with known dimensions in the mouth of the patient when performing the X-ray examination in order to determine the associated magnification :

$$\text{Magnification} = \frac{\text{dimensions of the reference object measured on the radiograph}}{\text{real dimensions of the reference object}}$$

The real dimensions of the reference object shall be known to a minimum accuracy of $\pm 15\mu\text{m}$. The reference object shall be held in position using wax for example or by embedding the object in a partial impression. Care should be taken for the patient not to swallow the reference object. Use a safety thread if the geometry of the reference object allows it.

Then, if the calculated magnification is 1:1, 1.3:1 or 1.7:1, you may use the transparencies.

In all cases, if the magnification is not 1:1, 1.3:1 or 1.7:1, it is not possible to use the transparencies provided by the **etk** but the bone volume may be determined thanks to proportionality calculation using the X-ray and the measured magnification.

In this pre-implantation phase the practitioner must also design the coming prosthetic construction since implantology must be considered as a prosthetically driven project. Indeed, pre-prosthetic planning and surgical planning are closely linked and any change to one will have consequence on the other. It is during this phase that we may determine the number of implants, their diameters, their lengths, their locations and their orientations in order that we may proceed with the planned prosthetic construction.

aesthetica 

**SURGICAL
PROCEDURE**

Foreword

Warnings

Treatment planning and placement of dental implants require specific considerations. Practitioners are recommended to take practical training in order to learn proper techniques, including biomechanical requirements and radiographic evaluation.

Improper techniques in either implant placement or restoration can result in implant failure and significant loss of surrounding bone. Drilling sequences to place implants refer to a specific depth measurement and to unique reference points for each system.

The clinician should refer to the corresponding manual to see the description of the measurement system specific to the selected product, before applying it to the patient. Every implant system has specific measurement characteristics. As a consequence, the surgeon must be familiar with the measurement system being utilized in order to be able to provide safety margins adjacent to any anatomical structure. Failure to respect these measures can result in permanent injury.

Each system has specific design characteristics. Combining non compatible components can lead to mechanical failure of components, damage to tissue or unsatisfactory results on the clinical or esthetic level.

For all the euroteknika implants, the preparation of the implant site is carried out in 3 steps:

1. Initial preparation of the implant site (marking of the bone and first drilling)
2. Calibration of the implant site (bores, drillings and/or tapping)
3. Implant placement (picking-up, screwing, stabilization and suture)

Precautions for use

For all the surgical procedure, the following instructions must be observed and respected:

- ▶ Make sure you have a sufficient number of implants and sterile instruments
- ▶ All the instruments must be sterile, complete, checked and functional, especially the measurement instruments (calibrated according to the manufacturer's recommendation) and the cutting instruments should not be used more than 15 times.
- ▶ All the reusable products must be disinfected, cleaned and sterilized after every intervention.
- ▶ All the disposable components delivered non-sterile must be disinfected, cleaned and sterilized before intra-oral use. Using a thermo-disinfector and a Class B autoclave is possible for the components out of their package, in a specific bag according to the manufacturer's recommendations.
- ▶ In case of plastic or ceramic components, always disinfect and cold sterilize with CHLORHEXIDINE.
- ▶ Any product delivered sterile (by gamma radiation) must not be re-sterilized and is for single use.
- ▶ Respect the sterile parts of the package when opening it and place its content on a sterile field.
- ▶ Respect the expiry date of the product.
- ▶ For stainless steel, the use of sodium hypochlorite is prohibited: high risk of corrosion.
- ▶ Respect the different combinations of materials when cleaning and decontaminating them in order not to damage the components.
- ▶ Detergent and disinfectant solutions must have a neutral pH or a low alkaline level.
- ▶ Any preparation of the implant site with cutting instruments on contra-angle requires profuse irrigation with a sterile saline solution (NaCl).
- ▶ Respect the sequence of the recommended instruments with a permanent control of the implant axis and depth according to the planned prosthetic restoration.
- ▶ Make sure to minimize the thermic and surgical traumatism and to eliminate any contaminant and any infection source which may cause a failed osseointegration or poor esthetic result.
- ▶ Secure the instrument and implant components handling and from the risk of fall in mouth or out of the sterile field because of their small sizes. Make sure they are properly gripped on the instruments.

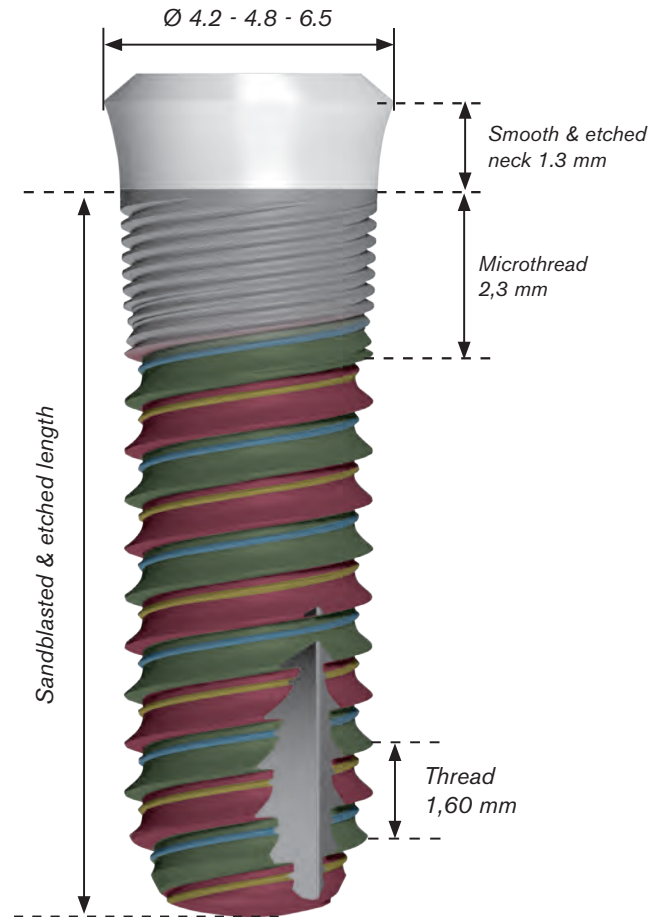
AESTHETICA+² IMPLANT

Applications

Aesthetica+² is a tissue level implant.

Thanks to its 3 platforms, it can be placed in most of indications, especially in case of bone sites with resorbed alveolars.

Features



References

The implant is supplied with a healing abutment.

Implant Ø	Ø nek	L 6 mm	L 8 mm	L 10 mm	L 12 mm	L 14 mm
3.6 mm	4.2 mm	—————	AIEP 36 42 080	AIEP 36 42 100	AIEP 36 42 120	AIEP 36 42 140
	4.8 mm	—————	AIEP 36 48 080	AIEP 36 48 100	AIEP 36 48 120	AIEP 36 48 140
4.1 mm	4.2 mm	AIEP 41 42 060	AIEP 41 42 080	AIEP 41 42 100	AIEP 41 42 120	AIEP 41 42 140
	4.8 mm	AIEP 41 48 060	AIEP 41 48 080	AIEP 41 48 100	AIEP 41 48 120	AIEP 41 48 140
4.8 mm	4.8 mm	AIEP 48 48 060	AIEP 48 48 080	AIEP 48 48 100	AIEP 48 48 120	AIEP 48 48 140
	6.5 mm	AIEP 48 65 060	AIEP 48 65 080	AIEP 48 65 100	AIEP 48 65 120	AIEP 48 65 140

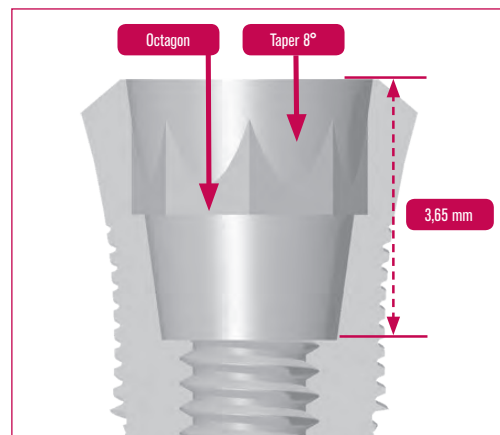
Direct implant driver

- ▶ Time saving during surgery.
- ▶ The insertion level and the connection orientation are easier to see.
- ▶ Informs about gingival height.



Connection

The **Aesthetica+2** implant has an internal octagonal connection with a 16 °taper.

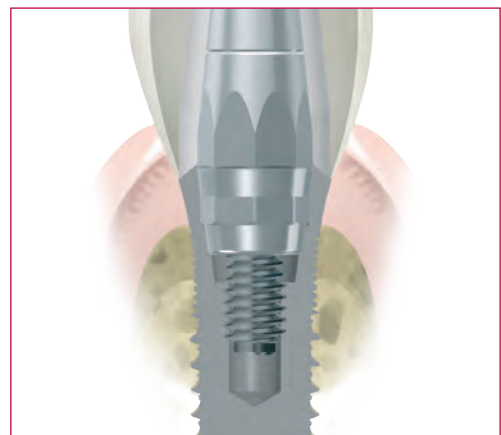


Airtightness & stability

The internal conical connection (Morse Taper) guarantees the airtightness and the stability of the abutment-fixture connection (S.Dibart, M. Washington, M. Fan Su, Z. Skobe).

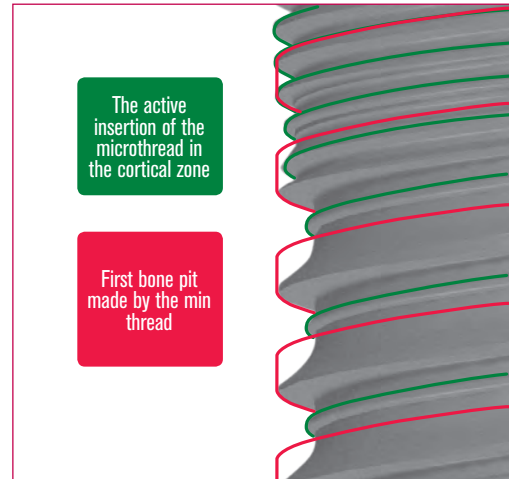
The connection has an internal octagon which allows the abutment to be orientated at the right angle.

The depth of the connection and the quality of the joint between the parts guarantee a great stability and prevent the prosthetic from unscrewing.



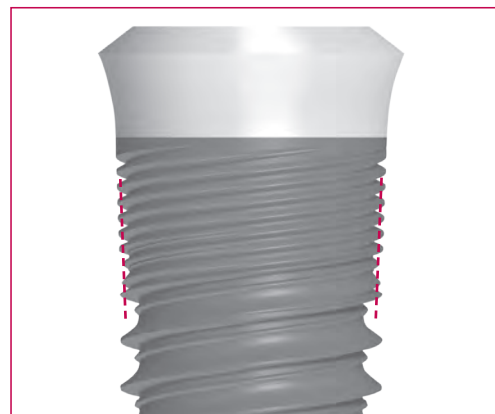
Exclusive microthread

- ▶ **Mechanical anchorage** to enhance the implant stability in critical sites made up of the endo-bone neck that suffers most of masticatory forces.
- ▶ A thicker microthread **for a higher resistance** to tear constraints.
- ▶ Synchronicity with the main thread in order not to wrest bone when following it.
- ▶ A **unique design with 6 entries** to guarantee the microthread anchorage in a precise, calibrated, similar and undamaged track.
- ▶ **Continuity with the microthreads, the protrusions and macrothreads** for a better load distribution along the implant.



A tapered neck for a better primary stability with a cortical support

- ▶ Stabilization of the implant notwithstanding a poor apical bone density.
- ▶ A controlled implant insertion for a guaranteed primary stability.



Double threads

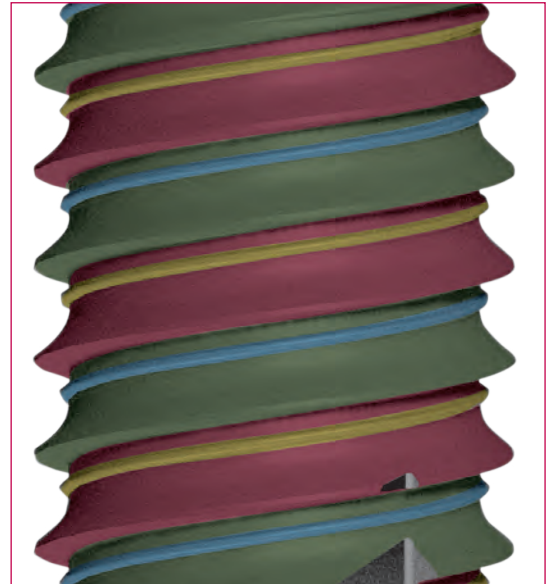
- ▶ Fast screwing of the implant.
- ▶ Reduced bone heating when screwing the implant.

A central protrusion between threads

- ▶ Increases surface contact with bone to enhance osseointegration. Cellular reconstruction is activated by this change of geometry.

An asymmetric thread

- ▶ The thread directly influences effective surface of the implant (B.I.C).
- ▶ Allows a better occlusal load distribution.



Non traumatic and active apex

- ▶ A groove closer to the apex to enhance the self-tapping effect of the threads.
- ▶ The threads start from the apex for a high self-tapping ability of the implant and a better apical anchorage.
- ▶ A safe use in risky sites (sinus, dental nerve...).



SURGICAL KIT

The stake for the realization of the implant socket is on three levels:

- ▶ a calibration of the socket to obtain a good primary stability of the implant, main condition for the osteointegration.
- ▶ **minimum overheating** to avoid all irreversible bone necrosis. The socket preparation will be made under constant external irrigation with sodium chloride at 0.9%. The critical temperature threshold is 47°C for 1mn. At 50°C, the necrosis is irreversible.
- ▶ The obtainment of a calibrated socket assuring a good imperviousness.
- ▶ The instruments are sorted by their stage of use. Numbers notify the main steps of each stage.

BE CAREFUL

It's necessary to choose the prosthetic parts before the implant placement in order to place the implant in the correct vertical position.

WARNING

The minimum heating will be achieved with a good irrigation and with a good selection of drills with a good cutting power. It is therefore necessary to check the number of use of the drills involved in the implant socket preparation and change your drills after 10 to 15 uses.

This surgical kit offers all the instruments necessary for the realization of the surgical protocol and the management of all the bone densities for Natea+ and Aesthetica+² implants.

Free additional spaces to insert the drivers and mandrels necessary to your practice.

Contents:

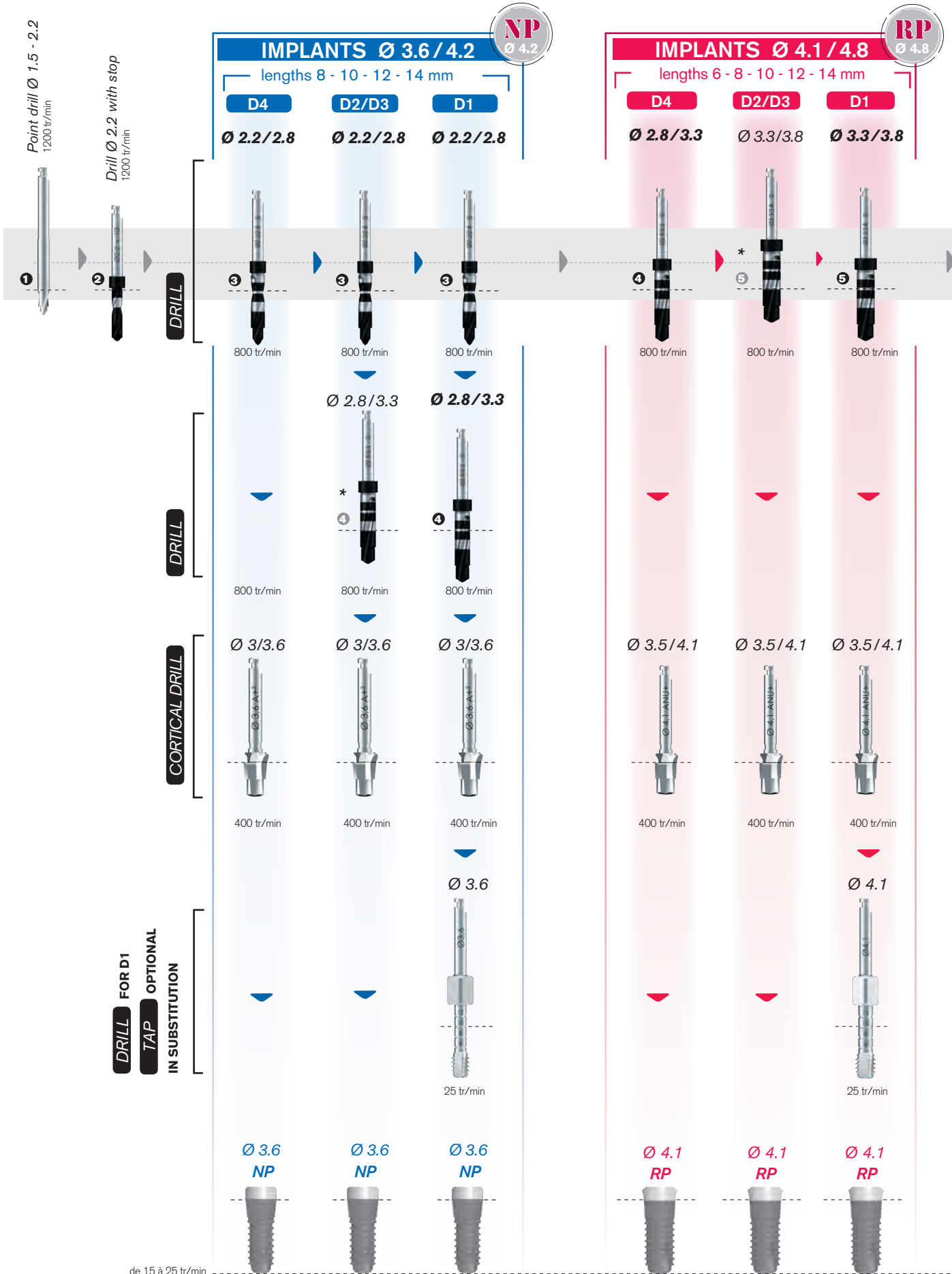
- Point drill Ø 1.5 - 2.2
- Initial drills Ø 2.2 lengths: 6, 8, 10, 12, 14 mm
- Staged drills Ø 2.2 - 2.8 long & short
- Staged drills Ø 2.8 - 3.3 long & short
- Staged drills Ø 3.3 - 3.8 long & short
- Staged drills Ø 3.8 - 4.3 long & short
- Cortical drills:
 - Natea+ Ø 3.6 / 3.7
 - Aesthetica+² Ø 3.6 / 4.2
 - Natea+ / Aesthetica+² Ø 4.1
 - Natea+ / Aesthetica+² Ø 4.8 / 4.8
 - Aesthetica+² Ø 4.8 / 6.5
- Taps:
 - Aesthetica+² Ø 3.6
 - Aesthetica+² Ø 4.1
 - Aesthetica+² Ø 4.8
- Depth gauge Ø 2.2
- Paralleling pins Ø 3
- Paralleling implant gauge
 - Natea+
 - Aesthetica+²
- Implant direct keys Natea+ short, medium & long
- Implant direct mandrels Natea+ short & long
- Implant direct keys Aesthetica+² short, medium & long
- Implant direct mandrels Aesthetica+² short & long
- External hexagonal keys short, medium & long
- External hexagonal mandrels short & long
- Mandrel extension
- Click wrench

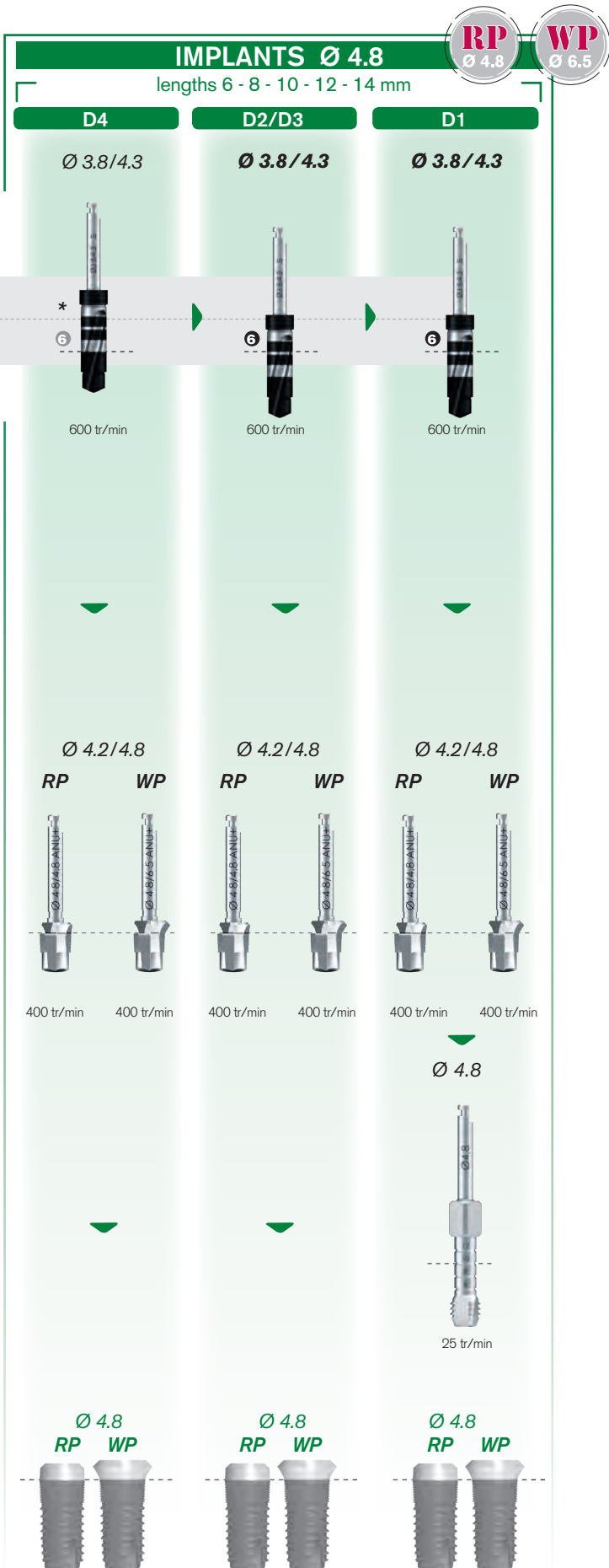


- Simple and compact.
- Common kit for 2 implant systems.
- A smaller size to gain space on the sterile field and in the autoclave.
- Readability of the sequences with step by step instruments presentation in order of use.
- Color coding of plugs and drills according to implant diameters.

PROTOCOL


BY BONE DENSITY AND IMPLANT DIAMETER





.... Example of insertion for a 10mm long implant, the same as for the other lengths of implants.

* : Partial drilling to have a perfect implant socket size to optimize the implant primary stability according to bone density.

 No length 6 mm in D4.

Surgical PROCEDURE

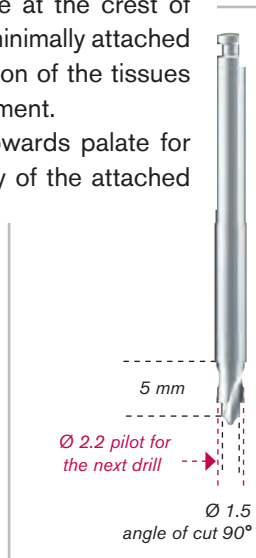
Protocol

1 Incision

Prepare the access to implant site via a crestal incision through the attached gingival tissue and raise a partial thickness flap.

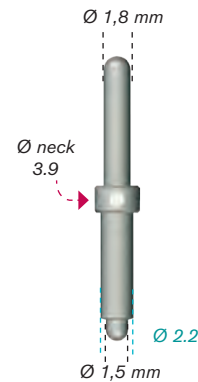
The flap should extend to allow for proper visualization of the site and adjacent tooth root when required. A partial thickness flap is made at the proposed implant site. The reflection on the flap is made large enough to visualize the adjacent roots and not into the papilla areas in an effort to preserve this tissue. In the edentulous area, the incision is made at the crest of the ridge and reflected for access. If minimally attached gingiva is an issue, avoid over reflection of the tissues into the sulcus to preserve the attachment.

The crestal incision is often made towards palate for aesthetic reasons or when the quality of the attached vestibular gingiva is not enough.



BE CAREFUL

- ▶ Maintain a minimum amount of bone around the implants according to the common rules in implantology.
- ▶ In the labio-lingual / or palatal direction save 1.5 mm to 2 mm of bone.
- ▶ In the mesio-distal plan, save 2 mm between a natural tooth & the implant thread, or 3 mm between 2 implants threads.
- ▶ Spare necessary space between the implant necks.
- ▶ The width of the implant neck must be taken into account for the implant placement. Our gauges show the neck width to help place the implants with precision.



2 Marking OF THE BONE

Set the motor speed at 1000 to 1200 RPM according to the bone quality and start irrigation. Visually pinpoint the implant areas.

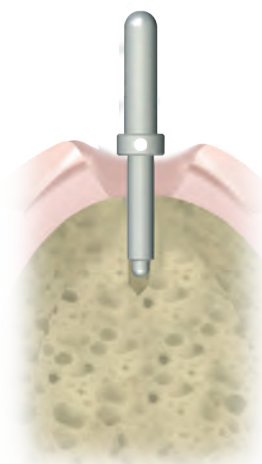
The bone marking is made with a pointing drill of 1.5 mm diameter, more effective than a round bur. The pilot drill has a 90° point which can easily go through the cortical layer. Its upper part, with a 2.2 mm diameter, is used as a guide for the following drill.

This first drilling enables to make a socket 5mm deep and therefore leaves the possibility to correct the axis if necessary.

After use, the drill is put in a stainless steel bowl filled with sterile saline.

In case of multiple implants in the same area, proceed with the marking of sockets following the spacing rules described above.

3 Control OF THE SOCKET AXIS



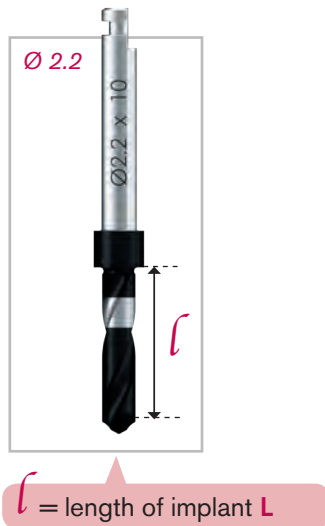
Check the axis of the first sockets by looking at the orientation of the drill mandrel, or by inserting in the socket the thinnest side of the paralleling pin.

4 First DRILL

Choice of the length of the $\varnothing 2.2$ mm drill

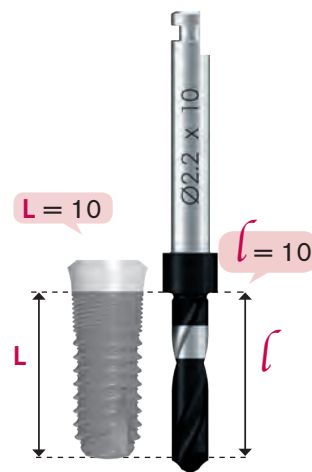
This drill will determine the depth and axis of the implant socket.

Lengths given for implants are corresponding to the sandblasted part without the neck of the implant



BE CAREFUL

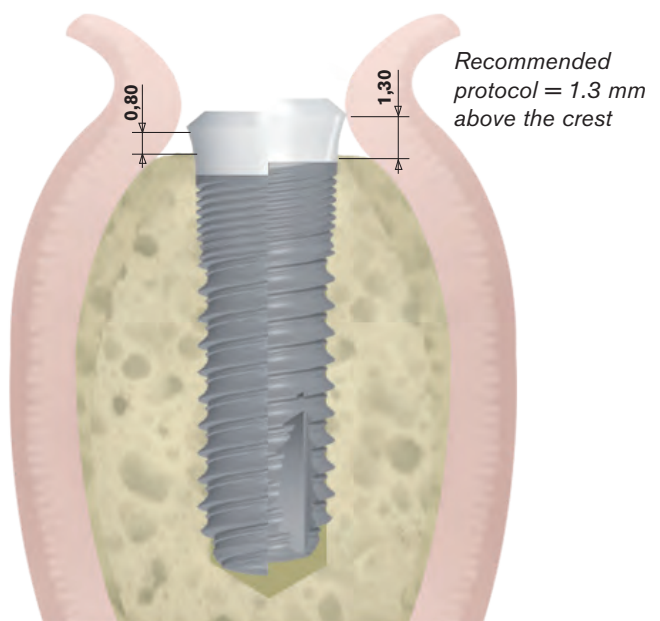
► *The rounded end of the implant doesn't fit until the very bottom of the socket prepared with the drill. The socket will be slightly deeper than the implant length. This avoids any risk of apical compression and warrants the crestal anchorage in cortical area.*



Possible burying optimisation to 0.8 mm

If a deeper insertion is needed, it is possible to place apical part of the implant in the space achieved by the tip of the drill.

Supra-crestal height is then minimum 0,8 mm



Surgical PROCEDURE

The Aesthetica drills dia. 2.2 have a stop. They are available in five different lengths: 6 - 8 - 10 - 12 - 14 mm.

Perform the drilling up to the determined marking, under constant external irrigation of sodium chloride and at a speed between 1000 and 1200 RPM according to the bone quality. The drilling progression must be done

without strain. If it is the case, it indicates that bone residues are clogging the drill. An easy backward and forward motion, controlled so as to not ovalize the area, will enable a fluid progression of the drill. This does not require a reversing of the motor if it is done at the right time. If the drill is blocked, it can be removed in reverse mode.

The correction of the axis must be made at this stage when necessary. Thanks to the pointing drill, the drill Ø 2.2 will be correctly guided.

5 Depth CONTROL

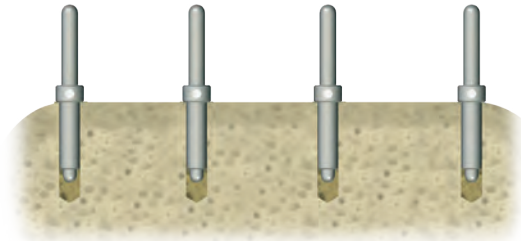
Check the depth of the socket using a graduated depth gauge dia 2.2.



! Once the depth gauge is placed in the bone, you should not see the graduation which must not appear above the bone

6 Control of the SOCKETS AXIS

Insert the thinner side of the parallelism gauge(s) in the implant(s) socket(s) to evaluate the axis of emergence of the implant(s). The gauge so positioned can also control a hemorrhagic flow.



7 Bone COLLECT

We advise you to collect the bone fragments resulting from each drilling in order to be able to correct any bone defect, or to improve margins of an irregular crest. The volume of the collected bone is, in most cases, enough to correct some moderate defects.

It avoids a transplant/graft and will not even require to be stabilized if the bone defect has several walls. Be careful, this bone must be preserved of any contamination and treated under the same conditions of asepsis as the implant.

8 Following DRILLINGS

Use the diagrams p. 27, 28 and 29 to determine the succession of the drills corresponding to the diameter of the chosen implant, and to adapt the implant socket to the bone quality of the area (see page 34). This information has been transferred on a plasticized sheet included to facilitate the procedure. During the drillings,

verify that the bone bleeds. Should the opposite occur, scratch a little the bone to make it bleed. In the absence of vascularization, it's better to close and to wait for a revascularization. Drilling speed should be between 600 and 800 RPM.

Stops

Sterilizable drilling stops are available in the kit. For every drill diameter correspond a range of stop of different lengths.

The stops can be picked up directly on the drill with a contra angle. Check the alignment of the stop extremity with the graduation on the drill. Verify the stop is properly fixed on the drill.

After a large number of uses, it is possible that the stops do not clip in place as easily on the drill. In this case, change the stop.



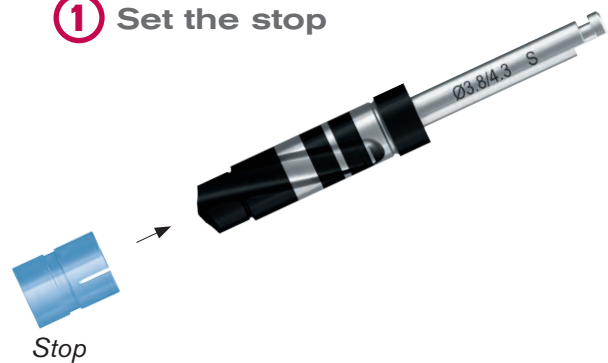
The stops have a groove to help the insertion of the key. To remove a stop, insert the proper key in the stop groove and push the stop towards the drill extremity.

If you wish to work without the stops, you can use the marks on the drill.

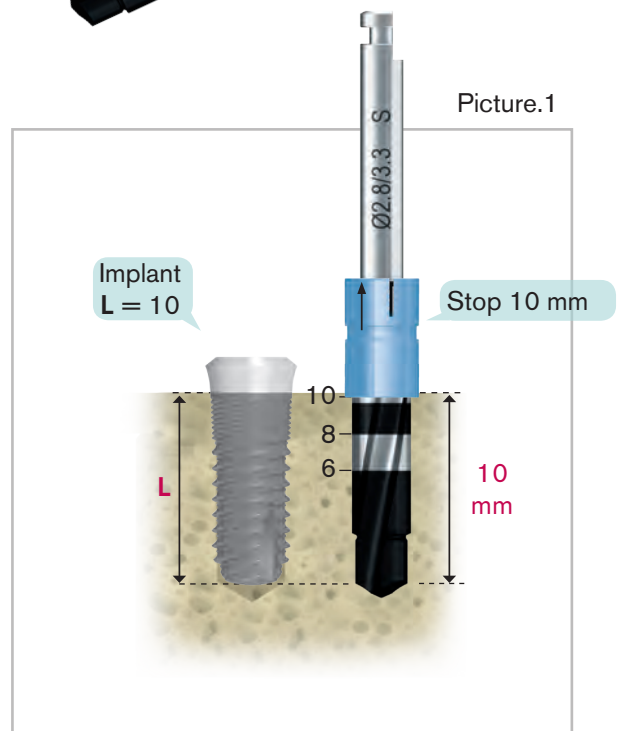
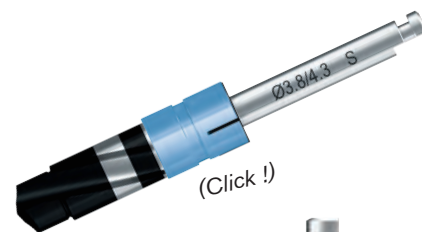
In a bone D2 - D3, the drills are being used at a speed between 800 and 1200 rpm depending on their diameter. In a D1 bone, we can use slower speeds between 300 and 800 rpm. The drills must work under constant irrigation.

After their use, place the drills in a stainless steel container filled with a saline solution.

1 Set the stop



2 Stop in correct position



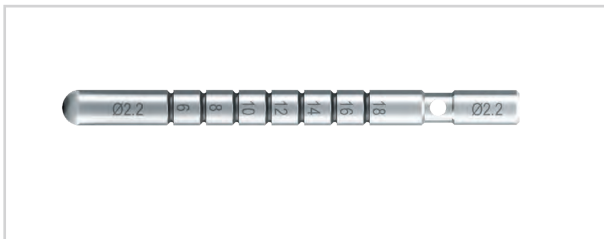
Tapping

This procedure is required for bone type D1. **etk** supplies taps that only feature an active part limited to a reduced number of threads. The shape of the tap allows for just a few of the thread cutters to touch the bone in a forward rotation. Once to depth, the tapping cutters only minimally touch the bone again during the reverse rotation coming out of the bone site preparation. In most of the cases, it is advised to only thread the cortical part of the bone socket to facilitate the insertion of the implant while optimizing the primary stability of the implant.

The tap is used either with a contra-angle at a speed of 15 to 20 rpm.



10 Depth GAUGES



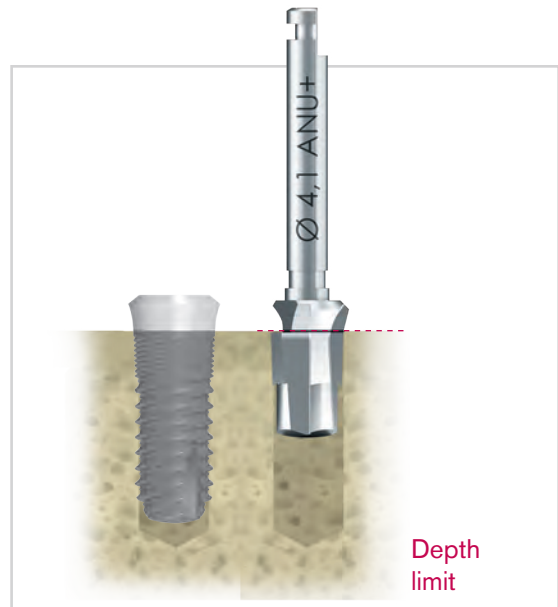
Dimensioned to the diameter 2.2, they enable a check of the depth of the socket. They are graduated like the drills, i.e. every 2 mm, from 6 mm to 18 mm.

! Once the depth gauge is placed in the bone, you should not see the graduation which must not appear above the bone

11 Cortical DRILL

The countersink bur is used only if a part of the implant conical shoulder is located in the bone.

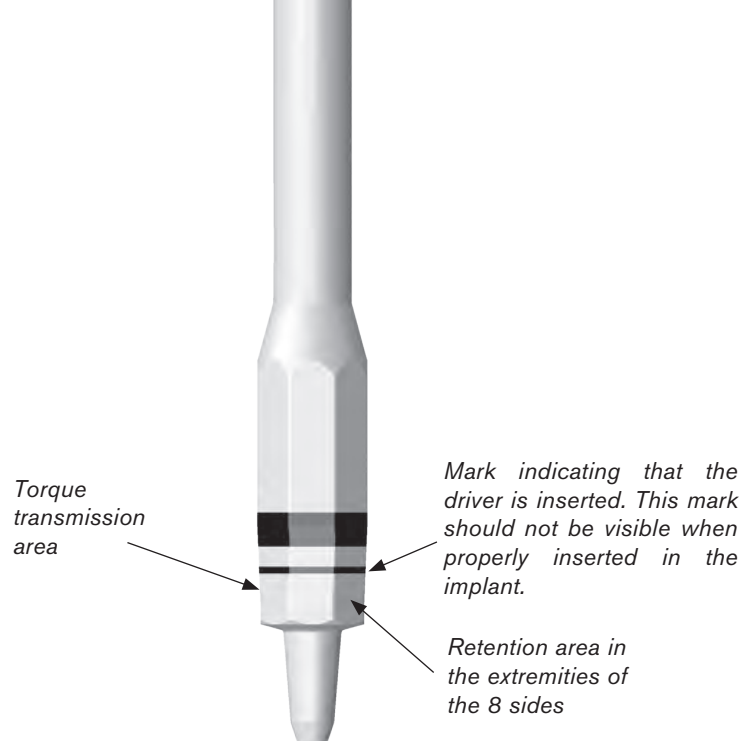
- ▶ The countersink bur is used from 300 to 400 RPM
- ▶ Use the cortical drill with the same color code as the implant diameter.



This stage is required in all cases whatever the hardness of the bone is, to ensure cortical compression onto the implant neck.

12 Implant INSERTION

The implant can be inserted manually or with the handpiece. This procedure must be done with the greatest care so that the implant does not come in contact with any non-sterile element before insertion in the bone socket. To do so, use the screwing mandrel or manual key. After opening the tube, connect the appropriate implant driver directly to the implant without taking it out of its casing before.



12.a The implant should be taken out of its casing as follow:

Step 1 - Seat the hexagon of the mandrel or key into the implant hexagon.

Step 2 - To seize the implant, slightly rotate the mandrel or key in the implant, in clockwise direction, until the implant stops turning in its casing (a device in the casing allows to limit the implant rotation while grasping it).

Step 3- Insert the mandrel into the implant by applying light pressure so that it is retentive on the implant (5N= 500g).

a. The positioning marking is not visible any more, the mandrel is correctly seated.

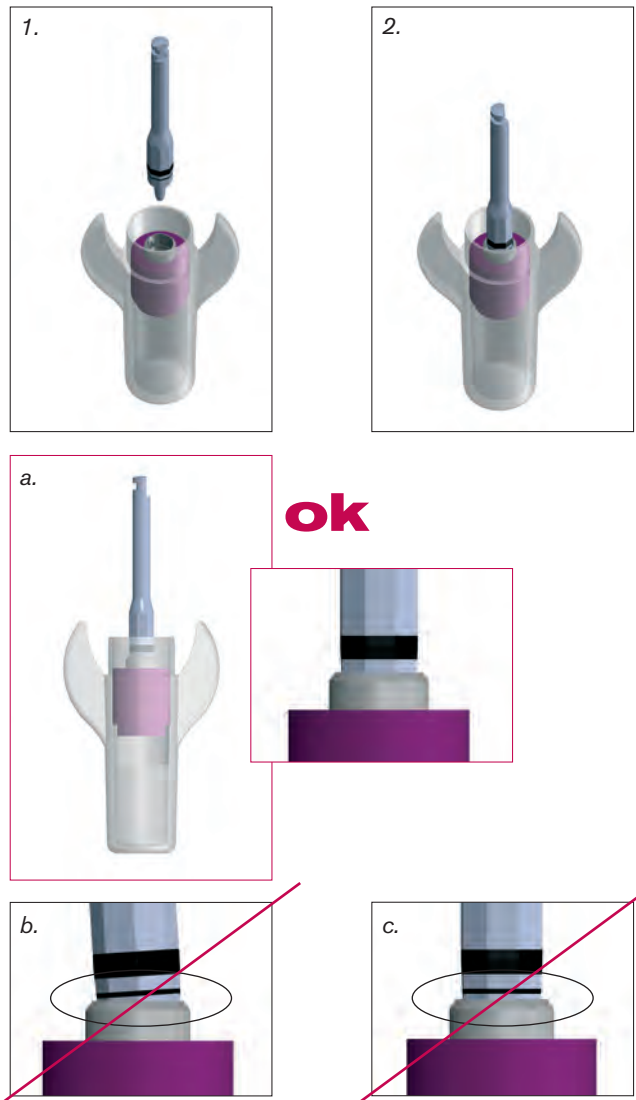
b. The positioning marking is visible, the mandrel is not oriented nor inserted properly. In that case, go back to step 1

c. The positioning marking on the mandrel is visible, the mandrel is not oriented nor inserted properly. In that case, go back to step 2.

Step 4 – The mandrel is properly seated in the implant, apply light pressure counter-clockwise.

Step 5 – Take the implant to its receiving site.

Note: Be careful with the risk of fall on the floor or in the mouth when taking the implant.



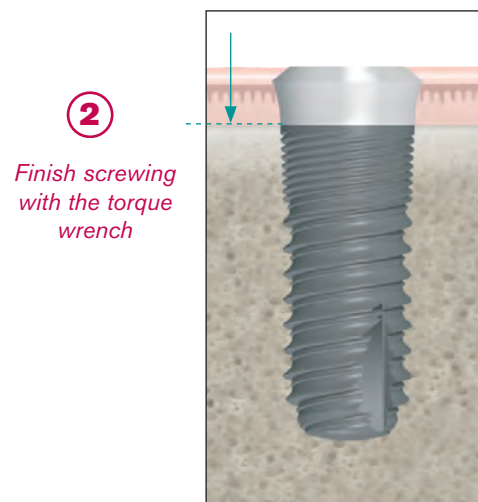
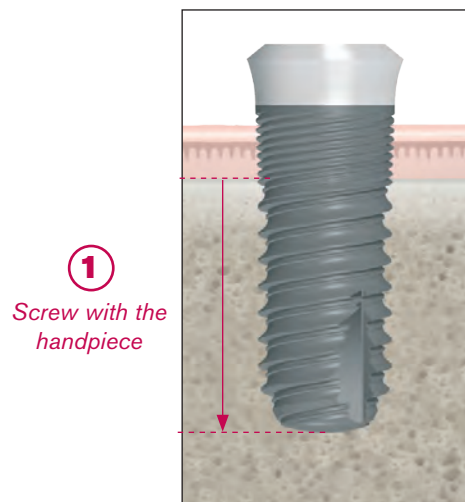
Surgical PROCEDURE

12.b For a good positioning with the handpiece, we recommend a speed of 15 to 25 r/mn to control the insertion of the implant. The positioning with the handpiece enables to measure the insertion torque of the implant and to evaluate its primary stability. We recommend to set the implant at 30 N.cm minimum for a delayed loading, and higher than 40 N.cm for early or immediate loading. Never exceed an insertion torque of 70 N.cm.



Bone D1 - D2


For D1-D2 bone, it is recommended (during the screwing of an implant with a contra-angle), to finalize the screwing with the torque wrench, in order to ensure the good insertion of the implant.



12.c In the case of manual placement, the first screwing of the implant is achieved with the implant-holder key.

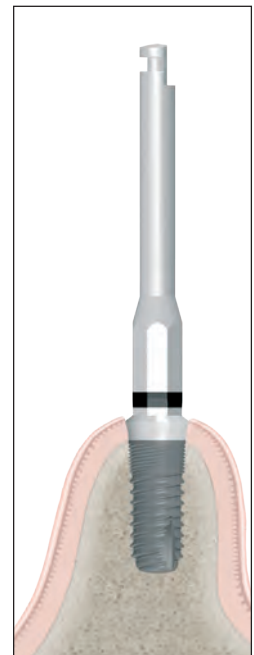
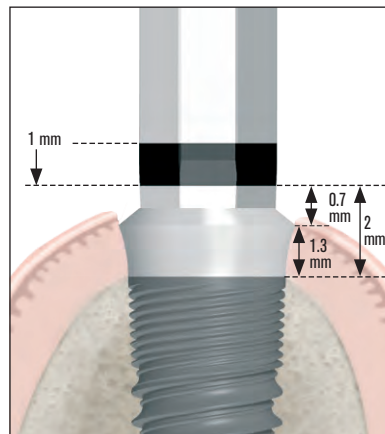
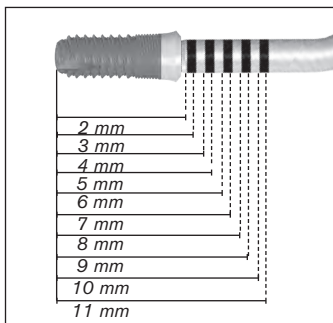
It is finalized with the click wrench or with the torque wrench. It is recommended to check the primary stability of the implant at the end of the screwing by trying to move it.

If the implant can move, its primary stability is inadequate and the osseointegration may fail; then it is better to remove it and to use an implant with a bigger diameter if the bone volume is sufficient.

 Do not apply excessive pressure during implant placement. Excessive overtightening may damage the internal connection and over-compress the surrounding bone, compromising osseointegration. If strong resistance is encountered during tightening, lightly unscrew the implant then insert back the implant. If there is still strong resistance, remove the implant and place it back into its titanium casing, and widen the implant site according to the drilling protocol.

12.d Final implant placement

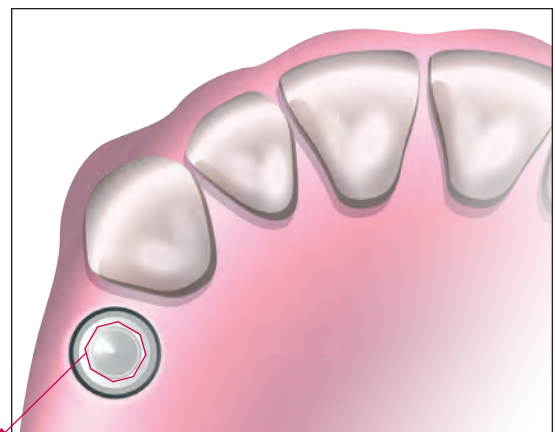
The angled gauge and the paralleling pins can also allow to measure supra-implant height (in option - sold separately).



- When placing the implant, align one of the hex sides on the implant manual driver or mandrel parallel to the buccal wall, which ensures that one of the flat side of the hexagon is parallel to the buccal side, ensuring preferred prosthetic abutment orientation.

12.e Removal of the driver

- To remove the driver, slightly rotate it counter-clockwise before lifting it up.



Vestibular flat side

13 Protection OF THE CONNECTION

Place the healing screw located in the cap of the tube on the implant head with the hexagonal key (Ref CCL HE 12 22) or the external hexagonal mandrel (Ref CMA HE 12 26) and tight manually (10 N.cm) or with the dynamometric torque wrench (Ref. CCC 35) for a better control.

If the height of the healing screw (3mm) supplied with the implant is not adapted, other heights of screws are available in the range:

FOR IMPLANT NECK Ø 4.2	
ACI 42 47 15	H 1,5 mm
ACI 42 47 30	H 3 mm (delivered with implant)
ACI 42 47 45	H 4,5 mm
FOR IMPLANT NECK Ø 4.8	
ACI 48 55 15	H 1,5 mm
ACI 48 55 30	H 3 mm (delivered with implant)
ACI 48 55 45	H 4,5 mm
FOR IMPLANT NECK Ø 6.5	
ACI 65 72 20	H 2 mm
ACI 65 72 30	H 3 mm (delivered with implant)
ACI 65 72 45	H 4,5 mm

14 Osseointegration

The conventional period to obtain a good osseointegration is:

- 3 months at the mandibular,
- 6 months at the maxillary due to a different bone quality.

The dentist should define this period by taking into account the bone quality, the implant primary stability and the prosthetic plan.

In certain cases, the dentist can decide to connect the prosthetic parts without waiting for the osseointegration.

However, the dentist must be able to analyze if the conditions of the clinical case are appropriate to an immediate loading.

Studies and scientific datas indicate that immediate loading has proven to be successful at the mandibular when the prosthesis is built on 4 implants or more linked together.

Immediate loading is not recommended on a single implant.

⚠ IN CASE OF FAILURE

To extract an implant, try to unscrew it with the implant driver or the implant direct key. If this solution is insufficient, please refer to the note of the **etk** extraction kit.

The socket can possibly be re-implanted*:

- if the patient is ready to receive a new implant,
 - with an implant of wider diameter, in the case that the placement of this implant occurs at the same time.
- To put another implant with a smaller diameter, it is better to wait for the complete healing of the socket.**

* It is important that the reasons of the failure should be analyzed before placing a new implant.

** The doctor decides whether it is necessary to use bone to fill in the socket.



EXTRACTION KIT

KDR_AEST

IMPRESSION TECHNIQUES

Impression TECHNIQUES

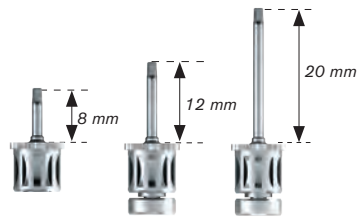
Depending on the clinical case, you can choose to make dental impressions using 3 different techniques:

Technique WITH PICK-UP IMPRESSION COPING

Material required

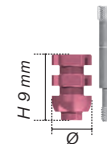


External hexagonal keys



short	CCL HE 12 18
medium	CCL HE 12 22
long	CCL HE 12 30

Pick-up impression copings



Ø 4.2	APE T42
Ø 4.8	APE T48
Ø 6.5	APE T65

Implant analogs



Ø 4.2	ALA H42
Ø 4.8	ALA H48
Ø 6.5	ALA H65

External hexagonal mandrels



short	CMA HE 12 22
-------	--------------

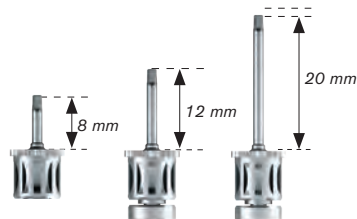
long	CMA HE 12 26
------	--------------

Technique WITH POP-IN IMPRESSION COPING

Material required



External hexagonal keys



short	CCL HE 12 18
medium	CCL HE 12 22
long	CCL HE 12 30

Pop-in impression copings



Ø 4.2	API 42 85
Ø 4.8	API 48 85
Ø 6.5	API 65 85

Implant analogs



Ø 4.2	ALA H42
Ø 4.8	ALA H48
Ø 6.5	ALA H65

External hexagonal mandrels



short	CMA HE 12 22
-------	--------------

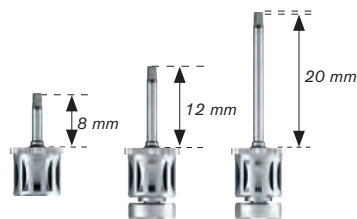
long	CMA HE 12 26
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Technique WITH POP-UP IMPRESSION COPING

Material required

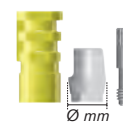


External hexagonal keys



short	CCL HE 12 18
medium	CCL HE 12 22
long	CCL HE 12 30

Pop-up impression copings



Ø 4.2	APU T42
Ø 4.8	APU T48
Ø 6.5	APU T65

Implant analogs



Ø 4.2	ALA H42
Ø 4.8	ALA H48
Ø 6.5	ALA H65

External hexagonal mandrels



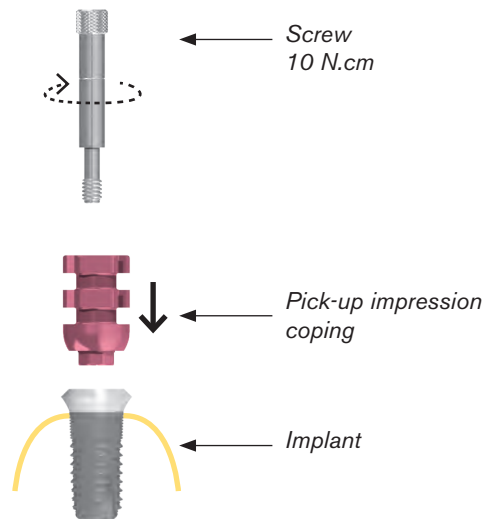
short	CMA HE 12 22
-------	--------------

long	CMA HE 12 26
------	--------------

1 Technique with PICK-UP IMPRESSION COPING

PROTOCOL

- ▶ After having unscrewed the healing abutment, manually screw the pick-up transfer into the implant using the hexagonal key. Do not exceed the 10 N.cm maximum tightening torque.
- ▶ You can choose between 2 heights of impression coping according to your case:
 - Short: height 10 mm
 - Long: height 13,5 mm
- ▶ After making sure the transfer is positioned correctly, make the impression using an open tray and clear the head of the screw.
- ▶ Once the impression has been made, unscrew the pick-up transfer using the external hexagonal key.
- ▶ Remove the impression.
- ▶ Screw the analog onto the transfer.
- ▶ Be careful to always hold the analog and not the tray.



Important Information

Advantages

- ▶ Precision
- ▶ Better accommodates divergent axes
- ▶ Repositioning errors are impossible (except analogue)
- ▶ Ideal for multiple and single cases.

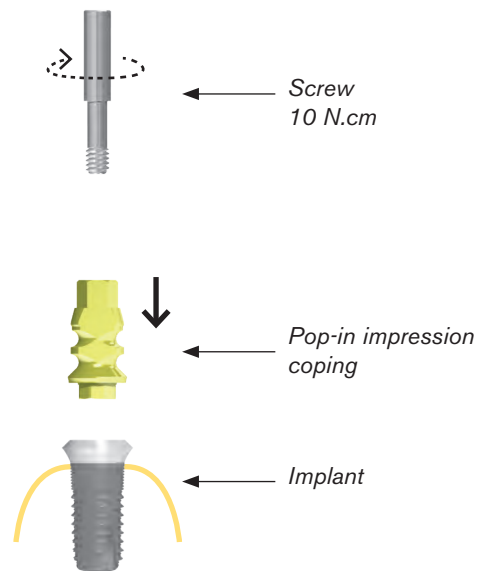
Disadvantages

- ▶ Long unscrewing time with the tray in place in the mouth = uncomfortable for patients with problems swallowing and vomiting
- ▶ Lengthier implementation, with the removal of the splint heads and of the impression material
- ▶ Restricted oral aperture contra-indicated on implantation sites in the posterior sections

2 Technique with POP-IN IMPRESSION COPING

PROTOCOL

- ▶ After having unscrewed the healing abutment, manually screw the pop-in transfer into the implant using the external hexagonal key. Do not exceed the 10 N.cm maximum tightening torque.
- ▶ After making sure the transfer is positioned correctly, make the impression with a closed tray.
- ▶ Remove then the impression, ideally in the transfer axis.
- ▶ Unscrew the pop-in transfer using the external hexagonal key.
- ▶ Screw the analog onto the transfer, manually orient and re-position the transfer into the impression.



Make sure the transfer is inserted and oriented correctly into the impression.



Important Information

Advantages

- ▶ Restricted oral opening
- ▶ Unscrewing after having taken out the tray = more comfortable for the patient
- ▶ Ideal for single cases

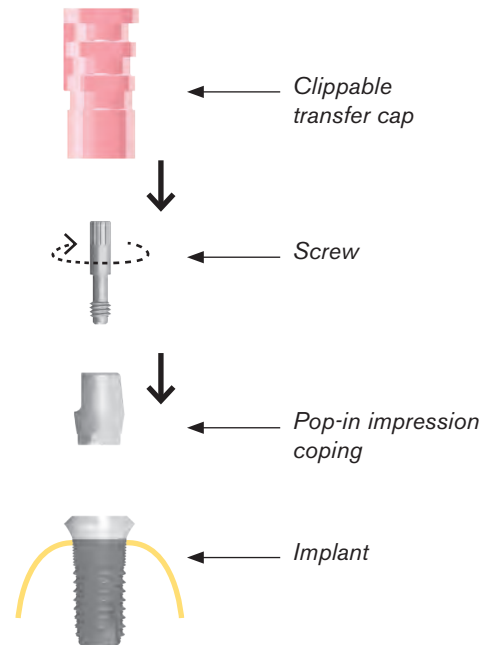
Disadvantages

- ▶ Precision varies depending on the quality of impression materials
- ▶ Possible repositioning errors
- ▶ The divergence between the implants should be lower than 20°
- ▶ Not recommended for multi-unit cases

3 Technique with POP-UP IMPRESSION COPING

PROTOCOL

- ▶ After having unscrewed the healing abutment, manually screw the pop-up transfer into the implant using the external hexagonal key. Do not exceed the 10 N.cm maximum tightening torque.
- ▶ After making sure the transfer is positioned correctly, install the clippable transfer cap.
 - Orient the pink cap rib towards the transfer's flat plane.
 - Clip: hear the insertion "click".
- ▶ Make the impression with a closed tray.
- ▶ Once the impression has been made, remove the tray, ideally on the transfer axis.
- ▶ Unscrew the pop-up transfer using the external hexagonal key.
- ▶ Screw the analog onto the transfer, then orient and reposition the transfer into the impression, clipping it to the transfer cap.



Make sure the transfer is inserted and oriented correctly into the impression cap.

It is possible to use the pop-in version using the screw ref. NPS VTB 16 156.

Important Information

Advantages

- ▶ Precision
- ▶ Restricted oral opening
- ▶ Unscrewing after having removed the tray = more comfortable for the patient
- ▶ Ideal for single cases

Disadvantages

- ▶ Possible repositioning errors
- ▶ Divergence between implants should be lower than 20°

PROSTHETIC PROCEDURE

Foreword

Warning:

- ▶ The tightening torques indicated in this manual should be respected to avoid risks of damaging, breaking or dysfunction of the items.
- ▶ Check the proper assembling of parts in order not to cause the prosthesis to fail and to guarantee its mechanical functions.
- ▶ Secure the instruments and prosthetic components handling from the risk of fall in the mouth or out of sterile field because of their small sizes. Make sure they are properly gripped on the instruments.
- ▶ Certain prosthetic components are delivered sterile to be used during the surgery. ATTENTION not to re-use them.
- ▶ All the disposable components delivered non-sterile must be disinfected, cleaned and sterilized before intra-oral use.
- ▶ Respect the decontamination and/or sterilization rules (plastic or ceramic components cannot be sterilized in an autoclave).
- ▶ In case of plastic or ceramic components, always disinfect and cold sterilize with CHLORHEXIDINE.
- ▶ Any product delivered sterile (by gamma radiation) must not be re-sterilized.
- ▶ Respect the sterile parts of the package when opening it and place the content on a sterile field.
- ▶ Respect the expiry date of the product.
- ▶ Check the proper assembling of parts in order not to cause the prosthesis to fail and to guarantee its mechanical functions and the final esthetic result.

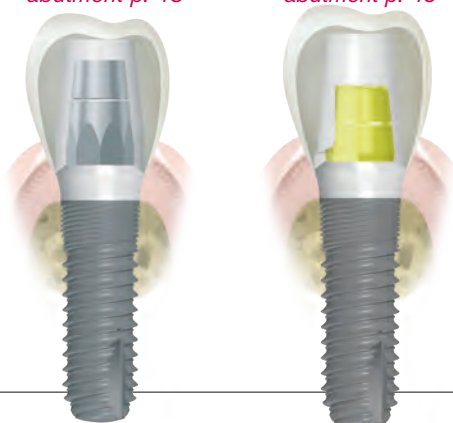
Prosthetic CONSTRUCTIONS

CEMENTED Prosthesis: single crowns or multi-unit bridges

- ▶ A simple prosthesis technic based on the conventional dentistry: solid abutment can be considered as inlay-cores. The impression copings clipping on the abutment deliver more accurate impressions.
- ▶ A prosthesis on trans-screwed abutment when more flexibility is required.

*On trans-screwed
abutment p. 43*

*On Direct Clip
abutment p. 49*



SCREWED Prosthesis: Removable prosthesis on bar

A prosthesis on short conical ConOcta abutments to make fixed prosthesis or overdentures bars.

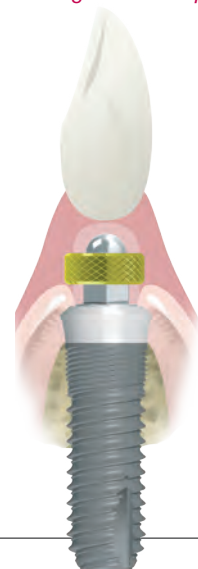
On Conocta abutment p. 59



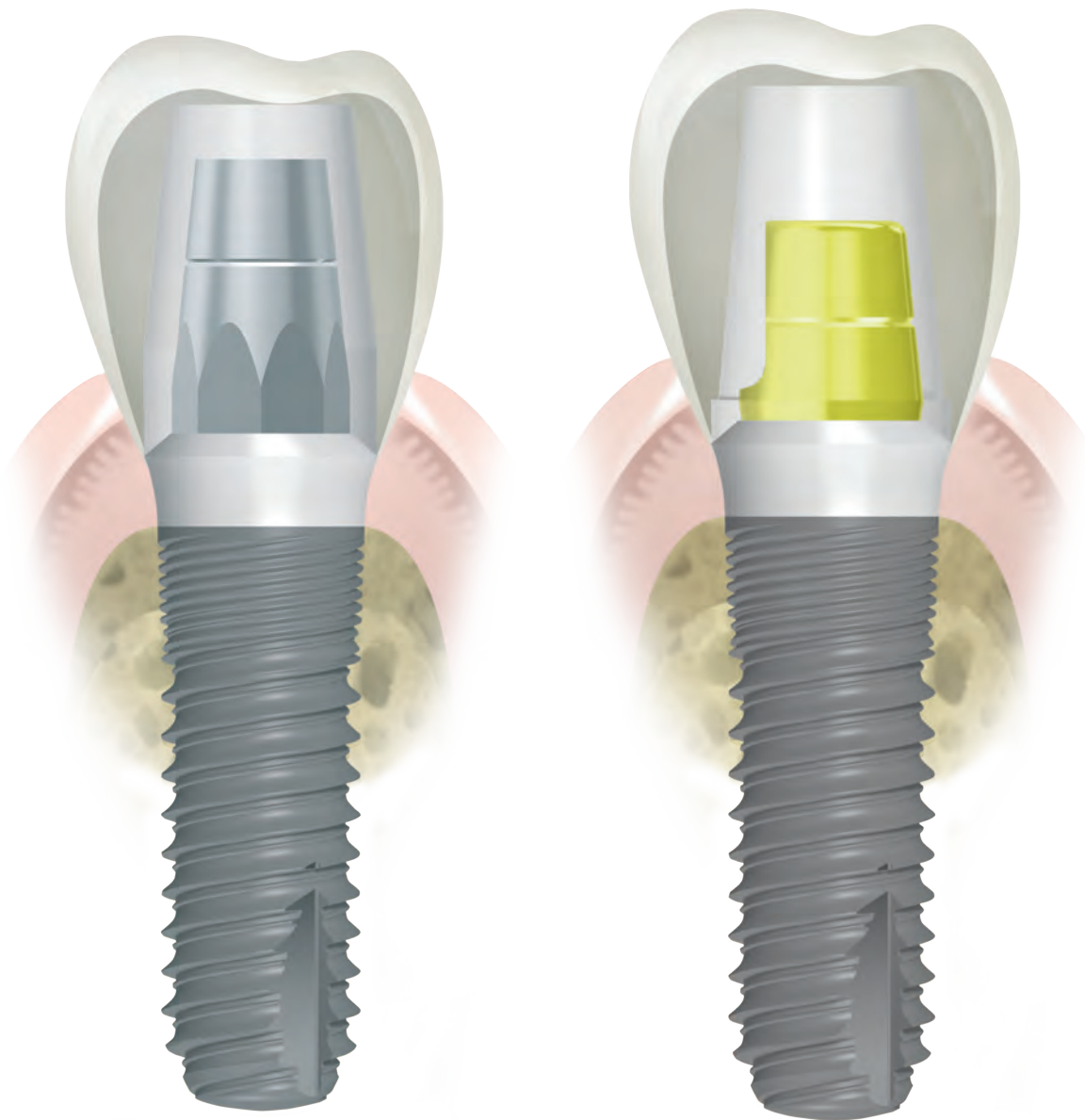
OVERDENTURE on ball abutment

- ▶ A prosthesis on O'Ring abutment.
- ▶ The prosthesis on bar is achieved with the ConOcta abutment (see p. 65).

On O'Ring abutment p. 61



CEMENTED PROSTHESIS



Choice of ABUTMENT

You can have a set of prosthetic parts at cost price to make your tests (prosthetic trying kit).

- Solid abutments can be shortened by 2 mm height

Abutment height	4	5,5	7
Minimum cut abutment height	2	3,5	5

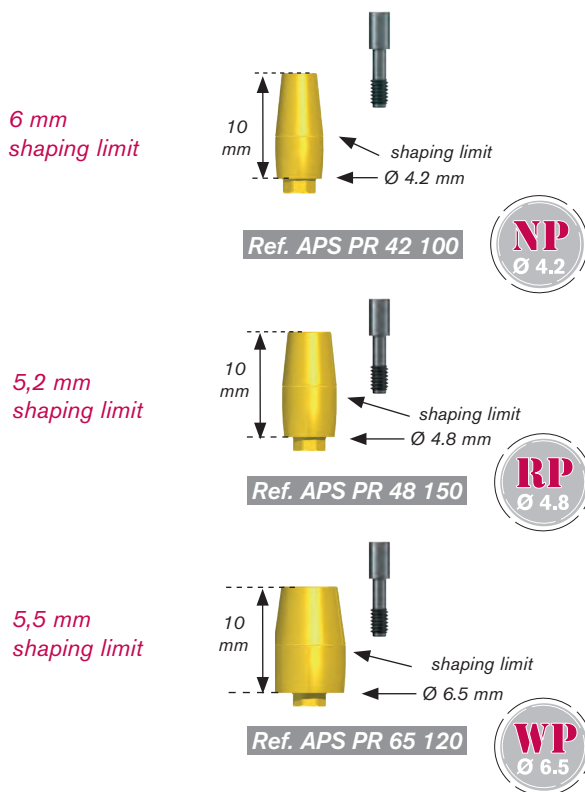


- Standard trans-screwed abutments can be shortened as follow:



Where the abutments must be shaped, it is preferable to use trans-screwed abutments rather than solid abutments.

- Customizable abutments can be cut in respecting the limits below:



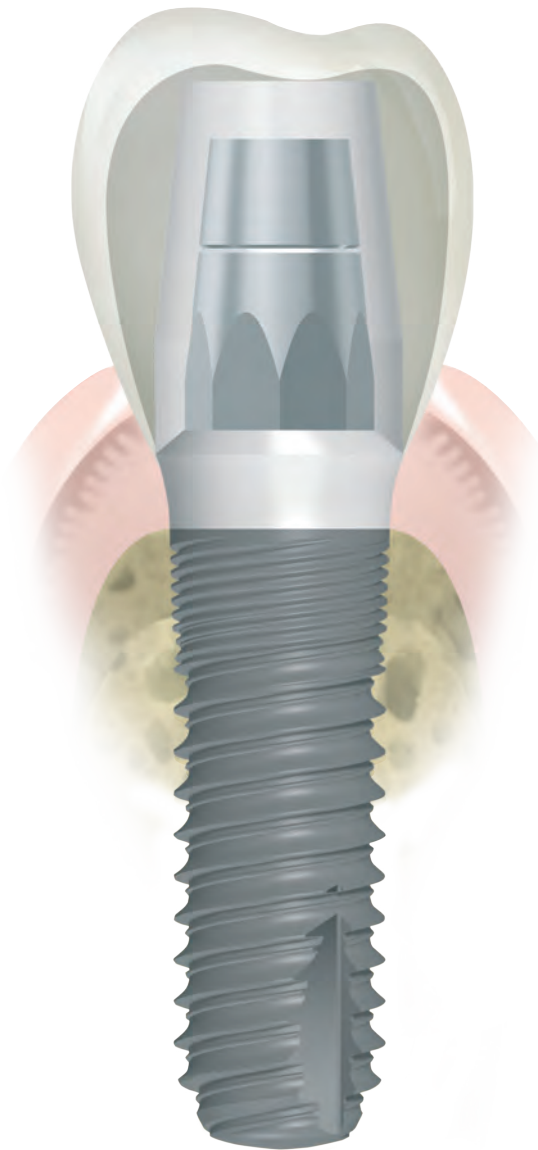
► Wished angulations:

- We offer angulated abutments at 15° and 20 °.
- To obtain a different angulation, using a customizable abutment or a gold palladium abutment.

WARNING

*The more important angulation, the more it involves an «arm» effect on the implant.
The bio-mechanical balance of assembly is even better when the abutment is in the implant axis.*

CEMENTED PROSTHESIS ON TRANS-SCREWED ABUTMENT



Use of GOLD PALLADIUM ABUTMENT

Characteristics of the gold base and the chemical composition :

Hardness (HV) > 160
Solidus - Liquidus : 1400 - 1490 ° C
Density: 17.5 g / cm³
Thermal Expansion : 12,4 μm / m°K

Gold (Au)	58,25 +/- .1 %
Platinum (Pl)	21,90 +/- .1 %
Palladium (Pd)	19,41 +/- .1 %
Iridium (Ir)	0,44 + 0,5 % / - 0 %

Choose a fusion alloy according to standards ISO 9693, ISO 1891 and ISO 1562 compatible with a fusion point lower than 1350°C.

Use of TRANS-SCREWED TITANIUM ABUTMENT

1. After the healing abutment or cover screw is removed, screw the pick-up impression coping in the implant to take the impression. To check the adjustment of the impression coping on the implant, the horizontal marking of the screw must be hidden in the impression coping. (Picture 1)
2. The implant analog is connected to the impression coping to make the plaster cast. (Picture 2)
You can also make your impression with the pop-in technique.

LABORATORY STEPS

3. Selection of the abutment (straight or angulated) - the shape can be cut if necessary. (Picture 3)
4. Seat the burn-out sleeve onto the abutment to make the wax-up. (Picture 4)
5. Casting and completion of the crown.
6. The titanium abutment is seated and screwed on the implant in the mouth at a torque of 35 N.cm with the torque wrench (Ref. CCC 35). If the abutment was seated in the mouth some time before, tighten to the correct torque level at 35N.cm with the torque wrench (Ref. CCC 35) before fitting the prosthesis.
7. The prosthesis is cemented on the abutment.

Use the hexagonal key for all parts.

*3 lengths :
8 mm, 12 mm and 20 mm*

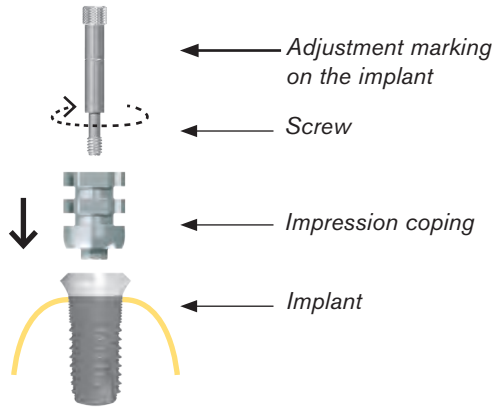


Use the long hexagonal key (Ref CCL HE 12 22) for the customizable abutments.

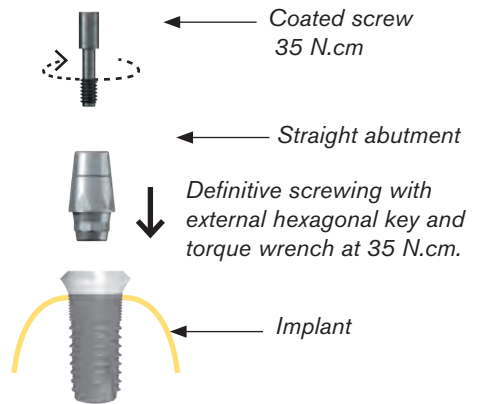


The definitive screw should not be used for tests and fitting before the final screwing of the prosthetic part in order to preserve its elastic abilities.

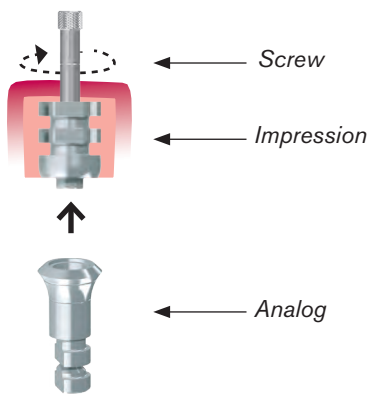
PICTURE 1. ATTACHING THE IMPRESSION COPING



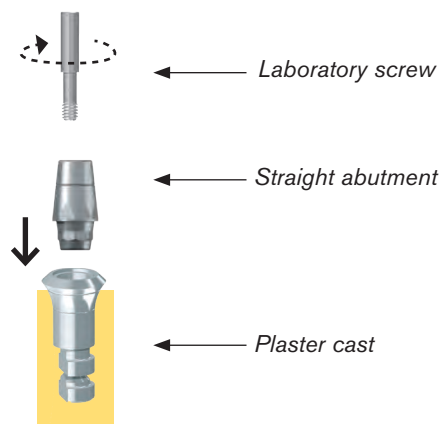
4. IN THE MOUTH



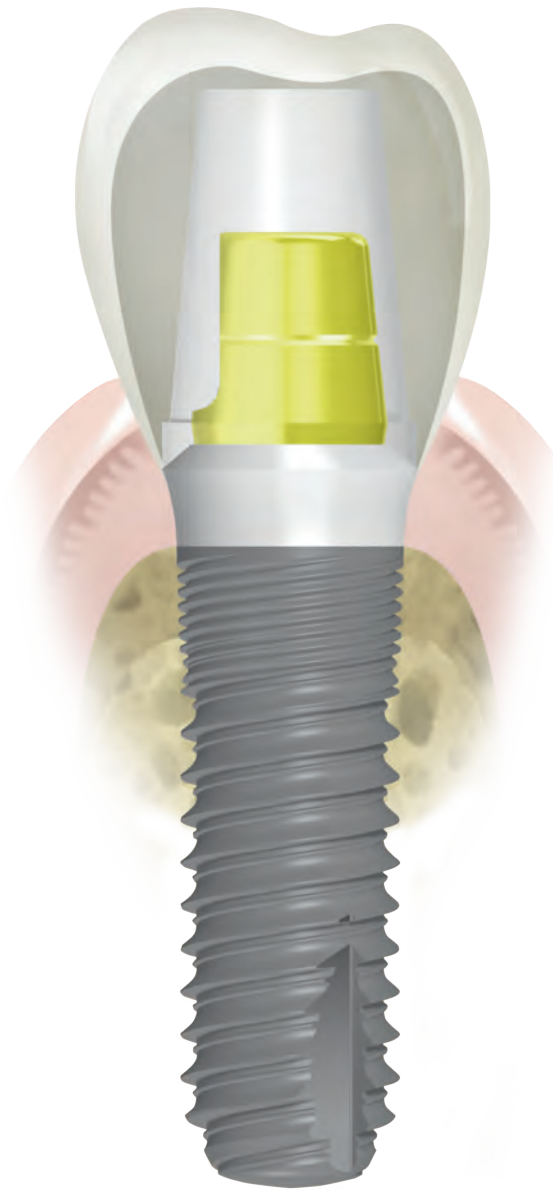
PICTURE 2. ATTACHING THE IMPLANT ANALOG



PICTURE 3. ON THE PLASTER CAST



CEMENTED PROSTHESIS ON DIRECT CLIP ABUTMENT

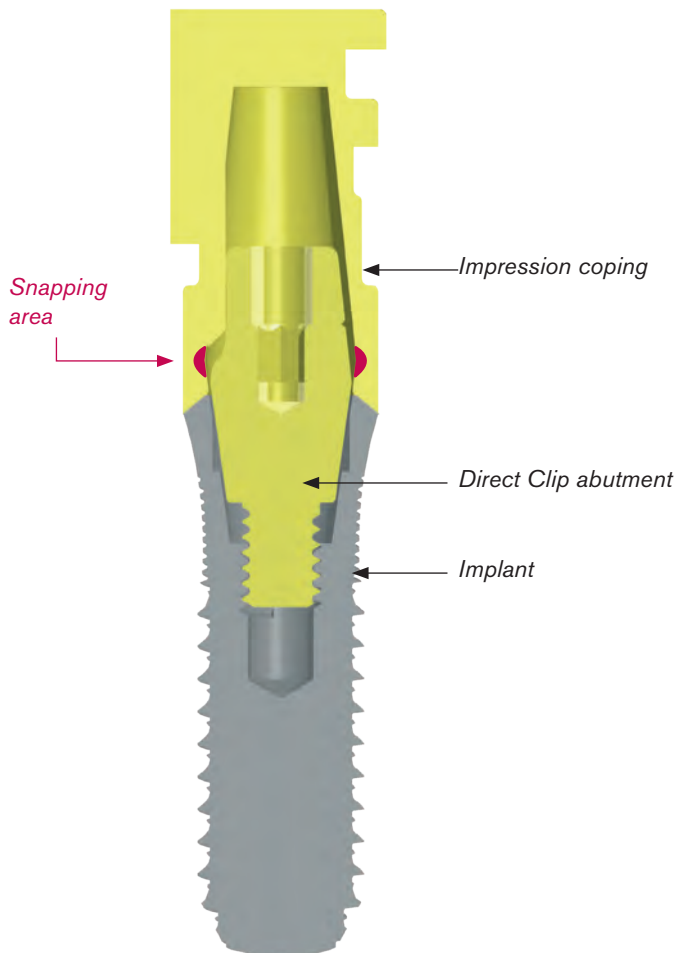



Direct Clip abutment USE

- ▶ A standard protocol using snap-fit impression copings ensures an accurate impression, which gives a reliably accurate model of the abutment.
- ▶ The impression coping snaps onto a small prominence located above the abutment shoulder (see the red area on the picture below).
- ▶ The burn-out sleeves are not snapped on the abutments in order to allow the technician to remove them more easily and to avoid reshaping which may compromise the prosthetic joint.

Impression coping

Easy to fit over the solid abutment **without clearing the sulcus.**



 Make sure to align the flat plane of the abutment with the interior flat plane of the impression coping.

Two types of impression copings are available:

- ▶ When restoring unshortened Direct Clip abutments, use the colored snap-on impression coping over the abutment in a closed tray.
- ▶ When the abutment has been modified, use the white open impression coping over the abutment (see page 58).

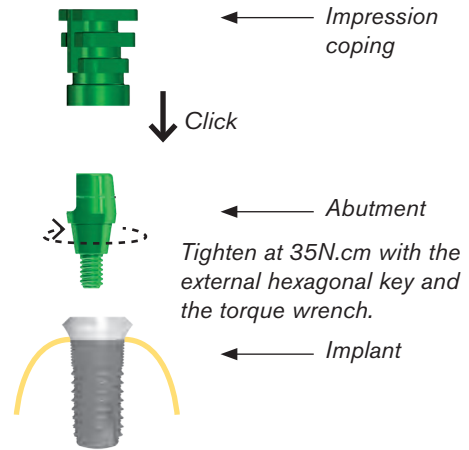
Protocol ON UNMODIFIED DIRECT CLIP ABUTMENTS

1. Choose the abutment height (4 – 5.5 – 7 mm).
2. Screw the abutment with the torque wrench (ref. CCC 35) at 35 N.cm.
3. Snap on the coping onto the abutment. Make sure to align the rib of the coping with the flat side of the abutment. Then, the impression material is spread all around the impression coping covering it completely. This technique gives an accurate impression of the implant shoulder (information is given by the coping part and not the impression material). (Picture 1)
4. Remove the impression and connect the abutment analog into the impression coping inside the impression. The snap fit guarantees the correct position of the analog. (Picture 2)
5. Fit the protection cap on the Direct Clip abutment. (Picture 3)

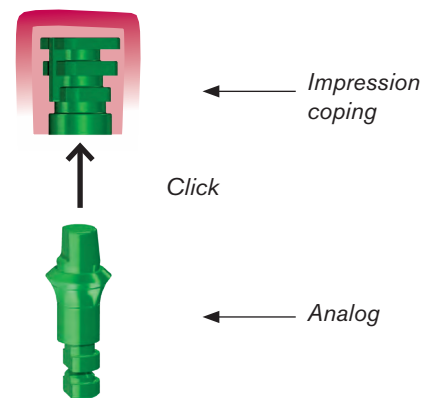
LABORATORY STEPS

6. Make the plaster cast model.
7. Seat the burn-out sleeve on the analog and wax up the framework. (Picture 4)
8. Cast the wax-up.
9. Make the ceramic part of the prosthesis.
10. The crown is cemented on the abutment in the mouth after the removal of the protection cap.

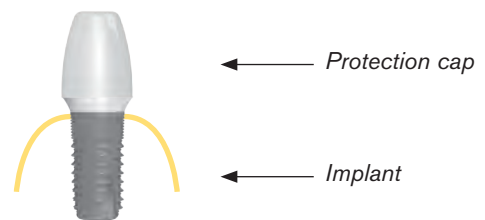
PICTURE 1. IMPRESSION ON UNMODIFIED SOLID ABUTMENT



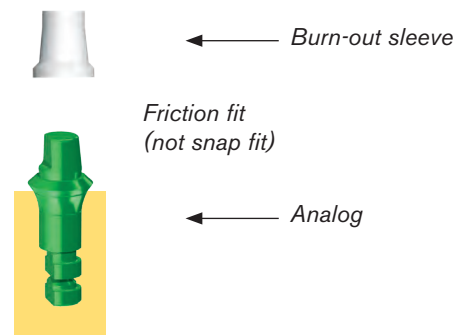
PICTURE 2. USE OF ANALOG



PICTURE 3. PROTECTION CAP



PICTURE 4. ON PLASTER CAST



Protocol ON MODIFIED DIRECT CLIP ABUTMENTS

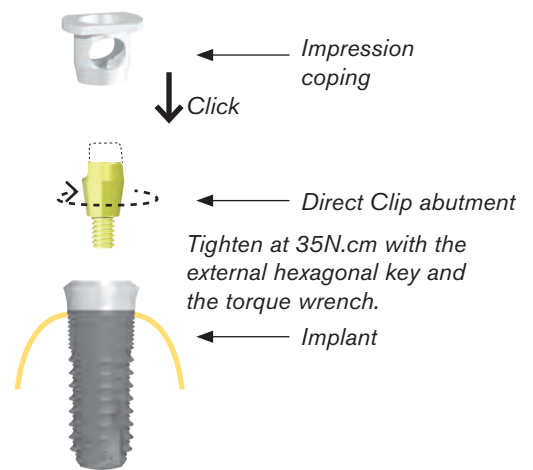
Adjustments on Direct Clip abutments do not allow to fully enjoy the advantages of a standard impression system. We recommend applying the following technique only on single crowns for which the prosthetic adaptation is less sensitive to inaccuracy of impression copings.



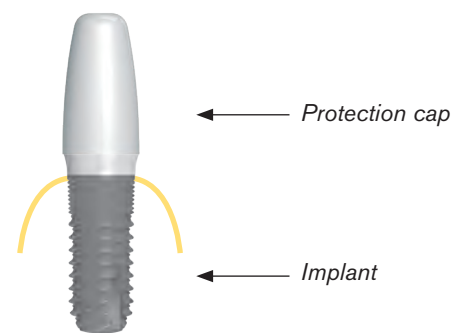
Photo credit : Dr J. BOUCHET (France)

PICTURE 1. IMPRESSION ON MODIFIED ABUTMENT

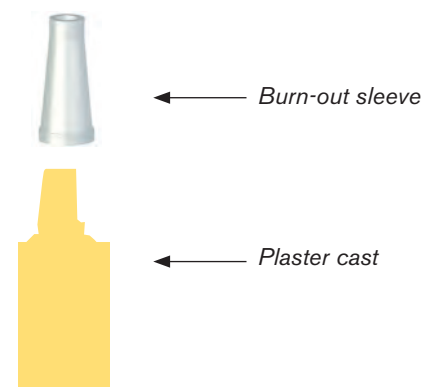
1. Choose the abutment height (4 – 5.5 – 7 mm).
2. Adjust the Direct Clip abutment (respecting the shaping limit).
3. Place and tighten the abutment at 35 N.cm.
4. Take the impression with the white open impression coping snapped onto the abutment. Gentle pressure allows the impression coping to fit onto the abutment. Then, the impression material is injected inside and all around the impression coping until it covers completely the plastic part. (see picture 1)
5. Protection cap setting onto the abutment during the prosthesis manufacturing time.



PICTURE 2. PROTECTION CAP



PICTURE 3. ON PLASTER CAST



LABORATORY STEPS

6. Make the model with the impression. Use epoxy resin instead of plaster.
7. Seat the burn-out sleeve on the model and wax-up of the framework.
8. Cast the wax-up. (see picture 3)
9. Make the ceramic part of the prosthesis.

10. The crown is cemented after removal of the protection cap.

Multi-unit prosthesis

A very precise adaptation of the prosthesis is necessary to avoid any tension / fracture. That is why we recommend the use of uncut Direct Clip abutments with an adapted height (the shortest possible to tolerate the axial divergences of implants). If no abutments are suitable, it is better to work with trans-screwed abutments and to make the impression on implants.

Temporary RESTORATIONS

► A provisional restoration can be fabricated on the protection cap of the Direct Clip abutment. The protection cap will be then sealed onto the solid abutment.



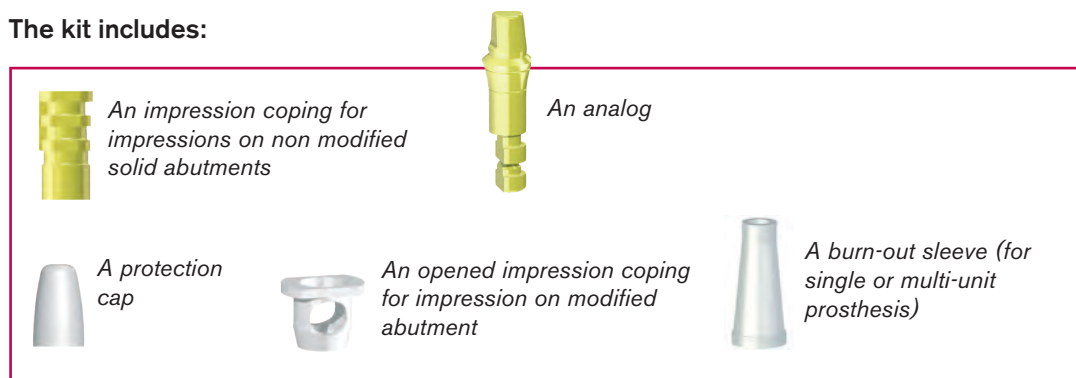
1. Choose the protection cap adapted to the abutment used.
2. Make some grooves on the cap to improve the retention of the temporary tooth.
3. Put a small quantity of provisional cement inside the cap and on the Direct Clip abutment.
4. Seat the cap on the Direct Clip abutment until you feel the snap on the basis of the abutment.
5. Check the correct placement of the cap and remove excess cement.
6. Make the provisional restoration on the cap.

Solid abutment KITS

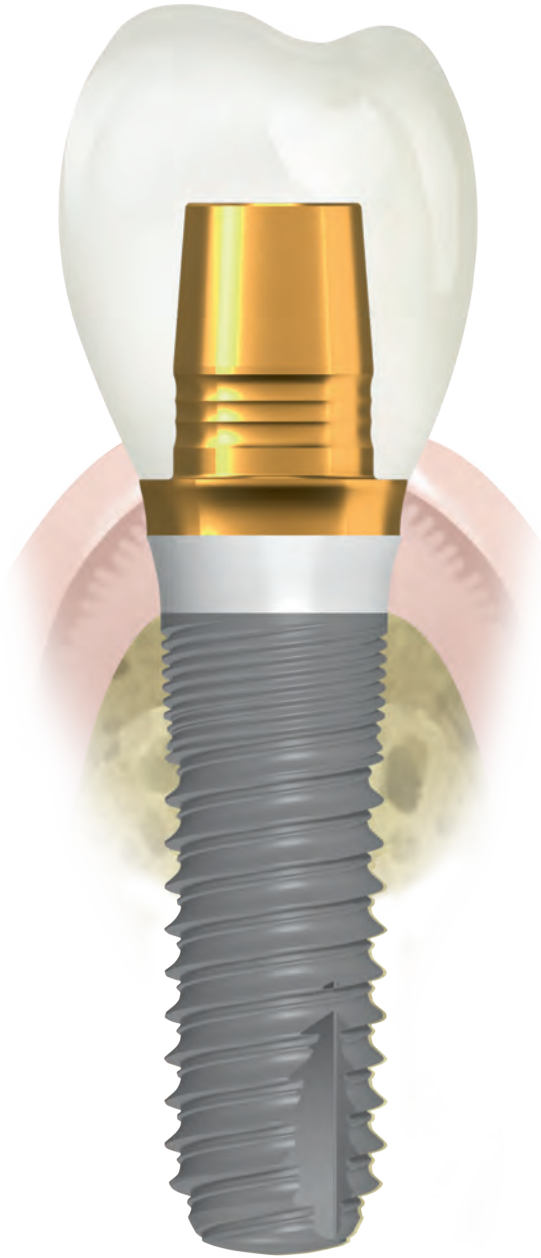
These kits include all parts necessary for a cemented restoration on the selected height of solid abutment. This avoids any error when purchasing the parts which will have to be used together: easy to identify the parts and no risk of forgetting one of the parts.

This kit is supplied without Direct Clip abutment.

The kit includes:



ZIRCONIA PROSTHESIS ON ESTHETIBASE INTERFACE



Zirconia abutments give an excellent aesthetic result to implant restorations. A biocompatible titanium coating on the abutment which connects with the implant ensures an excellent seal and reduce stress as the contact is titanium to titanium.

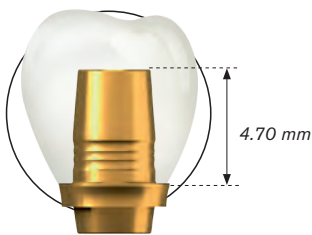
1 - Discreet

Thin titanium interface

- Thin collar and low profile
- Invisible in the final restoration

Even more discreet

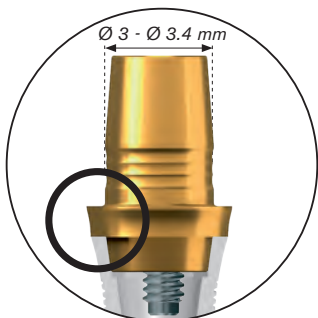
- Biocompatible coating of yellow titanium nitride coating
- Softer colour at the gingival margin



2 - Reliability

Titanium on titanium contact

- The interface avoids a zirconia contact on titanium implant connection.
- Same hardness as the implant, there is no alteration of the connection and it maintains a good seal



3 - Applications

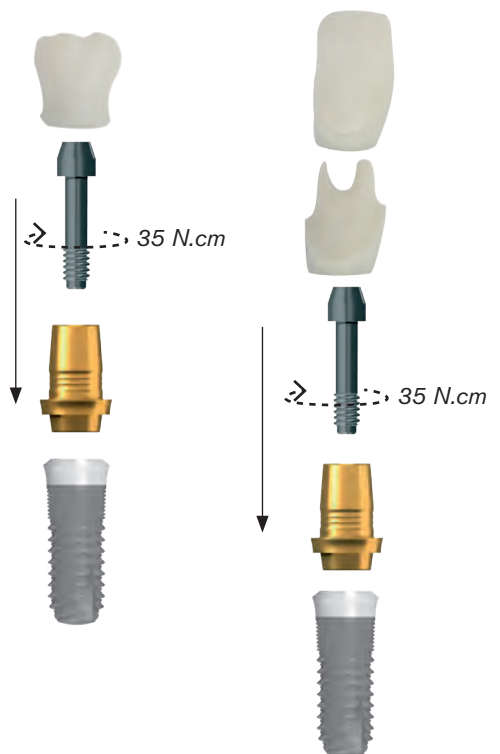
Single crowns

The thin titanium interface allows abutments or collars to be made in zirconia or pressed ceramic.



Coping

Abutment



Frameworks



Protocol

1. Production of the restoration.

- in pressed ceramic (coping) : use the usual technique of lost wax
- in manufactured zirconia (abutment) : the model of the manufactured element will be delivered either on traditional physical model, or in digital format (scanner or CAD).

2. Sandblasting of the interface

First protect the connection and the gingival area, then sandblast the surface that will be in contact with the bonding composite with a medium grain size <50 microns under a pressure of 2 bars.

3. Clean the interface with ethanol

4. Bonding

Use a self-curing universal self-adhesive composite. Apply the composite on the titanium interface and the zirconia abutment or sleeve, then assemble the two parts. For a complete polymerization of the material follow the instructions of the product manufacturer.

5. Screw tightening

Tighten at 35 N.cm according to the diameter of the screw. Please order lab guide screws separately, do not use the same screw for lab work and final fixing in the mouth:

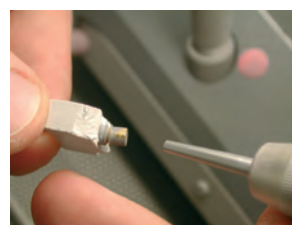
- short 8 mm: **ref. CCL HE 12 18**,
- medium 12 mm: **ref. CCL HE 12 22**,
- long 20 mm: **ref. CCL HE 12 30**.

1. PRODUCTION OF THE RESTORATION



© ALFONSI Laboratory (Paris - France)

2. SANDBLASTING OF THE INTERFACE



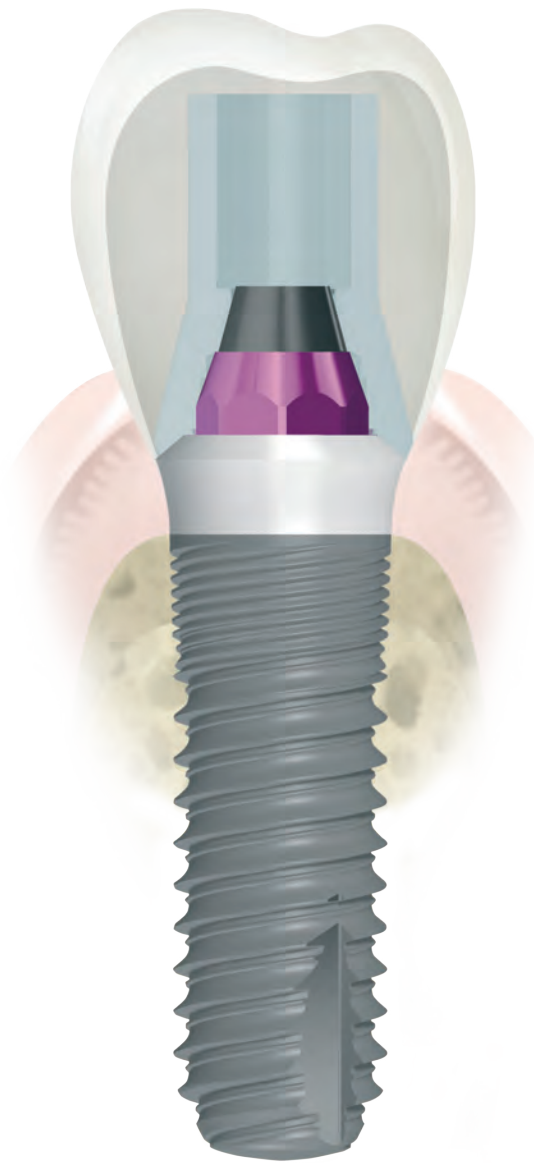
© GARCZAREK Laboratory (Sallanches - France)

3. CLEAN THE INTERFACE WITH ETHANOL



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SCREWED PROSTHESIS ON CONOCTA ABUTMENT



Prosthetic PROCEDURE

Simple and precise PROTOCOL

1. Screw the ConOcta abutment onto the implant, in the mouth.
2. Screw the pick-up impression coping onto the ConOcta. To check the adjustment of the impression coping on the ConOcta abutment, the horizontal marking of the screw must be hidden in the impression coping.
3. Take the impression.
4. Unscrew the impression coping, remove the impression and connect the analog to the impression coping in the impression (the analog replicates the implant shoulder and the ConOcta abutment).
5. Place a protection cap on the ConOcta abutment. A provisional prosthesis can be fabricated on the protection cap or directly on a temporary abutment.

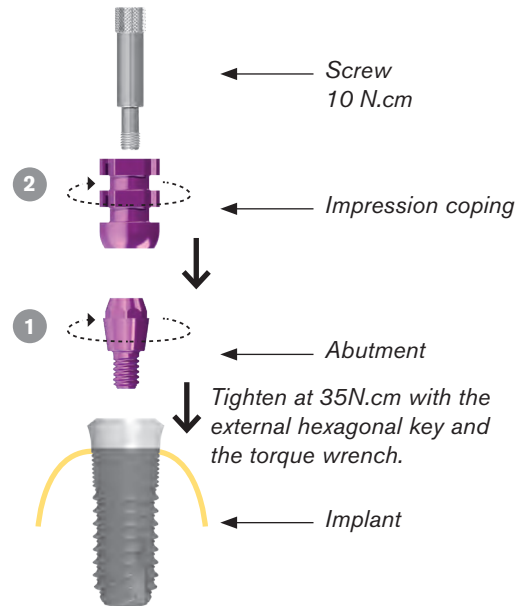
LABORATORY STEPS

6. The plaster cast is made.
7. The burn-out sleeves are seated onto the analogs.
8. The prosthesis is made.
9. The prosthesis is screwed on the ConOcta in the mouth at 35 N.cm.

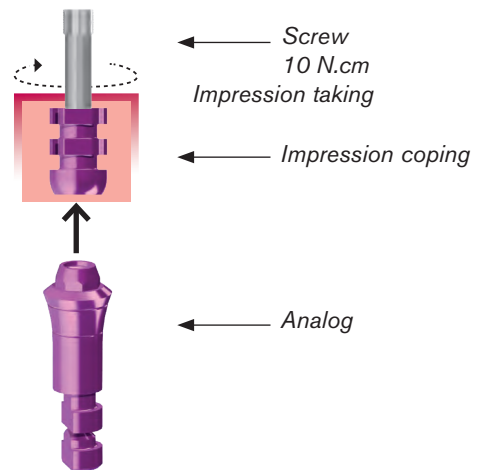
The definitive fixing screw should not be used for the fittings and the laboratory steps. Use one guide screw ref. APV VG 20 150



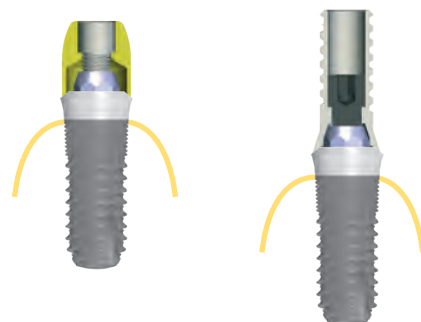
PICTURE 1. IMPRESSION TAKING



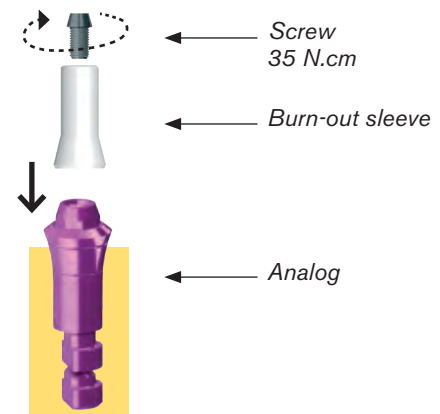
PICTURE 2. USE OF ANALOG



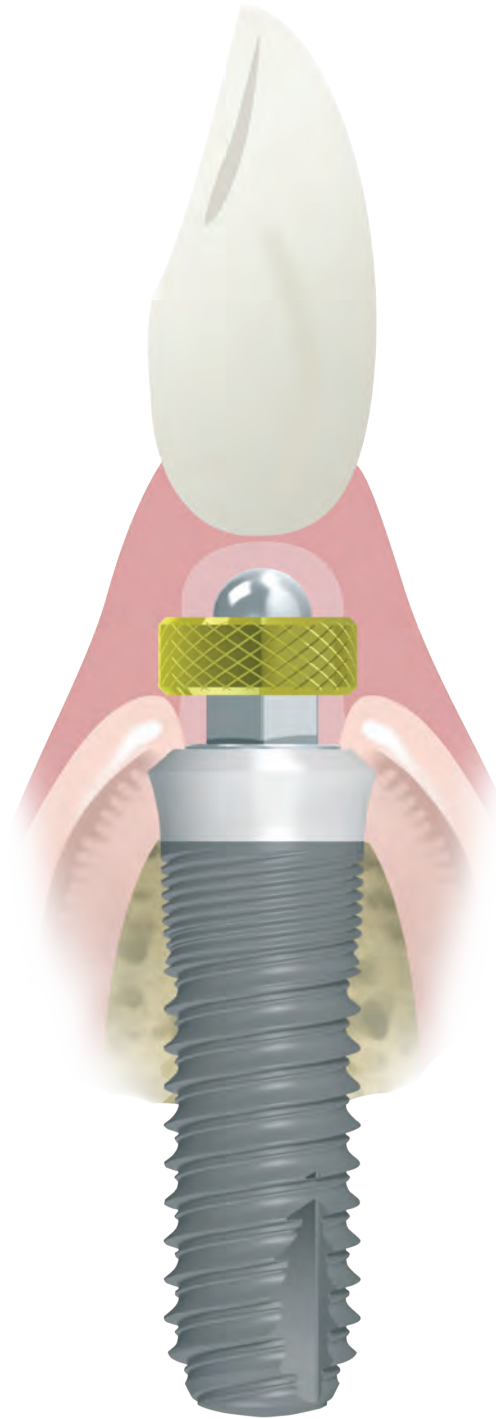
PICTURE 3. PROTECTION CAP OR TEMPORARY ABUTMENT



PICTURE 4. USE OF BURN-OUT SLEEVE



OVERDENTURE ON O'RING ABUTMENTS



For removable prosthesis WITH BALL ABUTMENTS

1. The pick-up impression copings are screwed onto the implants to take the impression. To check the adjustment of the impression coping on the implant, the horizontal marking of the screw must be hidden in the impression coping. (see picture 1)
2. The impression copings are unscrewed and the impression is removed. (see picture 2)
3. The analogs are screwed to the impression copings. (see picture 3)

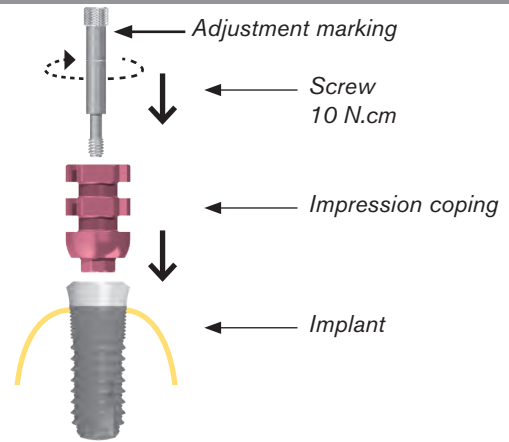
LABORATORY STEPS

4. Make the plaster cast model.
5. The O'Ring abutments are screwed onto the implant analogs. (see picture 4)
6. The attachments are snapped on the O'Ring abutments.
7. The overdenture is made with resin teeth placed in wax, according to the same process as a conventional complete denture with tissue support.
8. In the flask the attachments are integrated to the overdenture by casting.
9. Trying on and adjustment of the occlusion.
10. The O'Ring abutments are screwed on the implants with the internal hexagonal key or mandrel and the torque wrench (ref. CCC 35) at 35N.cm. The prosthesis is snapped in the mouth. The soft tissue fit is checked.

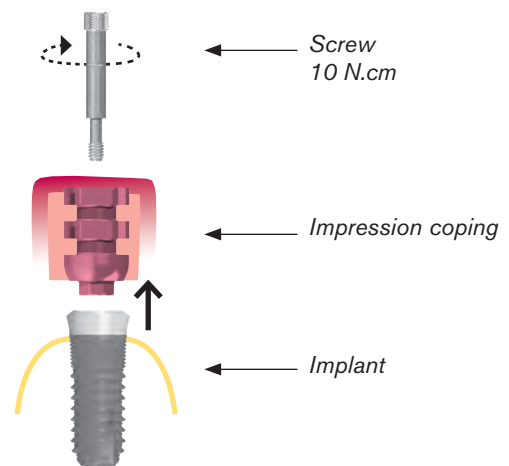
ANOTHER WAY TO PROCEED

It is also possible to make the impression on the ball abutment; in this case, the impression coping is not necessary, use an analog of the ball abutment.

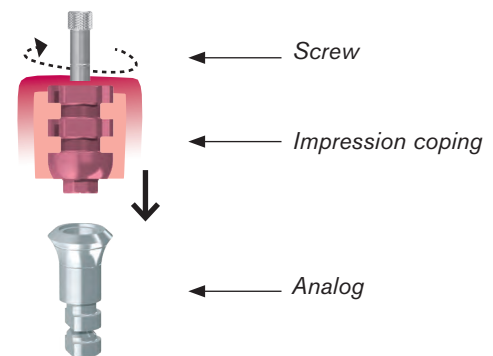
PICTURE 1. IMPRESSION TAKING



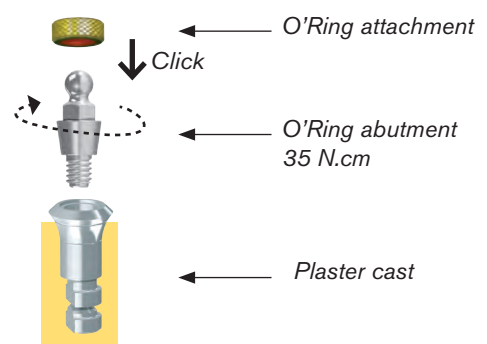
PICTURE 2. IMPRESSION REMOVAL



PICTURE 3. USE OF ANALOG



PICTURE 4. ON THE PLASTER CAST



Studies & PUBLICATIONS

- Placement of implants in the mandible reconstructed with free vascularized fibula flap: comparison of 2 cases with Aesthetica+ implants - University of Cukurova (Turkey) – 2008
- Slim implants for complete denture wearers: clinical aspects and perspectives with OBI implants – University of Auvergne (Clermont-Ferrand - France) – 2013
- Placement of Naturactis implants in post-extraction sites – University of Madrid (Spain) - 2013
- Contribution of a hybrid synthetic and innovating product in the bone surgery and its filling Matri™ BONE with Natea and Natural implants - University Henry Poincarre (Nancy - France) – 2012
- Implant-supported prosthetic solution in case of small inter alveolar distance on Aesthetica+ implants – Polyclinic Kiev (Ukraine) – 2009
- Histology and histomorphometry – Comparative study with the Universal and Brånemark implants – Angers Histological Laboratory (France) – 1993
- Multicentric study on the evolution of 3000 eurotekніка and Nobel Biocare implants from 1984 to 1997 – comparison of the results - Faculty of Medicine of Angers (France) – 1997
- Quantitative study on the rough surfaces of titanium dental implants and their microstructures – University Henry Poincarre (Nancy - France) – 2011
- Analysis of the surface treatment of eurotekніка and competitor implants – University of Barcelona (Spain) – 2006
- Evaluation of the eurotekніка implant microfiltration – University of Catalonia (Spain) – 2008
- Comparison between the digital planning and the final position of the implants with the tekніка3D system – University of Bordeaux (France) – 2013
- Resonance frequency analysis, insertion torque and BIC of 4 implants: comparison and correlation study in sheep - University Saint Joseph (Libanon)
- Comparison of two types of decalcified freeze-dried bone allograft in treatment of dehiscence defects around Natea implants in dogs – University of Iran – 2011
- Comparison of the insertion and desinsertion torque of a cylindrical and a tapered implant in 3 different materials – University of Catalonia (Spain) – 2008

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