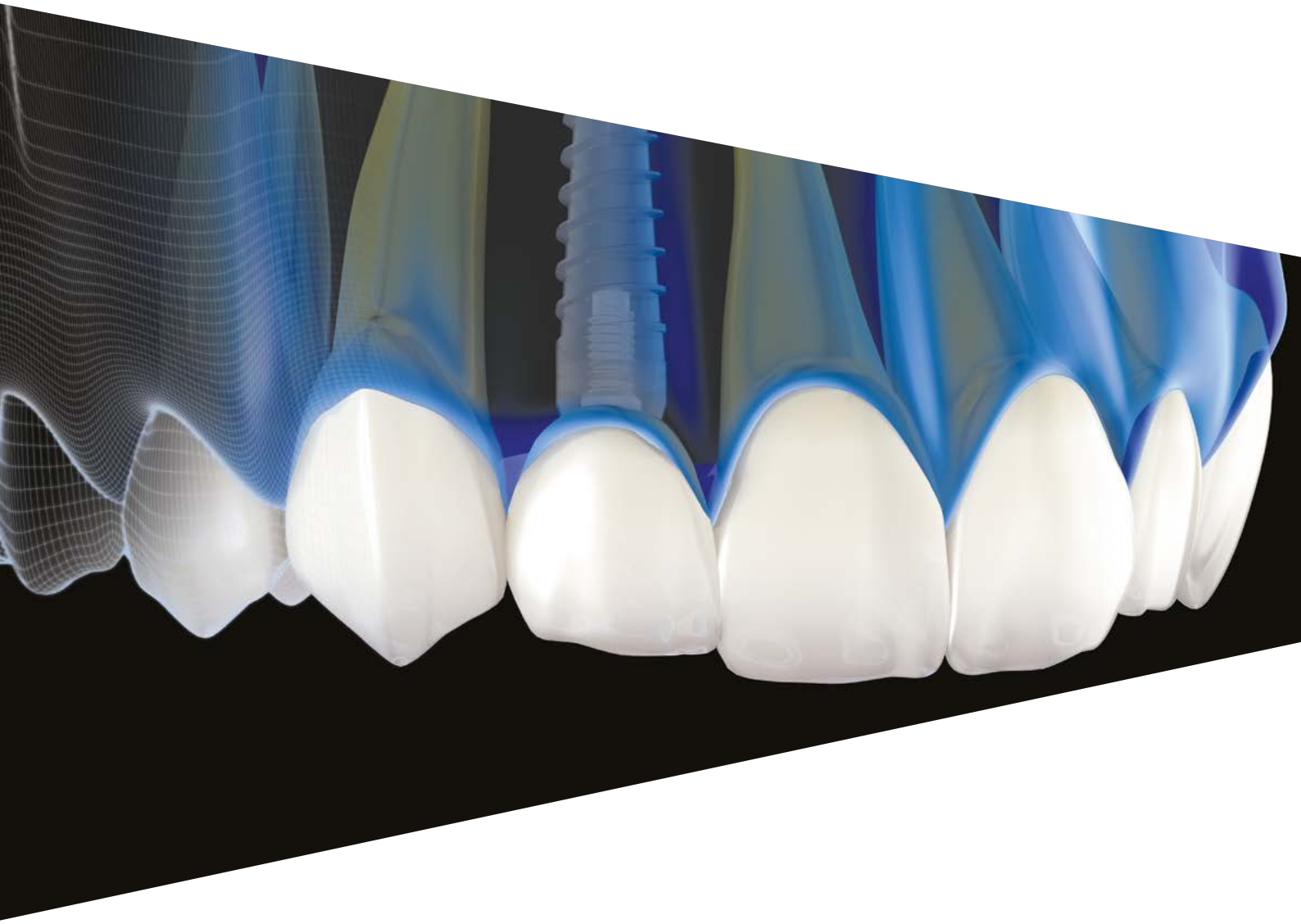
Prosthetic Manual

PRAMA

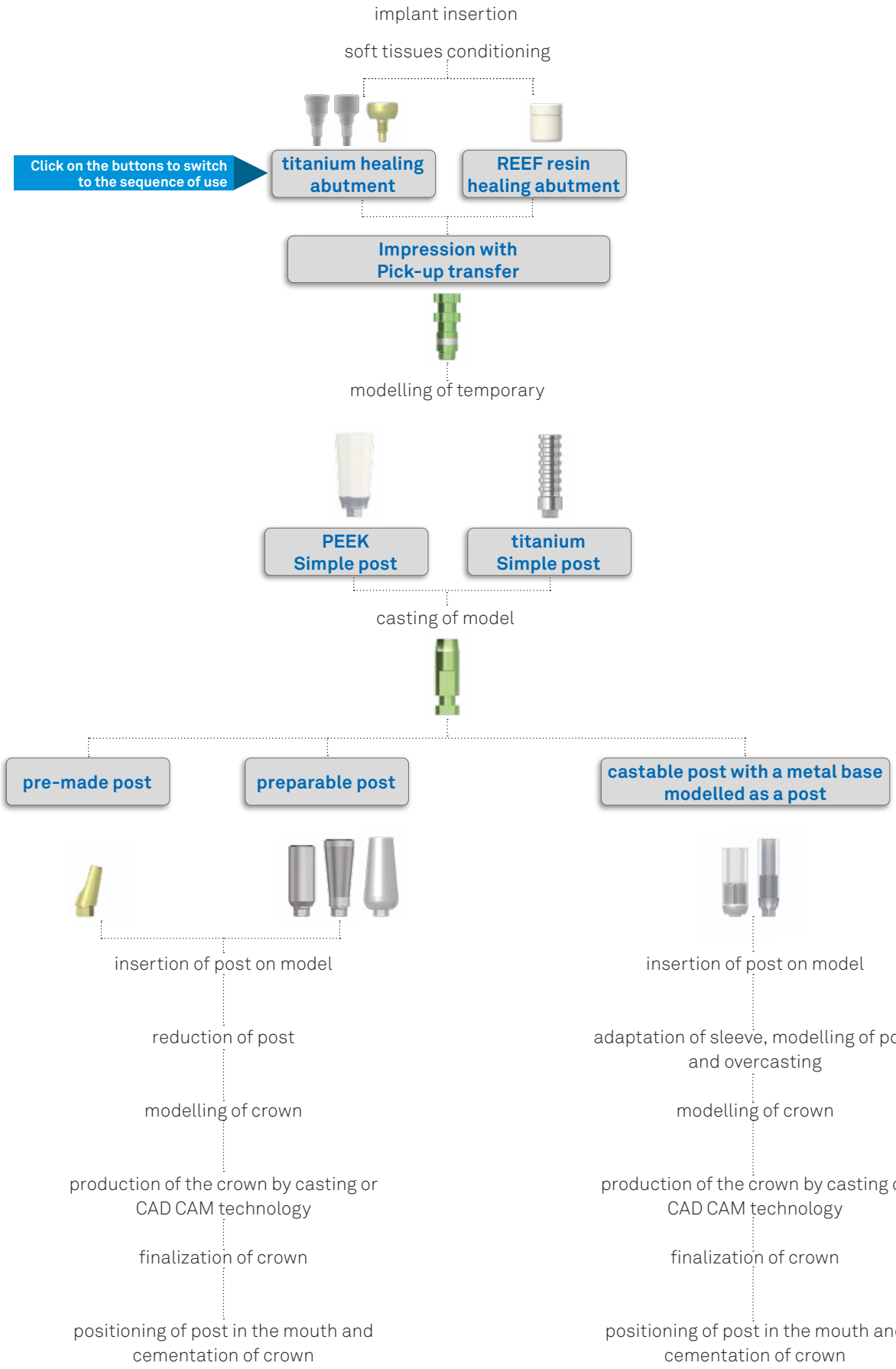


sweden & martina

PRAMA

Guide to the sequence of use of prosthetic components

Single cemented rehabilitation



Single screw retained rehabilitation

implant insertion

soft tissues conditioning

titanium healing abutment

REEF resin healing abutment

Impression with Pick-up transfer

modelling of temporary prosthesis

titanium Simple post

REEF resin post

casting of model

castable post with a metal base

Dynamic Abutment

insertion of post on model

adaptation and modelling of sleeve in a screw retained crown in castable resin

production of the screw retained crown by casting or CAD CAM technology

screw retained crown finalization

positioning of screw retained crown in the mouth and tightening of the screw

Multiple or full arch cemented rehabilitation

implants insertion

soft tissues conditioning

titanium healing abutments

REEF resin healing abuments

impression with Pick-up transfers

multiple

full-arch

impression with Pull-up transfers

impression with mixed technique

modelling of temporary prosthesis

titanium Simple post

PEEK Simple posts

resin structure

reinforced structure

casting of model

pre-made posts

preparable posts

castable posts with metal base modelled as posts

insertion of posts on model

reduction of posts

production of the structure by casting or CAD CAM technology

finalization of the prosthesisi

tightening of posts in the mouth

intraoral cementation of the prosthesis

insertion of posts on model

adaptation of sleeves, modelling of posts and overcasting

production of the structure by casting or CAD CAM technology

finalization of the prosthesis

tightening of posts in the mouth

intraoral cementation of the prosthesisi

Multiple or full arch screw retained rehabilitation

implants insertion

soft tissues conditioning

titanium healing abutments

REEF resin healing abutments

impression with Pick-up transfers

multiple

full-arch

impression with Pull-up transfers

impression with mixed technique

modelling of temporary prosthesis

titanium Simple posts

PEEK Simple posts

resin structure

reinforced structure

casting of model

pre-made non engaging conical posts

insertion of posts on model

reduction of posts

modelling of the structure

production of the structure by casting or CAD CAM technology

prosthesis finalization

positioning of screw retained structure in the mouth and tightening of the screws

castable posts with metal base

Dynamic Abutment

insertion of posts on model

adaptation of the sleeves andmodelling in a screw retained structure in castable resin

production of a screw retained structure by casting or CAD CAM technology

prosthesis finalization

positioning of screw retained structure in the mouth and tightening of the screws

Multiple or full arch screw retained rehabilitation with PLAIN abutments

implants insertion

PLAIN abutments

impression with Pick-up transfers for PLAIN abutments

tissues conditioning

PLAIN healing caps

with temporary structure on titanium sleeves

casting of model with analogs for PLAIN abutments

realization of the definitive with casted framework

adaptation of the sleeves and modelling in a screw retained structure in castable resin

production of the screw retained structure by casting or with digital CAD CAM techniques

finalization of the prosthesis

positioning of the screw retained structure in the mouth and tightening of the screws

Screw retained or full arch multiple temporary rehabilitation with sleeves for multiple screw retained structures

implants insertion

soft tissues conditioning

titanium healing abutments

REEF resin healing abutments

impression with Pick-up transfers

multipla

full-arch

impression with Pull-up transfers

impression with mixed technique

casting of model

sleeves for multiple screw retained structures

welding of the sleeves

finalization of the temporary structure

tightening of the structure onto implants

modelling of a castable structure around the sleeves

casting of a castable structure around the sleeves

finalization of the temporary structure

tightening of the structure onto implants

Multiple or full arch rehabilitation with P.A.D. abutments (Disparallel Screwed Prosthesis) or P.A.D.r (Reduced Disparallel Screwed Prosthesis)

implants insertion

insertion of straight P.A.D. abutments

insertion of angled P.A.D. abutments

Immediate loading on 4 or 6 implants: luting technique

impression on P.A.D. or P.A.D.r abutments

with POM caps

with Pick-up transfers

tissues healing

titanium caps

PEEK caps

production of a prosthesis with a reinforced structure

casting of model with P.A.D. or P.A.D.r analogs

tightening of the titanium sleeves

insertion of castable cylinders on titanium sleeves

reduction of the sleeves and cylinders

modelling and production of the truss by casting or with CAD CAM technique

finalization of the prosthesis with holes for the posts

insertion in the mouth of the titanium sleeves

check and intraoral luting of prosthesis on titanium sleeves

Immediate loading on 4 or 6 implants: D.P.F.(Direct Prosthetic Framework) technique

production of a prosthesis with a reinforced structure

insertion of D.P.F. sleeves and castable centring devices

fixing of centring devices with resin and removal of sleeves and resin structure from the oral cavity

modelling and thickening of the resin structure and reduction of the D.P.F. sleeves

casting of truss

intraoral cementation of truss onto sleeves

impression incorporating truss

repositioning of P.A.D. or P.A.D.r analogs in impression

casting of model

retrieval of truss from impression and finalization of the prosthesis

check and intraoral tightening of prosthesis onto P.A.D. or P.A.D.r abutments

Deferred loading on 4 or 6 implants

production of a definitive prosthesis by casting or with CAD CAM technique

removal of temporary prosthesis

impression on P.A.D. or P.A.D.r abutments with Pick-up transfers

repositioning of temporary prosthesis in mouth

casting of model with P.A.D. or P.A.D.r analogs

positioning of castable posts with or without a metal base on the model

modelling of the structure

production of the structure by casting or with CAD CAM technique

finalization of the prosthesis

positioning of the prosthesis in the mouth and tightening of the screws

Single screw retained rehabilitation with T-Connect: luting technique

implant insertion

soft tissues conditioning

titanium healing abutment

REEF resin healing abutment

impression with Pick-up transfer

production of a temporary prosthesis

titanium Simple post

REEF resin post

casting of model

T-connect for luting technique*

*SomeT-connect do not have a dedicated sleeve and can be used only with CAD CAM technique.

insertion of T-Connect on the model with luting technique

insertion of castable sleeve

reduction of the sleeve

modelling of the crown

casting of the sleeve and the modelled crown

finalization of the crown with hole for T-Connect

luting of the crown on the T-Connect on the model

positioning of the screw retained crown in the mouth and tightening of the screw

Multiple or full arch screw retained rehabilitation with T-Connect: luting technique

implants insertion

soft tissues conditioning

titanium healing abutments

REEF resin healing abutments

impression with Pick-up transfer

multiple

full-arch

impression with Pull-up transfer

impression with mixed technique

production of a temporary prosthesis with titanium Simple posts

casting of model

T-connect for luting technique*

*Some T-connect for luting technique don't have a dedicated sleeveand can be used only with CAD CAM technique.

insertion of T-Connect on the model with luting technique

insertion of castable sleeves

reduction of the sleeves

modelling of the structure

casting of the sleeve and the modelled structure

finalization of the structure with holes for T-Connect

luting of the structure on the T-Connect on the model

positioning of the screw retained structure in the mouth and tightening of the screwsi

Single rehabilitiation with Conico prosthesis

implants insertion

Conico post

impression with PEEK caps

casting of model

insertion of the cap on the analog on the model

modelling of the crown

production of the crown by casting or CAD CAM technique

finalization of the prosthesis

insertion of the cap on the post on the model and activation of conometry

luting of the crown on the cap in the mouth

Multiple rehabilitiation with Conico prosthesis

implants insertion

Conico posts

impression with PEEK caps

casting of model

insertion of the cap on the analog on the model

modelling of the structure

production of the structure by casting or CAD CAM technique

finalization of the prosthesis

insertion of the caps on the posts on the model and activation of conometry

luting of the crown on the caps in the mouth

Overdenture: direct method

implants insertion

insertion of Locator Abutments

insertion of Locator R-Tx Abutments

positioning of spacer rings and caps on Locator abutments

perforation of existing overdenture and relining in mouth on caps

finishing of overdenture and replacement of zero-grade retainer inserts with inserts of a more suitable grade

insertion of ball attachments

positioning of retainers and correction of any undercuts with plastic material

CAP-TIT-1 **CAP-TFL-1** **CAP-1**

perforation of existing overdenture and relining in mouth on retainers chosen

finishing of overdenture

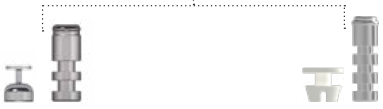
Overdenture: indirect method

implants insertion

insertion of Locator Abutments

insertion of Locator R-Tx Abutments

impression with Locator transfers and production of model



positioning of spacer rings and zero-grade retainer onto analogs

production of overdenture with incorporated caps

insertion of ball attachments

impression on ball attachments and production of model with dedicated analogs

positioning of retainers

CAP-TIT-1 **CAP-TFL-1** **CAP-1**

production of overdenture with incorporated caps

Overdenture anchored on bars

implants insertion

insertion of P.A.D. or P.A.D.r abutments

straight | **angled**

impression on P.A.D. or P.A.D.r

POM caps | **transfer Pick-up**

tissues conditioning with

caps in titanium | **caps in in PEEK**

casting of model

insertion, reduction and adaptation of sleeves

assembly of bars and their casting

production of overdenture and anchorage to bar attachments

tightening of bars on P.A.D. or P.A.D.r abutments and positioning of overdenture

soft tissues conditioning

titanium healing abutment | **REEF resin healing abutment**

impression with Pick-up ransfers

full-arch

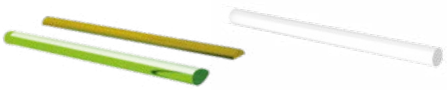
casting of model

intermediate abutments with metal base

insertion f the posts

reduction and adaptation of sleeves

assembly of bars and casting



overcasting of the bars

production of overdenture and anchorage to bar attachments

tightening of bars onto Intermediate abutments and positioning of overdenture

impression with transfer for PLAIN abutment

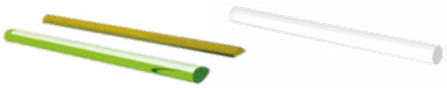
tissues conditioning with PLAIN healing caps

casting of model

PLAIN abutment

insertion of PLAIN abutments on the model

assembly of bars and casting



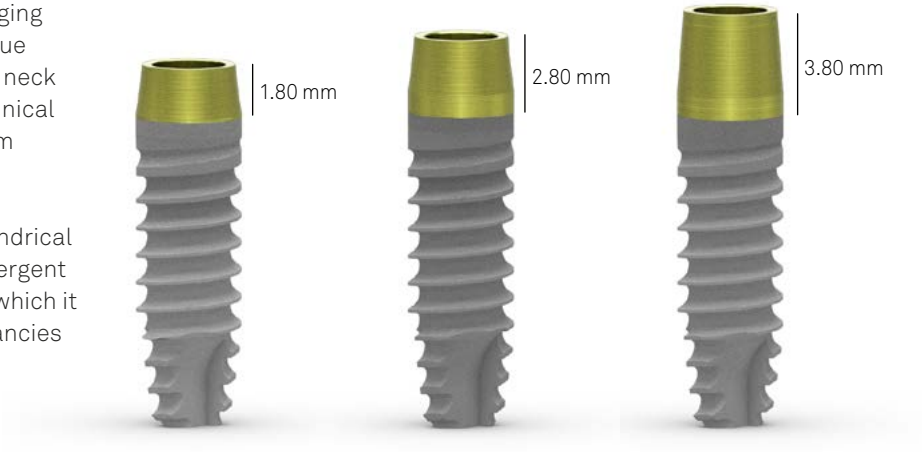
production of overdenture and anchorage to bar attachments

tightening of bars onto PLAIN abutments

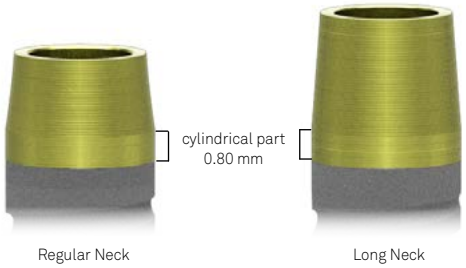
Prama, the one and only intramucosal implant

Prama has been designed with a converging intramucosal neck to maximize soft tissue thickness. Three different intramucosal neck heights are available to respond to all clinical situations: 1.80 mm Short Neck, 2.80 mm Regular Neck and 3.80 mm Long Neck.

Regular Neck and Long Neck have a cylindrical section 0.80 mm high between the convergent portion and the endosseous body, with which it is easier to compensate for any discrepancies in the case of post-extraction sites or asymmetrical ridges.



Short Neck **Regular Neck** **Long Neck**



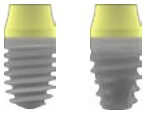
Regular Neck Long Neck

For areas with a low horizontal dimension, Prama Slim was developed, the solution with a straight intramucosal neck 1.80 mm or 2.80 mm high. With the same endosseous morphology, the preparation procedure is the same regardless of the height of the neck.

ø 3.30 Short Neck **ø 3.30 Regular Neck**

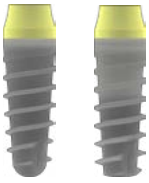
Prama is available with different endosseous and thread orphologies.

Prama Slim: cylindrical implant with triangular spiral, only diameter 3.30 mm



Prama Short: cylindrical with tapered apex implants h 6.00 mm

Prama: cylindrical implant with tapered apex and reverse buttress coil

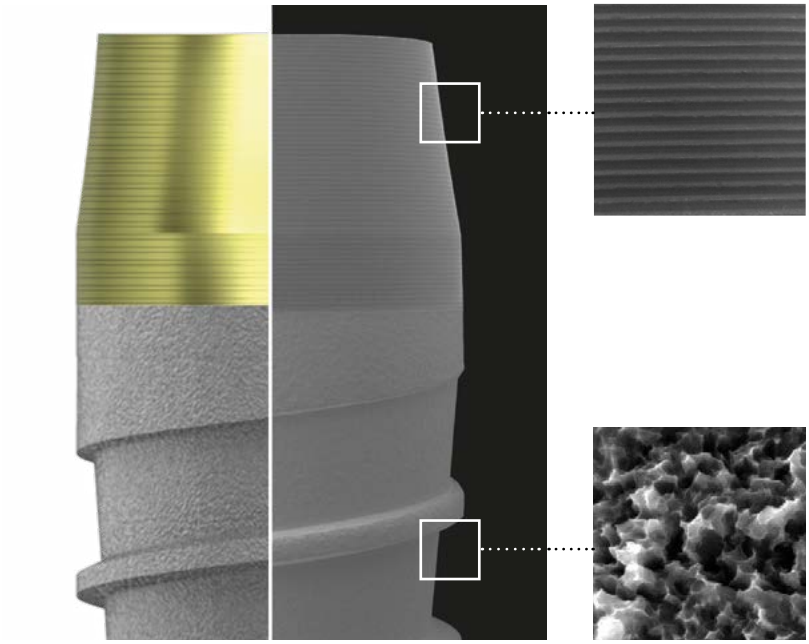


Prama RF: conical implant with rounded apex and thread of constant depth along the implant body

Prama RF SL: conical implant with flat apex and thread of progressively greater depth in the coronal-apical direction

Placement options

Prama presents two surface treatments:



Neck> UTM - Surface with microthread and anodized, perfect for the creation of soft tissues. Traditional positioning requires it to be lodged in the mucosal path, but it has been shown to osseointegrate when placed in contact with hard tissues.
For this reason, it simplifies the management of post-extraction sockets and irregular ridges, as well as allowing a deeper positioning of the implant, when the case requires it.

Endosseous body > ZirTi - Sandblasted and acid-etched surface, ideal for osseointegration. The whole portion of the Prama implants with ZirTi treatment must be inserted into the bone.

The thickness of the soft tissues of the site to be treated, guides the choice of the neck between Short, Regular and Long: in the case of transmucosal path of 2.00 mm, for example, it will be possible to opt for a Short Neck implant. Alternatively, a Regular Neck can be placed, partially submerging the neck in the bone.

Guide to reading Implant codes

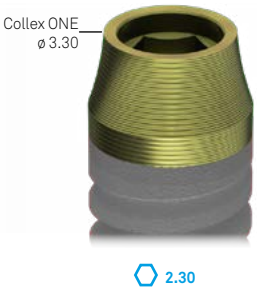
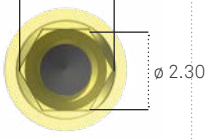
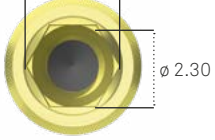
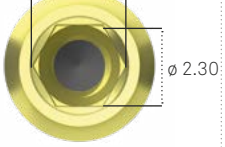
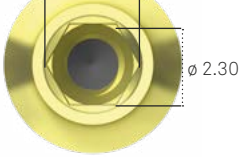
Prama with cylindrical morphology

morphology and neck	surface	diameter	length
LAS: 1.80 mm - Short Neck **LA**: 2.80 mm - Regular Neck **LAL**: 3.80 mm - Long Neck example: **LAS-ZT-380-100**	**ZT**: ZirTi surface and UTM neck	**330**: 3.30 mm **Prama Slim** **380**: 3.80 mm **425**: 4.25 mm **500**: 5.00 mm	**060**: 6.00 mm **085**: 8.50 mm **100**: 10.00 mm **115**: 11.50 mm **130**: 13.00 mm **150**: 15.00 mm
LAS-	**ZT-**	**380-**	**100**

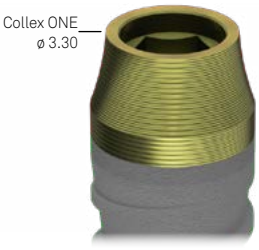
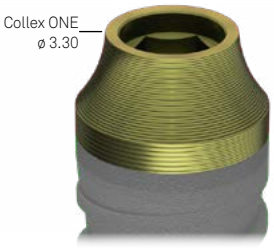
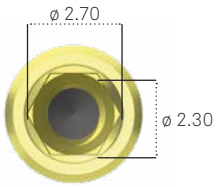
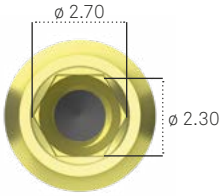
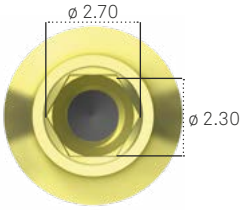
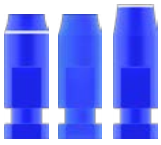
Prama with conical morphology

morphology and neck	surface	diameter	thread		length
			regular	wide	
LSS: 1.80 mm - Short Neck **LS**: 2.80 mm - Regular Neck **LSL**: 3.80 mm - Long Neck example: **LSL-ZT-380SL-100**	**ZT**: ZirTi surface and UTM neck	**330**: 3.30 mm **380**: 3.80 mm **425**: 4.25 mm **500**: 5.00 mm	-	**SL**	**060**: 6.00 mm **085**: 8.50 mm **100**: 10.00 mm **115**: 11.50 mm **130**: 13.00 mm **150**: 15.00 mm
LSL-	**ZT-**	**380-**		**SL-**	**100**

Guide chart to the single prosthetic connection

	cylindrical morphology			
ø implant	3.30 mm	3.80 mm	4.25 mm	5.00 mm
color code on the package	SN	SN LN	SN LN	LN
connection	Collex ONE ø 3.30  2.30	Collex ONE ø 3.30  2.30	Collex ONE ø 3.30  2.30	Collex ONE ø 3.30  2.30
ø inside of the collar	ø 2.70  ø 2.30	ø 2.70  ø 2.30	ø 2.70  ø 2.30	ø 2.70  ø 2.30
analog				
Pick-up transfer				
Pull-up transfer				
fixation screws with conical support for definitive posts				
fixation screw for provisional posts				

All measurements are to be intended in mm, unless otherwise indicated

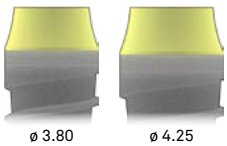
conical morphology		
3.80 mm	4.25 mm	5.00 mm
RF SN · RF · RF LN	RF SN · RF · RF LN	RF · RF LN
 2.30	 2.30	 2.30
		
		
		
		
		
		

Connection details

The connection is characterized by a Collex collar, documented by decades of clinical success, which has the function of stabilizing the prosthesis and guarantees the correct distribution of the masticatory loadings. The ferulization of the prosthesis on the implant neck, helps to maximize both of these aspects with the aesthetics.

Important warning
In the distal sectors, the single crowns must be ferulized for at least 0.5 mm on the implant neck, to increase the mechanical resistance to the masticatory loads typical of molars.

To facilitate the choice of the neck in these situations, the table below summarizes the different options of ferulizations and the implants on which they can be made.

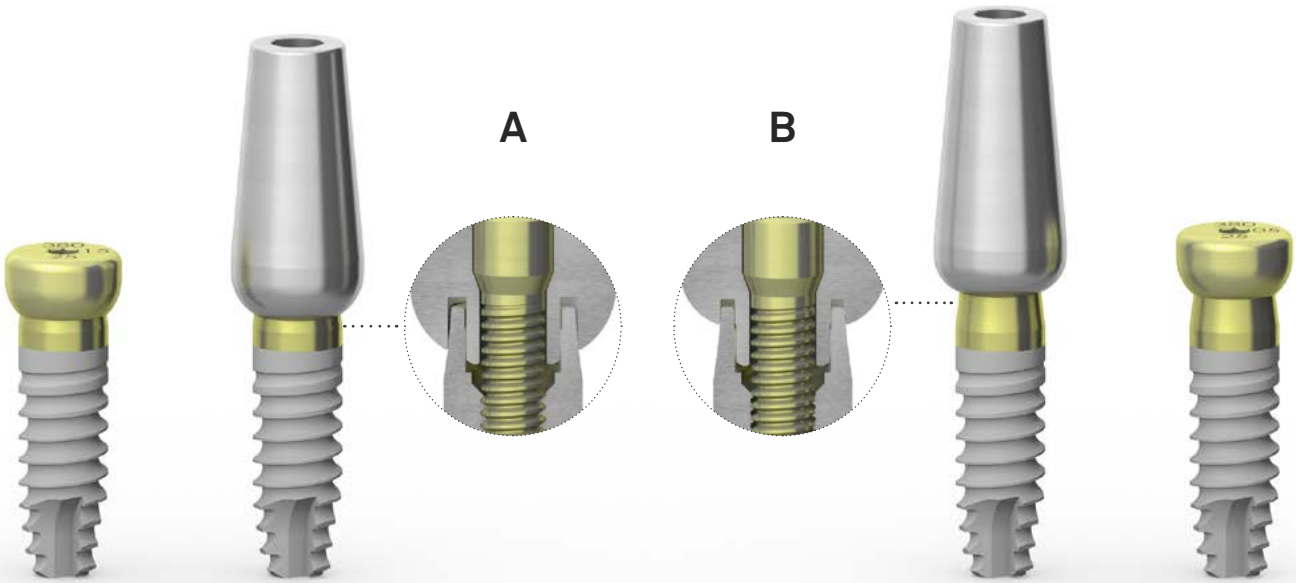
		Standard prosthesis on the implant platform	Prama IN Prosthesis 0.50 mm	Prama IN Prosthesis 1.50 mm	Prama IN Prosthesis 1.50 mm
					
Prama Slim	**Collo**				
	1.80  ø 3.30	✓	✗	✗	✗
	2.80  ø 3.30	✓	✗	✗	✗
Prama, Prama RF and Prama RF SL	**1.80**  ø 3.80 ø 4.25	✓	✗	✗	✗
	2.80  ø 3.80 ø 4.25 ø 5.00	✓	✓	✓	✓
	3.80  ø 3.80 ø 4.25 ø 5.00	✓	✓	✓	✗

Prama IN prosthetic components

Starting from healing abutments, in titanium for direct screwing or in REEF resin with passing screw and preparable chairside, soft tissues can be conditioned by a mucous tunnel, in order to provide adequate space for temporary and final prosthetic rehabilitation. This also avoids pain and discomfort for the patient during the prosthetic load.
Both types of healing abutments follow the hyperbolic geometry of Prama neck: they are so available in the diameters: 3.80 mm, 4.25 mm and 5.00 mm, not interchangeable.

Prama IN components have been designed to close subgingval at 0.50 mm (**img. A**) or at 1.50 mm (**img. B**) incorporating part of the transgingival neck.
Both the heights guarantee the complete ferulization of the implant.
The first one is usually employed in delayed loading protocols, while the second one is indicated for immediate loading protocols when the prosthetic structure is produced within 72h.

Prosthetic rehabilitation can be finalized using either preparable posts or castable posts with a metal base for overcasting, depending on the needs of each case.
Specifically developed following the Prama IN concepts in the three implant diameters, these posts are available both in the versions with or without repositioning hexagon and in the two closing subgingival heights on the implant neck at 0.50 mm and 1.50 mm, except for castable posts with a gold alloy base that are available only in the 0.50 mm height, without repositioning hexagon.

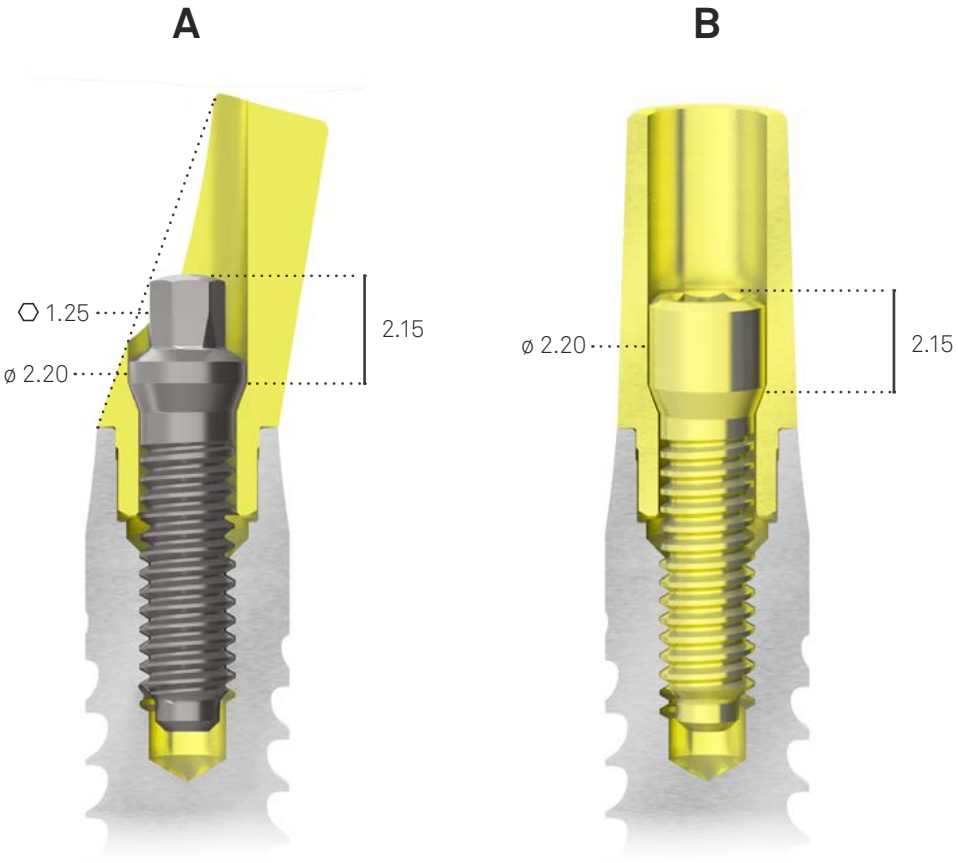


Prosthetic screws with conical support

The prosthetic screws with conical support of Prama posts are available in two versions: Full Head and with standard head. Both have been specifically studied in order to allow a wide freedom of posts personalization. The head of the screws presents a conical support which improves the prosthetic fastening without obstructing the eventual removal.

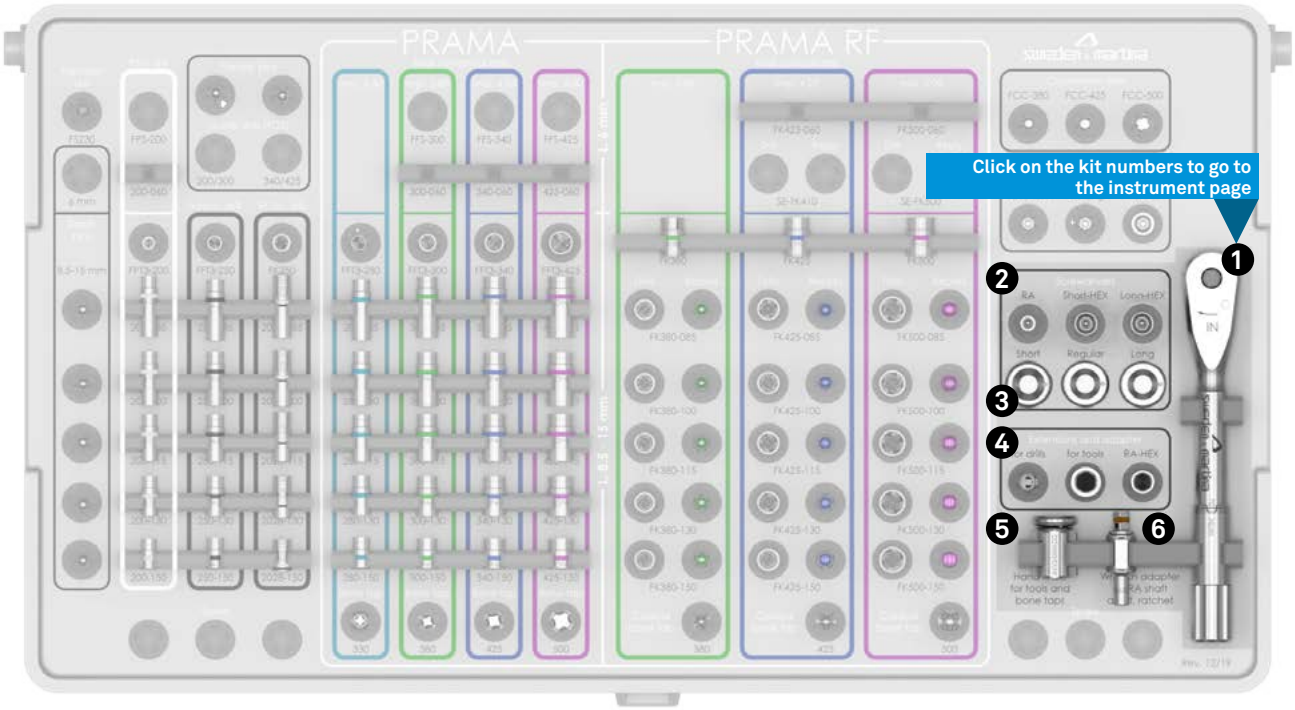
The head of Full-Head screw (**img. A**), supplied with angled pre-made posts, is full and presents an external hexagon of reduced dimensions compared to the head of a standard prosthetic screw with internal hexagon. For the screwing and unscrewing manoeuvres of this particular prosthetic screw, dedicated screwdrivers are available, in steel for surgical use, in three different lengths with grafts for dynamometric ratchet and one with right angle shank (see page 29).

Standard fixation screws with conical support (**img. B**) have the engagement of the internal driver for traditional screwdrivers of the HSM series (see page 27).
These screws are particularly useful when the total height of the posts must be consistently reduced, and therefore there is no sufficient height to cover the screw hole of the removable material. The size of the head of the screw, equal to that of the screw hole of the prosthesis posts, allows in fact not to leave spaces where you can thread the cement used to fix the crown



The Prama surgical kit

The Prama surgical kit contains all the surgical and prosthetic instruments useful for the management of all the operative phases, from the insertion of the implant to the definitive prosthesis. For the details related to the surgical instruments please refer to Prama catalogue and surgical manual.
The following information relates only to the instruments that have prosthetic relevance.



1

CRI5-KIT 

2

HSM-20-CA 

HSM-20-EX 

HSML-20-EX 

3

HSMXS-20-DG 

HSM-20-DG 

HSML-20-DG 

4

PROF-CAL3 

BPM-15 

B-AVV-CA3 

5

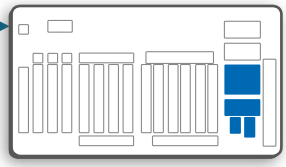
AVV3-MAN-DG 

6

AVV-CA-DG-EX 

Note: to guarantee the maximum duration of surgical instruments, it is advisable to follow the recommended cleaning and sterilization procedures

Click on the images for go back to the kit page



Screwdrivers for fixation screws

All the screwdrivers are made of stainless steel for surgical use.
There are two different types of screwdrivers for Prama implants: the traditional ones (**img. A and B**) and those for screws with Full Head technology (**img. C**).
They differ in the design of the tip, studied in the first case to engage a screw with internal hexagonal connection and the other with external hexagonal connection, therefore they are not interchangeable. In both cases, the slightly tapered coupling between the screwdriver and the screw allows for a proper retentive capacity for transporting the latter to the oral cavity.
Regularly check to ensure that this function has not been impaired due to wear on the tip.
Both screwdriver families are available in different shank lengths to facilitate the ergonomics, depending on the patient's anatomy.
The standard screwdrivers are also available in the digital one-piece version, this means that they are integral with the hand knob which allows the grip.

A

Standard screwdrivers and screws

B

Standard screwdrivers and fixation screws with conical support

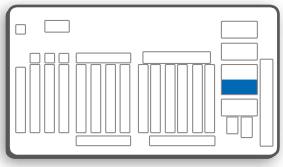
C

Specific screwdrivers for screws with Full Head technology

Important warning
Excessive torques can damage the thread of the well or of the sharp edges of the fixation screws and damage the thread of the screwdrivers, causing also severe intra-operative or prosthetic complications. The recommended torque for the tightening of the different components are summarized in the following chart:

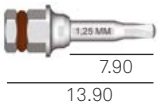
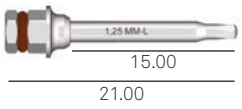
Viti transmucose di guarigione	8-10 Ncm
Transfer screws	8-10 Ncm
Through screws for tightening posts and abutments onto implants	20-25 Ncm
Through screws for tightening prosthetic overstructures onto abutments P.A.D. and P.A.D.r	15-20 Ncm
Through screws for tightening prosthetic overstructures onto abutments	20-25 Ncm
Through screws for tightening angled abutments P.A.D.r onto implants	20-25 Ncm
Components screwed directly onto implants (e.g. straight P.A.D. and P.A.D.r, PLAIN abutments without a fixation screw form a solid body with the screw)	25-30 Ncm
Through screws for tightening overstructures screwed directly onto implants (without using intermediate abutments)	25-30 Ncm

Given the importance of the tightening torque, it is recommended to use always the screwdrivers with hexagonal connector, keeping always the exerted torque under control with the dynamometric ratchet.
To facilitate the joint of the screws or of the threaded sections of the prosthetic components, the screwing should be started with the digital screwdrivers.



Screwdrivers that can be used with the torque-control ratchet

Screwdrivers with an upper hexagonal connector are designed for use with the torque-control ratchet to provide torque control. The Screw Kit includes short, long and extra-long versions, and this latter is for use when the screw hole inside posts is longer than 13.00 mm.
Some of these drivers are also included in the surgical kits of the Prama system.
Please refer to the catalogues and surgical manuals of the single systems for details.

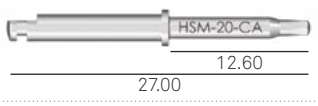
description	code
Driver for fixation screws, with hexagonal connector for dynamometric key or hand knob, short	**HSM-20-EX** 
Driver for fixation screws, with hexagonal connector for dynamometric key or hand knob, long	**HSML-20-EX** 

Important warning
All drivers for use with a ratchet have a red polymer O-ring inside the connection hexagon, to ensure adequate grip for instruments and therefore the correct position of components. This O-ring must be checked periodically and replaced when worn or no longer able to ensure the correct grip..

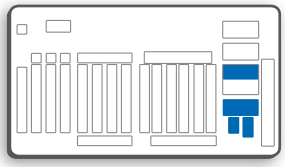
A kit of 5 spare O-rings is available, with order code **ORING180-088.**

Screwdriver for right angle

Both the Screw kit and the Prama surgical kit also contain a screwdriver with right angle shank, very practical both in the surgical and prosthetic phase, if it is used with a micromotor with the torque control. This screwdriver can be only used for the tightening of the posts whose hole for the passing of the screw is not longer than 11.00 mm.In addition, an extra-short shank screwdriver is optionally available for contra-angle. It is indicated for distal sectors, but can only be used for tightening posts whose screw passage hole is shorter than 6.00 mm. Please see HSMXS-20-CA at page 29.

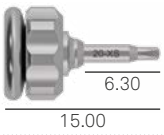
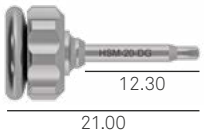
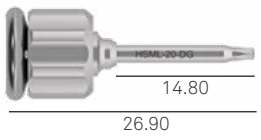
description	code
Screwdriver for fixation screws, with right angle shank	**HSM-20-CA** 

All measurements are to be intended in mm, unless otherwise indicated.

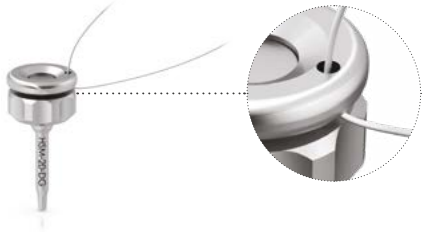


Surgical screwdrivers

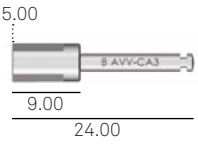
Their design makes them extremely practical during surgical phases and when uncovering and handling healing abutments. They must not be used in the final prosthetic phases because they do not allow the torque control. These screwdrivers are available, in the three different lenghts, inside the Prama surgical kit and the Screw kit.

description	code
Driver for digital cover screws and fixation screws, digital, extra short	**HSMXS-20-DG** 
Driver for digital cover screws and fixation screws, digital, short	**HSM-20-DG** 
Driver for digital cover screws and fixation screws, digital, long	**HSML-20-DG** 

Important warning
It is recommended to pass a safety thread through the hole on the top of the knob to prevent it being dropped.



Extension and connector

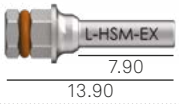
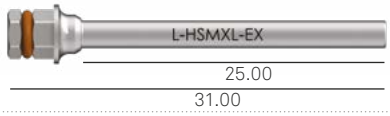
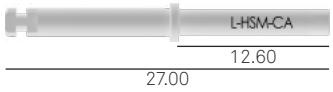
description	code
Adapter with right angle shank for instruments with hexagonal connector	**B-AVV-CA3** 
Manual knob for drivers, hexagonal keys and manual drivers	**AVV3-MAN-DG** 
Extension for hexagonal keys, drivers and manual drivers, with hexagonal connector for torque-control ratchet	**BPM-15** 
Adapter with hexagonal connector to use contra-angle instruments manually with ratchet	**AVV-CA-DG-EX** 
Extension for surgical drills	**PROF-CAL3** 

All measurements are to be intended in mm, unless otherwise indicated.

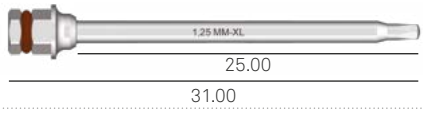
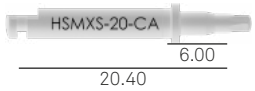
Optional instruments not included in the kit

Screwdriver for Full Head screws

The specific screwdrivers for screws with Full Head technology are available in the version with hexagonal connector for ratchet, in different shank lengths. A screwdriver with a right angle attachment is also available. The tip of the instruments has a hexagonal socket, which engages the full hexagon of the Full Head screws, providing the necessary retention for transporting the screw itself. These screwdrivers cannot be used for the fastening screws of the temporary posts or for other types of screws in the catalog.

description	code
Screwdriver for screw with Full Head technology, digital, short	**L-HSM-EX** 
Screwdriver for screw with Full Head technology, digital, long	**L-HSML-EX** 
Screwdriver for screw with Full Head technology, digital, extra long	**L-HSMXL-EX** 
Screwdriver for full head screw with shank for contra-angle	**L-HSM-CA** 

Extra driver for standard fixation screws

description	code
Driver for fixation screws, with hexagonal connector for dynamometric key or hand knob, extra long	**HSMXL-20-EX** 
Screwdriver for fixation screws, with right angle shank	**HSMXS-20-CA** 

Screwdriver for Dynamic Abutment

description	code
Screwdriver for Dynamic Abutment, length 24 mm. It must be procured separately	**DSPDCLH-24** 
Screwdriver for Dynamic Abutment, length 32 mm. It must be procured separately	**DSPDCLH-32** 

Recommended torque for Dynamic Abutment: 20-25 Ncm.

All measurements are to be intended in mm, unless otherwise indicated.

Screw Kit

The Sweden & Martina Screw Kit is a practical set containing the screwdrivers necessary for the prosthetic phases of Prama implants, besides Premium One, Kohno One and Shelta implants, for the various prosthetic solutions: for standard posts, for abutments, for P.A.D. prosthesis, for Locator abutments, for ball attachments and relative retention caps. In addition to manual and contra-angle screwdrivers, Screw Kit includes a carrier for the transporting angled P.A.D. abutments. The kit includes digital and contra-angle screwdrivers, as well as a dynamometric ratchet, however, it does not contain Prama screwdrivers for Full Head screws.
Small and easily portable, the kit allows you to manage the manual prosthetic rehabilitation phase in a simple and immediate way.

1

PAD-CAR

CRI5-KIT

AVV-CAP-TIT-1

AVV3-MAN-DG

AVV2-ABUT

BASCC-EX

2

HSM-20-CA

HSM-20-EX

HSML-20-EX

HSMXL-20-EX

3

8927-SW

8926-SW

4

B-AVV-CA3

5

HSMXS-20-DG

HSM-20-DG

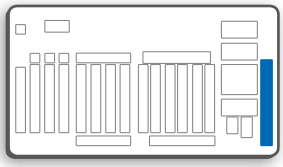
HSML-20-DG

Note: to guarantee the maximum duration of surgical instruments, it is advisable to follow the recommended cleaning and sterilization procedures.

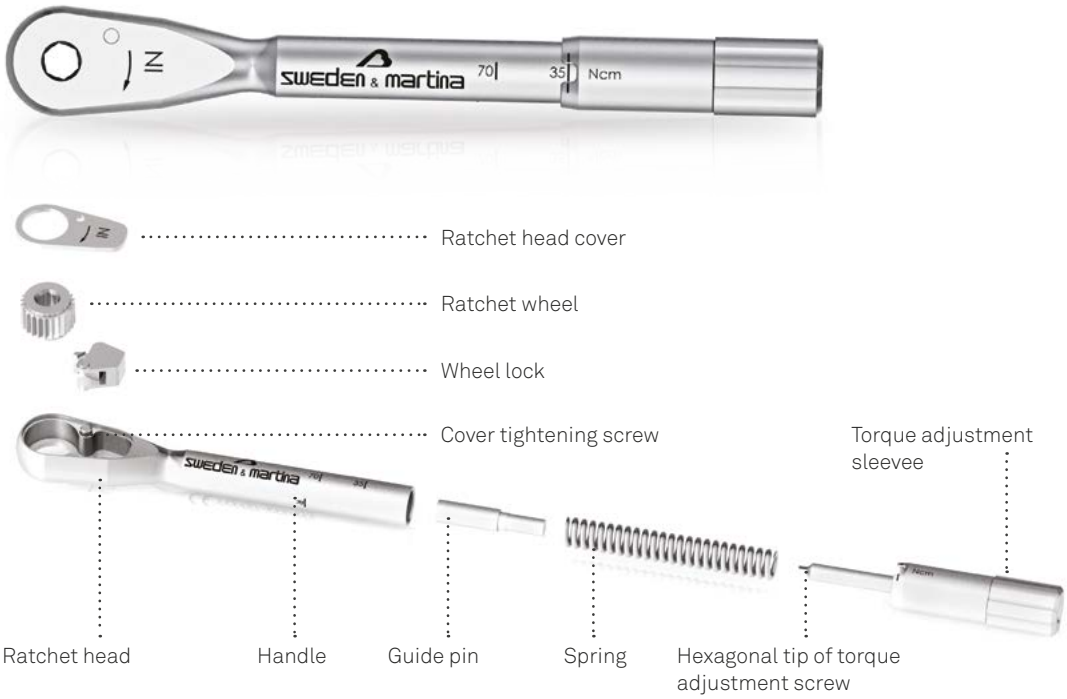
description	code
Complete Screw Kit	**ZSCREW-INT** 
Instrument tray for Screw Kit	**SCREW-TRAY-INT** 
Kit with 5 spare silicone supports for surgical trays, for drills or instruments with shank for contra-angle handpiece	**GROMMET-CA-1** 
Kit with 5 spare silicone supports for surgical trays, for instruments with a hexagonal connection	**GROMMET-CA-2** 

Important warning
Some of the instruments necessary for prosthetic protocols may also be included in surgical kits.
Please consult the respective catalogues for details on the updated contents of these kits.

CRI5-KIT torque-control ratchet

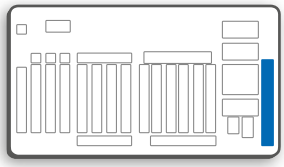


The surgical kit of the implant system includes a special ratchet (CRI5-KIT), together with an adjustment key that can be used to rapidly turn the torque adjustment sleeve, and a gel lubricant for maintenance. The ratchet can be used with torque regulations from 10 to 70 Ncm, or in a locked position without torque control. When using the prosthetic ratchet to tighten screws, reference must be made to the torque values indicated on page 26. The CRI5-KIT ratchet is a multipurpose instrument that can be dismantled, and it is supplied as nonsterile.



Every time this instrument is used, it must first be cleaned and sterilized, following the instructions on page 233. Adequate maintenance, carried out scrupulously following all steps indicated for dismantling and reassembly of the instrument during cleaning operations, is essential for its correct use and to prolong its lifespan. Personnel using this instrument must be suitably trained, and must have read the instructions given in this manual before proceeding with any operations whatsoever with it. After sterilization, the ratchet is ready for use. It must be tested for correct assembly and operation every time it is used, whether for surgical procedures or for prosthetic procedures.

Torque is adjusted by aligning the marking for the desired torque in the circular opening of the handle. The “IN” arrow on the head when seen from above indicates the position of the ratchet that allows screws to be tightened. The “OUT “ arrow on the head when seen from above indicates the position of the ratchet that allows screws to be loosened.
A position of unlimited torque can be obtained by setting the torque adjustment device to the notch marked “R” on the ratchet handle.



The torque adjustment sleeve can be tightened and slackened manually, but these operations can be carried out more rapidly using the hexagonal key included in the kit, which allows it to be turned more quickly. The personnel responsible for the use and maintenance of this dental instrument must check it for possible signs of deterioration of the tightening, insertion and torque mechanisms. The single components of the ratchet are not interchangable, and it is not possible to use a component from one ratchet to replace a component on another, because every ratchet is INDIVIDUALLY calibrated. If a component is lost, always return the entire instrument to Sweden & Martina for all necessary repairs. Components for the assembly of the ratchet are not sold individually. Failure to respect the instructions provided may cause maintenance problems and may also affect prosthesis stability.

Important warning
Torque is always adjusted by tightening/slackening the sleeve at the end of the instrument handle. Torque must always be adjusted upwards, starting from a value lower than that required and tightening the adjustment sleeve in a clockwise direction until the desired value is reached. This means that if a torque value lower than that used previously is to be set, the adjustment sleeve must be slackened by a minimum of two whole turns beneath the new torque value required, and then tightened again in a clockwise direction to the desired value.

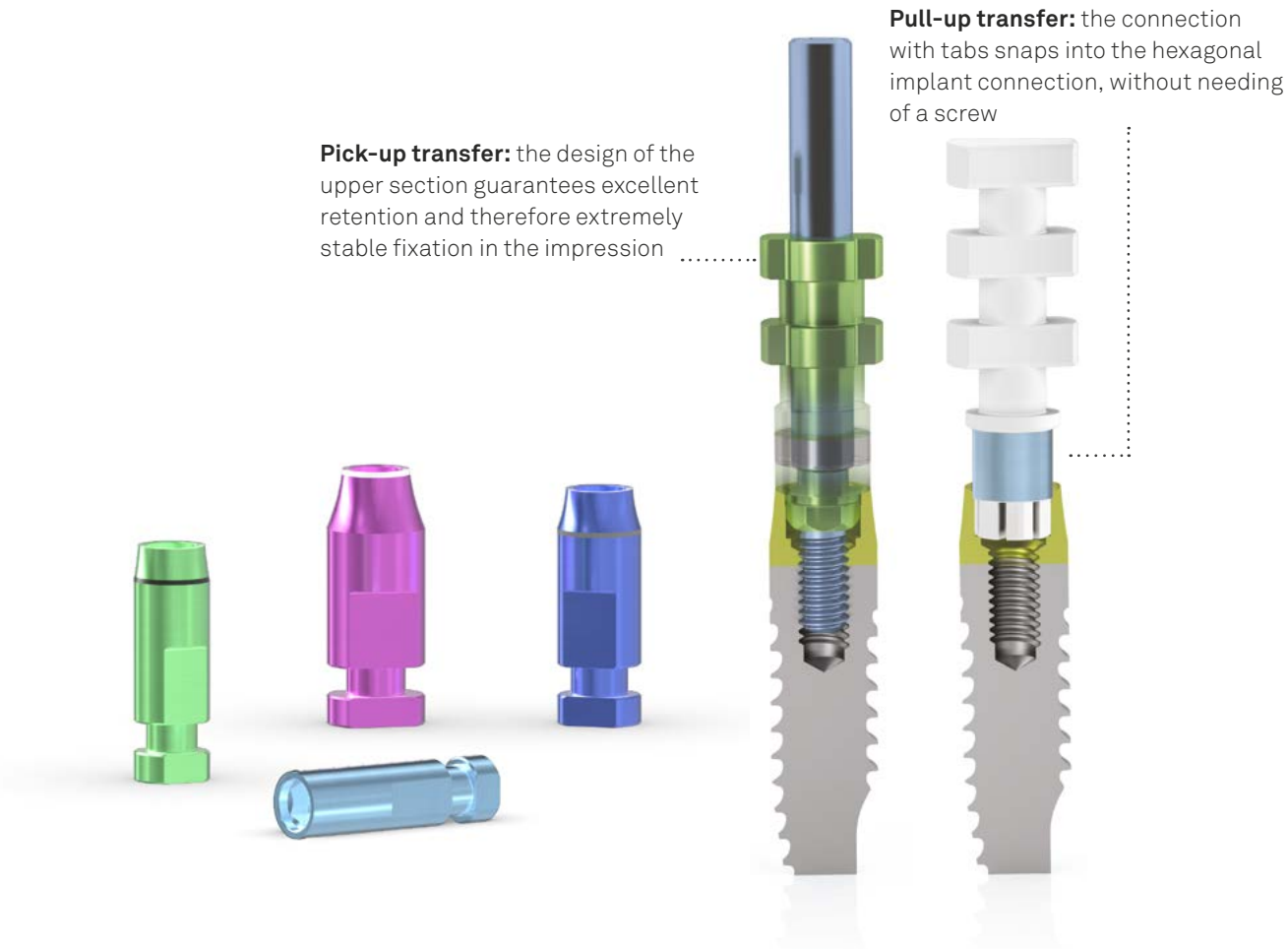
To adjust torque upwards, turn the adjustment sleeve in a clockwise direction..

To adjust torque downwards to a value lower than that used previously, turn the adjustment sleeve in an anticlockwise direction until it is a minimum of two whole turns below the required value. Then tighten it in a clockwise direction until the desired torque value is reached.

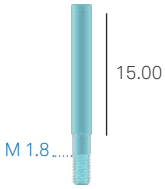
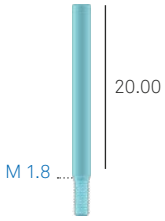
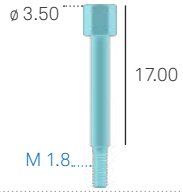
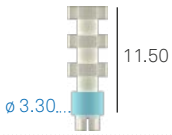
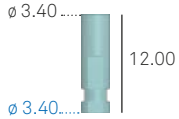
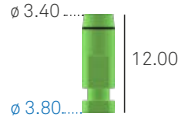
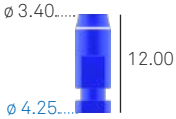
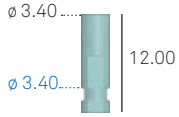
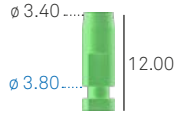
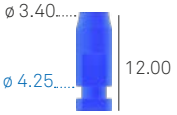
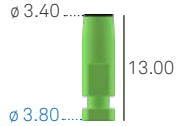
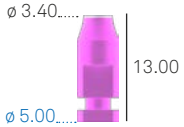
Techniques for taking impressions and making models

The correct taking of impressions is the key to success in any implant-prosthetic treatment plan, because if information with as few errors as possible is sent to the laboratory, this makes it possible to save working time and above all to produce prostheses without internal stresses that do not exert undesired strain on implants. Impressions can be taken at various moments of surgery, depending on the adopted protocols and/or habits. On all the Prama implants it is possible to take the impression using the open tray technique with Pick-up transfers.
For distal zones in which the manoeuvres of screwing and unscrewing of the screw can be difficult, and also in cases of limited oral opening, Pull-up transfers in PEEK can be used together with Pick-up transfers, presenting a titanium ring anodized in blue at the base, making it possible to verify the correct insertion into the implant platform with a X-ray.

The components for impressions taking and for the production of model are manufactured with the same machines used to make implants, thus ensuring the same high level of precision for tolerances and for the accurate reproduction of clinical situations. The anodization of the analogs according to the colour code of the reference platform make it easier to recognize the implant diameter and simplify the laboratory work.



Important warning
It is advisable to always use new transfers and analogs for all cases, so as to guarantee maximum coupling precision at the level of the connection. Transfers and analogs used more than once reciprocally deform the walls of the respective hexagons, transferring errors to impressions that can generate stresses in prostheses which are then transferred to implants and can compromise satisfactory clinical outcomes, above all in the case of multiple structures.

ø implant	3.30 mm	3.80 mm	4.25 mm	5.00 mm
Pick-up transfer Straight emergence Fixation screw included	**A-TRA-330** 	**L-TRA-380** 	**L-TRA-425** 	**L-TRA-500** 
Single pack Fixation screw for Pick-up transfer Supplied with the transfers, it can also be ordered separately as a spare	**VTRA2-180-15** 	Use VTRA2-180-15	Use VTRA2-180-15	Use VTRA2-180-15
Single pack Fixation screw for Pick-up transfer Not supplied with the transfers, available separately as a spare	**VTRA2-180-20** 	Use VTRA2-180-20	Use VTRA2-180-20	Use VTRA2-180-20
Single pack Fixation screw for Pick-up transfer For manual screwing Not supplied with transfers, available separately as a spare	**VTRA2-180-MAN** 	Use VTRA2-180-MAN	Use VTRA2-180-MAN	Use VTRA2-180-MAN
Pull-up transfer in radiopaque PEEK and Gr. 5 titanium ring Straight emergence	**A-TRAP-330** 	Use A-TRAP-330	Use A-TRAP-330	Use A-TRAP-330
Analogs Short Neck h 1.80	**A-ANA-330** 	**LS-ANA-380** 	**LS-ANA-425** 	
Analogs Regular Neck h 2.80	**A-ANA-330** 	**L-ANA-380** 	**L-ANA-425** 	**L-ANA-500** 
Analogs Long Neck h 3.80		**LL-ANA-380** 	**LL-ANA-425** 	**LL-ANA-500** 

Recommended torque for transfer screws: 8-10 Ncm.

Open tray impression with Pick-up transfer - single crown

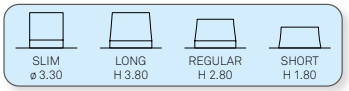
The Prama implant presents a transgingival emergence, therefore it is dedicated to techniques with only one surgical phase. If the impression is taken after a healing period, remove the surgical cover screw or the healing abutment.

Tighten the Pick-up transfer with the specific supplied screw and the most suitable screwdriver from the HSM series, without exceeding a torque of 8-10 Ncm (**img. A**).

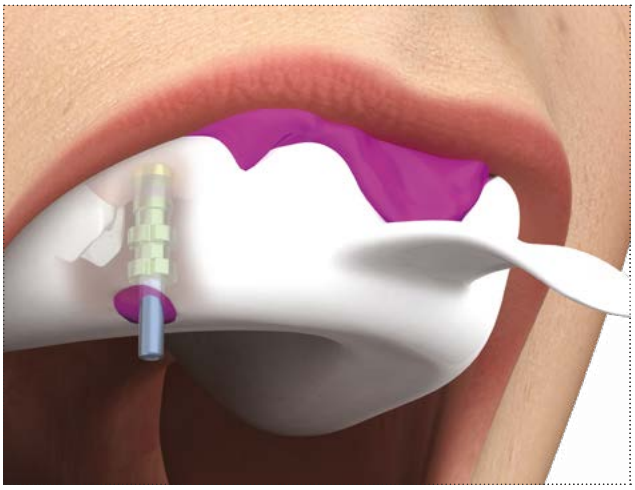
Note: Pick-up transfer can also be fastened using the transfer screw for manual screwing of 17.00 mm lenght which presents a hexagon on the top (**img. B**).

Check that the personalized tray, when placed in the mouth, contains the entire height of the transfer inside its walls, and that the summit of the transfer screw emerges for a suitable lenght from the respective hole in the tray. If necessary, the transfer can be shortened by one or two notches.

Inject a precision impression material (i.e. SKY IMPLANT LIGHT, cod SKY14) around the transfer and the emergent section of the implant.



Fill the impression tray with a harder impression material (i.e. SKY IMPLANT ONEMIX-ED, code SKY08) over the entire arch Then position the tray *in situ* and wait for the hardening times as indicated by the instructions.



Unscrew the transfer screw and remove it from the impression, to prevent it from accidentally falling into the patient's mouth when the impression tray is removed. Remove the tray: the Pick-up transfer remains incorporated in the impression.

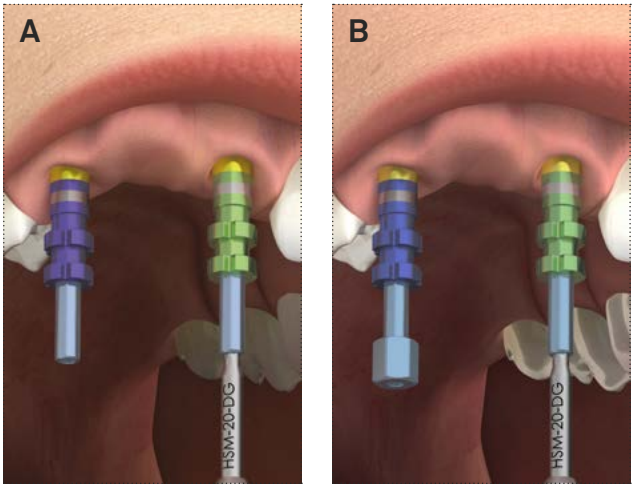
Screw the laboratory analog (L-ANA-*) onto the transfer using the transfer screw, replaced in the hole left by it in the impression material.
The recommended torque is 8-10 Ncm.
Develop the model as usual.

Open tray impression with Pick-up transfers - bridge

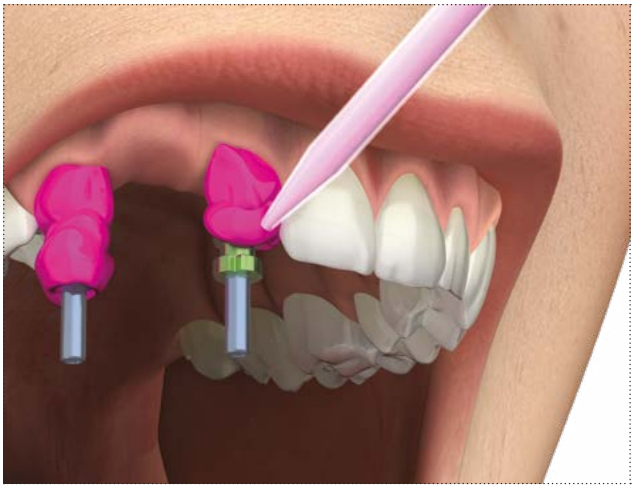
The Prama implant presents a transgingival emergence, therefore it is dedicated to techniques with only one surgical phase. If the impression is taken after a healing period, remove the surgical cover screws or the healing abutments.

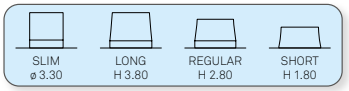
Tighten the Pick-up transfers with the specific supplied screw and the most suitable screwdriver from the HSM series, without exceeding a torque of 8-10 Ncm **(img. A)**. If desired, fix the transfers together with wire and resin or composite, and wait for polymerization to be completed, as indicated by the manufacturer (e.g. SUN resin, code SUN-A2 or SUN-A3).

Note: Pick-up transfers can also be fastened using the transfer screw for manual screwing of 17.00 mm lenght which presents a hexagon on the top (**img. B**).

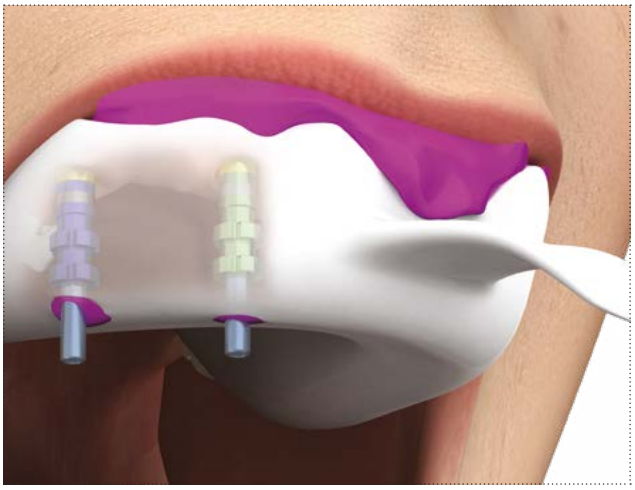


Check that the personalized tray, when placed in the mouth, contains the entire height of the transfers inside its walls, and that the summit of the transfer screws emerge for a suitable lenght from the respective holes in the tray. If necessary, the transfers can be shortened by one or two notches.
Inject a precision impression material (i.e. SKY IMPLANT LIGHT, cod SKY14) around the transfers and the emergent section of the implants.

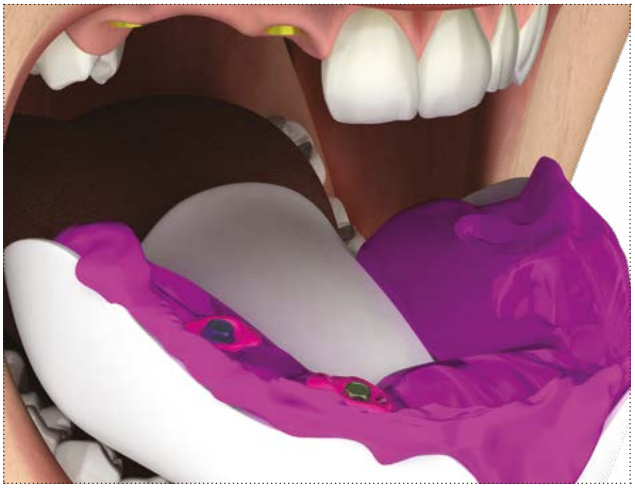




Fill the impression tray with a harder impression material (i.e. SKY IMPLANT ONEMIX-ED, code SKY08) over the entire arch. Then position the tray *in situ* and wait for the hardening times as indicated by the instructions



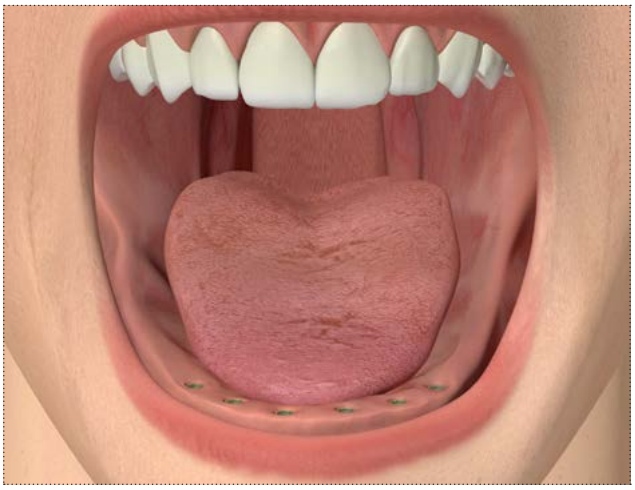
Unscrew the transfer screws and remove them from the impression, to prevent them from accidentally falling into the patient's mouth when the impression tray is removed. Remove the tray: the Pick-up transfers remain incorporated in the impression.



Screw the laboratory analogs (L-ANA-*) onto the transfers using the transfer screws, replaced in the holes left by them in the impression material.
The recommended torque is 8-10 Ncm.
Develop the model as usual.

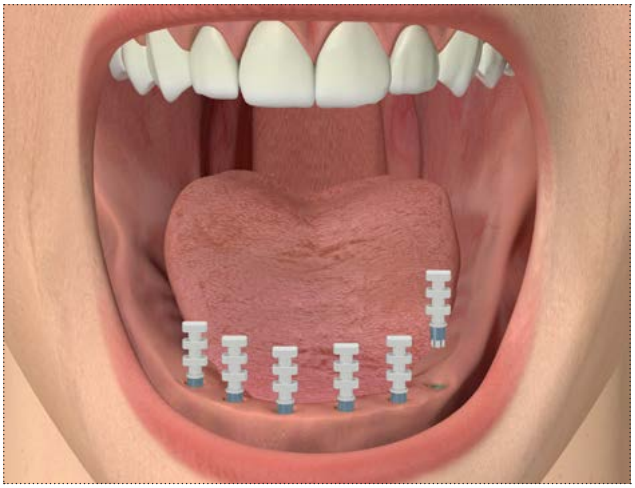
Closed tray impression with Pull-up transfers - full arch

Remove the surgical cover screws of the healing abutments.



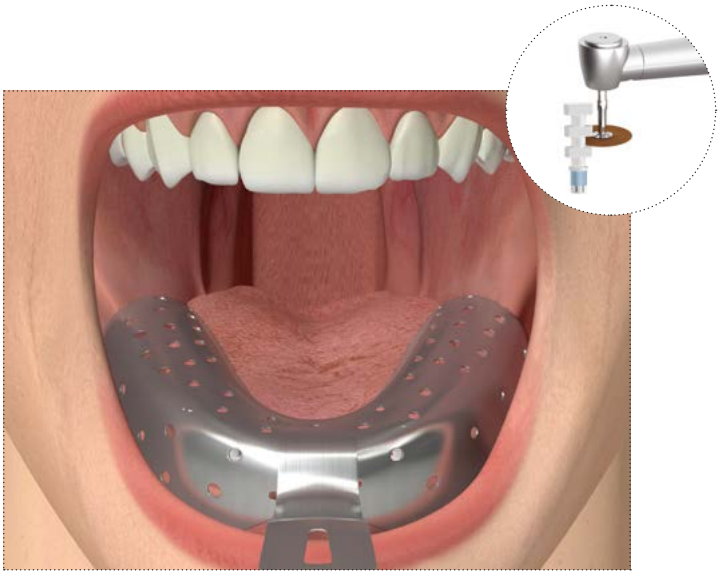
Position the Pull-up transfers and fix them by simply applying pressure with the hand, without needing to use instruments. The characteristic click of the transfer tabs indicates that the transfers have been correctly inserted in the implant connection.

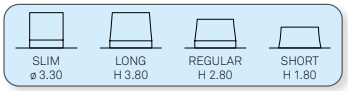
Important warning
In case of poor visibility or doubts on complete coupling between the transfer and the implants, carry out a radiographic check. The titanium ring at the base of the transfers make them visible with an X-ray.



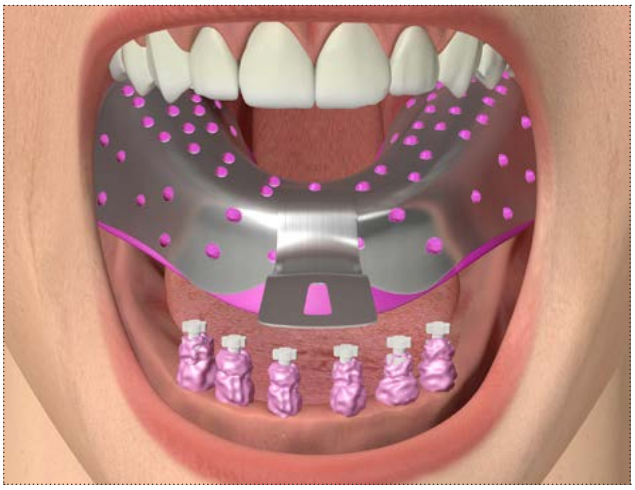
Position the tray and check that the entire height of the transfers is contained inside the walls of the impression tray.

Important warning
If necessary, the height of Pull-up transfers can be reduced by cutting away one or two vertical modules or removing the portions of the horizontal tabs creating interference.
The retention of the remaining portion of the transfers in the impression material will be sufficient to ensure that the impression is taken correctly.

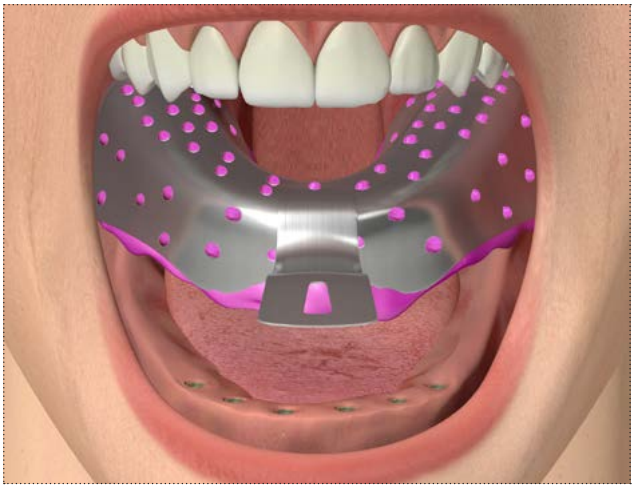




Inject a precision impression material (i.e. SKY IMPLANT LIGHT, code SKY14) only around the transfers and at the same time fill the impression tray with a harder material (i.e. SKY IMPLANT ONEMIX-ED, code SKY08) along the entire arch Then position the tray *in situ* and wait for the hardening times as indicated by the instructions.



Lift the tray off vertically: the Pull-up transfers will remain incorporated in the impression.

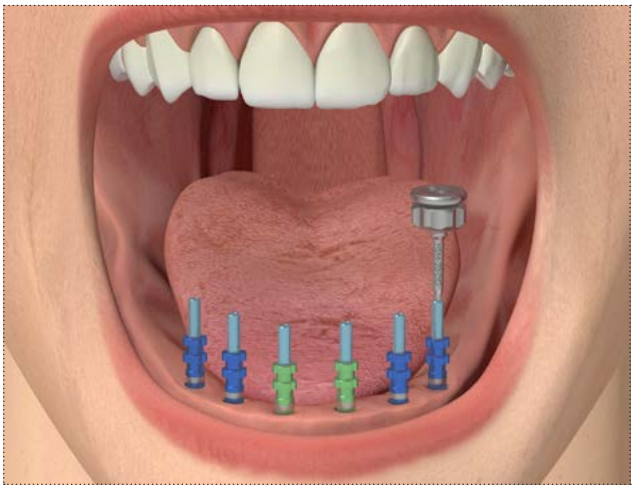


Couple each of the transfers with a laboratory analog of a corresponding diameter of the implant inserted in the patient's mouth.
Develop the preliminary model and create an individual impression tray using normal methods.

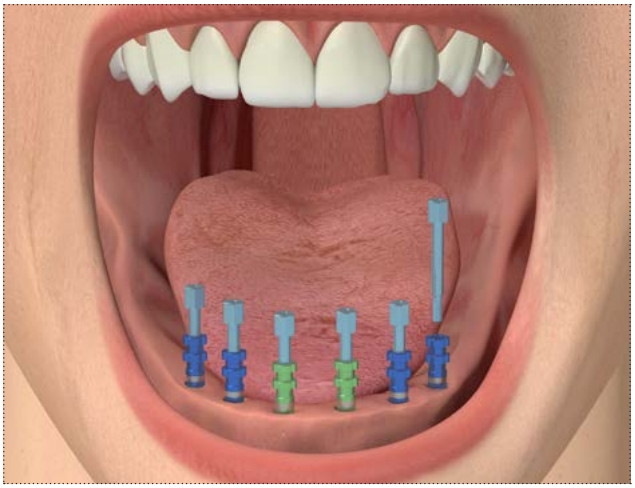
Important warning
The Pull-up transfers are available in only one diameter with a titanium anodized ring in blue, not following the colour code system, so it is necessary to indicate the laboratory the analog diameter that must be engaged to the transfers.

Open tray impression with Pick-up transfers - full arch

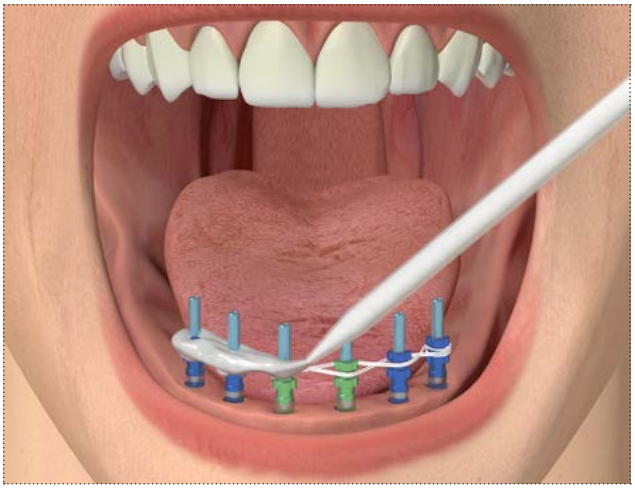
Tighten the Pick-up transfers with the specific supplied screw and the most suitable driver without exceeding a torque of 8-10 Ncm.

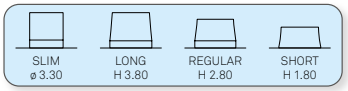


Pick- up transfers can also be fastened using the transfer screw for manual screwing of 17.00 mm lenght which presents a hexagon on the top.

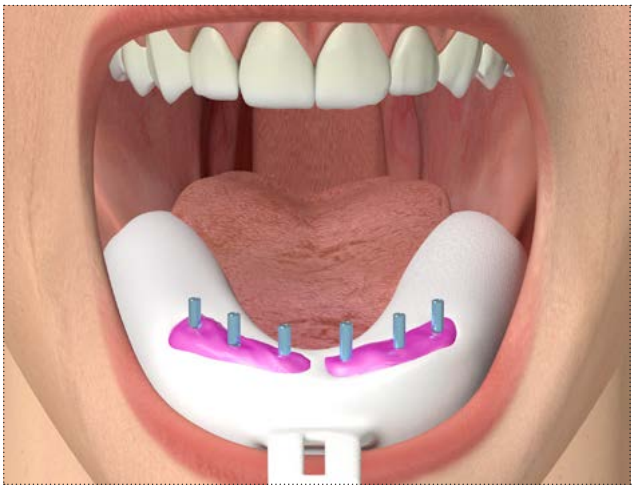


If desired, fix the transfers together with wire and resin or composite, and wait for polymerization to be completed, as indicated by the manufacturer (e.g. SUN resin, code SUN-A2 or SUN-A3).

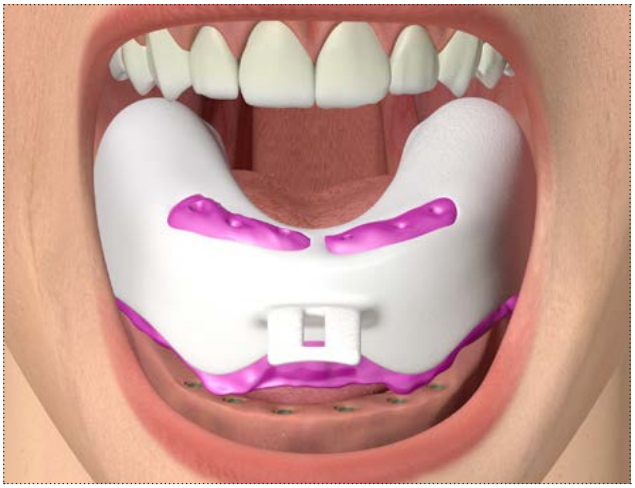




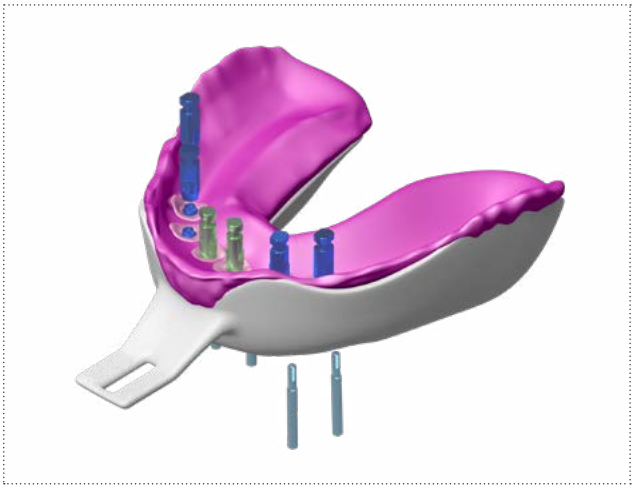
Check that the personalized tray, when placed in the mouth, contains the entire height of the transfers inside its walls, and that the summit of the transfer screws emerges for a suitable length from the respective holes in the tray. Inject a precision impression material (i.e. SKY IMPLANT LIGHT, code SKY14) only around the transfers and fill the impression tray with a harder material (i.e. SKY IMPLANT ONEMIX-ED, code SKY08) over the entire arch.
Then position the tray *in situ* and wait for the hardening times as indicated by the instructions.



Unscrew the transfer screws and remove them from the impression, to prevent them from accidentally falling into the patient's mouth when the impression tray is removed. Remove the tray: the Pick-up transfers remain incorporated in the impression.

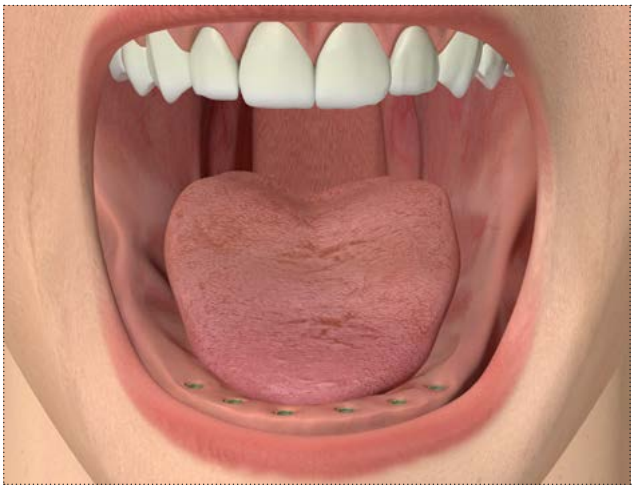


Screw the laboratory analogs (L-ANA-*) onto the transfers using the transfer screws, replaced in the holes left by them in the impression material.
The recommended torque is 8-10 Ncm.
Develop the model as usual.

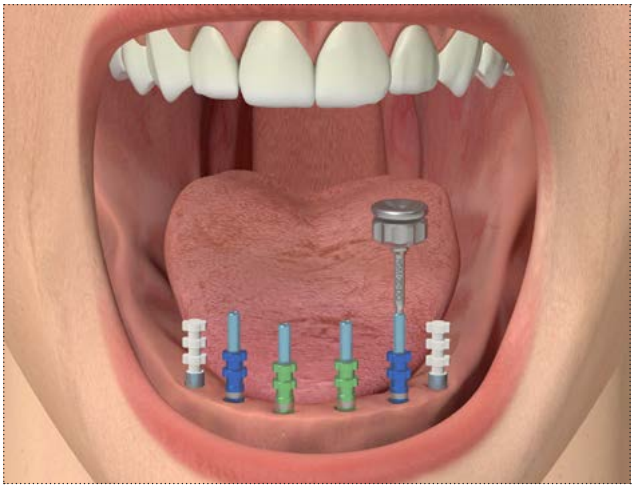


Open tray impression with Pick-up and Pull-up transfers and mixed technique - full arch

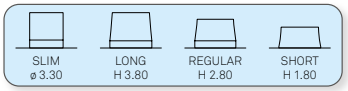
The Prama implants present a transgingival emergence, therefore they are dedicated to techniques with only one surgical phase. If the impression is taken after a healing period, remove the surgical cover screws or the healing abutments.



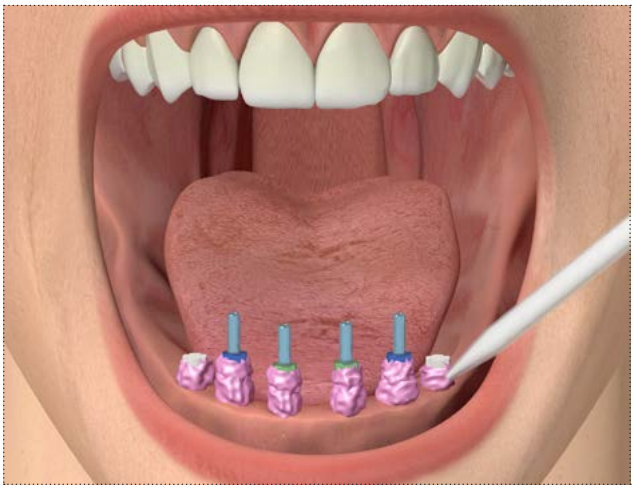
To facilitate the impression phase in distal sectors and patients with limited oral opening, it is possible to use the Pull-up transfers together with the Pick-up transfers. Pull-up transfers exercise retention in the connection with the dedicated retentive tabs, while the Pick-up transfers must be tigthened to the implant with the specific supplied transfer screw at a maximum torque of 8-10 Ncm. In order to do this operation use a screwdriver of the HSM series of the most suitable length.



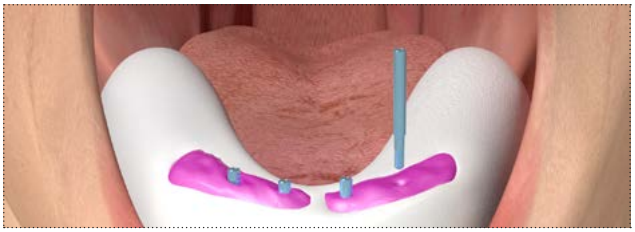
If necessary, the height of Pull-up transfer can be reduced by cutting away one or two vertical modules with a disk outside the oral cavity: the retention of the remaining portion of the transfer in the impression material is sufficient to ensure the correct impression taking.



Inject a precision impression material (i.e. SKY IMPLANT LIGHT, code SKY14) only around the transfers and the emergent section of the implants.

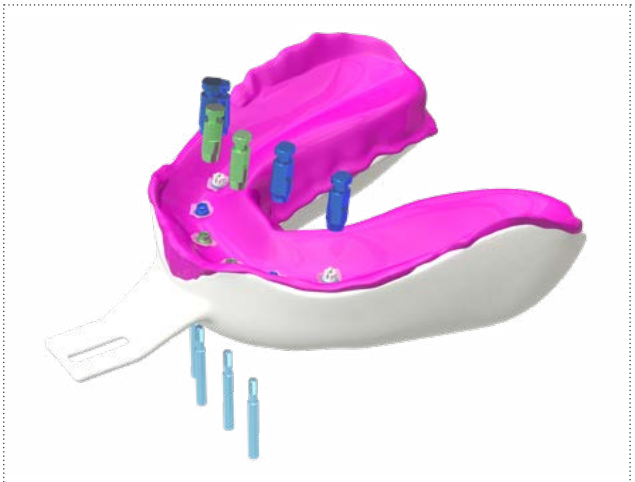


Fill the impression tray with a harder impression material (i.e. SKY IMPLANT ONEMIX-ED, code SKY08) over the entire arch. Then position the tray *in situ* and wait for the hardening times as indicated by the instructions. Unscrew the transfer screws and remove them from the impression, to prevent them from accidentally falling into the patient's mouth when the impression tray is removed.



Remove the tray: both the Pick-up and the Pull-up transfers remain incorporated in the impression. Screw the laboratory analogs (L-ANA-*) onto the transfers using the transfer screws, replaced in the holes left by them in the impression material.
The recommended torque is 8-10 Ncm.
In the Pull-up transfers case, the characteristic click of the transfer tabs indicates that the transfers have been correctly inserted. Develop the model as usual.

Important warning
The Pull-up transfers are available in only one diameter with a titanium anodized ring in blue, not following the colour code system, so it is necessary to indicate the laboratory the analog diameter that must be engaged to the transfers.



Soft tissues conditioning with Prama IN healing abutments

The particular morphology of Prama IN healing abutments helps soft tissues conditioning during their healing, in order to facilitate the impression phase and leave an adequate space for the rehabilitation avoiding pain and discomfort for the patient during the prosthetic load.

The Prama IN healing abutments in titanium, designed to close subgingval at 0.50 mm or 1.50 mm incorporating part of the transgingival neck of the Prama implant, are available in three diameters corresponding to those of the implants in order to follow the radius of the hyperbolic neck.

The Prama IN healing abutments made of REEF resin, with a special nanostoichiometric conformation that gives a high capacity of resistance to bacterial attacks which lasts over time and makes the adherence of plaque more difficult, are also available in the two different heights of closing on the implant neck at 0.50 mm or 1.50 mm.
See instructions for use at page 23.

Healing abutment that incorporates the implant-abutment interface for 0.50 mm. The laser marking reports the connection diameter (in the example 380 = 3.80), the transingival height (in the example 25 = 2.50) and the closure on the neck (in the example 05 = 0.50)

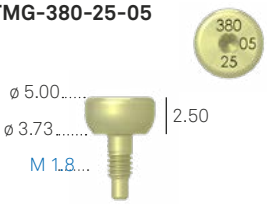
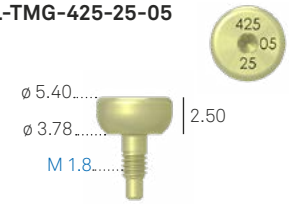
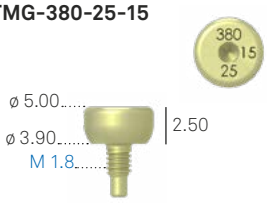
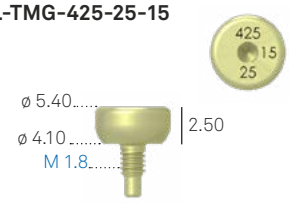
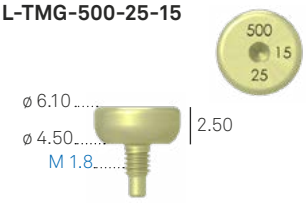
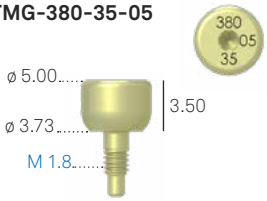
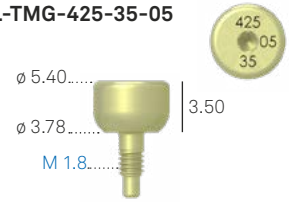
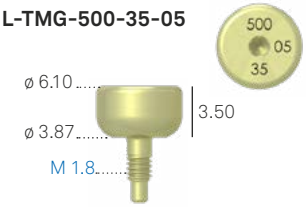
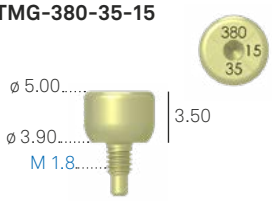
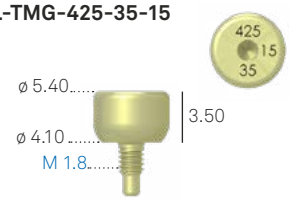
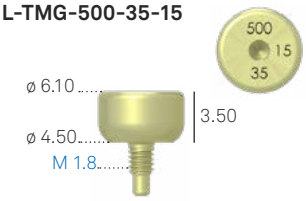
Healing abutment that incorporates the implant-abutment interface for 1.50 mm. The laser marking reports the connection diameter (in the example 380 = 3.80), the transingival height (in the example 25 = 2.50) and the closure on the neck (in the example 15 = 1.50)

Healing abutment in REEF resin that incorporates the implant-abutment interface for 0.50 mm

Healing abutment in REEF resin that incorporates the implant-abutment interface for 1.50 mm

Note: Prama IN healing abutments that embrace the neck by 0.50 mm can only be used on Regular (h 2.80 mm) and Long (h 3.80 mm) necks. Prama IN healing abutments that embrace the neck for a height of 1.50 mm can only be used on the Regular neck (h 2.80 mm). Prama IN healing abutments can't be used with Prama SLIM (ø 3.30 mm) and Prama with Short neck (h 1.80 mm).

Prama IN healing abutments in titanium

implant ø	3.80 mm	4.25 mm	5.00 mm
Prama IN healing abutments In titanium Gr. 5 Closing of 0.50 mm Transgingival h 2.50 mm	**L-TMG-380-25-05** 	**L-TMG-425-25-05** 	**L-TMG-500-25-05** 
Prama IN healing abutments In titanium Gr. 5 Closing of 1.50 mm Transgingival h 2.50 mm	**L-TMG-380-25-15** 	**L-TMG-425-25-15** 	**L-TMG-500-25-15** 
Prama IN healing abutments In titanium Gr. 5 Closing of 0.50 mm Transgingival h 3.50 mm	**L-TMG-380-35-05** 	**L-TMG-425-35-05** 	**L-TMG-500-35-05** 
Prama IN healing abutments In titanium Gr. 5 Closing of 1.50 mm Transgingival h 3.50 mm	**L-TMG-380-35-15** 	**L-TMG-425-35-15** 	**L-TMG-500-35-15** 

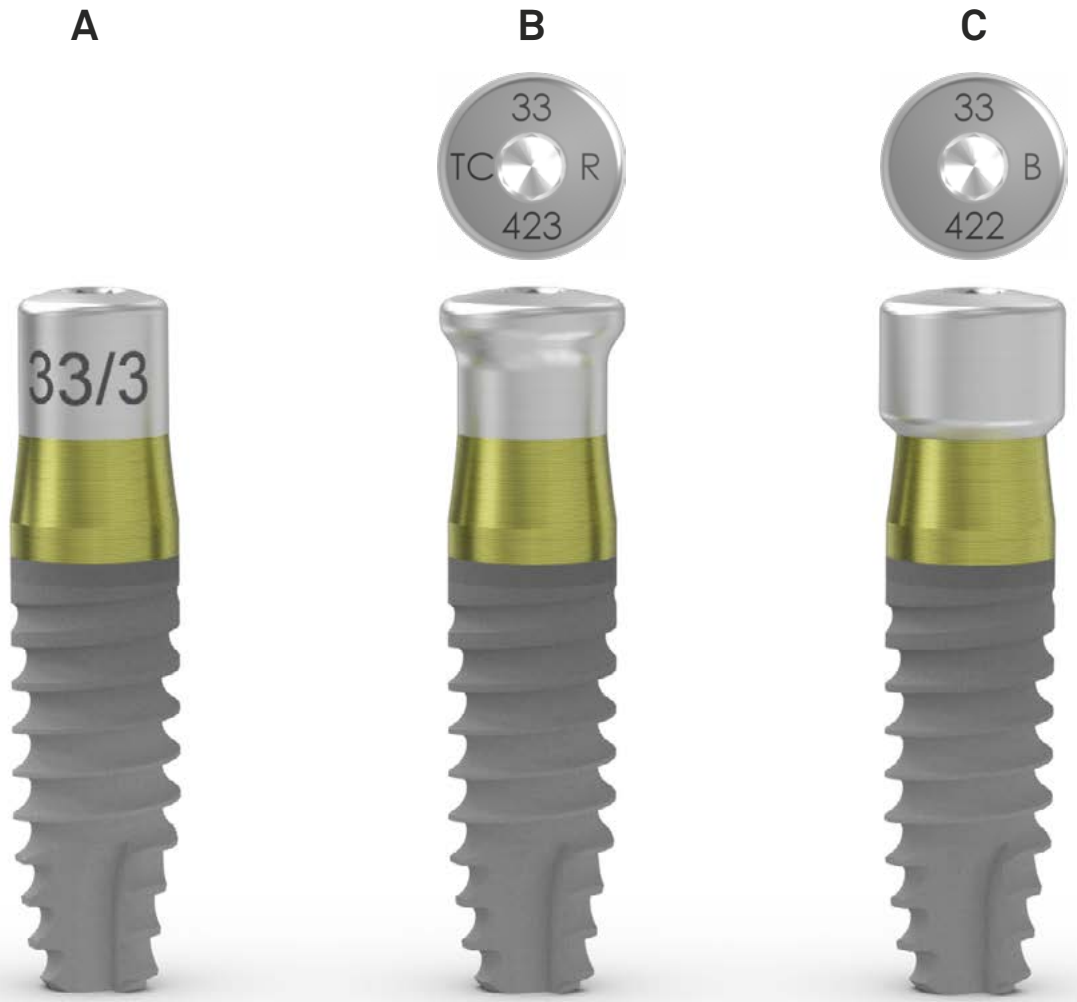
Prama IN healing abutments in REEF resin

implant ø	3.80 mm	4.25 mm	5.00 mm
Prama IN healing abutments In REEF resin Closing of 0.50 mm Transgingival h 6.00 mm Standard fixation screw included	**L-TMGPF-380-05** 	**L-TMGPF-425-05** 	**L-TMGPF-500-05** 
Prama IN healing abutments In REEF resin Closing of 1.50 mm Transgingival h 6.00 mm Standard fixation screw included	**L-TMGPF-380-15** 	**L-TMGPF-425-15** 	**L-TMGPF-500-15** 
Single pack Pack of 10 pieces Standard fixation screw Supplied with the healing abutments, it can also be ordered separately	**VM2-180** **VM2-180-10** 	**Use** **VM2-180** **VM2-180-10**	**Use** **VM2-180** **VM2-180-10**

Recommended torque for transgingival healing abutments: 8-10 Ncm.

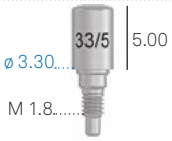
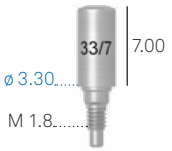
Soft tissues conditioning with standard healing abutments

Prama implants have an intramucosal neck which makes them suitable for single stage surgical protocols. In addition to the Prama IN healing abutments, standard have been developed, which close resting on the implant platform, they are available in two versions, with straight emergence profile and with anatomical emergence profile. The healing abutments with straight emergence profile (**img. A**) have a laser marking on the side showing the connection diameter (33 = 3.30 mm) and the transgingival height (3 = 3.00 mm).
The transgingival teeth for T-Connect with different transgingival heights (**img. B**) have a laser marking on the upper face showing the component code (TCR), the connection diameter (33 = 3.30 mm), the maximum coronal encumbrance (42 = 4.20 mm) and the transgingival height (3 = 3.00 mm). The healing abutments for standard T-Connect (**img. C**) have a laser marking on the upper face showing the component abbreviation (**img. B**), the connection diameter (33 = 3.30 mm), the maximum coronal dimension (42 = 4.20 mm) and the transgingival height (2 = 2.00 mm).



Note: the standard healing abutments, which close on the implant platform, can be used indifferently with all Prama implant diameters and with all types of necks, Short, Regular and Long.

Standard healing abutments

description	code	
Healing abutments Straight emergence Transgingival h 2 mm	**A-TMG-330-2**	
Healing abutments Straight emergence Transgingival h 3 mm	**A-TMG-330-3**	
Healing abutments Straight emergence Transgingival h 5 mm	**A-TMG-330-5**	
Healing abutments Straight emergence Transgingival h 7 mm	**A-TMG-330-7**	

Healing abutment for T-Connect with differente transgingival height

implant ø	ø 3.30	
Healing abutment Transgingival h 2.00 mm	**A-TMTCR-330-2**	
Healing abutment Transgingival h 3.00 mm	**A-TMTCR-330-3**	
Healing abutment Transgingival h 5.00 mm	**A-TMTCR-330-5**	

Healing abutment for standard T-Connect

implant ø	ø 3.30	
Healing abutment Transgingival h 2.00 mm	**A-TMGB-330-2**	
Healing abutment Transgingival h 3.00 mm	**A-TMGB-330-3**	
Healing abutment Transgingival h 4.00 mm	**A-TMGB-330-4**	

Recommended torque for healing abutments: 8-10 Ncm.

Soft tissues conditioning with Prama IN healing abutment - single crown

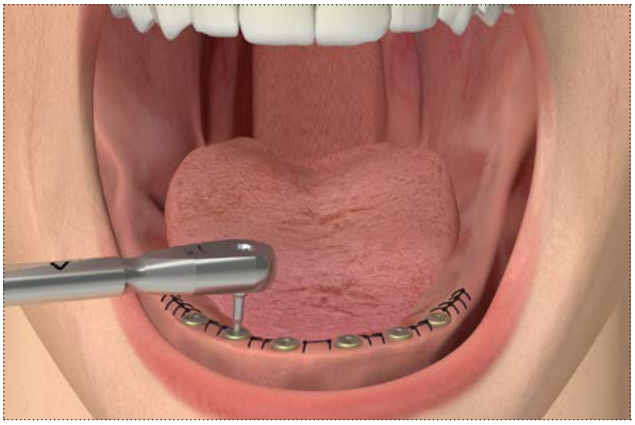
Healing abutment must be inserted using screwdrivers from the HSM series, not exceeding a tightening torque of 8-10 Ncm.

Important warning
Please remember that Prama-In healing abutments that close on the neck at 1.50 mm can only be used with Prama Regular Neck implants.

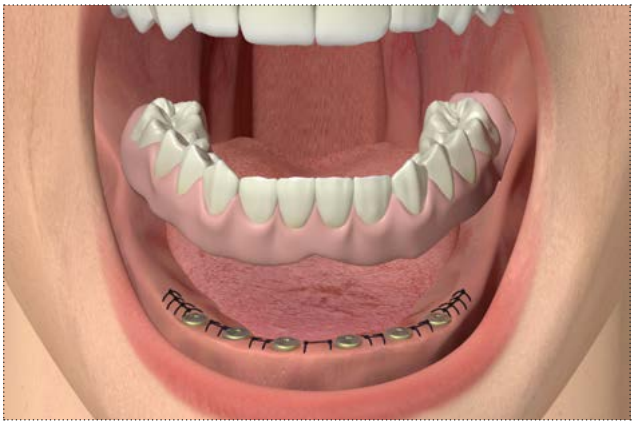
During the healing period of the soft tissues, the aesthetics, where necessary, can be mantained luting a Mariland bridge to the adjacent teeth, to avoid applying loads to the healing abutment and consequently to the implant.

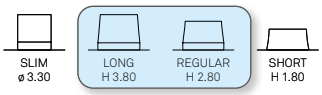
Soft tissues conditioning with with Prama IN healing abutments - full arch

Healing abutments must be inserted using screwdrivers from the HSM series, not exceeding a tightening torque of 8-10 Ncm.



In case of screw retained or cemented full-arch prostheses, soft tissues can be conditioned using the healing abutments of the same size of the posts to be used. Healing abutments can be covered during the healing period with a properly loaded orverdenture over the implants, relined with a soft material.





Soft tissues conditioning with Prama IN healing abutment in REEF resin - single crown

Healing abutment must be inserted using screwdrivers from the HSM series, not exceeding a tightening torque of 8-10 Ncm.

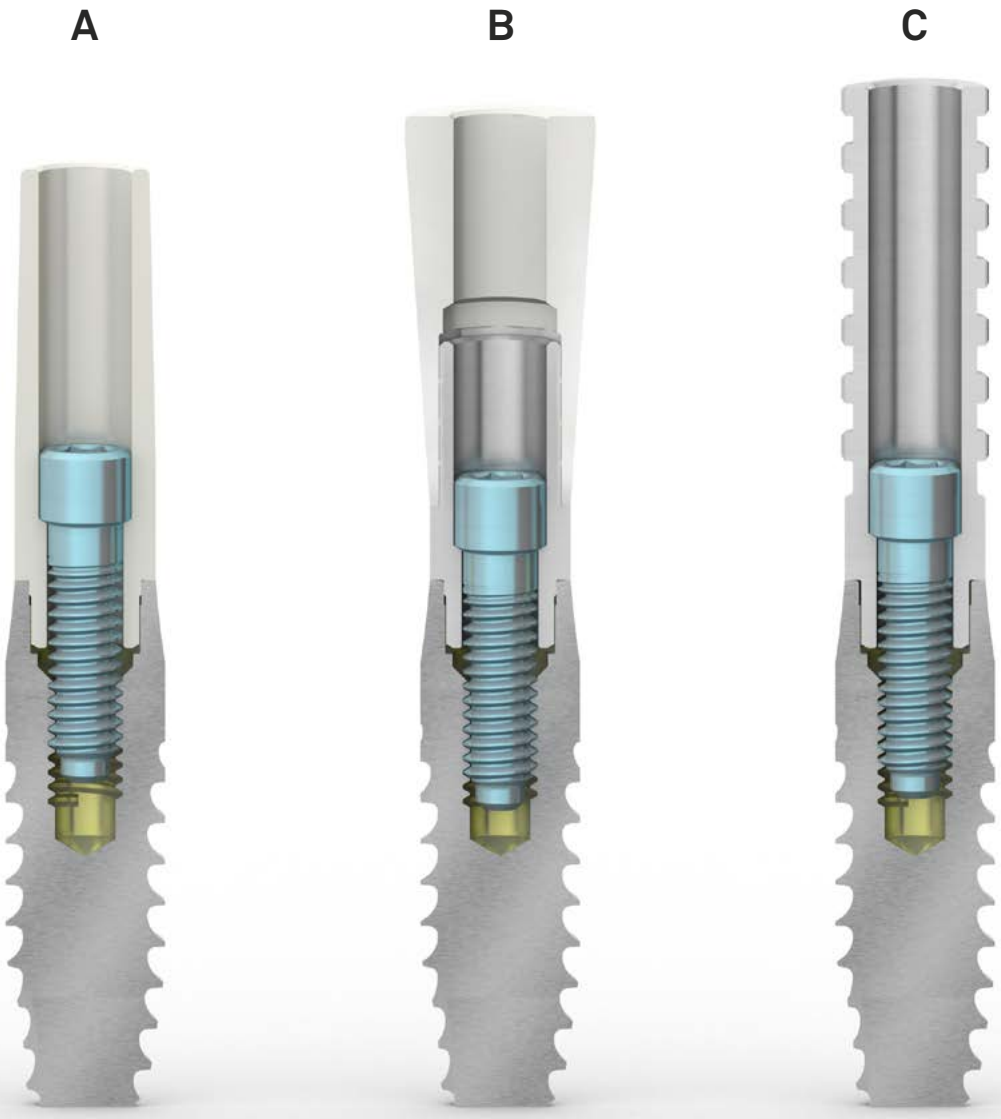
Important warning
It is always advisable to prepare the healing abutment outside the oral cavity, tightening it to an analog if necessary, to avoid vibrations to compromise the implant primary stability, especially in immediate loading cases.

In the oral cavity, model the healing abutment according to the available space.

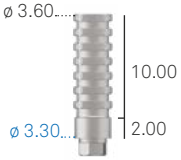
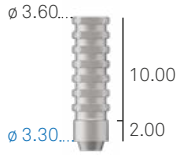
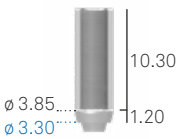
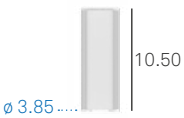
Important warning
In case of screw retained or cemented full-arch prostheses, soft tissues can be conditioned using properly prepared healing abutments. Healing abutments can be covered during the healing period with a properly loaded orverdenture over the implants, relined with a soft material.

Soft tissues conditioning with temporary posts

Temporary posts can also be used as an alternative to conventional healing abutments for soft tissue conditioning, depending on the adopted prosthetic protocols. Temporary posts in REEF resin (**img. A**) are characterized by a special nanostoichiometric conformation that ensures a high capacity of resistance to bacterial attack which lasts over time and makes the adherence of plaque more difficult, facilitating the healing phase. Simple temporary posts in PEEK with a Gr. 5 titanium base (**img. B**) are ideal for supporting single cemented crowns.
The PEEK resin is extremely simple to use chairside, permitting easy relining and construction of the morphology restoration.
Simple temporary posts in Gr. 5 titanium (**img. C**) have been studied to provide a resistant support both in case of single crowns and multiple rehabilitations or full arch. The connection is provided with a hexagon in the engaging version for single crowns and it is not indexed in the non engaging version for multiple rehabilitations and full arch.



Note: temporary posts can be used indifferently with all Prama implant diameters and with all types of necks, Short, Regular and Long.

description	code	
Temporary posts in REEF resin Engaging Standard fixation screw included	**A-PPF-330-EX**	
Temporary posts in REEF resin Non engaging Standard fixation screw included	**A-PPF-330**	
Simple temporary posts in PEEK with a Gr. 5 titanium base Engaging Standard fixation screw included	**A-MPSC-330**	
Simple temporary posts in Gr. 5 titanium Engaging Standard fixation screw included	**A-MPSCI-330-EX**	
Simple temporary posts in Gr. 5 titanium Non engaging Standard fixation screw included	**A-MPSCI-330**	
Titanium temporary posts with sleeve Non egaging Straight emergence Castable sleeve and fixation screw included	**A-CTI-330**	
Spare castable sleeve for titanium posts Fixation screw not included	**A-CCI-S**	
Single pack Pack of 10 pieces Standard fixation screw Supplied with the temporay posts, it can also be ordered separately as a spare	**VM2-180** **VM2-180-10**	

Recommended torque for temporary posts in REEF resin: 8-10 Ncm.
Recommended torque for temporary posts in PEEK with a Gr. 5 titanium base: 20-25 Ncm.

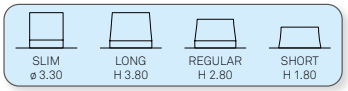
Healing phase and soft tissues conditioning using temporary post for vertical technique in REEF resin - single crewed crown

For the frontal sectors, where the spaces are limited but the need for an aesthetic temporary post is even greater, temporary posts for vertical technique in REEF resin are available with a reduced size, on which a moulded prosthesis made in the laboratory can be easily fixed chairside.

Important warning
In the case of a canine, as showed in the following sequence, it is necessary to reduce the finite element to prevent it causing occlusal interference when inserted in the mouth.

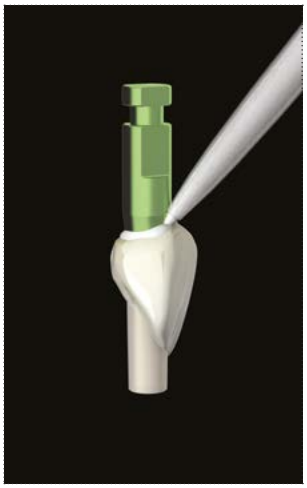
Tighten the temporary post for vertical technique in REEF resin with a repositioning hexagon onto the implant with the specific supplied screw, using the most suitable driver of the HSM series.
Leave the temporary post initially at the original length.

Insert on the temporary post for vertical technique a pre-made pierced crown made in the laboratory so as to allow it to slide easily on the cylinder body in resin.



Fix with resin the pre-made crown to the temporary post for vertical technique in the occlusal margin.
Wait for the polymerization according to the times as indicated by the manufacturer.

Once polymerization is completed remove the two parts, now joined, reposition them on an implant analog and proceed with the resin filling of the whole internal space left between the pre-made crown and the temporary post for vertical technique.
Finish the temporary screw retained prosthesis both in occlusal portion, eliminating the excess of the temporary post, and in the apical portion, according to the shapes of the emergence profiles.

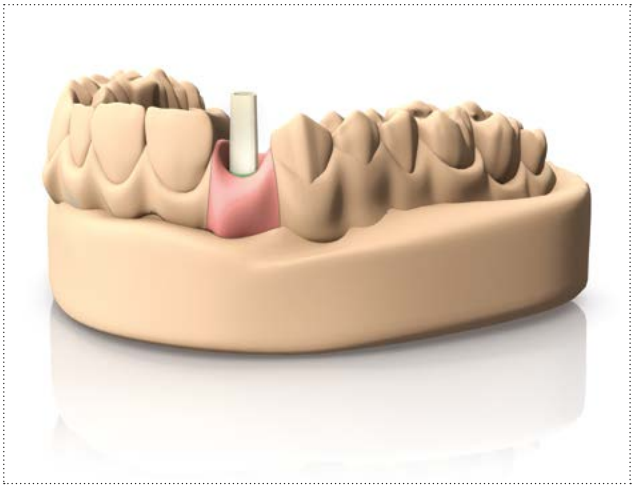


Screw the temporary prosthesis with the supplied screw and a screwdriver of the HSM series.
The recommended torque must not exceed 8-10 Ncm.
The temporary crown will help not only to ensure an adequate quality of life for the patient while waiting for the definitive prosthesis, but also the correct conformation of the soft tissues that will later receive the definitive prosthesis with excellent aesthetic results.

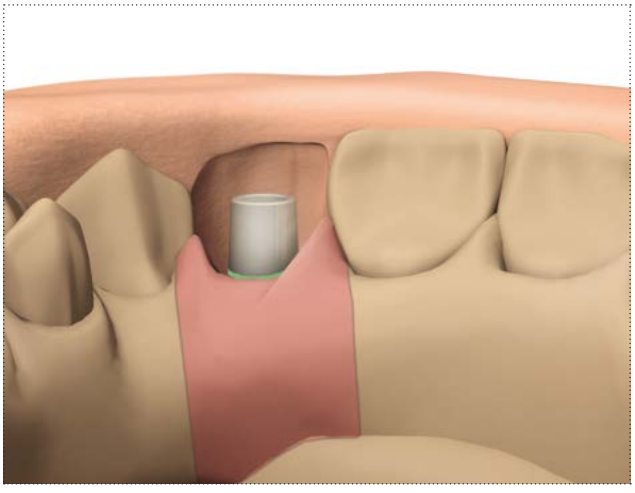
Temporarysingle screw retained rehabilitation - indirect method

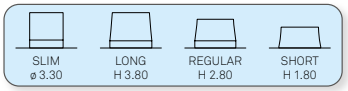
The fabrication of the temporary prosthesis can take also place in the laboratory, on the model.

Insert the temporary post for vertical technique in REEF resin on the model.

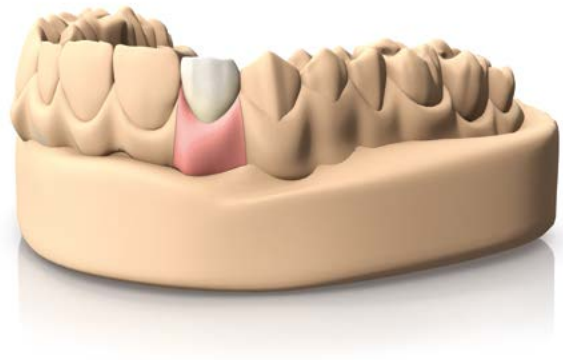


Reduce the post to a size compatible with the patient's vertical dimension with an abrasive disk.





Produce the screw retained crown according to the traditional procedures.

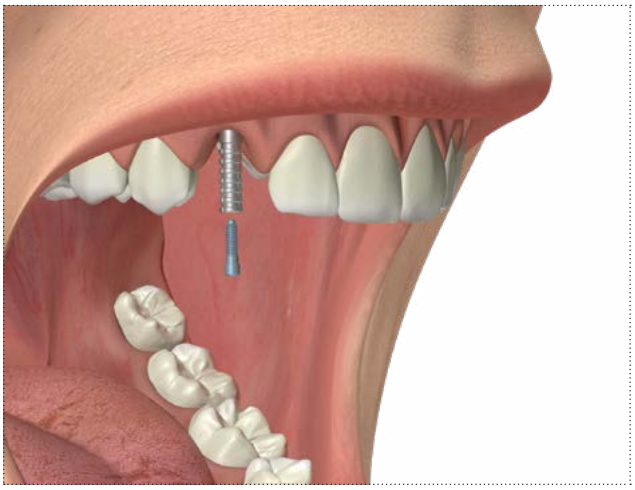


Reduce the finished element, to prevent it causing occlusal interference when it is inserted in the patient's mouth.

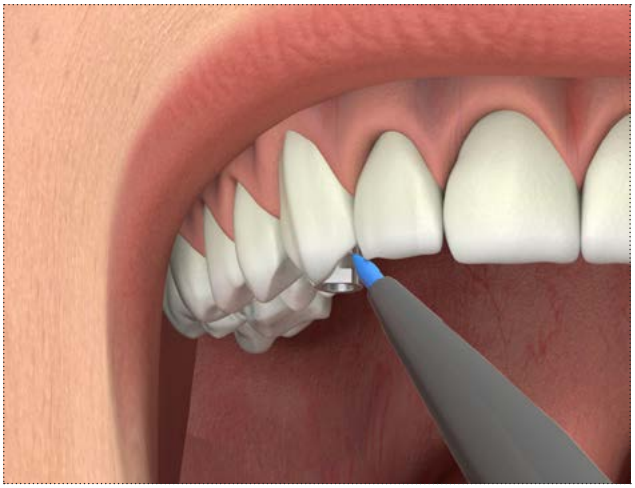
Important warning
The recommended tightening torque is 8-10 Ncm. It is recommended to use new screws for tightening in the mouth.

Temporary single screw retained rehabilitation with Simple titanium post

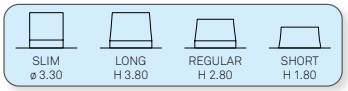
Remove the surgical cover screw or the healing abutment to expose the implant connection.
Choose an engaging Simple temporary post in Gr. 5 titanium and tighten it to the implant, leaving it initially at the original length.
The recommended torque is 8-10 Ncm.



On the Simple post insert a pre-made crown produced in the laboratory pierced so as to allow it to slide easily on the body of the post. Mark the palatal and vestibular margin of the temporary crown, so as to reduce the titanium sleeve appropriately.



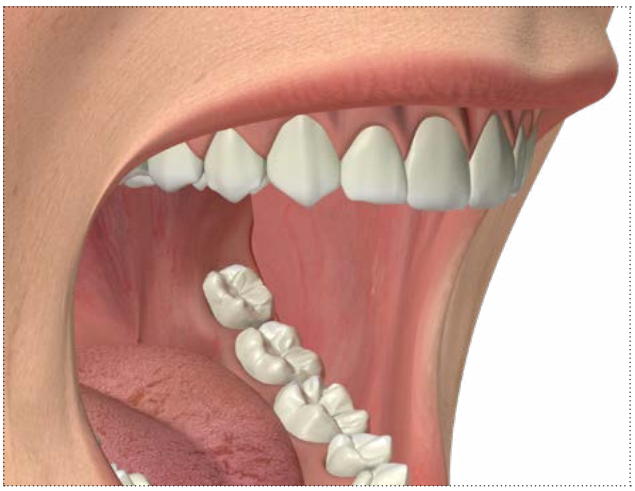
Remove the pre-made crown and unscrew the post. Screw it onto an analog and cut it at the marked height, using an abrasive disk. Reposition the temporary post on the implant, tightening the screw at 8-10 Ncm, and secure the crown in the desired position using resin.



Remove the crown fixed on the post from the patient's mouth to fill with resin the crown cavity, waiting for polymerization as idicated by the instructions.
Then, finish the margin removing all the roughness.

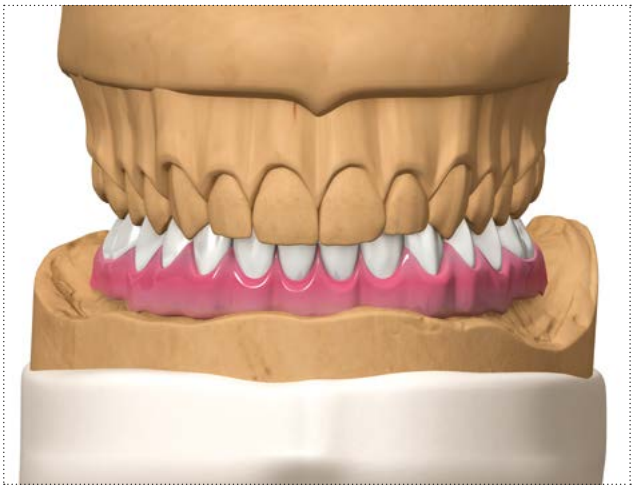
When polymerization is complete, tighten the temporary post to the implant, taking care to keep the flaps of soft tissue away from the connection during inserting procedures.
The temporary post must be tightened with the respective screw and a screwdriver from the HSM series.
The recommended torque is 20-25 Ncm.

Insert teflon, gutta-percha or soft cement into the screw hole of the Simple temporary post and close the top with resin or a composite material to preserve the head of the screw. The temporary crown will help not only to ensure an adequate quality of life for the patient while waiting for the definitive prosthesis, but also the correct conformation of the soft tissues that will later receive the definitive prosthesis with excellent aesthetic results.

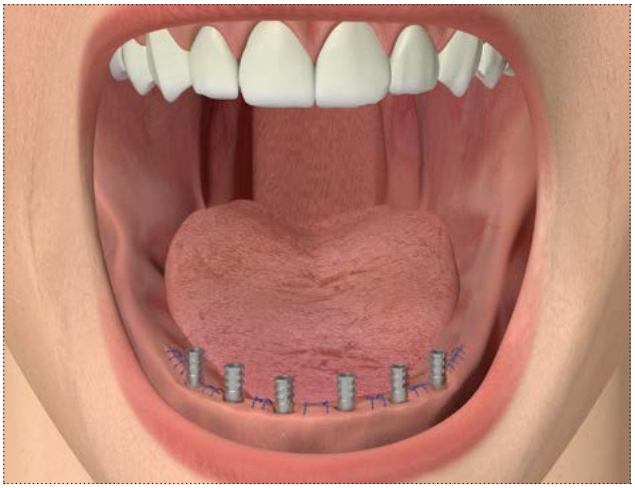


Simple technique for the production of a temporary resin prosthesis

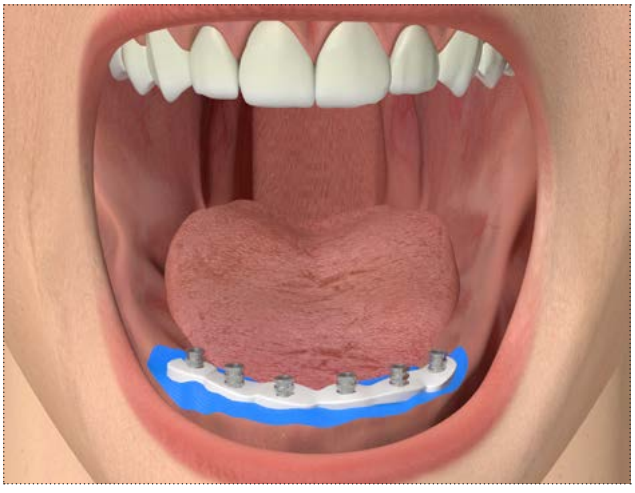
Prepare a diagnostic wax-up of the edentulous arch on the preliminary model to functional and aesthetic aspects to be studied.
Reduce the height of the Simple posts in accordance with the vertical dimension defined by the wax-up.
When working with preassembly on silicone masks, regulate the bite with a silicone rim.



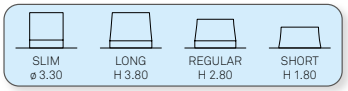
Screw the Simple posts onto the implants just inserted and suture the flaps around them.



Fit a silicone dam around the bases of the Simple posts and fix them together with a self-polymerizing resin, so as to obtain a repositioning key.
If preferred, the posts can also be fixed to a repositioning plate prefabricated in the laboratory.

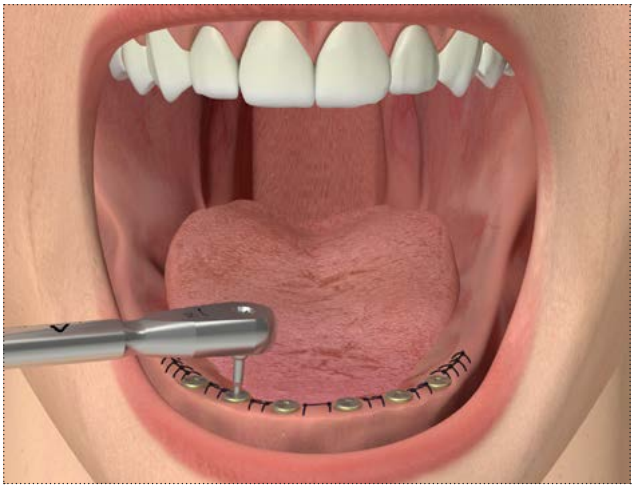


Important warning
Take great care to scrupulously respect the resin hardening times indicated by the manufacturer, to avoid distortions and/or contractions after the removal of the repositioning key from the patient's mouth.

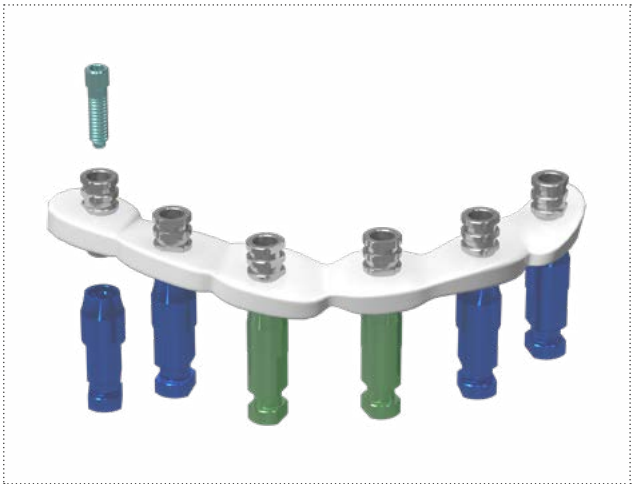


Determine the intermaxillary relationship between the upper arch and the Simple posts with a silicone rim.

Unscrew the Simple posts and fit the healing abutments until the temporary prosthesis is available.

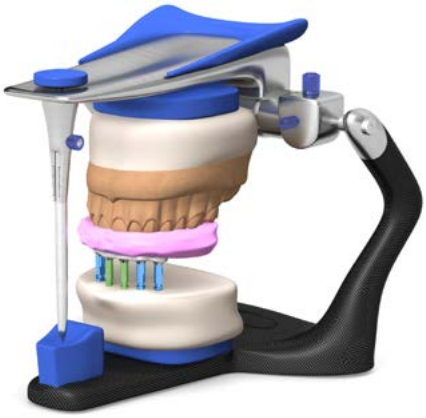


Screw the respective implant analogs onto the Simple posts fixed together.



Insert the entire assembly into the intraoperative silicone bite block.
Suitably positioned in the articulator, the block makes it possible to complete the lower model with the three-dimensional position of the implants.

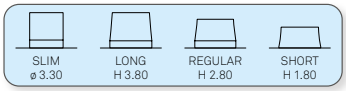
Note: this procedure can be accomplished either by casting a new model starting from the repositioning key fitted into the articulator, or by using the single model method, using the preliminary model and repositioning the analogues screwed onto the repositioning key.



Incorporate the resin repositioning key in the diagnostic wax-up. In the case of a silicone mask, reposition the teeth used in preassembly inside their respective recesses, and pour the resin.

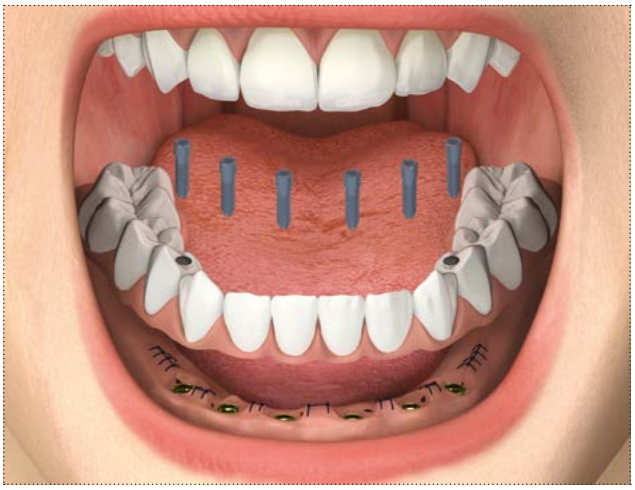
Important warning
It is advisable to suitably model and polish the emergence profiles of the Simple posts so as to obtain optimal conditioning of soft tissues during the healing phase.

Remove the temporary prosthesis from the model.



Screw the temporary Simple prosthesis into the mouth, checking its passivation and the occlusal relationships.

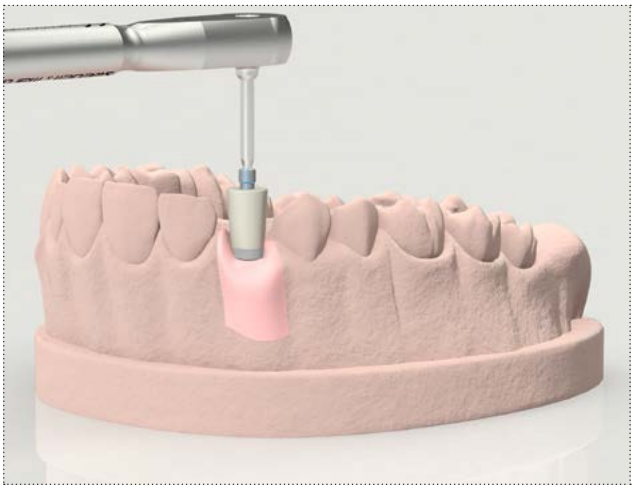
Important warning
It is advisable to always use test screws for laboratory work, keeping the new screws supplied for definitive fixing in the patient's mouth.



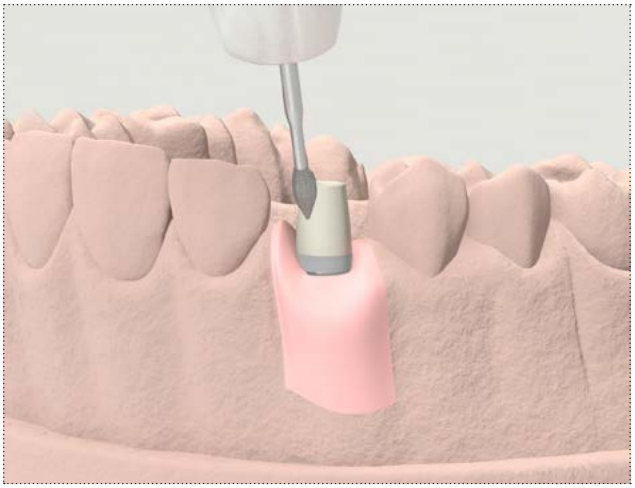
Temporary single cemented rehabilitation on a Simple post in PEEK with a titanium base

Screw the Simple temporary post in PEEK of the chosen emergence into the patient's mouth or on the model using a screwdriver from the HSM series.
The tightening torque must not exceed 8-10 Ncm.
The palatal and the vestibular margin must be marked if tightened directly into the patient's mouth.

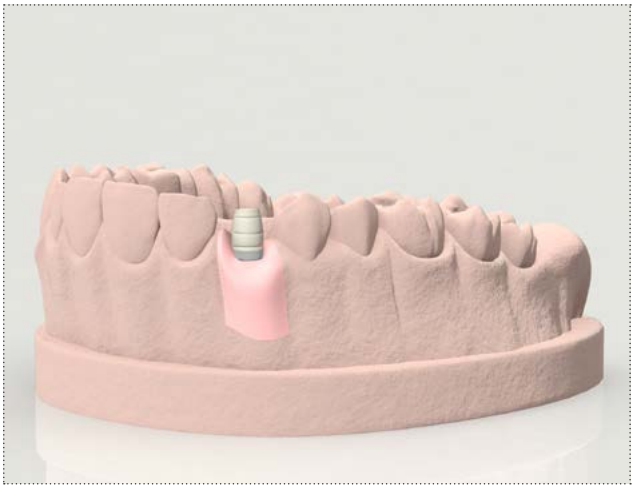
Important warning
It is always advisable to mill the post outside the oral cavity, screwing it on the model or even to an analog, to prevent vibrations from compromising the primary stability of the implant, especially in case of immediate loading.

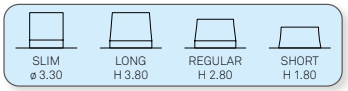


Reduce the height and diameter of the post, taking care to leave the screw head unaltered, to avoid the risk of modifying it and causing mechanical problems during screwing or unscrewing procedures.

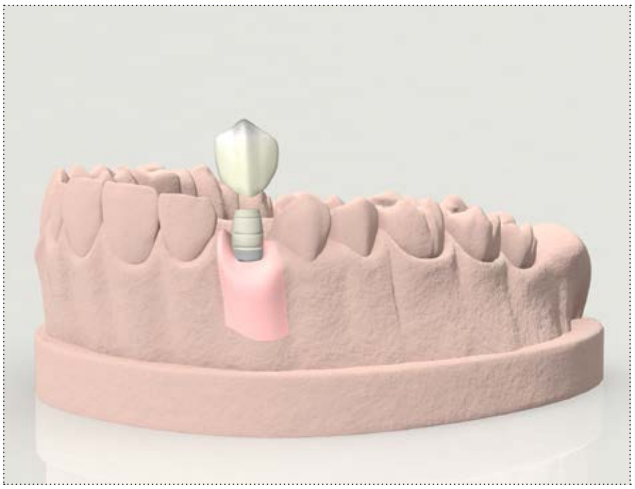


Create holes or retentive grooves on the PEEK body of the post to facilitate the cementation of the temporary crown.



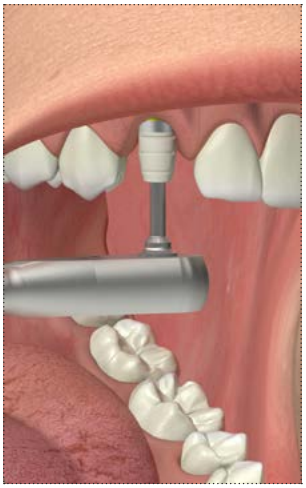


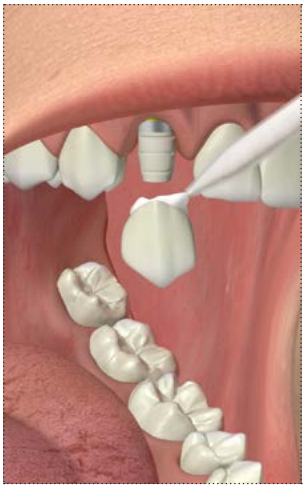
Define the morphology, volume and occlusion, preparing a wax-up and creating the temporary crown using the preferred method.



Screw the post in PEEK onto the implant using the appropriate screwdriver from the HSM series.
The tightening recommended torque is 20-25 Ncm.
Cover the screw hole and cement the crown on the post.

Important warning
It is advisable to always use test screws for laboratory work, keeping the new screws supplied for definitive fixing in the patient's mouth.





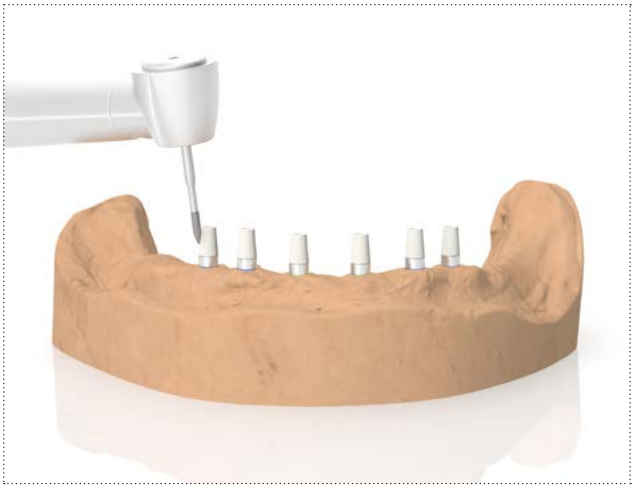
The temporary crown will help not only to ensure an adequate quality of life for the patient while waiting for the definitive prosthesis, but also the correct conformation of the soft tissues that will later receive the definitive prosthesis with excellent aesthetic results.

Temporary full arch cemented rehabilitation on Simple posts in PEEK with a titanium base

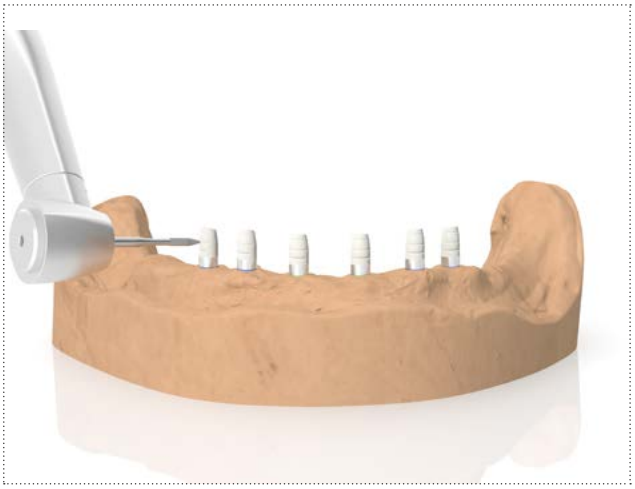
Tighten the Simple temporary posts in PEEK into the patient's mouth or onto the model using screwdrivers rom the HSM series. The tightening torque must not exceed 8-10 Ncm.
The palatal and the vestibular margin must be marked if tightened directly into the patient's mouth.

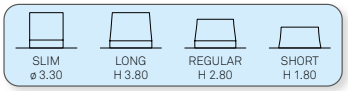
Important warning
It is always advisable to mill the posts outside the oral cavity, Screwing it to the model or possibly to an analogue, to prevent vibrations that compromising stability of the implant, especially in the case of immediate loading.

Reduce the height and the diameter of the posts, taking care to leave the screw heads unaltered to avoid the risk of modifying them and causing mechanical problems during screwing or unscrewing procedures.



Create holes or retentive grooves on the PEEK body of the posts to facilitate the cementation of the temporary prosthesis.

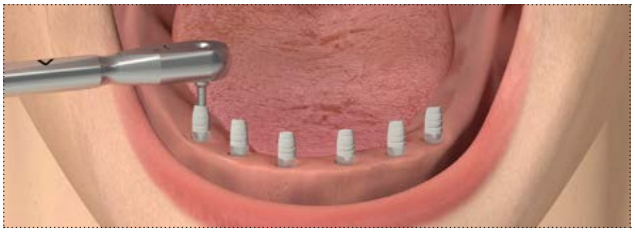




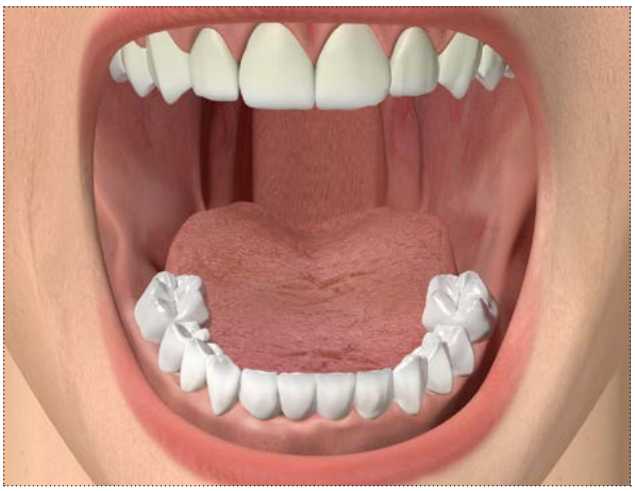
Define the morphology, volume and occlusion, after preparing a diagnostic wax-up and creating the temporary prosthesis using the preferred method.

Screw the posts in PEEK onto the implants using the appropriate screwdriver from the HSM series.
The tightening recommended torque is 20-25 Ncm.
Proceed to cementation of the structure on the posts taking care to remove all the excess cement.

Important warning
It is advisable to always use test screws for laboratory work, keeping the new screws supplied for definitive fixing in the patient's mouth.

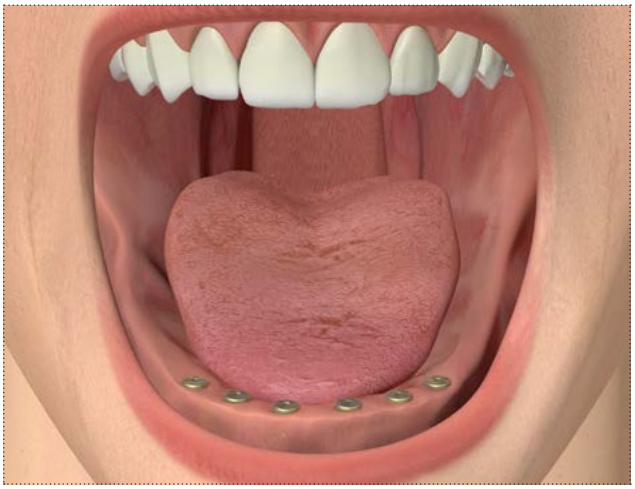


The temporary post will help not only to ensure an adequate quality of life for the patient while waiting for the definitive prosthesis, but also the correct conformation of the gingival tissues that will later receive the definitive prosthesis with excellent aesthetic results.



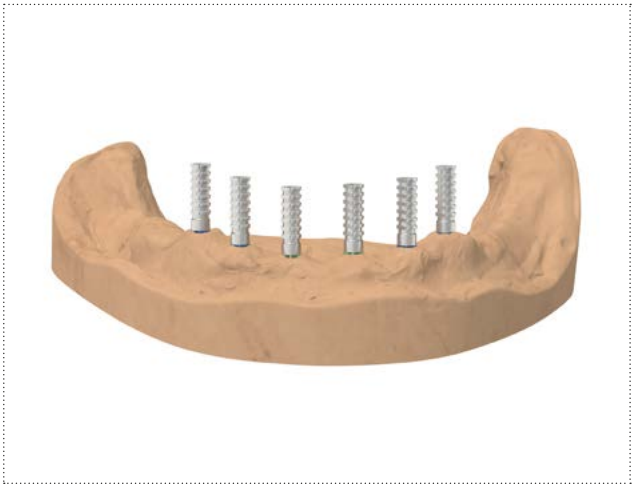
Simple technique for a reinforced structure

After taking the post-operative impression (see page 36), and while waiting for the prosthesis to be available, tighten the healing abutments onto the implants, choosing appropriate height.

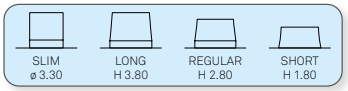


On the fabricated model tighten the Simple titanium posts with the specific screwdriver of the HSM series.

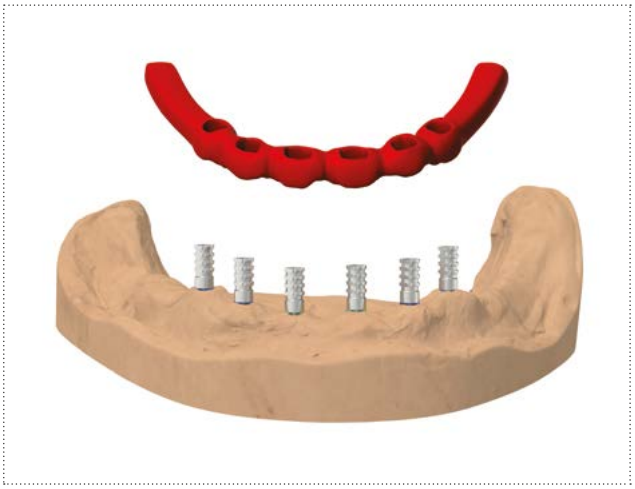
Important warning
It is advisable to always use test screws for laboratory work, keeping the new screws supplied for definitive fixing in the patient's mouth.



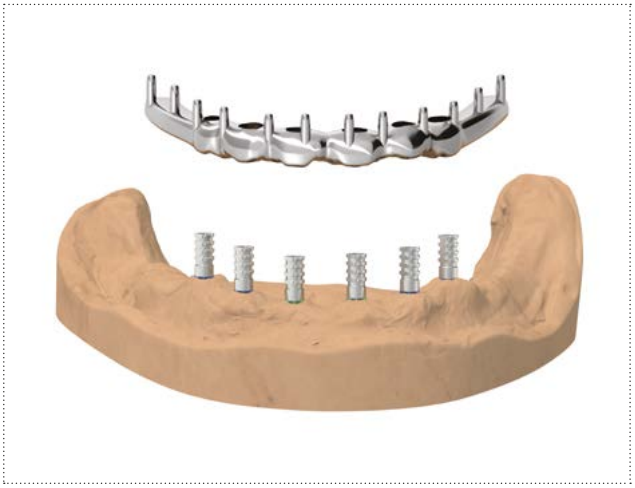
Reduce the Simple posts to a size compatible with the patient's vertical dimension, using the silicone mask obtained from a preassembly or by placing the structure in an articulator in relationship to the space left by the antagonist.



Model the prosthesis reinforcement structure with wax or resin using normal methods and model it around Simple posts.

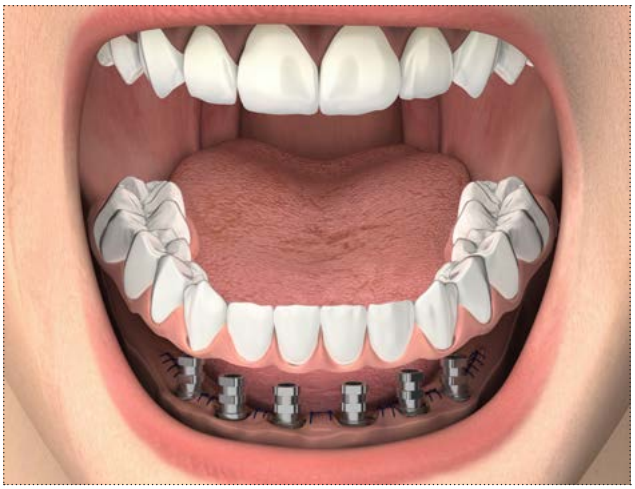


Proceed with the production of the metallic structure using normal methods. Test the structure on the model to check its complete passivity and correct perforation for the Simple posts. Complete the pink and white aesthetic part of the prosthesis.



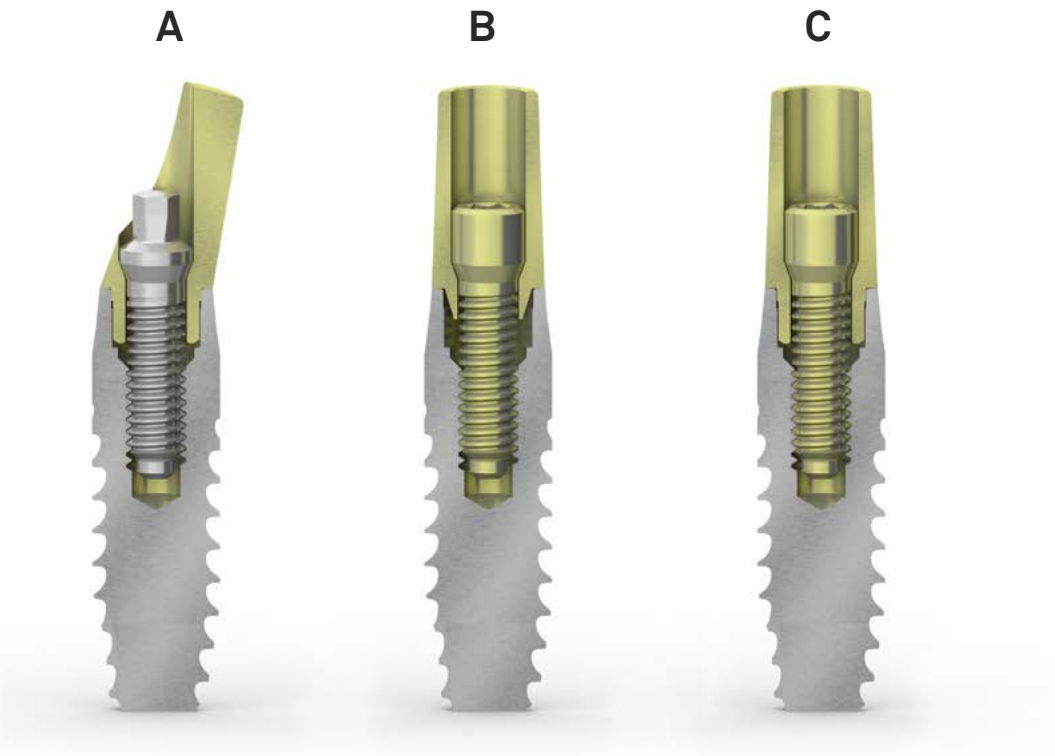
Tighten the Simple posts into the mouth, respecting the positions defined by the laboratory. Test the temporary prosthesis, checking its passivation and occlusal relationships, and proceed with definitive luting.
Trim the base of the temporary prosthesis and screw it back into the patient's mouth, using a tightening torque of 20-25 Ncm. Cover the screw holes with a material that can be removed by the operator.

Note: if it is not chosen to use a reinforced structure, it is possible to use the existent patient's overdenture. Reline the prosthesis and pierce it at the positions of the implants, then lute the structure onto the posts.

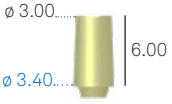


Definitive rehabilitation with pre-made posts

The straight and angled pre-made posts are made of Gr. 5 titanium and are subjected to a controlled passivation process that changes their surface colour: the result is a characteristic golden pale yellow colour. This colour is obtained through an oxidation process and, therefore, there is no type of coating, so it ensures the use of a highly biocompatible and highly aesthetic surface, especially if it is used with ZirTi Gold UTM implants.
The tightening of angled posts (**img. A**) is made with a specific Full Head screw with conical support, which occupies a smaller room compared to the head of the standard screws, allowing greater customization possibilities in case of special angulations.
The straight posts, available in two heights, either with a repositioning hexagon (**img. B**) indicated for single and multiple cemented rehabilitations, and without hexagon (**img. C**) indicated for screwed retained protocols. Both the types are tightened with fixation screws with conical support with a standard head, using the screwdrivers of the series HSM.
Internal evidence have shown that the conical support increases unscrewing resistance by 20%.

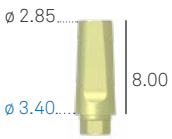
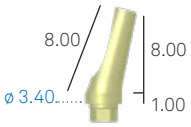
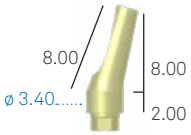
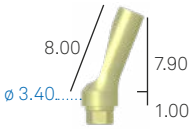
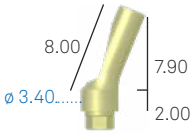


Conical pre-made posts

description	code	
Conical pre-made posts Non engaging h 6.00 mm Fixation screw with conical support included	**L-MD-340-6-ROT**	
Conical pre-made posts Non engaging h 8.00 mm Fixation screw with conical support included	**L-MD-340-8-ROT**	
Single pack Pack of 10 pieces Fixation screw with conical support Supplied with conical pre-made posts, it can also be ordered separately as a spare	**L-VMS-180** **L-VMS-180-10**	

Note: pre-made posts they can be used indifferently with all Prama implant diameters and with all the kind of neck Short, Regular and Long.

Straight and angled pre-made posts

description	code	
Pre-made straight posts Engaging h 6.00 mm Fixation screw with conical support included	**L-MD-340-6**	
Pre-made straight posts Engaging h 8.00 mm Fixation screw with conical support included	**L-MD-340-8**	
Pre-made straight posts Engaging h 15.00 mm Fixation screw with conical support included	**A-MD-330-15**	
15° angled pre-made posts Engaging h 6.00 mm Fixation screw with conical support included	**L-MA15-340**	
15° angled pre-made posts Engaging h 1.00 mm Fixation screw with conical support included	**L-MA15-340-1**	
15° angled pre-made posts Engaging h 2.00 mm Fixation screw with conical support included	**L-MA15-340-2**	
25° angled pre-made posts Engaging h 1.00 mm Fixation screw with conical support included	**L-MA25-340-1**	
25° angled pre-made posts Engaging h 1.00 mm Fixation screw with conical support included	**L-MA25-340-2**	
Single pack Pack of 10 pieces Fixation screw with conical support Supplied with straight pre-made posts, it can also be ordered separately as a spare	**L-VMS-180** **L-VMS-180-10**	
Single pack Pack of 10 pieces Full Head screw Supplied with angled pre-made posts, not supplied with straight pre-made posts*	**L-VM-180** **L-VM-180-10**	

Recommended torque for pre-made posts: 20-25 Ncm.

** The fixation screws with Full Head technology (L-VM-180) must be tightened with the appropriate drivers for screws with Full Head technology contained in the Prama surgical kit.*

Important warning
It is recommended always to use test screws for the laboratory phases and to keep the new screw supplied for the final fastening in the oral cavity.

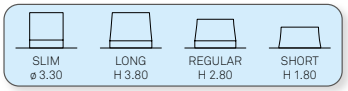
Definitive single cemented rehabilitation on pre-made posts

Screw the Prama transfer onto the analog with the specific screwdriver of the HSM series.

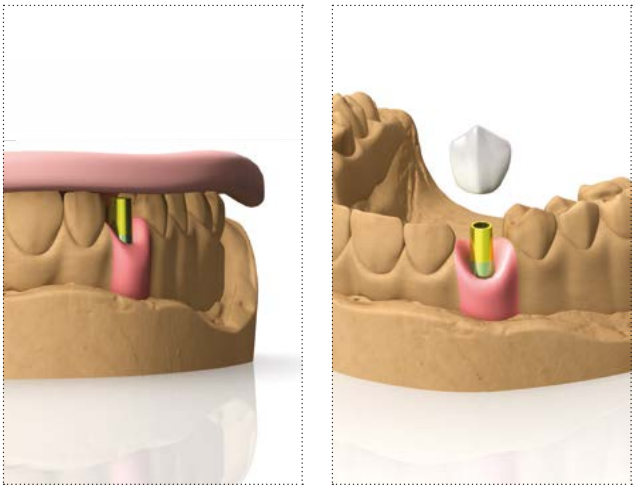
Box the impression with wax or resin and develop the model as usual; the Prama analog will reproduce exactly the position of the implant transgingival neck.

Tighten the straight or angled post onto the analog, depending on the prosthetic needs, using the specific screwdriver according to the chosen screw.
The recommended torque must not exceed 8-10 Ncm.

Important warning
It is advisable to always use test screws for laboratory work, keeping the new screws supplied for definitive fixing in the patient's mouth.



Once the models are put together in the articulator, define the height of the post in relation with the space with the antagonist. At the same time define the wanted morphology of the soft tissues modelling the gypsum and recreating a new emergence profile with the dedicated silicone for the gum simulation.
Define shape, volume and occlusion of the post and fabricate a crown according to the chosen method.



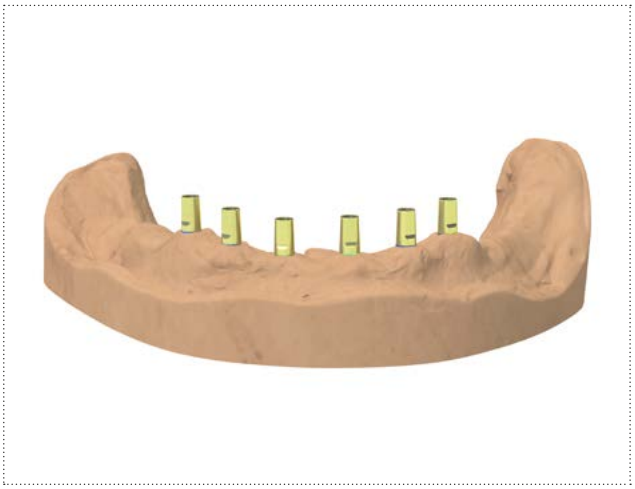
Tighten the post onto the implant, using the proper supplied screw and the proper screwdriver of the HSM series.
The recommended torque is 20-25 Ncm.

Cement the crown on the post.
The gumsw will adapt on the morphology of the crown recreating the emergence profiles previously planned.

Definitive cemented full arch rehabilitation on pre-made posts

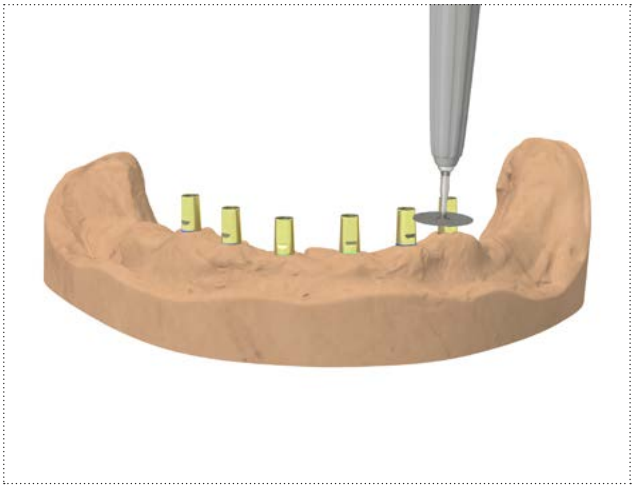
Insert a pre-made post onto every analog on the precision model, choosing the most suitable height and angulation among those available on page 71. Tighten the posts applying a maximum torque of 8-10 Ncm.

Important warning
It is advisable to always use test screws for laboratory work, keeping the new screws supplied for definitive fixing in the patient's mouth.



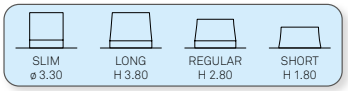
Reduce the height of the posts without altering the screw heads.

Note: if the implants are disparallel, the use of angled posts and a parallelometer may be appropriate. For more substantial modifications, that might weaken the pre-made posts walls, the use of preparable posts is recommended (see page 78).

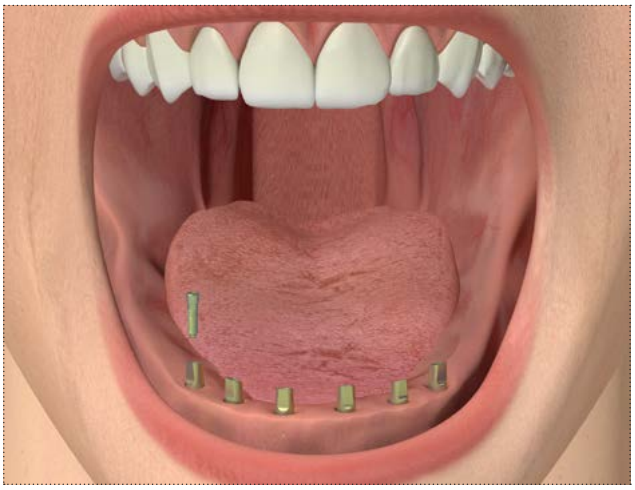


Model the structure in wax or resin, leaving sufficient space for the cement, and proceed to casting or developing using CAD CAM technique. Test the structure on the model to check its passivation.

Important warning
If the structure is not completely passive, even after following the normal checking protocol before casting, adjust it as usual.

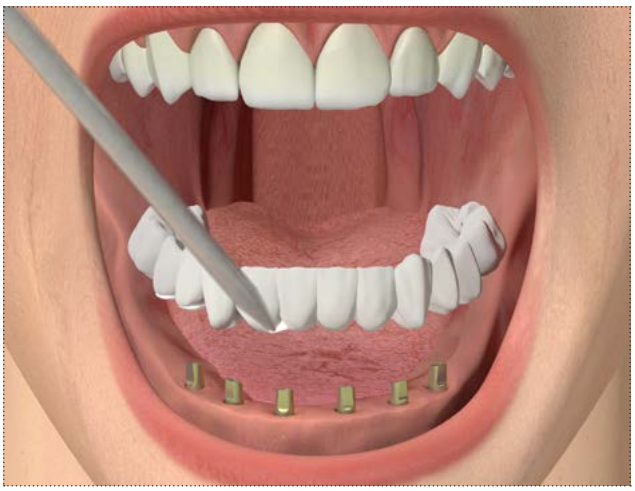


Tighten the modified posts into the patient's mouth, taking care to respect the position of every single element and to keep the same positioning of the non-rotational faces adopted on the model.
Tighten the screws at a torque of 20-25 Ncm with the dynamometric key and a screwdriver of the HSM series.



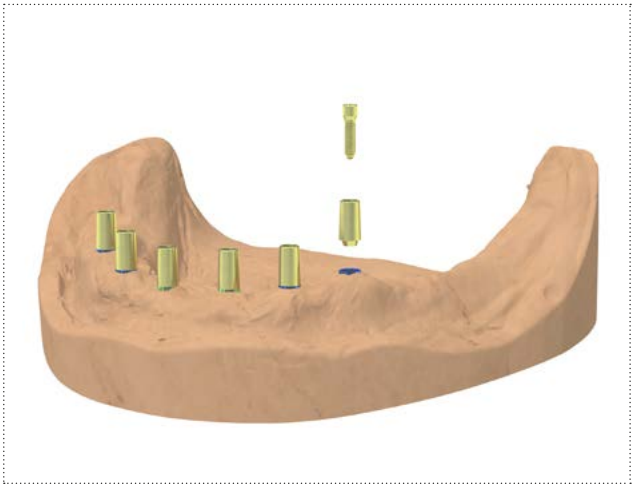
Perform a test of the metallic structure in the patient's mouth to check for its complete passivation, and if necessary make any further adjustments.

Ceramize the final prosthesis as usual.
Cement the arch on the posts, taking care to remove all the excess cement from margin.

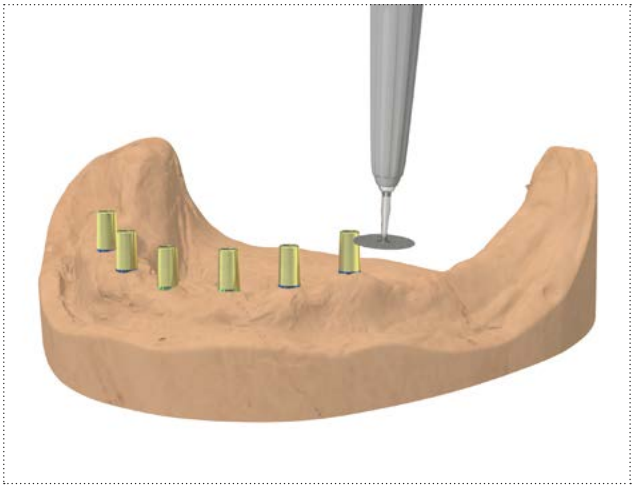


Definitive full arch screw retained rehabilitation on pre-made conical posts

Insert a pre-made conical post onto every analog on the precision model, choosing the most suitable height among those available on page 70.
Tighten the posts applying a maximum torque of 8-10 Ncm.

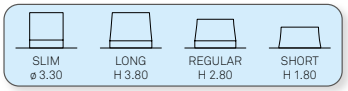


Reduce the height of the posts without altering the screw heads.



Model the castable structure, which will allow the metal framework of the final prosthesis to be obtained.
Create the structure by casting or with CAD CAM technique, paying attention to lean it on the posts on the model. Test the structure first on the model and then in the patient's mouth, checking for its complete passivity. If necessary correct any roughness with an appropriate drill.

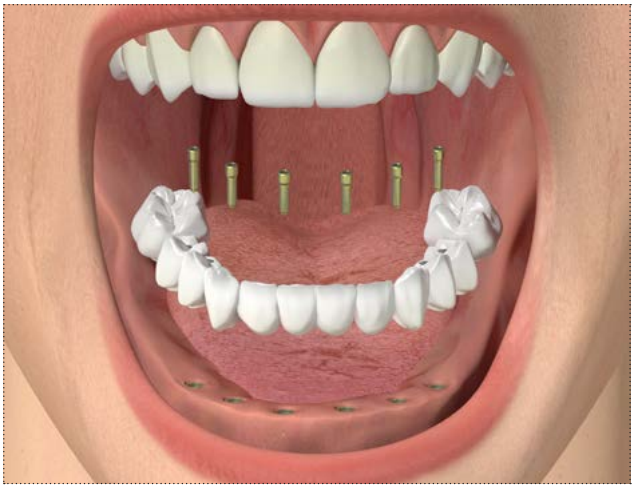
Important warning
If the structure is not completely passive, even after following the normal checking protocol before casting, adjust it as usual.



Ceramize the final prosthesis as usual.
Then proceed to lute the prosthesis on the posts on the model.

Unscrew the structure composed of the prosthesis and the pre-made posts and proceed to tightening in the patient's mouth tighten the screws with dynamometric key applying a torque of 20-25 Ncm and using a screwdriver of the HSM series.

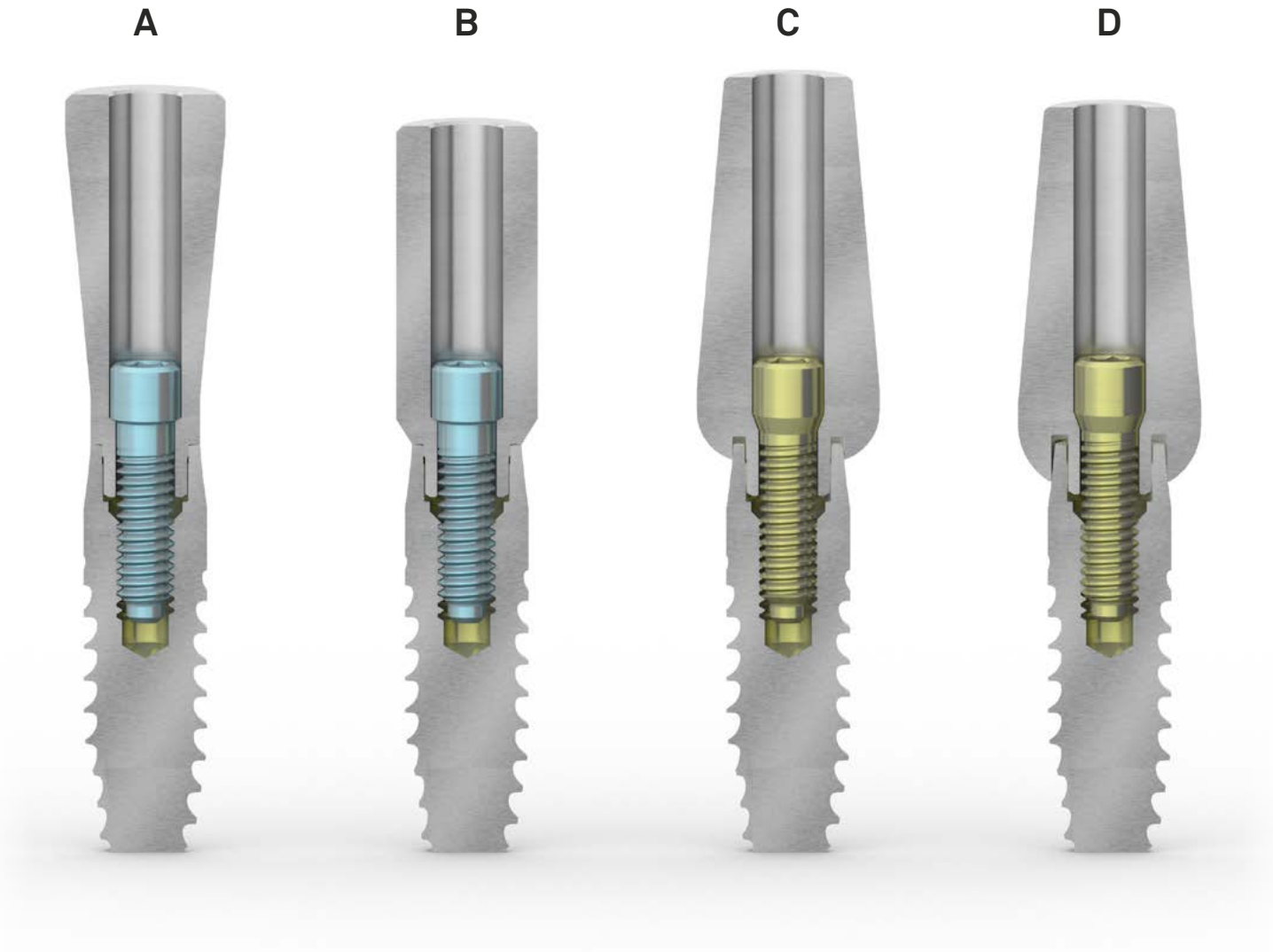
Important warning
It is advisable to always use test screws for laboratory work, keeping the new screws supplied for definitive fixing in the patient's mouth.



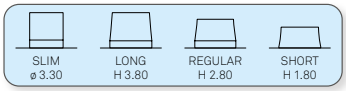
Definitive rehabilitation with preparable posts

Preparable posts are made of Gr. 5 titanium and are designed for cemented protocols, both for single and multiple restorations. They respond to complex anatomical requirements in terms of both prosthetic spaces and implant disparallelism, due to the possibility of being prepared. Preparable posts are available in three different morphologies:

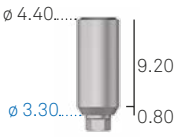
- straight (**img. A**), presenting profile in the shape of an inverted cone, which makes them makes
- them ideal for angles of up to 10° and small profiles;
- Simple (**img. B**), whose emergence profile acan be adapted to any anatomy obtained with Simple temporary posts;
- Prama IN (**img. C and D**), available in two different heights of closure on the implant's neck (0.50 mm or 1.50 mm); furthermore, they allow for hybrid modelling with a side of the post with a feather edge morphology and the opposite side where a closing margin can be individuated.

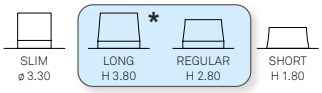


Note: preparable posts with straight emergency and Simple can be used indifferently with all Prama implant diameters and with all types of necks, Short, Regular and Long.
Prama IN millable posts that embrace the neck by 0.5 mm can only be used on Regular (h 2.80 mm) and Long (h 3.80 mm).
* The Prama IN millable posts that embrace the neck for 1.50 mm in height can only be used on the Regular neck (h 2.80 mm).
In no case can the Prama IN millable posts be used with Prama Slim (ø 3.30 mm).

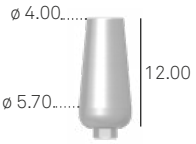
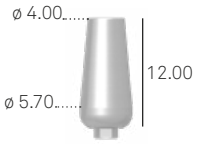
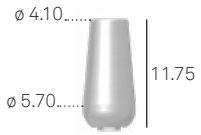
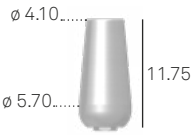
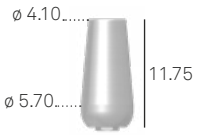


Preparable posts

description	code	
Standard preparable posts Engaging Straight emergence Standard fixation screw included	**A-MF-330**	
Simple preparable posts Engaging Very wide emergence Standard fixation screw included	**A-MFS-330**	
Single pack Pack of 10 pieces Standard fixation screw Supplied with preparable post, it can also be ordered separately as a spare	**VM2-180** **VM2-180-10**	



Prama IN preparable posts

implant ø	3.80 mm	4.25 mm	5.00 mm
Prama IN preparable posts Engaging Closing of 0.50 mm Fixation screw with conical support included	**L-MF-380-05** 	**L-MF-425-05** 	**L-MF-500-05** 
Prama IN preparable posts Engaging Closing of 1.50 mm Fixation screw with conical support included	**L-MF-380-15** 	**L-MF-425-15** 	**L-MF-500-15** 
Single pack Pack of 10 pieces Fixation screw with conical support Supplied with preparable posts, it can also be ordered separately as a spare	**L-VMS-180** **L-VMS-180-10** 	Use L-VMS-180	Use L-VMS-180
Single pack Pack of 10 pieces Full Head screw Not supplied with preparable posts, available optionally*	**L-VM-180** **L-VM-180-10** 	Use L-VM-180	Use L-VM-180

Recommended torque for preparable posts: 20-25 Ncm.

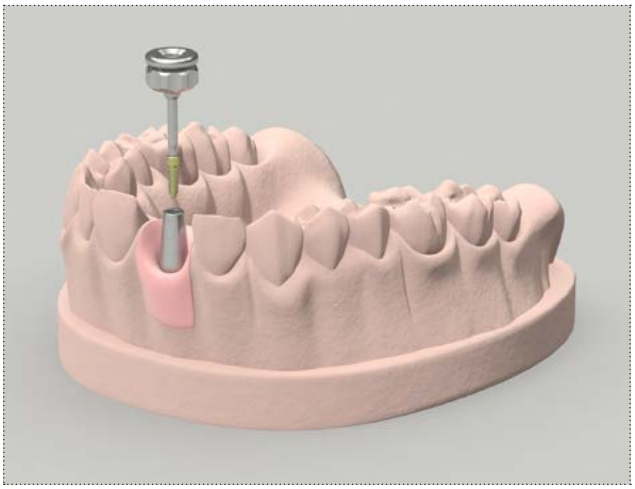
** The fixation screws with Full Head technology (L-VM-180) must be tightened with the appropriate drivers for screws with Full Head technology contained in the Prama surgical kit.*

In the days after a prosthetic rehabilitation with Prama IN prosthetic components, it is normal for chewing movements to cause a slight settling of the prosthesis, which can sometimes cause a minimum loosening of the fixing screw. In order to ensure optimal prosthetic stabilization, after 7-10 days from the positioning of the prosthesis it is advisable to remove it and make fasten again tightening the screw, so as to guarantee a correct and solid fixation that supports in a natural way the patient's chewing movements .

Definitive single cemented rehabilitation with a Prama IN preparable post

Insert a preparable post on the precision model, choosing among those available on page 79. The illustration shows a Prama IN post. Tighten the posts applying a maximum torque of 8-10 Ncm.

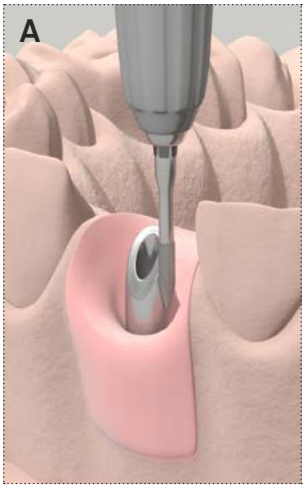
Important warning
It is advisable to always use test screws for laboratory work, keeping the new screws supplied for definitive fixing in the patient's mouth.

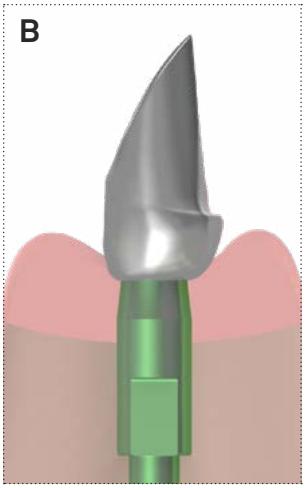


Model the post by reducing it in height and volume, as necessary (**img. A**).

Note: if a Prama IN preparable post is used, it is possible to produce in the laboratory a margin in the palatal or lingual area of the post while maintaining a feather edge morphology in the vestibular part, as shown in the figure (**img. B**).

Important warning
If the head of the screw with conical support interferes with the standard head, it is possible to use the Full-Head screw (code L-VM-180).

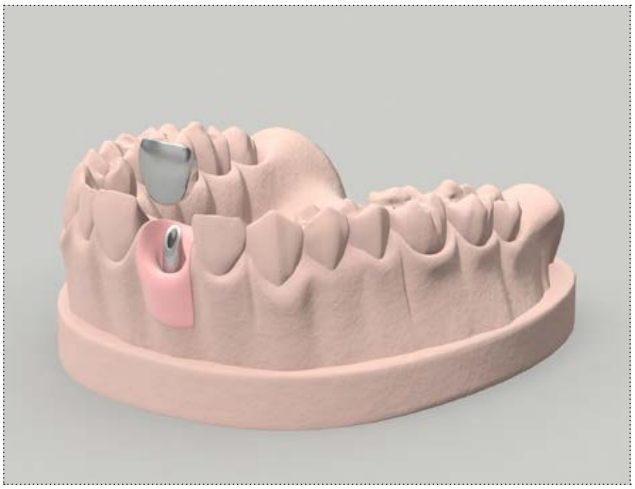




Model the cap on the post in castable wax or resin, leaving sufficient space for the cement.

Important warning
The Prama IN millable posts that embrace the neck by 0.50 mm can only be used with the Regular neck (h 2.80 mm) and Long neck (h 3.80 mm). The Prama IN millable posts that embrace the neck for 1.50 mm in height can only be used on the Regular neck (h 2.80 mm). In no case the millable posts Prama IN can be used with Prama Slim (ø 3.30 mm).

Fabricate the cap by casting or using CAD CAM technologies. Test the crown on the model to check that there is no roughness that could obstruct the correct positioning of the cap on the post, and correct it if necessary with a drill.
Ceramize the definitive prosthesis as usual.



Position the post in the patient's mouth and tighten it with the supplied screw, applying a torque of 20-25 Ncm.

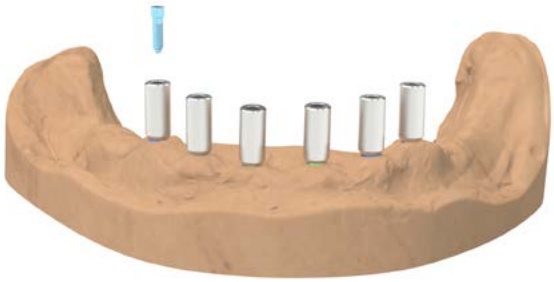
Cover the screw hole and cement the crown on the post, taking care to remove all the excess cement from the margin.

Note: if a Prama IN preparable post with a hybrid preparation is used, it is possible to employ an extraoral cementation technique which consists in applying a layer of cement inside the crown, insert it on a replica of the modelled post in resin and apply a slight pressure so as to remove all the excess cement from the margin. Remove the crown from the replica of the post and clean it from the cement in excess and proceed to intraoral final cementation.

Definitive full arch cemented rehabilitation with Prama IN preparable posts

Insert a preparable post onto each analog on the precision model, choosing among those available on page 79. Tighten the posts applying a maximum torque of 8-10 Ncm.

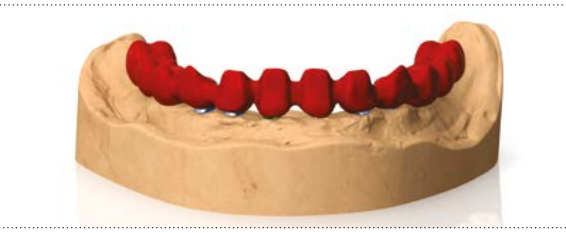
Important warning
It is advisable to always use test screws for laboratory work, keeping the new screws supplied for definitive fixing in the patient's mouth.



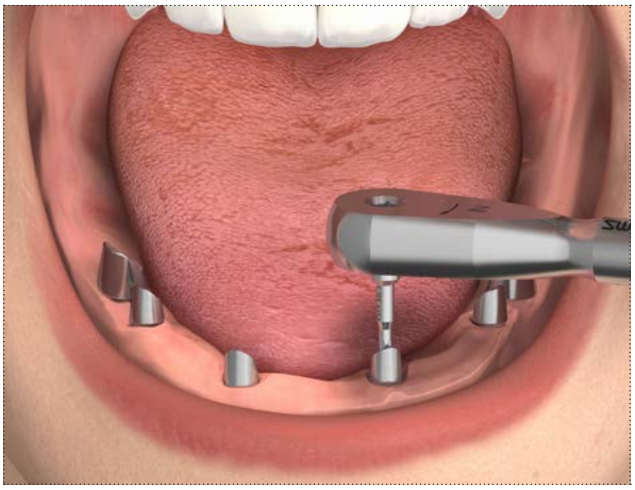
Model the posts by reducing them in height and volume, and correct any disparallelisms if necessary, with the assistance of a parallelometer.

Model the structure in wax or resin, leaving sufficient space for the cement, and proceed to casting or developing using CAD CAM technique. Test the structure on the model to check its passivation.

Important warning
The Prama IN millable posts that embrace the neck by 0.50 mm can only be used with the Regular neck (h 2.80 mm) and Long neck (h 3.80 mm). The Prama IN millable posts that embrace the neck for 1.50 mm in height can only be used on the Regular neck (h 2.80 mm). In no case the millable posts Prama IN can be used with Prama Slim (ø 3.30 mm).



Tighten the prepared posts into the patient's mouth, taking care to respect the position of every single element, applying a torque of 20-25 Ncm.



Test the truss first in the patient's mouth to check that there is no roughness that could obstruct the correct positioning on the posts, and correct it if necessary with a drill.

Ceramize the final prosthesis as usual.
Cement the truss onto the posts, taking care to remove all the excess cement from the margin.

Definitive rehabilitation with Dynamic Abutments

The Dynamic Abutment* post is a patented solution that allows the creation of aesthetic prosthesis onto implants, moving the hole for the fixation screw to a palatal or lingual position, solving disparallelism problems, with a liberty of angulation up to 28°.
This is made possible by the synergy between the non engaging castable sleeve on the head of the abutment and screwdriver with its specially designed hexalobular tip, which allows the head of the screw to be engaged even in the presence of extreme angulations.

The Dynamic Abutment is available with a base in cobalt chrome for overcasting and in total castable polymer, in engaging version for single crowns and non engaging for multiple structures.

Note: the Dynamic Abutment, which close on the implant platform, can be used indifferently with all Prama implant diameters and with all types of necks, Short, Regular and Long.

**Dynamic Abutment posts are medical devices manufactured and patented by Talladium España S.L., Avenida Blondel, 54 3°, 25002 Lleida, Spain. Dynamic Abutment is a registered trademark of this company.*

description	code
Dynamic Abutment Engaging Cobalt chrome base for overcasting Fixation screw not included	**PD3PKH330/CC** 
Dynamic Abutment Non engaging Cobalt chrome base for overcasting Fixation screw not included	**PD3PKR330/CC** 
Dynamic Abutment Engaging Entirely castable Fixation screw not included	**PD3PKH330/P** 
Dynamic Abutment Non engaging Entirely castable Fixation screw not included	**PD3PKR330/P** 
Fixation screw for Dynamic Abutment Not included, can be ordered separately	**A-VMA-180** 

description	code
Screwdriver for Dynamic Abutment Length 24 mm Must be ordered separately	**DSPDCLH-24** 
Screwdriver for Dynamic Abutment Length 32 mm Must be ordered separately	**DSPDCLH-32** 

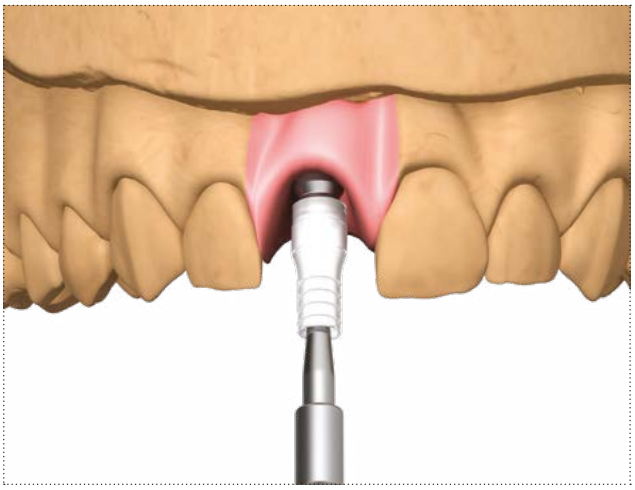
Recommended torque for the Dynamic Abutments: 20-25 Ncm.

Important warning
It is recommended always to use test screws for the laboratory phases and to keep the new screw supplied for the final fastening in the oral cavity..

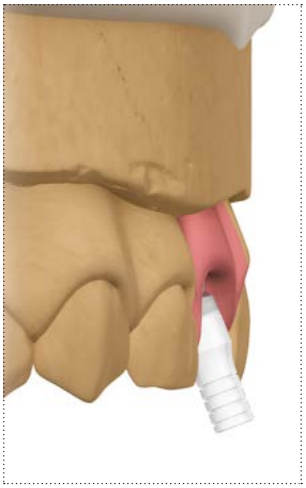
Definitive single screw retained rehabilitation with Dynamic Abutment

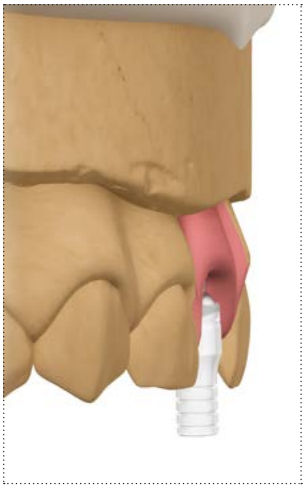
Screw the engaging Dynamic Abutment with a cobalt chrome base onto the analog on the precision model using the specific fixation screw with the screwdriver of the most suitable length between the ones available, of 24 or 32 mm. Apply a maximum torque of 8-10 Ncm.

Important warning
It is recommended always to use test screws for the laboratory phases and to keep the new screw supplied for the final fastening in the oral cavity. The fixation screw is not included, it must be ordered separately.

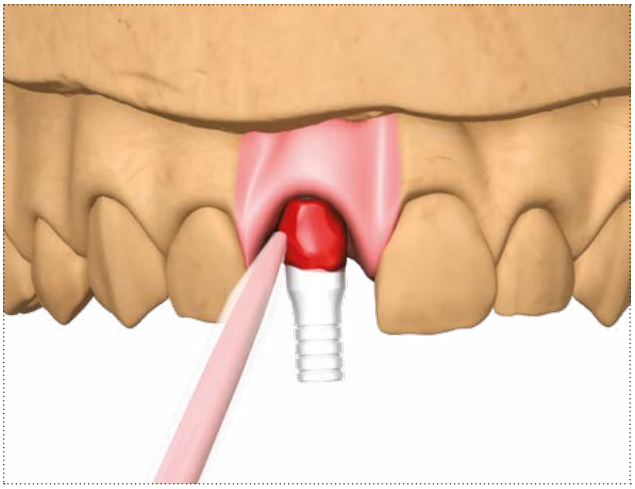


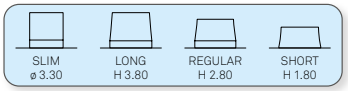
Manually guide the castable rotating portion of the abutment according to the prosthetic axis identified in the treatment plan.



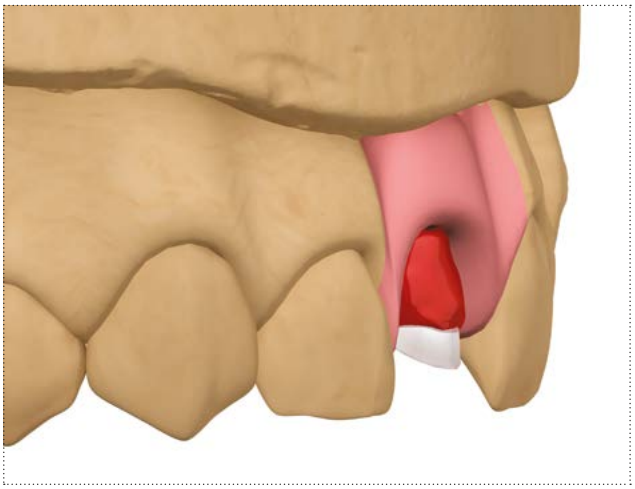


Fix the castable rotating portion in the desidered position with castable resin. If necessary, remove or reduce the metal part to obtain a profile without finishing line.

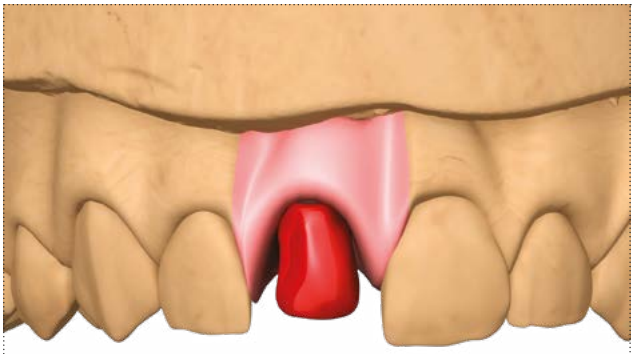




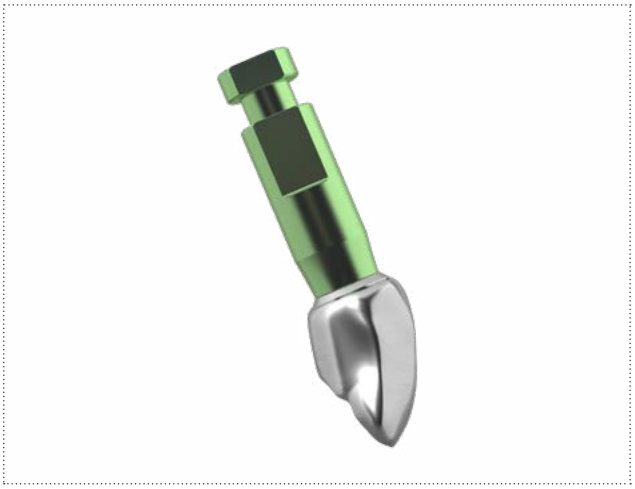
Reduce the castable sleeve to a size compatible with the patient's vertical dimension with an abrasive disk.



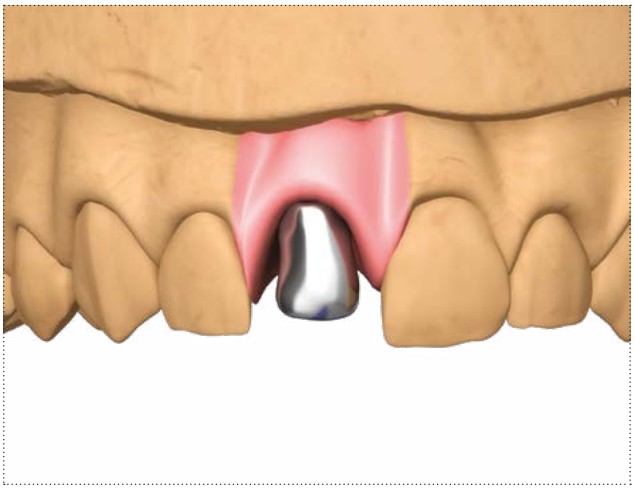
According to the standard protocol, model a crown in wax or resin and unscrew it taking advantage of the specific design of the screwdriver tip.



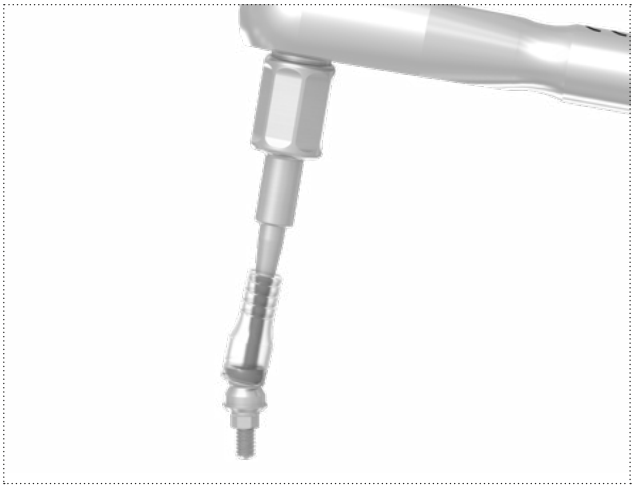
Overcast the structure as usual and finish the base, so as to avoid obstacles for soft tissues adaptation.



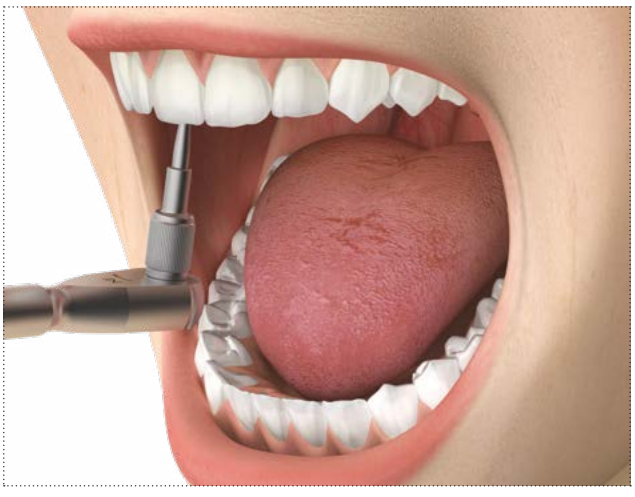
Check the crown on the model or in the patient's mounth for possible modifications. Ceramize as usual.

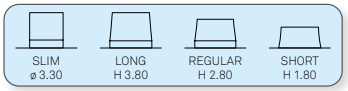


Assemble the dynamometric key (code CRI5-KIT) with the screwdriver for right angle and hexagonal connector for ratchet (code AVV-CA-DG-EX) and with the Dynamic Abutment screwdriver of the desired length (code DSPDCLH-24 or DSPDCLH-32).



Tighten the structure in the patient's mouth applying a torque 20-25 Ncm and cover the screw hole with resin or composite.

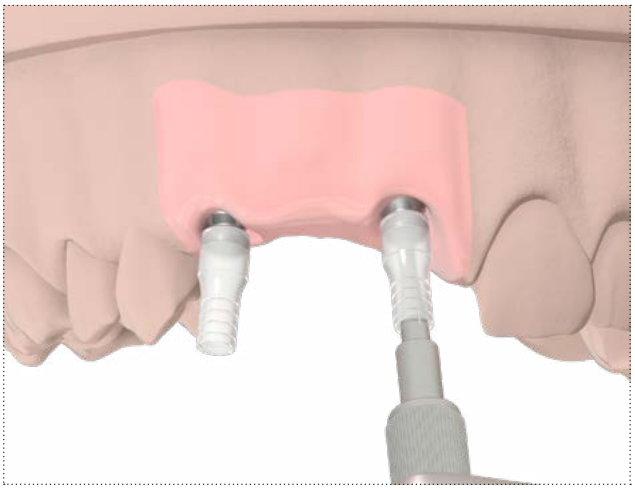




Definitive multiple screw retained rehabilitation with Dynamic Abutments

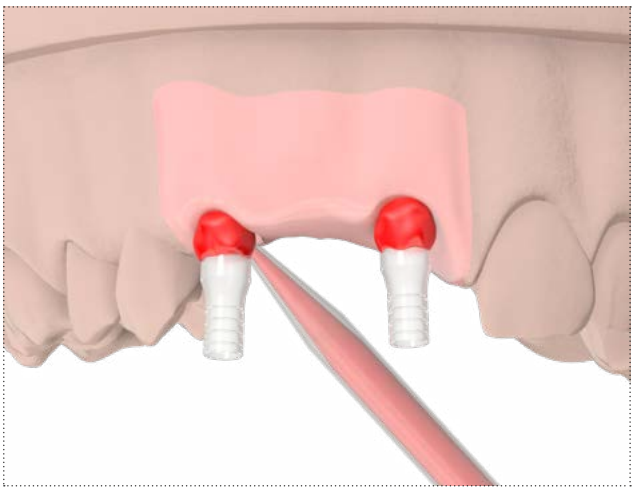
Screw the Dynamic Abutments onto the analogs on the precision model using the specific fixation screw with the screwdriver of the most suitable length between the ones available, of 24 or 32 mm. Apply a maximum torque of 8-10 Ncm.

Important warning
It is recommended always to use test screws for the laboratory phases and to keep the new screw supplied for the final fastening in the oral cavity. The fixation screw is not included, it must be ordered separately.

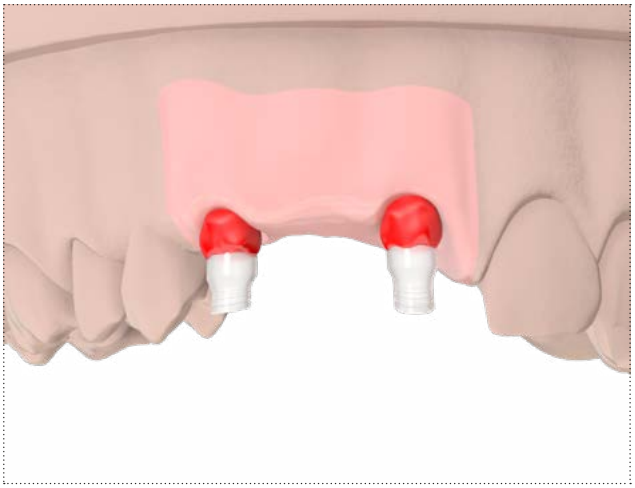


Manually guide the rotating portion of the abutments according to the prosthetic axis identified in the treatment plan.

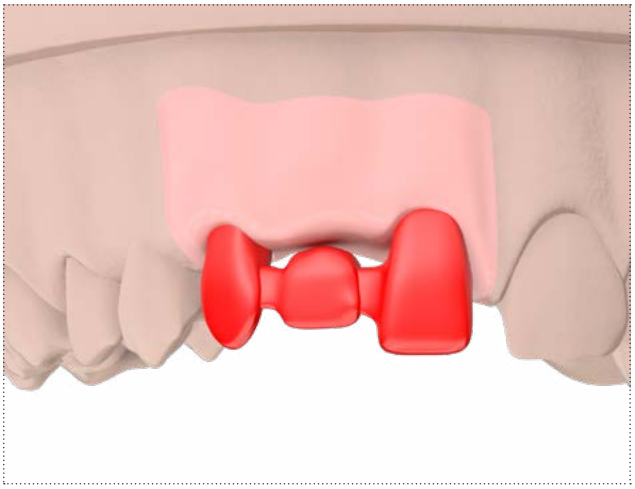
Fix the rotating portion in the desidered position with castable resin.



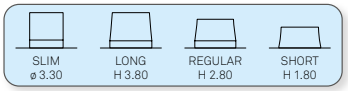
Reduce the castable sleeves to a size compatible with the patient's vertical dimension with an abrasive disk.



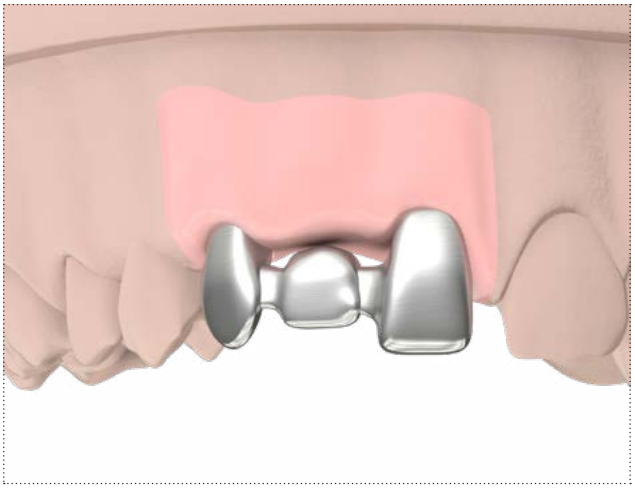
According to the standard protocol, model a bridge in wax or resin and unscrew it taking advantage of the specific design of the screwdriver tip.



Overcast the bridge as usual and finish the base, so as to avoid obstacles for soft tissues adaptation.

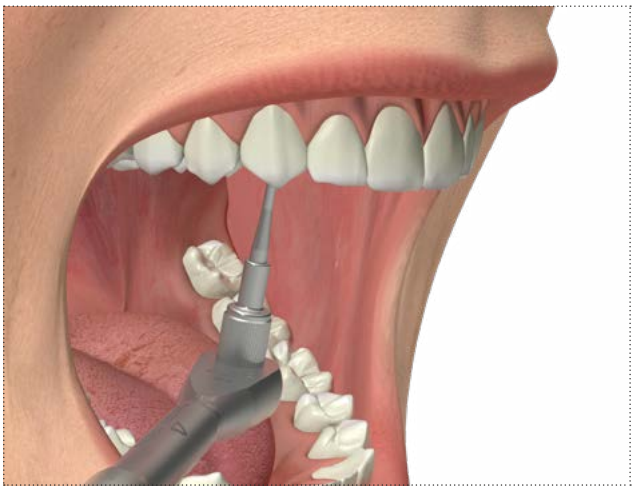


Check the structure on the model or in the patient's mouth for possible modifications.
Ceramize the bridge as usual.



Assemble the dynamometric key (code CRI5-KIT) with the screwdriver for right angle and hexagonal connector for ratchet (code AVV-CA-DG-EX) and with the Dynamic Abutment screwdriver of the desired length (code DSPDCLH-24 or DSPDCLH-32).

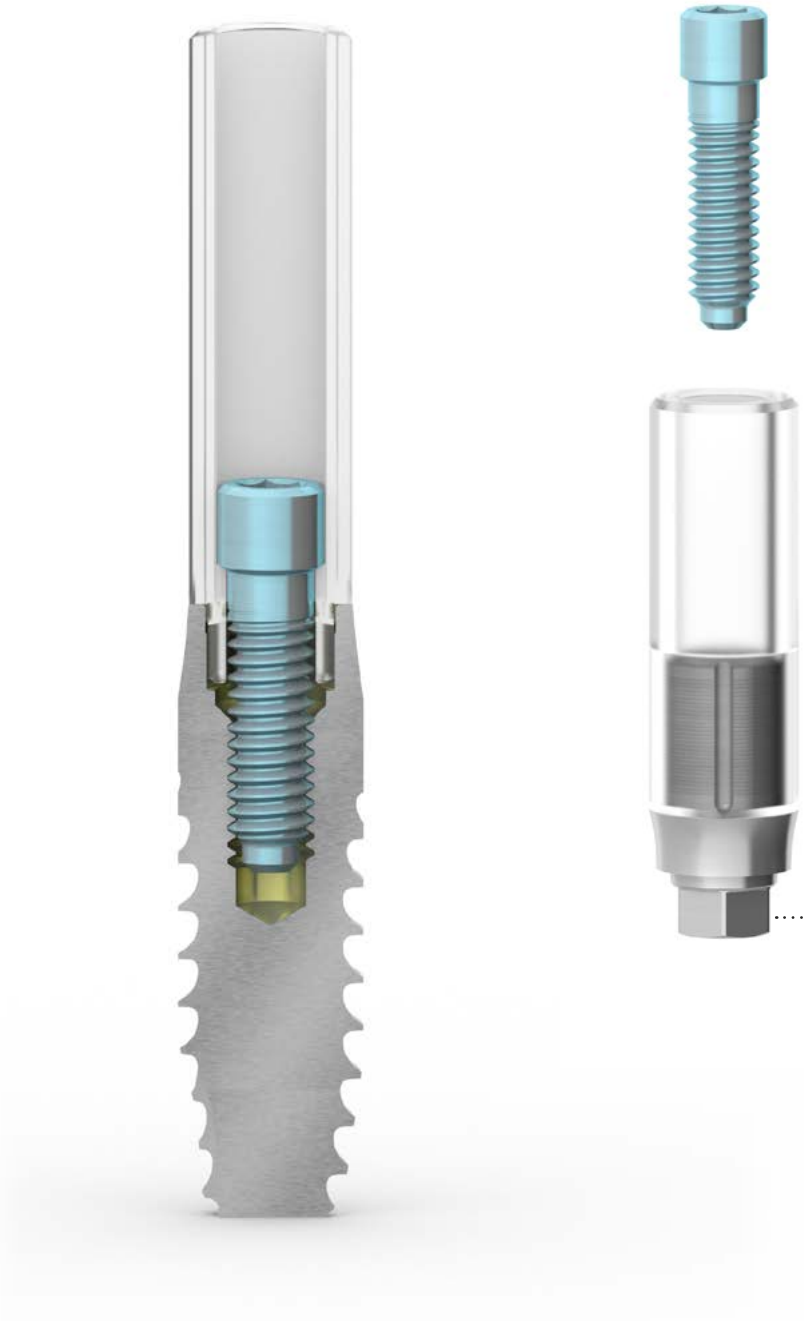
Tighten the structure in the patient's mouth applying a torque 20-25 Ncm and cover the screw holes with resin or composite.



Standard castable posts with a metal base

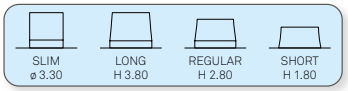
Castable posts with a metal base combine the simplicity of castable solutions with a base of gold alloy, cobalt chrome or titanium, highly biocompatible materials. The melting point of the above mentioned alloys is such as to preserve the base against dimensional alterations at the time of overcasting the castable part.

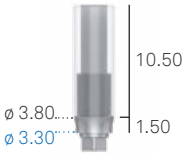
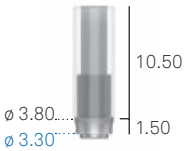
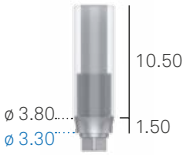
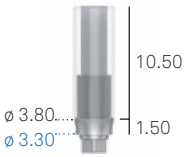
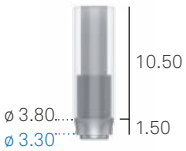
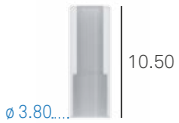
The castable posts, available in engaging and non engaging version, allow for fabrication of single crowns without a profile or multiple screw retained structures as Toronto, that do not close on the implant's neck. For more information on the overcasting base alloys, please visit the website: **https://www.sweden-martina.com/en_gb/ifu/**



The bases are available in gold alloy, Gr. 5 titanium and cobalt-chrome

Note: the standard castable posts with metal base, which close on the implant platform, can be used indifferently with all Prama implant diameters and with all types of necks, Short, Regular and Long.



description	code
Castable posts with a pre-made base in **gold alloy "1"** Engaging Anatomical emergence Standard fixation screw included	**A-UCR-330-EX** 
Castable posts with a pre-made base in **gold alloy "1"** Non engaging Anatomical emergence Standard fixation screw included	**A-UCR-330** 
Castable posts with a pre-made base in **titanium** Engaging Anatomical emergence Standard fixation screw included	**A-UCTR-330-EX** 
Castable posts with a pre-made base in **cobalt chrome** Engaging Anatomical emergence Standard fixation screw included	**A-UCRCO-330-EX** 
Castable posts with a pre-made base in **cobalt chrome** Non engaging Anatomical emergence Standard fixation screw included	**A-UCRCO-330** 
Spare castable sleeves for castable posts with alloy base Standard fixation screw not included	**A-CCUCR-330** 
Single pack Pack of 10 pieces Fixation screw for posts Supplied with the posts, it can also be ordered separately as a spare	**VM2-180** **VM2-180-10** 

Recommended torque for castable posts with metal base: 20-25 Ncm.

Important warning
It is recommended always to use test screws for the laboratory phases and to keep the new screw supplied for the final fastening in the oral cavity.

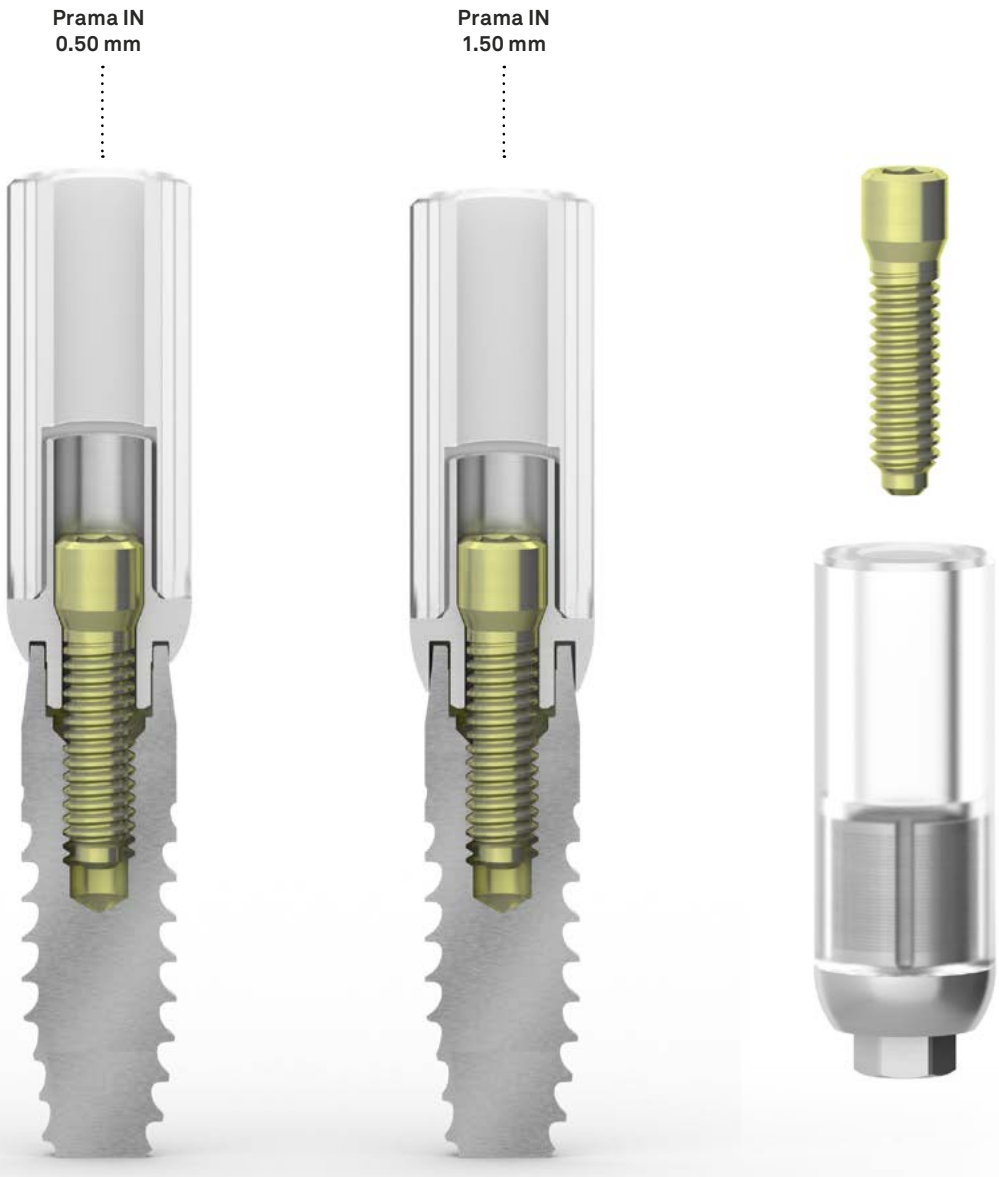
Definitive rehabilitation with Prama IN castable posts with a metal base

Prama IN castable posts in PMMA with cobalt chrome base are available in two different closing heights (0.50 mm and 1.50 mm), engaging and non engaging.

Prama IN castable posts in PMMA with gold alloy base are only available in non engaging version and with a closing height of 0.50 mm.

The recommended tightening torque for final fastening of posts or structures obtained after overcasting is 20-25 Ncm.

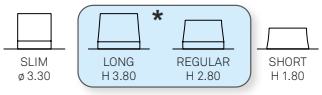
For more information on the overcasting base alloys, please visit the website:
https://www.sweden-martina.com/en_gb/ifu/

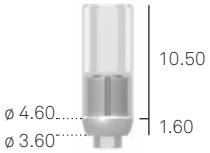
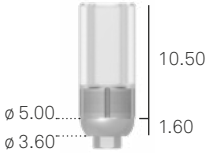
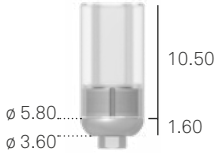
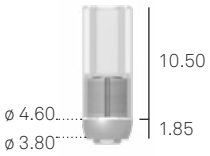
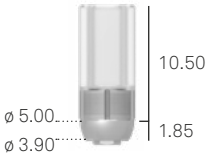
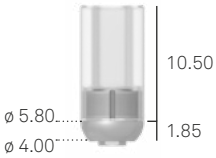
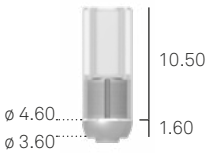
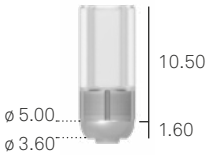
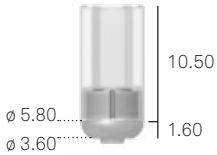
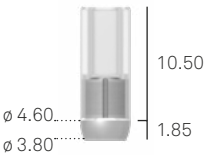
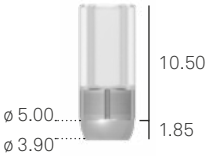
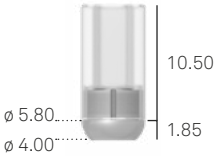
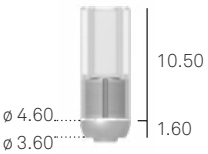
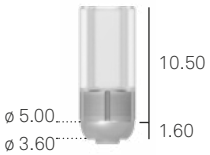
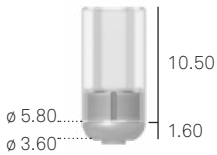
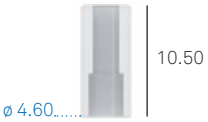
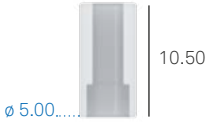


Note: Prama IN millable posts that embrace the neck by 0.5 mm can only be used on Regular (h 2.80 mm) and Long (h 3.80 mm).

* The Prama IN millable posts that embrace the neck for 1.50 mm in height can only be used on the Regular neck (h 2.80 mm).

In no case can the Prama IN millable posts be used with Prama Slim (ø 3.30 mm).



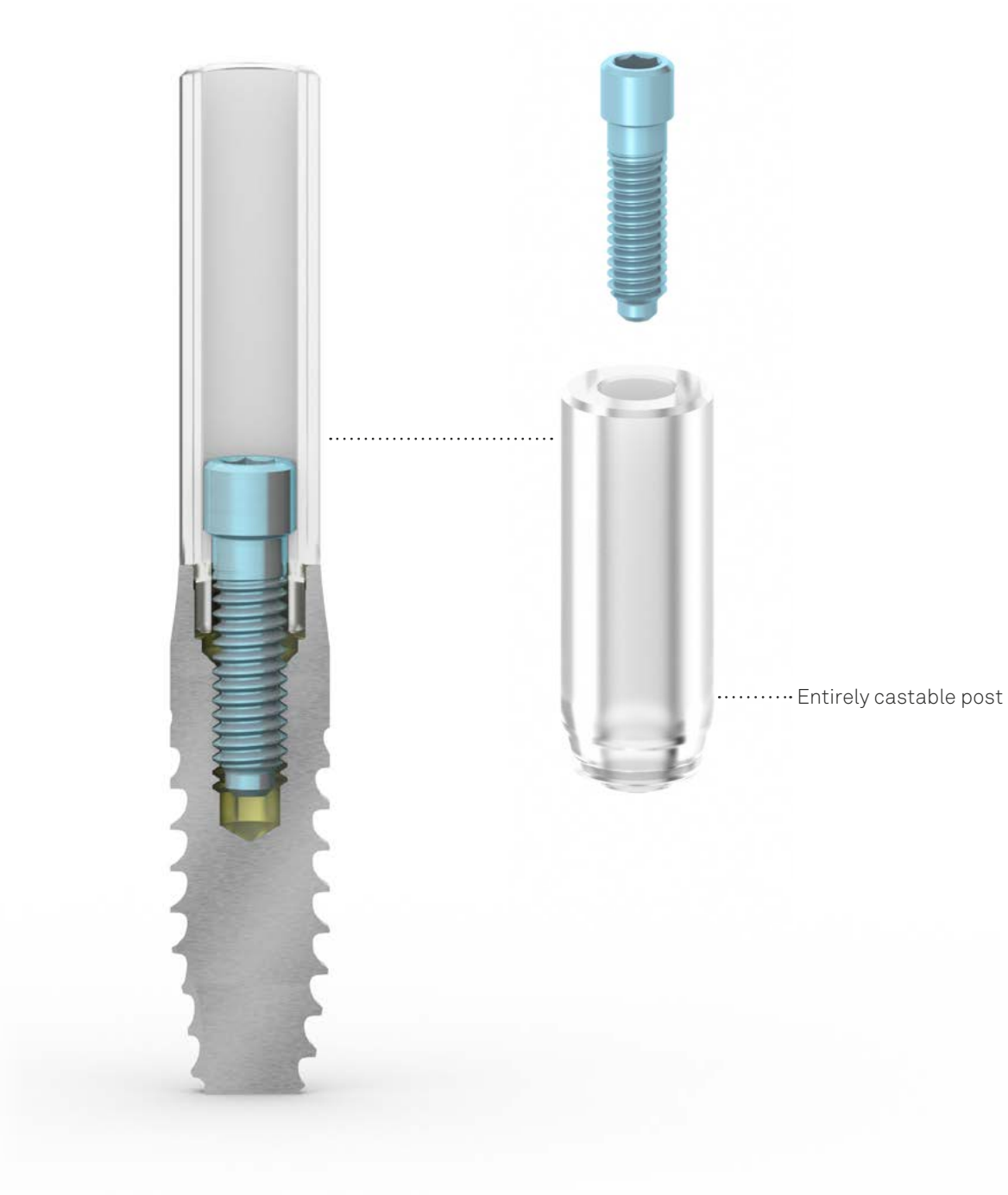
implant ø	3.80 mm	4.25 mm	5.00 mm
Prama IN castable posts with a pre-made base in **cobalt chrome** Closing of 0.50 mm Engaging Fixation screw with conical support included	**L-UCRCO-380-05** 	**L-UCRCO-425-05** 	**L-UCRCO-500-05** 
Prama IN castable posts with a pre-made base in **cobalt chrome** Closing of 1.50 mm Engaging Fixation screw with conical support included	**L-UCRCO-380-15** 	**L-UCRCO-425-15** 	**L-UCRCO-500-15** 
Prama IN castable posts with a pre-made base in **cobalt chrome** Closing of 0.50 mm Non engaging Fixation screw with conical support included	**L-UCRCO-380-05-ROT** 	**L-UCRCO-425-05-ROT** 	**L-UCRCO-500-05-ROT** 
Prama IN castable posts with a pre-made base in **cobalt chrome** Closing of 1.50 mm Non engaging Fixation screw with conical support included	**L-UCRCO-380-15-ROT** 	**L-UCRCO-425-15-ROT** 	**L-UCRCO-500-15-ROT** 
Prama IN castable posts with a pre-made base in **gold alloy** Closing of 0.50 mm Non engaging Fixation screw with conical support included	**L-UCR-380-05-ROT** 	**L-UCR-425-05-ROT** 	**L-UCR-500-05-ROT** 
Spare castable sleeves for castable posts with alloy base Fixation screw with conical support not included	**A-CCUCR-380** 	**A-CCUCR-425** 	**A-CCUCR-500** 
Single pack Pack of 10 pieces Fixation screw with conical support Supplied with castable posts, it can also be ordered separately as a spare	**L-VMS-180** **L-VMS-180-10** 	Use L-VMS-180	Use L-VMS-180
Single pack Pack of 10 pieces Full Head screw Not supplied with castable posts, available optionally*	**L-VM-180** **L-VM-180-10** 	Use L-VM-180	Use L-VM-180

Recommended torque for castable posts with metal base: 20-25 Ncm.

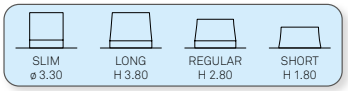
**In the days after a screw retained with Prama IN prosthesis, it is normal for chewing movements to cause a slight settling of the prosthesis, which can sometimes cause a minimum loosening of the fixing screw. In order to ensure optimal prosthetic stabilization, after 7-10 days from the positioning of theprothesis it is advisable to remove it andfasten again the tightening the screw, so as to guarantee a correct and solid fixation that supports in a natural way the patient's chewing movements .*

Entirely castable posts

The entirely castable posts are made through turning of PMMA, a material that does not leave any residue during the casting phase.
It must however be noted that if the casting process does not follow proper methods it may cause deformations that may compromise the precision of the coupling between the implant interface and the prosthetic interface at the level of the connection platform.



Note: entirely castable posts, which close on the implant platform, can be used indifferently with all Prama implant diameters and with all types of necks, Short, Regular and Long..



description	code
Castable posts for casting Engaging Straight emergence Standard fixation screw included	**A-CC-330-EX** 
Castable posts for casting Non engaging Straight emergence Standard fixation screw included	**A-CC-330** 
Single pack Pack of 10 pieces Standard fixation screw Supplied with the castable posts, it can also be ordered separately as a spare	**VM2-180** **VM2-180-10** 

Recommended torque for entirely castable posts: 20-25 Ncm.

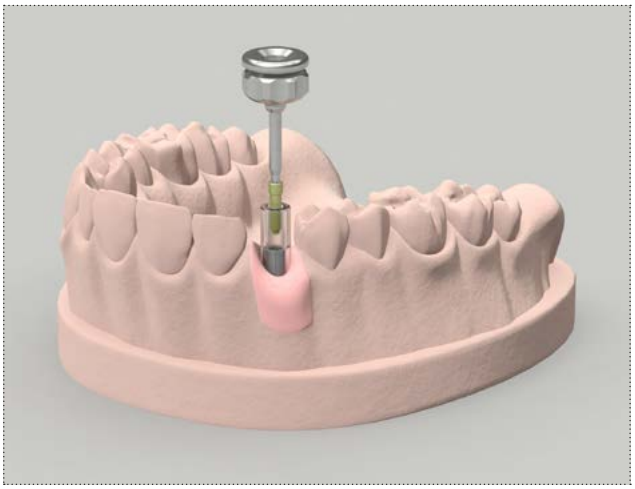
Important warning
It is recommended always to use test screws for the laboratory phases and to keep the new screw supplied for the final fastening in the oral cavity.

Definitive single screw retained rehabilitation with a castable post with a metal base

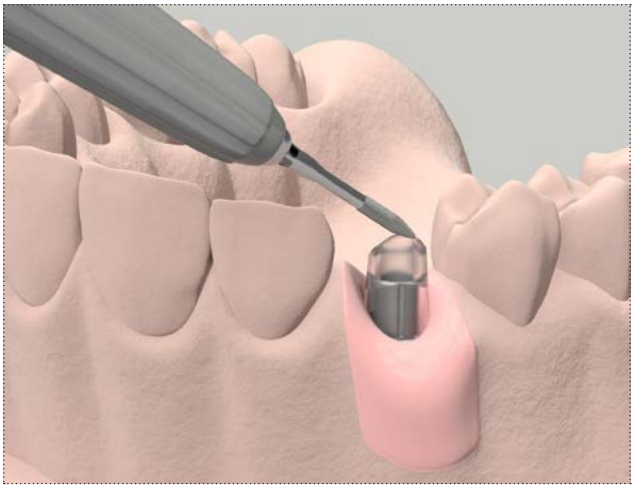
Note: the same procedure illustrated in the following images using castable posts with a metal base is also applicable when entirely castable posts are used.

Insert an engaging castable post with a metal base on the precision model. Tighten it with the specific fixation screw with a screwdriver from the HSM or L-HSM series, according to the chosen post, applying a maximum torque of 8-10 Ncm.

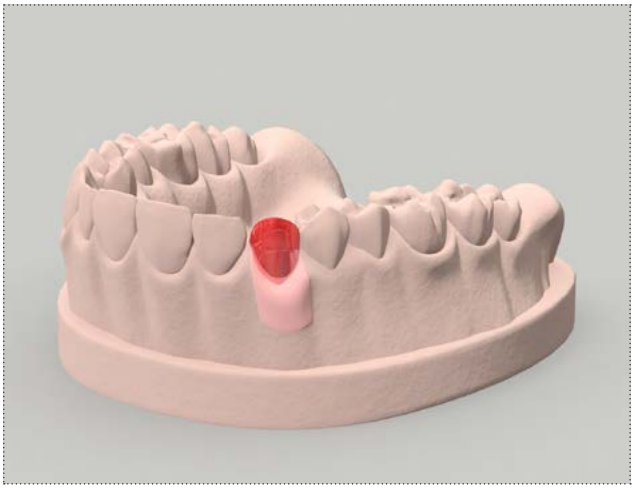
Important warning
It is advisable to always use test screws for laboratory work, keeping the new screws supplied for definitive fixing in the patient's mouth.



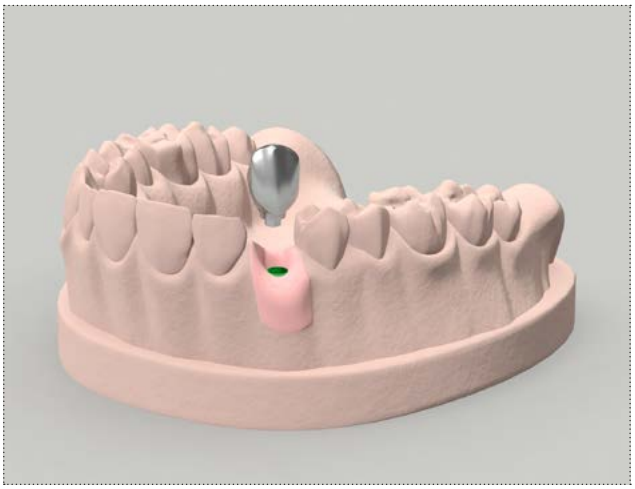
Model the post in height and volume, as necessary.



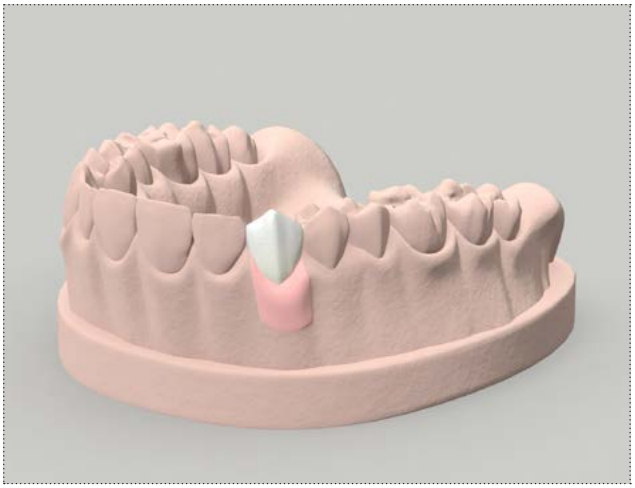
Model the screw retained crown on the post in castable resin.



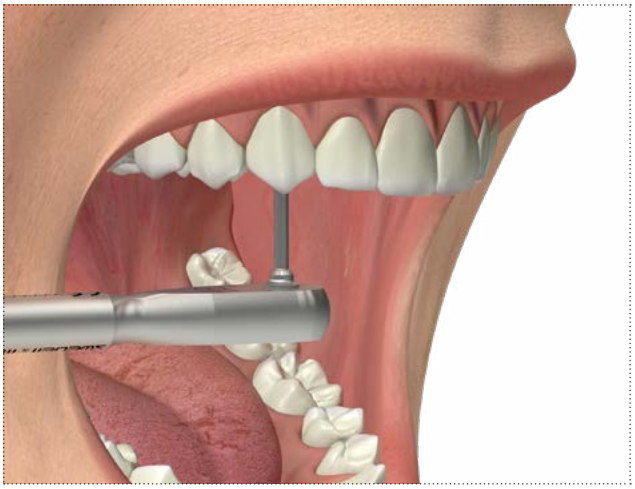
Proceed with overcasting as usual.
Perform a test with the metallic structure on the model or in the patient's mouth to modify it, if necessary.



Ceramize as usual.



Position the screw retained crown on the implant and tighten it with the supplied screw, without exceeding a torque of 20-25 Ncm.



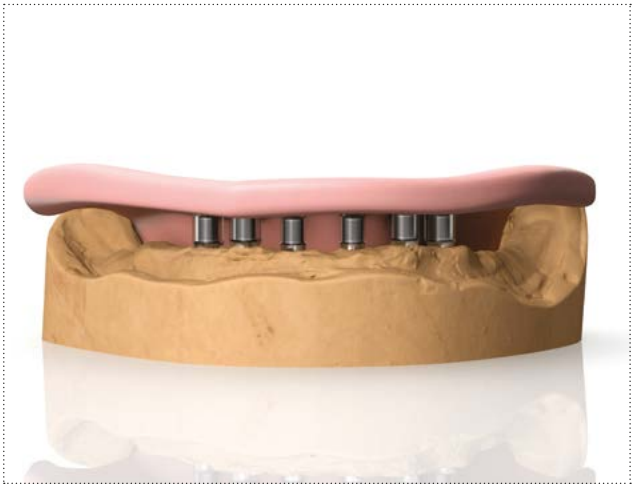
Definitive screw retained full arch rehabilitation with castable posts with a metal base

Note: the same procedure illustrated in the following images using castable posts with a metal base is also applicable when entirely castable posts are used.

Remove the temporary prosthesis from the patient's mouth and take the impression (see page 34 onwards). Replace the temporary prosthesis.
After casting the model, tighten the posts onto the analogs using a screwdriver of the HSM or L-HSM series according to the chosen abutment, applying a maximum torque of 8-10 Ncm.

Important warning
It is advisable to always use test screws for laboratory work, keeping the new screws supplied for definitive fixing in the patient's mouth.

Adapt the castable sleeves to fit the patient's vertical dimension, using a silicone mask obtained from a preassembly, or by placing the structure in an articulator in relationship to the space left by the antagonist.

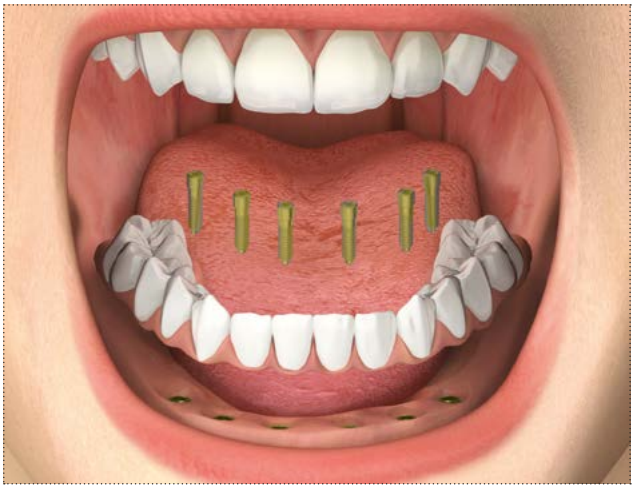


Model the castable structure, which will allow the metal framework of the final prosthesis to be obtained.

Create the structure using the standard protocol.
Test the structure first on the model and then in the patient's mouth, checking for its complete passivity.

Ceramize the final prosthesis as usual.

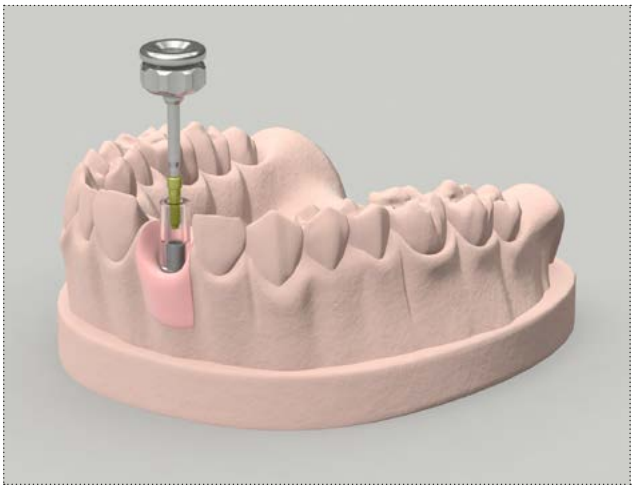
Tighten the structure onto the implants, tightening the screws at a torque of 20-25 Ncm and checking for passivation and occlusal relationships.
Preserve the screw heads and close the screw holes with a removable material, such as a composite or a resin.



Definitive single cemented rehabilitation with a single post obtained by overcasting of a castable sleeve

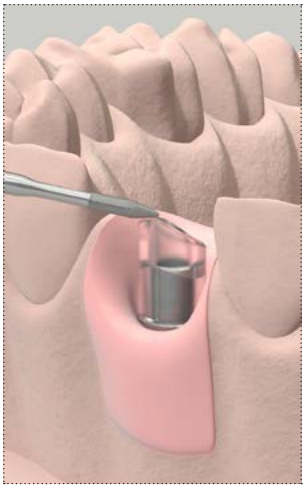
Note: the same procedure illustrated in the following images using castable posts with a metal base is also applicable when entirely castable posts are used.

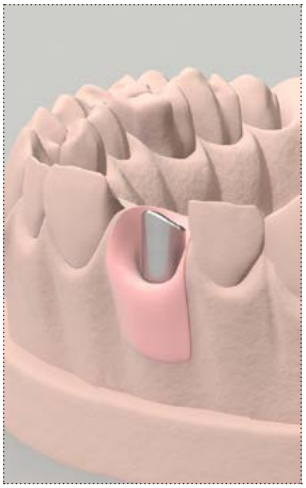
Insert an engaging castable post with a metal base on the precision model. Tighten it with the specific fixation screw with a screwdriver from the HSM or L-HSM series, according to the chosen post, applying a maximum torque of 8-10 Ncm.



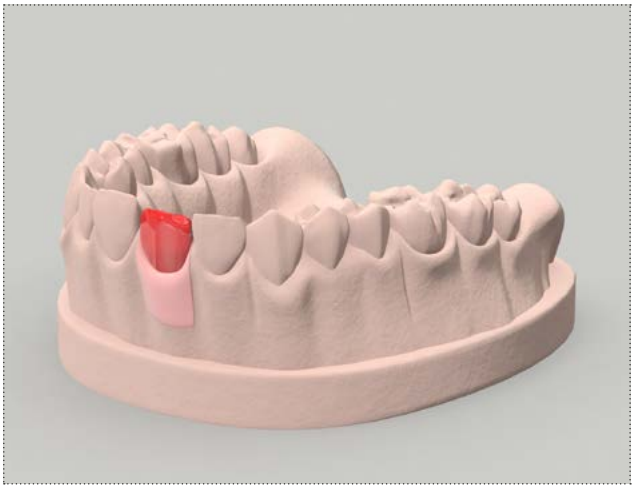
Important warning
It is advisable to always use test screws for laboratory work, keeping the new screws supplied for definitive fixing in the patient's mouth.

Model the post in height and volume, increasing the thicknesses if necessary.
Then proceed to overcasting as usual.

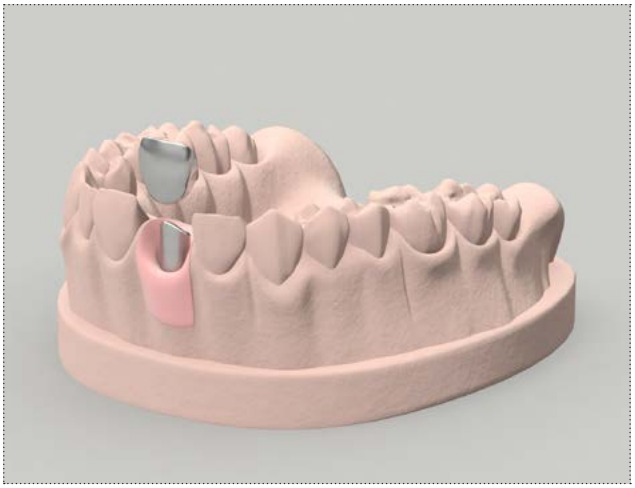




Model the cap on the post in wax or resin, leaving sufficient space for the cement.



Fabricate the cap by casting or using CAD CAM technologies.
Test the crown on the model to check that there is no roughness that could obstruct the correct positioning of the cap on the post, and correct it if necessary.
Ceramize the definitive prosthesis as usual.



Position the post in the patient's mouth and tighten it with the supplied screw, applying a torque of 20-25 Ncm.

Cover the screw hole and cement the crown on the post, taking care to remove all the excess cement from the margin.

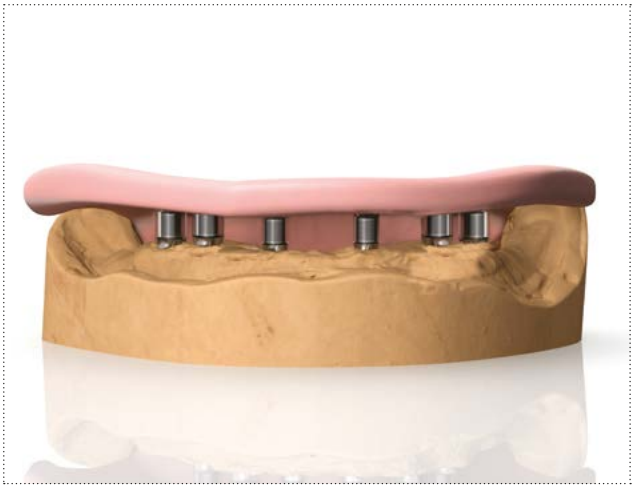
Definitive full arch cemented rehabilitation with single posts obtained by overcasting of castable sleeves

Note: the same procedure illustrated in the following images using castable posts with a metal base is also applicable when entirely castable posts are used.

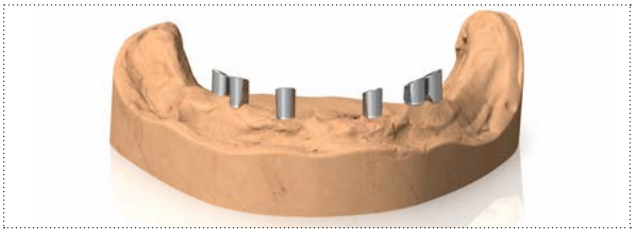
Insert the engaging castable posts with a metal base on the precision model. Tighten them with the specific fixation screw with a screwdriver from the HSM series, applying a maximum torque of 8-10 Ncm.

Important warning
It is advisable to always use test screws for laboratory work, keeping the new screws supplied for definitive fixing in the patient's mouth.

Adapt the castable sleeves to fit the patient's vertical dimension, using a silicone mask obtained from a preassembly, or by placing the structure in an articulator in relationship to the space left by the antagonist; reduce or increase the thicknesses if necessary.

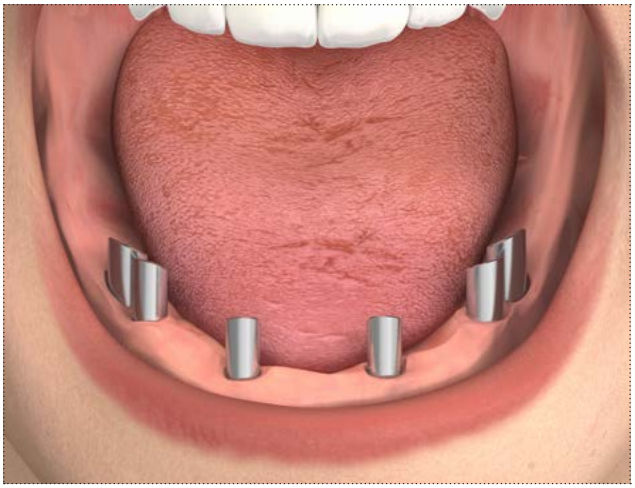


Proceed to the casting of the posts as usual.
Model the full arch structure on the post in wax or resin, leaving sufficient space for the cement.

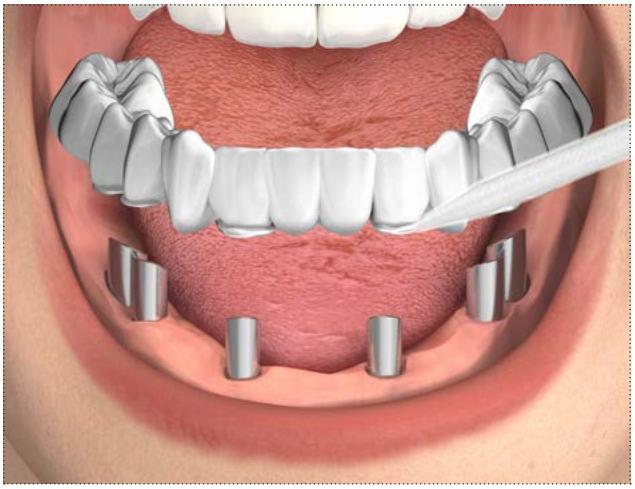


Fabricate the full arch structure by casting or using CAD CAM techniques. Test the truss on the model and in the patient's mouth to check that there is no roughness that could obstruct its correct positioning on the posts, and correct if necessary.
Ceramize the definitive prosthesis as usual.

Position the posts in the patient's mouth, taking care to respect the position of every single element on the model and tighten them with the supplied screws with a torque of 20-25 Ncm.

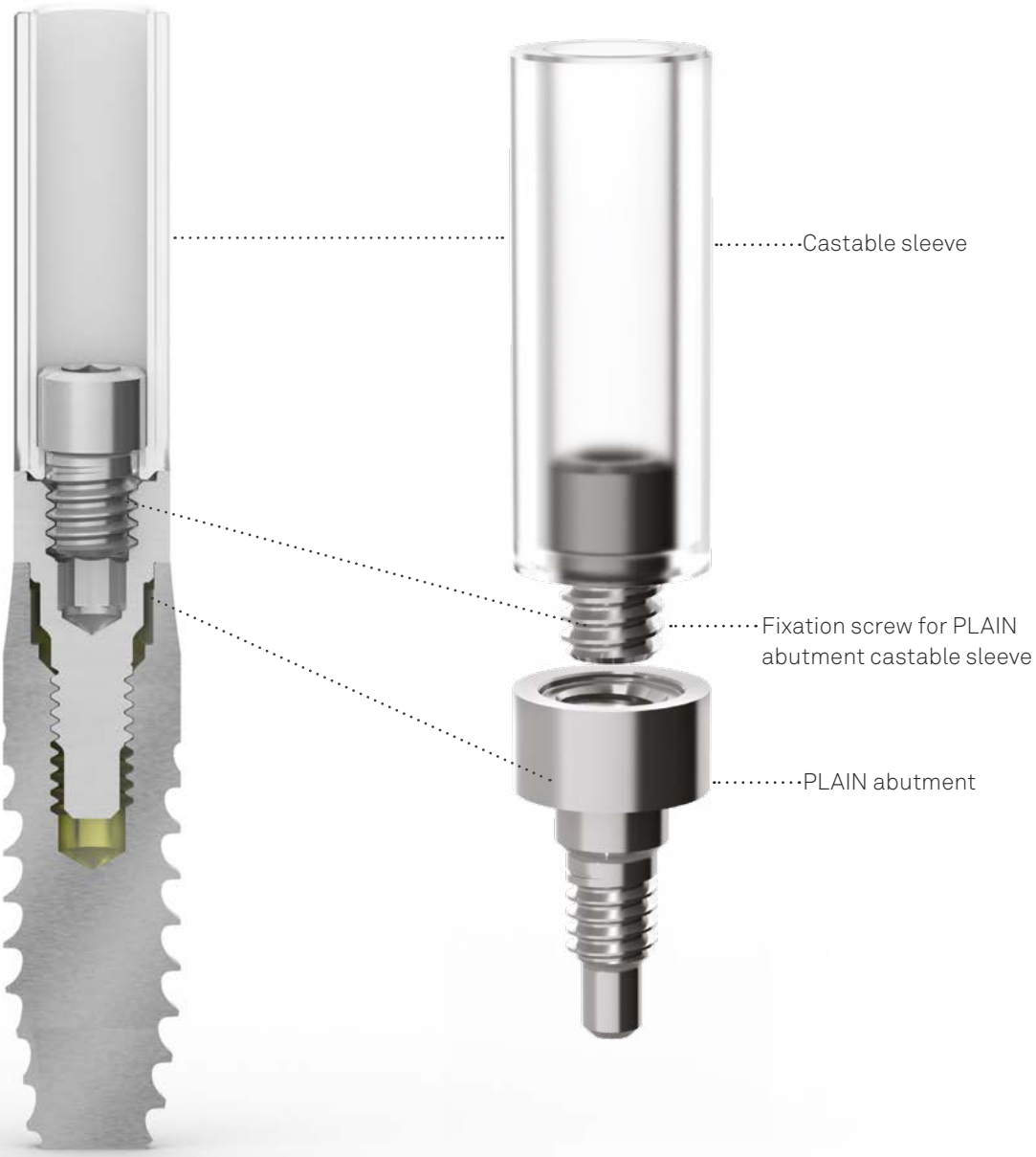


Cement the full arch structure onto the posts, taking care to remove all the excess cement from the margin.

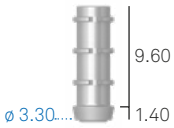
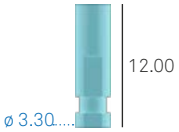
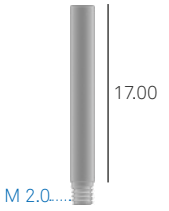


Temporary and definitive rehabilitation with PLAIN abutments

The PLAIN abutments, whose peculiarity is the direct tightening to the implants, use the completely flat geometry of the upper section, which is coupled to the special castable sleeves by means of a small guide. The utility of these abutments is therefore that they maximize centring and repositioning operations with structures screw retained on multiple implants.
For the transport into the oral cavity, the screwing and the final fastening of PLAIN abutments, the standard screwdrivers from the HSM series contained in the Prama surgical kit must be used.
The insertion torque is 25-30 Ncm to screw the abutment to the implant and 20-25 Ncm to tighten the prosthetic screw.
Titanium sleeves are also available, for the production of temporary prosthesis.



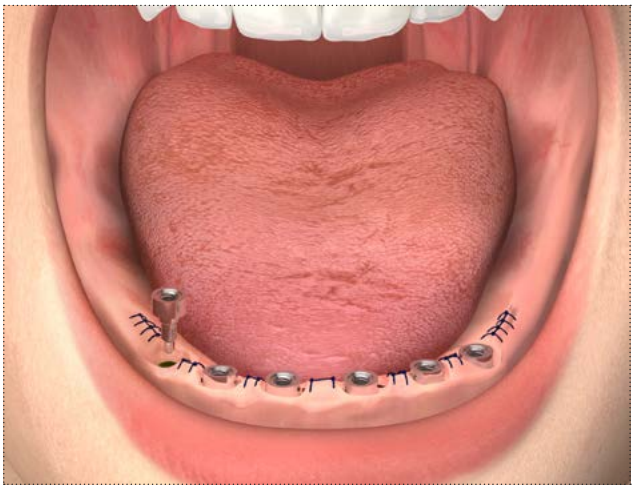
Note: PLAIN abutments, which close on the implant platform, can be used indifferently with all Prama implant diameters and with all types of necks, Short, Regular and Long.

description	code	
Direct screw retained PLAIN abutment Transgingival h 2.00 mm	**A-PLAIN-ABU330-2**	
Direct screw retained PLAIN abutment Transgingival h 3.00 mm	**A-PLAIN-ABU330-3**	
Direct screw retained PLAIN abutment Transgingival h 4.00 mm	**A-PLAIN-ABU330-4**	
Healing cap for PLAIN abutment	**A-PLAIN-CG330**	
Castable sleeve for PLAIN abutments Fixation screw included	**A-PLAIN-CC330**	
Single pack Pack of 10 pieces Fixation screw for castable sleeve for PLAIN abutments	**A-PLAIN-VP200** **A-PLAIN-VP200-10**	
Titanium post for PLAIN abutment Fixation screw included	**A-PLAIN-CT330**	
Analog for PLAIN abutment	**A-PLAIN-ANA-330**	
Transfer for PLAIN abutment Fixation screw included	**A-PLAIN-TRA-330**	
Spare screw for PLAIN transfer Supplied with the transfers for PLAIN abutments, it can also be ordered separately as a spare	**A-PLAIN-VTRA200**	

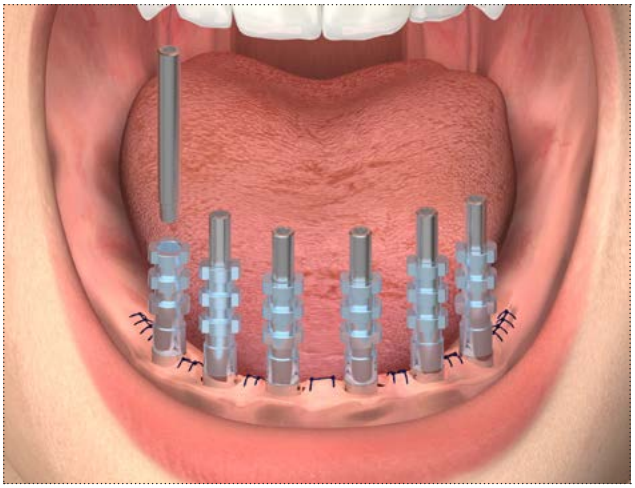
Recommended torque for the transfer screws and the healing caps: 8-10 Ncm.
Recommended torque for PLAIN castable sleeves: 20-25 Ncm.
Recommended torque for abtument PLAIN: 25-30 Ncm.

Impression and model phase

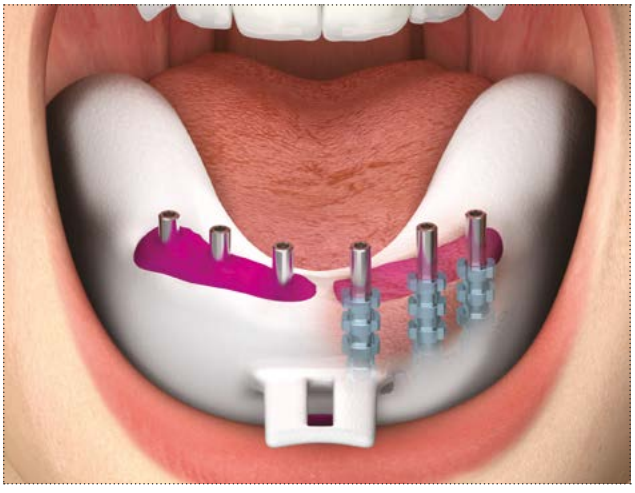
After inserting the implants, screw in the PLAIN abutments using a screwdriver of the HSM series.
The tightening torque of PLAIN abutments onto implants is 25-30 Ncm.

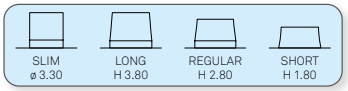


Screw a transfer of the series A-PLAIN-TRA-* onto every PLAIN abutment, using the supplied screw and a screwdriver of the HSM series. The tightening torque of the transfers on the PLAIN abutments is 8-10 Ncm.
If desired, fix the transfers together with wire and resin or composite, and wait for polymerization to be completed, as indicated by the manufacturer (e.g. SUN resin, code SUN-A2 or SUN-A3).



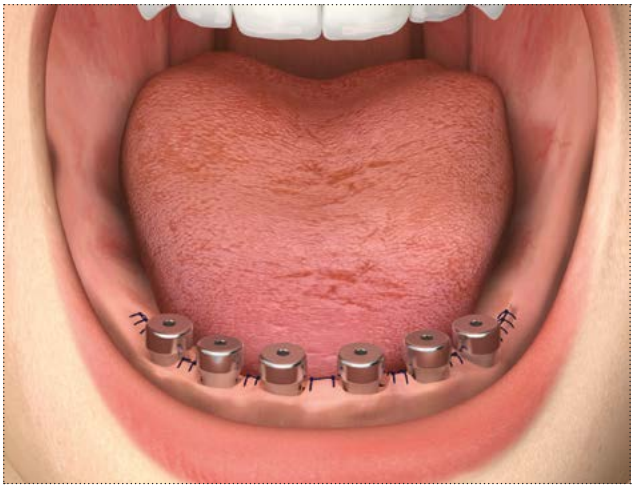
Check that the personalized tray, when placed in the mouth, contains the entire height of the transfers inside its walls, and that the summit of the transfer screws emerges for a suitable length from the respective holes in the tray. Inject a precision impression material (i.e. SKY IMPLANT LIGHT, code SKY14) only around the transfers. Fill the impression tray with a more consistent material (i.e. SKY IMPLANT ONEMIX-ED, code SKY08) along the entire arch.
Then position the tray in situ and wait for the hardening times as indicated by the instructions.





Unscrew the transfer screws and remove them from the impression to prevent them from accidentally falling into the patient's mouth when the impression tray is removed. Remove the tray: the Pick-up transfers remain incorporated in the impression.

Screw the titanium healing caps (code A-PLAIN-CG330) onto the PLAIN abutments using a screwdriver of the HSM series. The tightening torque for PLAIN healing caps on their respective abutments is 8-10 Ncm.

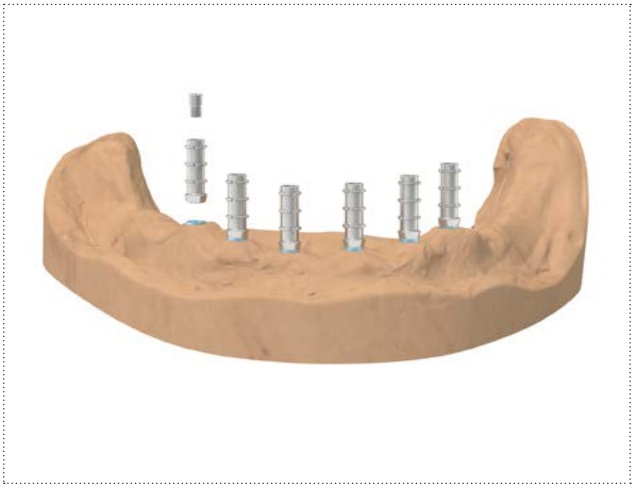


Screw the PLAIN analogs (code A-PLAIN-ANA-*) onto the transfers using the transfer screws, repositioned in the holes left by each screw in the impression material. Develop the model as usual.

Full arch temporary screw retained rehabilitation with PLAIN abutments: luting technique with titanium sleeves

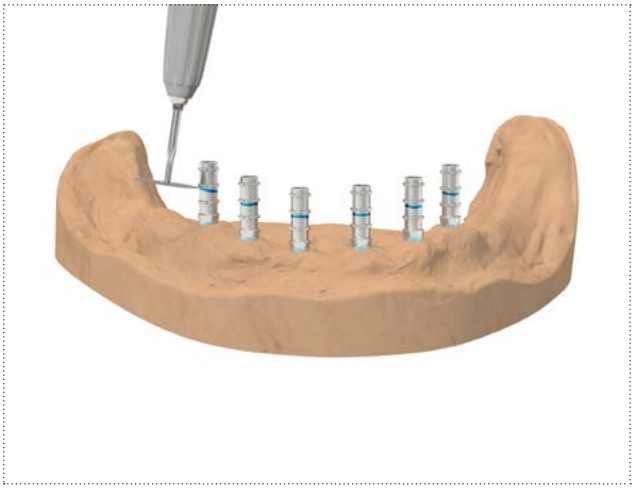
After taking the impression and casting the model according to the procedures previous indicated, screw all the A-PLAIN-CT330 titanium sleeves to the PLAIN abutments by using the A-PLAIN-VP200 fixation screws.

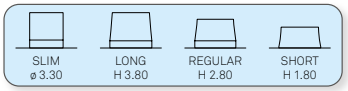
Important warning
During laboratory work, always use spare screws, available in single packs with code A-PLAINVP200 or in packs of 10 pieces with code A-PLAINVP200-10. Use the definitive screws only for final tightening in the patient's mouth.



On the PLAIN titanium sleeves insert a pre-made pierced structure made in the laboratory so as to allow it to slide easily on the body of the sleeves. Mark the palatal and vestibular margin of the temporary structure on both sleeves, then reduce them appropriately.

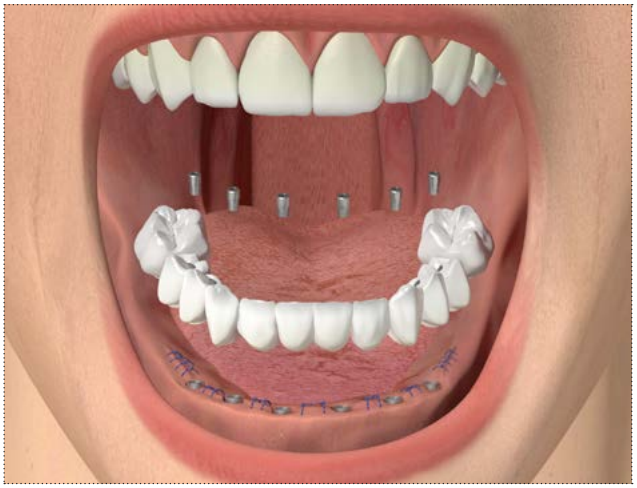
Remove the temporary structure and cut the posts at the height marked, using an abrasive disk.



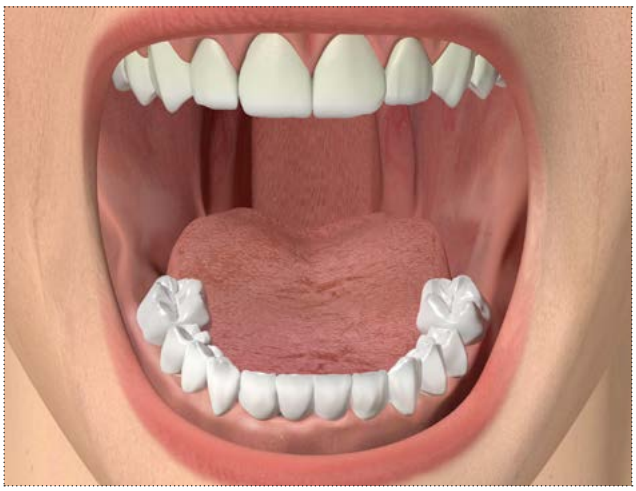


Lute the temporary bridge onto the PLAIN titanium sleeves, waiting for polymerization as indicated by the instructions.

When polymerization is complete, unscrew the temporary prosthesis from the model and tighten it onto the PLAIN abutments, taking care to keep the flaps of soft tissues away from the connection during insertion procedures and suturing them around the emergence of the posts to permit adequate conditioning.
The temporary prosthesis must be tightened on using the specific screws and a screwdriver from the HSM series. A tightening torque of 20-25 Ncm must not be exceeded.



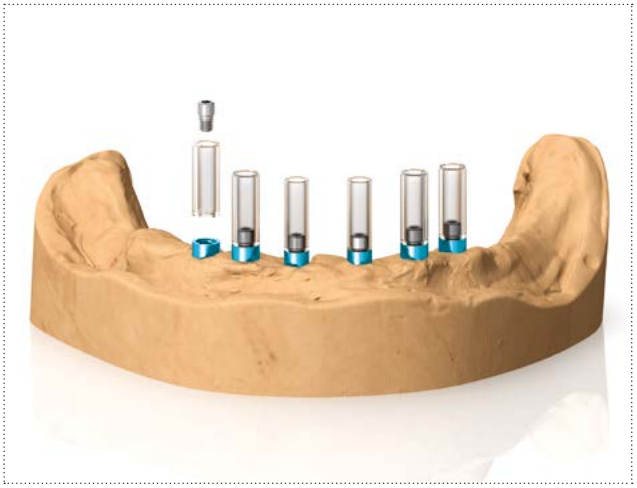
Insert teflon, gutta-percha or soft cement into the screw hole of the PLAIN sleeves and close the top with resin or a composite material.
The temporary prosthesis will help not only to ensure an adequate quality of life for the patient while waiting for the definitive prosthesis, but also the correct conformation of the soft tissues that will later receive the definitive prosthesis with excellent aesthetic results.



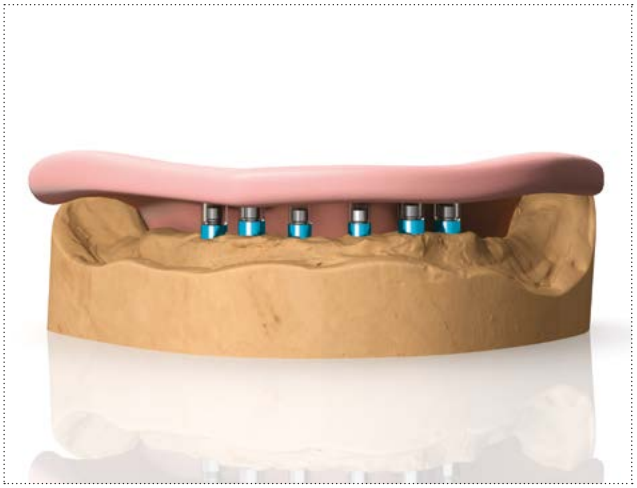
Full arch definitive screw retained rehabilitation with PLAIN abutments: total casting technique with castable sleeves

Screw the castable sleeves onto the PLAIN analogs on the precision model, using the supplied fixation screw A-PLAIN-VP200, leaving them initially at the original length. The recommended torque is 8-10 Ncm.

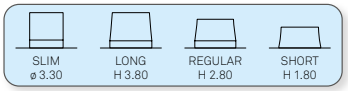
Important warning
It is recommended always to use test screws for the laboratory phases and to keep the new screw supplied for the final fastening in the oral cavity.



Reduce the castable sleeves to a size compatible with the patient's vertical dimension, using the silicone mask obtained from a preassembly or by placing the structure in an articulator in relationship to the space left by the antagonist.



Make a castable structure, which will allow the metal framework of the final prosthesis to be obtained.

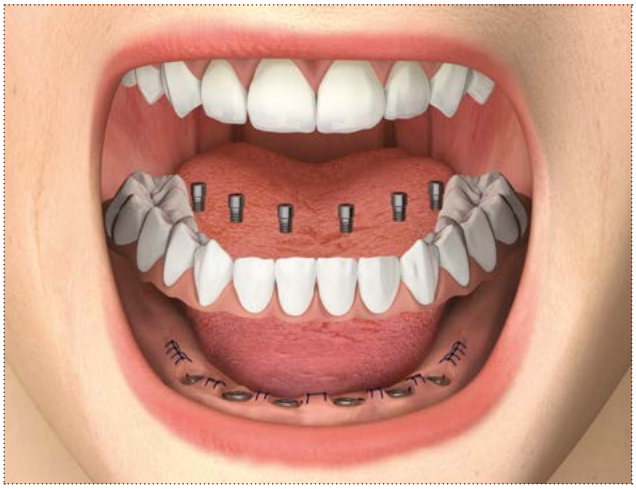


Cast the structure according to the standard protocol.
Test the structure first on the model and then in the patient's mouth, checking for its complete passivity.
The recommended torque for tightening all over-structures onto abutments is 20-25 Ncm.

Important warning
If the structure is not completely passive, even though the normal checking protocol has been followed, adjust it as usual.

Ceramize the final prosthesis as usual.
Remove the over-structure from the model.

Unscrew the PLAIN healing caps and tighten the over-structure on the PLAIN abutments, applying a torque of 20-25 Ncm.
Check for passivation and occlusal relationships.
Preserve the screw heads and cover the screw holes with a removable material.

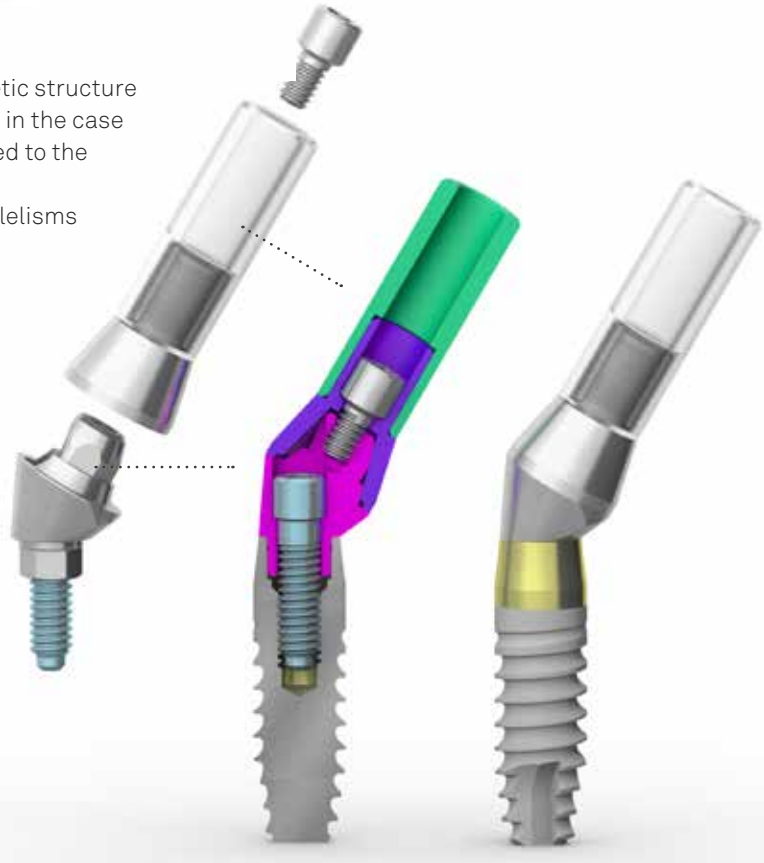


Temporary and definitive rehabilitation with P.A.D. abutments

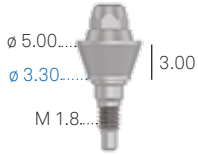
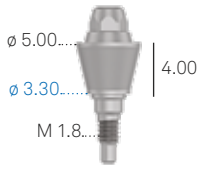
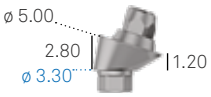
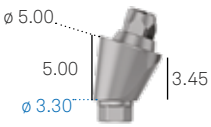
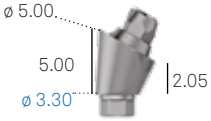
The P.A.D. system has been developed to facilitate the production of multiple screw retained prostheses. The different versions available, with angles of 17° and 30°, make the prosthetic repositioning of connections possible even in case of particularly divergent and disparallel implants. This characteristic is enhanced by an additional 15° cone positioned above the P.A.D. platform, which further facilitates the insertion of multiple structures.
Angled P.A.D. abutments must be transported into the patient's mouth using the specific transfer screw for manual screwing PAD-VTRAL-140-MAN or the PAD-CAR transporter with a transfer screw, also made of titanium, to fix the abutment to the instrument.
Before being used clinically, the components must be sterilized in an autoclave.

The cone on the top of the abutments allows an additional prosthetic correction of 15°

The upper cone allows the prosthetic structure to be up to 15° on each side, which in the case of angled P.A.D. abutments is added to the inclination of 17° or 30°.
This characteristic allows disparallelisms of up to 45° to be easily managed



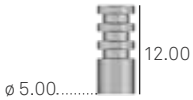
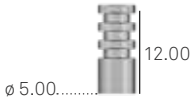
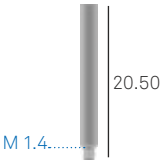
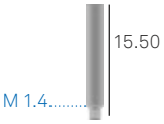
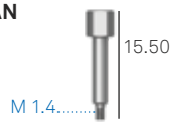
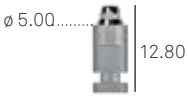
Note: P.A.D.abutments, which close on the implant platform, can be used indifferently with all Prama implant diameters and with all types of necks, Short, Regular and Long.

description	code	
Straight P.A.D. abutments Direct screw retained Transgingival h 1.50 mm	**A-PAD-AD330-15**	
Straight P.A.D. abutments Direct screw retained Transgingival h 3.00 mm	**A-PAD-AD330-30**	
Straight P.A.D. abutments Direct screw retained Transgingival h 4.00 mm	**A-PAD-AD330-40**	
P.A.D. abutment angled at 17° Transgingival h 3.00 mm Fixation screw included	**A-PAD-AA330-173**	
P.A.D. abutment angled at 17° Transgingival h 5.00 mm Fixation screw included	**A-PAD-AA330-175**	
P.A.D. abutment angled at 30° Transgingival h 3.00 mm Fixation screw included	**A-PAD-AA330-303**	
P.A.D. abutment angled at 30° Transgingival h 5.00 mm Fixation screw included	**A-PAD-AA330-305**	
Single pack Pack of 10 pieces Fixation screw for angled P.A.D. Supplied with angled P.A.D. abutments, it can also be ordered separately as a spare	**PAD-VM-180** **PAD-VM-180-10**	
Screwdriver for straight P.A.D. abutments, with hexagonal connector for dynamometric key	**AVV2-ABUT**	
Carrier for transferring angled abutments into the oral cavity, sterilisable and reusable It must be fixed to abutments with the screw PAD-VTRAL-140	**PAD-CAR**	

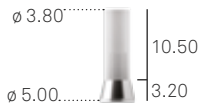
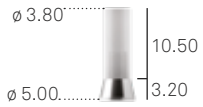
Recommended torque for straight P.A.D. abutments: 25-30 Ncm.
Recommended torque for angled P.A.D. abutments: 20-25 Ncm.

Important warning
It is recommended always to use test screws for the laboratory phases and to keep the new screw supplied for the final fastening in the oral cavity.

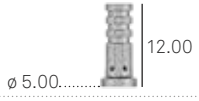
P.A.D. components for over-structures

description	code
Protection caps for P.A.D. abutments in Gr. 5 titanium Fixation screw included (code PAD-VP-140)	**PAD-CG** 
Protection caps for P.A.D. abutments in PEEK Fixation screw included (code PAD-VP-140)	**PAD-CGP** 
Rotating caps in POM for direct impression taking on P.A.D. abutments Non engaging	**PAD-CAP** 
Non rotating caps in POM for direct impression taking on P.A.D. abutment, with hexagon Engaging	**PAD-CAP-EX** 
Pick-up transfer in Gr. 5 titanium for P.A.D. abutments Rotating Long transfer screw included (code PAD-VTRAL-140)	**PAD-TRA** 
Pick-up transfer in Gr. 5 titanium for P.A.D. abutments, with hexagon, non rotating Long transfer screw included (code PAD-VTRAL-140)	**PAD-TRA-EX** 
Spare screw for P.A.D. abutment transfer Supplied with the transfers, it can be ordered separately as a spare	**PAD-VTRAL-140** 
Spare screw for P.A.D. transfers Supplied with transfers and also available separately as a spare	**PAD-VTRA-140** 
P.A.D. transfer screw for manual screwing Not included with transfers, it can be ordered separately	**PAD-VTRAL-140-MAN** 
Analog for P.A.D. abutment in Gr. 5 titanium	**PAD-ANA** 
Castable sleeves in PMMA for P.A.D. abutments, rotating Fixation screw included (code PAD-VP-140)	**PAD-CC** 

Recommended torque for transfer screws: 8-10 Ncm.

description	code
Castable sleeves in PMMA for P.A.D. abutments, with hexagon, non rotating Fixation screw included (code PAD-VP-140)	**PAD-CC-EX** 
Castable posts in PMMA with a pre-made base in gold alloy type “1”, rotating, non engaging, for overcasting on P.A.D. abutments Fixation screw included (code PAD-VP-140)	**PAD-UC** 
Castable posts in PMMA with a pre-made base in cobalt chrome, rotating, not engaging, for overcasting on P.A.D. abutments Fixation screw included (code PAD-VP-140)	**PAD-UCRCO** 
Spare screw for P.A.D. abutment prosthetic components Supplied with all the components for making the over-structure and also available as a spare May also be bought in packs of 10 pieces (code PAD-VP-140-10)	**PAD-VP-140** 

P.A.D. components for relining and luting technique

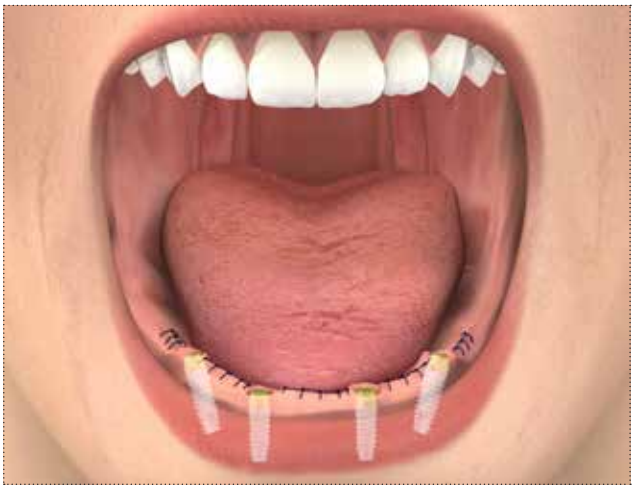
descrizione	codice
Sleeves in PEEK, for P.A.D. abutments, rotating, for the relining of existing prosthesis Fixation screw included (code PAD-VP-140)	**PAD-CP** 
Sleeves in PEEK,for P.A.D. abutments, with hexagon, non rotating, for the relining of existing prosthesis Fixation screw included (code PAD-VP-140)	**PAD-CP-EX** 
Sleeves in Gr. 5 titanium for P.A.D. abutments, rotating, for the relining of existing prosthesis Fixation screw included (code PAD-VP-140)	**PAD-CT** 
Sleeves in Gr. 5 titanium for P.A.D. abutments, with hexagon, non rotating, for the relining of existing prosthesis Fixation screw included (code PAD-VP-140)	**PAD-CT-EX** 
Castable sleeves in PMMA for cementing techniques on Gr. 5 titanium sleeves	**PAD-CCEM** 
Spare screw for P.A.D. abutment prosthetic components Supplied with all the components for making the over-structure and also available as a spare May also be bought in pack of 10 pieces (code PAD-VP-140-10)	**PAD-VP-140** 

Recommended torque for fixing protection caps: 8-10 Ncm.
Recommended torque for securing the prosthetic screws: 15-20 Ncm.
Recommended torque for sleeves in PEEK: 15-20 Ncm.

Important warning
It is recommended always to use test screws for the laboratory phases and to keep the new screw supplied for the final fastening in the oral cavity.

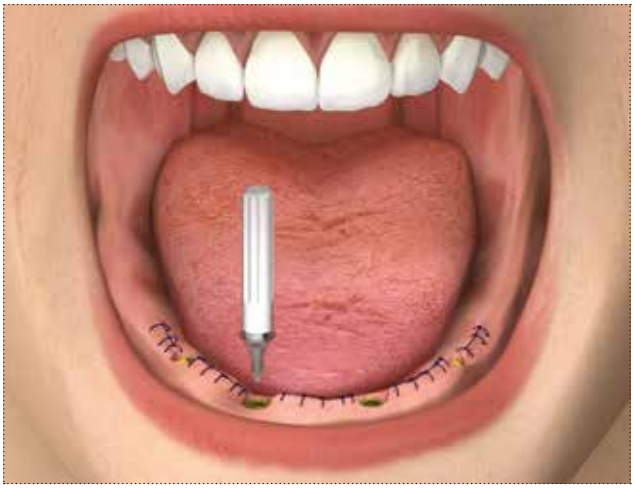
Insertion of straight P.A.D. abutments

The following pages illustrate the insertion of straight and angled P.A.D. abutments.
For purely explanatory purposes, the images show a lower arch with fixtures positioned with the All-on-Four* protocol, so as to illustrate the use of both straight and angled abutments. The same insertion procedures are applicable even if rehabilitation envisages the use of a greater number of implants.

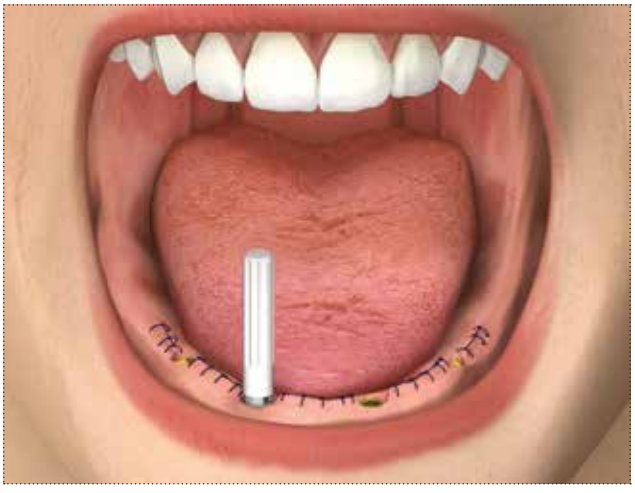


Use the AVV-ABUT-DG abutment carrier supplied to transport straight P.A.D. abutments into the patient's mouth The carrier engages the upper hexagon of the P.A.D. abutment, and it is therefore not necessary to fully insert it to obtain the correct retention.

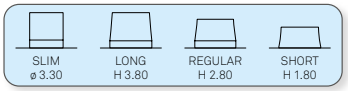
Important warning
Straight P.A.D. abutments are supplied in non-sterile packs. Before being used clinically, titanium abutments only must be sterilized in an autoclave. The AVV-ABUT-DG carrier is made in POM, and can therefore not be sterilized in an autoclave. The carrier must therefore be cold-sterilized before being used to transport an abutment into the patient's mouth.



Insert the P.A.D. abutment into the implant connection, identify the correct engagement between the abutment thread and the socket thread, and screw in for a few turns. Remove the carrier from the P.A.D. abutment with a slight lever movement.



** The name of the "All-on-Four" technique, developed by dr Paulo Maló, is a registered trademark owned by Nobel Biocare.*



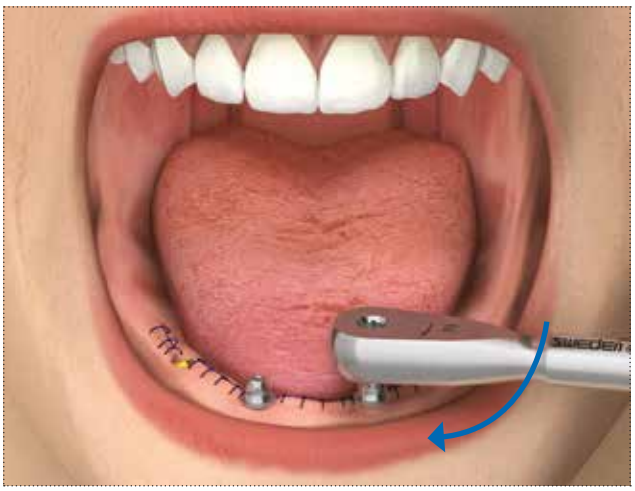
The screwing operation can be completed with the specific hexagonal key (code AVV2-ABUT), which must be purchased separately. This hexagonal key must be connected to the torque-control ratchet (CRI5-KIT).

If necessary, an extension can be used (BPM-15), to be fitted between the hexagonal key and the head of the ratchet.

Important warning
To guarantee the correct operation of instruments, periodic checks must be made to ensure that the retention of the rubber O-rings is adequate, replacing any that may be worn.

To stabilize the working axis of the ratchet and the instruments fitted to it, it is advisable to rest the index finger of the free hand on the ratchet wheel on the head of the ratchet.

Important warning
The maximum tightening torque for straight P.A.D. abutments, when directly screw retained is 25-30 Ncm. As it is difficult to control the insertion torque of prosthetic components manually, the procedure must always be completed using the torque-control ratchet.



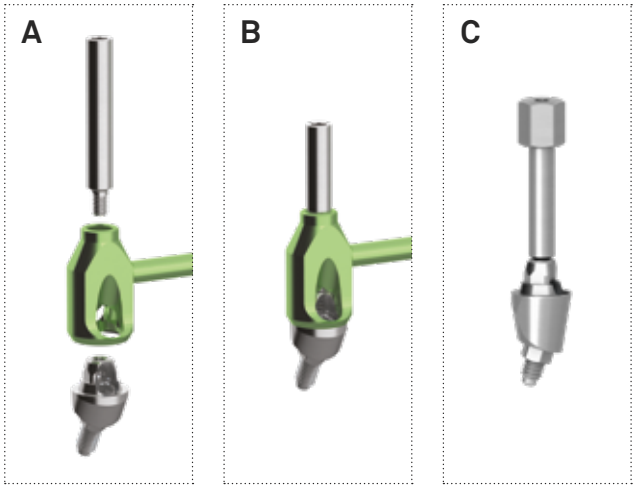
Insertion of angled P.A.D. abutments

Use the HSM-20-DG driver to engage the connection screw (code PAD-VM-* depending on the implant connection): the special design of the instrument makes it possible to exercise a light grip inside the screw head, so that it can be transported and inserted in the hole in the side of the P.A.D. abutment.

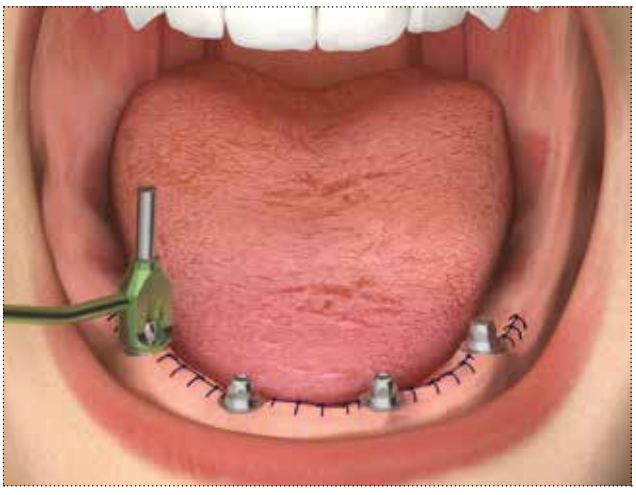
Important warning
Angled P.A.D. abutments must be transported into the patient's mouth using the specific PAD-CAR transporter and a transfer screw, also made of titanium, to fix the abutment to the instrument. Before being used clinically, the components must be sterilized in an autoclave.

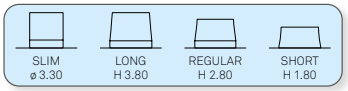
Position the angled P.A.D. abutment in the lower part of its specific carrier (code PAD-CAR), so that the screw hole of the abutment coincides with one of the two side holes in the carrier, depending on the orientation made necessary by the side of the mouth being operated on (**img. A**). Insert the transfer screw in the upper hole of the carrier (code PAD-VTRA-140) and tighten it onto the angled P.A.D. abutment (**img. B**).

Note: the transfer screw is not supplied together with the carrier. It can be ordered separately in a single pack. If there is not sufficient vertical space, the transfer screw for manual screwing PAD-VTRAL-140-MAN can be used as a carrier, without PAD-CAR, screwing it directly into the prosthetic hole (**img. C**).

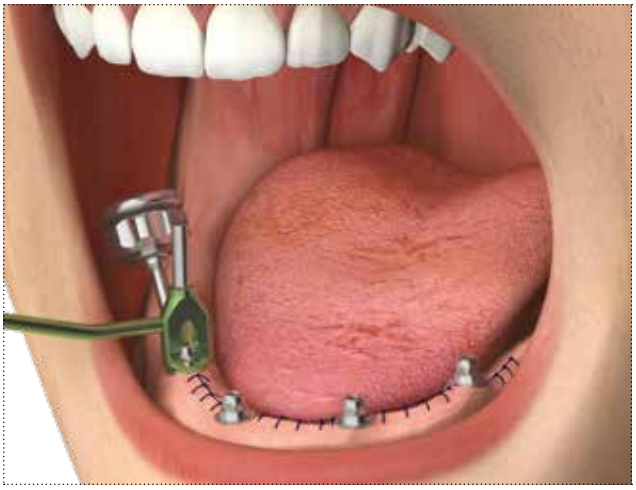


Position the transfer screw-carrier-angled P.A.D. assembly on the implant connection.

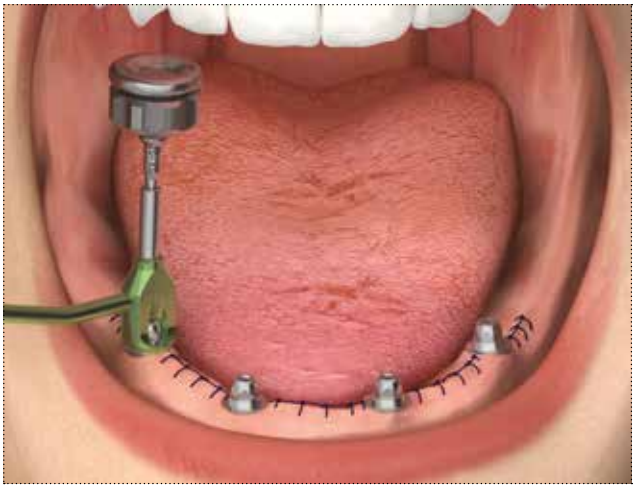




Keeping the abutment in place with the carrier, screw the connection screw fully.

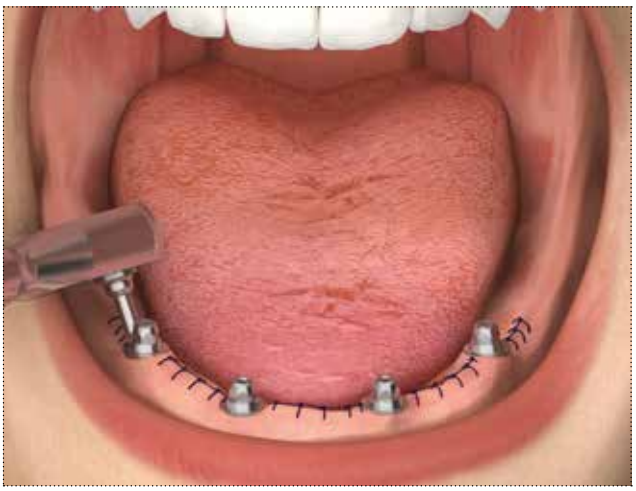


Use the same driver of the HSM series to unscrew the transfer screw, and then extract the carrier.



Check for correct manual tightening torque again fitting a screwdriver of the HSM series into the ratchet (code CRI5-KIT).

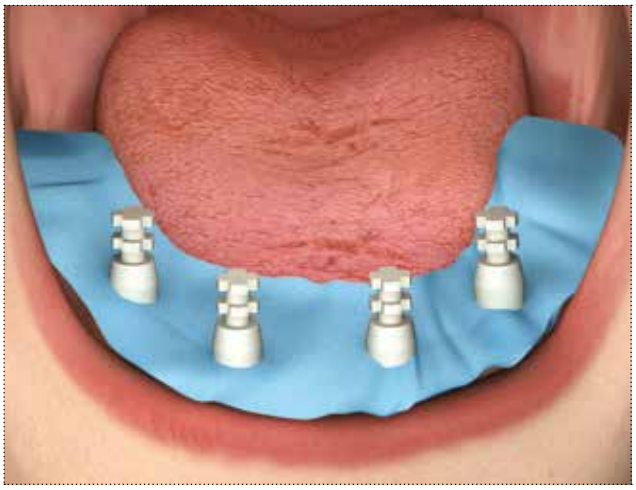
Important warning
The maximum tightening torque for angled P.A.D. abutments, fixed with through screw, is 20-25 Ncm. As it is difficult to control the insertion torque of prosthetic components manually, the procedure should always be completed using the torque-control ratchet. It is advisable to keep the ratchet in a perpendicular position during screwing operations, keeping the index finger of the free hand on the ratchet wheel to prevent swaying movements that could damage instruments and compromise the correct positioning of the abutments.



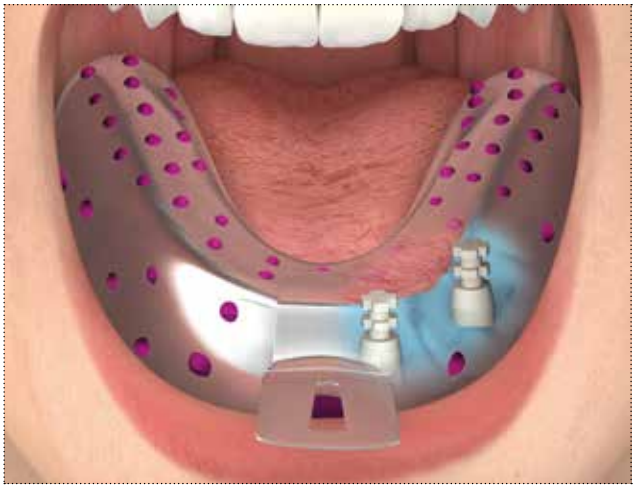
Immediate loading on 4 or 6 implants: luting technique

Impression on P.A.D. abutments with POM caps

After inserting the P.A.D. abutments in the implant connections, insert the POM caps (code PAD-CAP) with a slight pressure for the closed tray technique.
No screws are used, because these caps directly grip the cone of the abutment. They are particularly indicated for cases of slight disparallelism of emergence platforms.



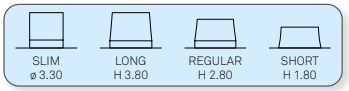
If necessary, reduce the caps to fit the patient's vertical dimension removing one of the two ritentive tabs. Position the closed impression tray on the caps, attempting to avoid lateral movements that may cause them to move accidentally.
Leave the impression material following the manufacturer's instructions, and lift the tray vertically.



If the abutments are not to be immediately loaded and must be protected while they remain in the oral cavity, they can be covered with the specific PAD-CG titanium protection cap (**img. A**), or with the PAD-CGP caps in PEEK (**img. B**), which are smaller and can therefore be more easily hidden by a temporary prosthesis.
These caps must be fitted onto the abutments using the screws provided. The recommended torque for tightening protection caps screws is 8-10 Ncm.

Important warning
Both types of protection cap are sold in non-sterile packs, and they must therefore be sterilized in an autoclave before clinical use, following the instructions given on page 233.

Page references refer to the PDF of the general manual.

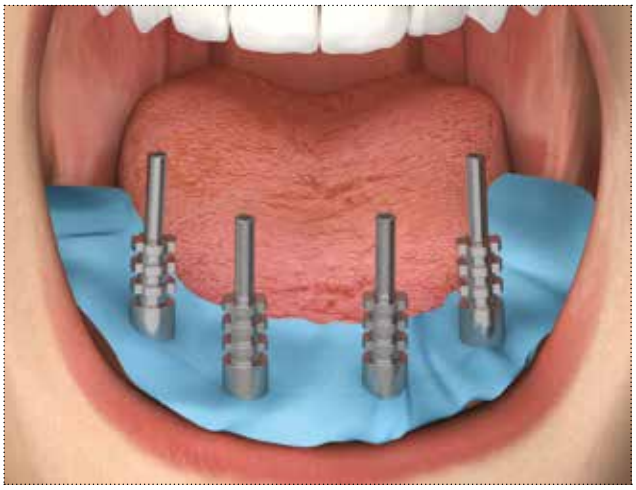


Position the analogs (code PAD-ANA) in the impression tray, engaging them in the rotating caps.

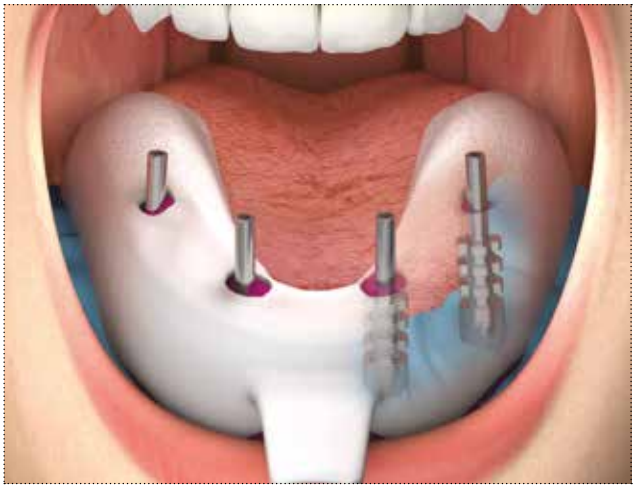
Develop the model as usual.

Impression on P.A.D. abutments with Pick-up transfers

After inserting the P.A.D. abutments into the implant connections, screw the Pick-up transfers with the supplied long screw PAD-VTRAL-140, suitable for taking the impression with an individual open tray.
If desired, fix the transfers together with wire and resin or composite, and wait for polymerization to be completed, as indicated by the manufacturer.

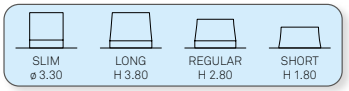


Position the individual open tray on the transfers.
The screw will protrude from the specifically created holes in the individual tray. When the impression material is completely hardened, unscrew the transfer screws and remove the impression tray.



If the abutments are not to be immediately loaded and must be protected while they remain in the oral cavity, they can be covered with the specific PAD-CG titanium protection cap (**img. A**), or with the PAD-CGP caps in PEEK (**img. B**), which are smaller and can therefore be more easily hidden by a temporary prosthesis.
These caps must be fitted onto the abutments using the screws provided. The recommended torque for tightening protection caps screws is 8-10 Ncm.

Important warning
Both types of protection cap are sold in non-sterile packs, and they must therefore be sterilized in an autoclave before clinical use, following the instructions given on page 233.

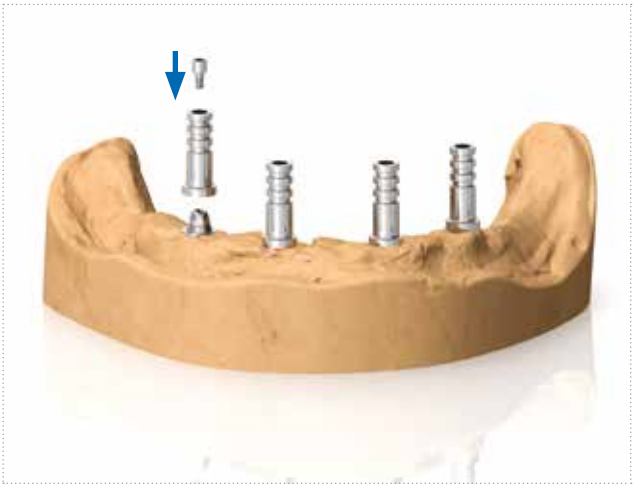


Screw the laboratory analogs (code PAD-ANA) to the transfers and fix the screws replaced in the holes left by them in the impression material.

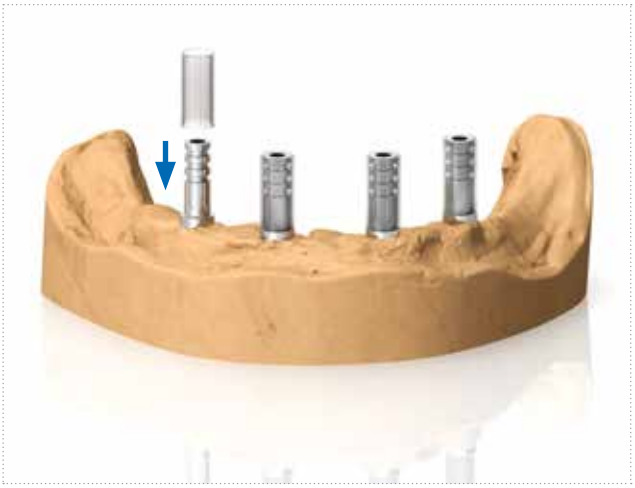
Develop the model as usual.

Production of a prosthesis with a reinforced structure: luting technique

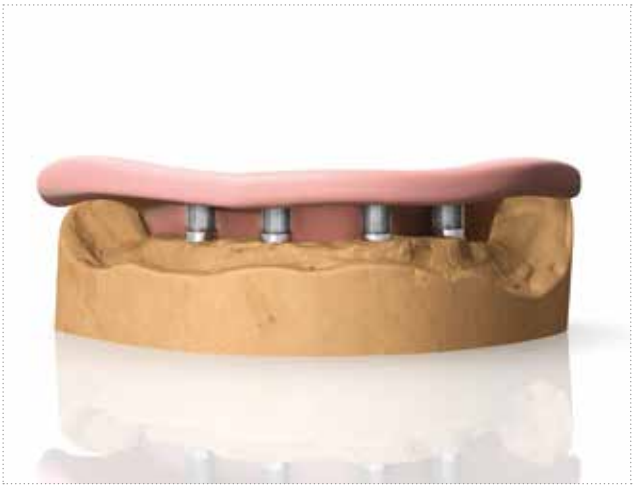
Using the specific screws supplied (code PAD-VP-140), screw on each P.A.D. analog a rotating titanium sleeve (code PAD-CT).

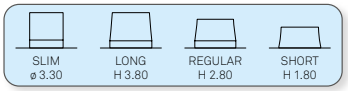


Insert on each titanium sleeve a castable cylinder in PMMA (code PAD-CCEM).



Reduce the titanium sleeves and the castable cylinders to a size compatible with the patient's vertical dimension, using the silicone mask obtained from a preassembly or by placing the structure in an articulator in relationship to the space left by the antagonist.





Model a resin truss that incorporates the castable sleeves.

Remove the structure from the model and proceed with casting or a replica using CAD CAM techniques. The titanium sleeves remain tightened onto the P.A.D. analogs.

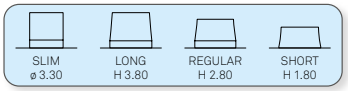
Fabricate the aesthetic part of the prosthesis, as usual. Test the structure first on the model and then in the patient's mouth, checking for its complete passivity.

IN THE SURGERY: invert the temporary prosthesis and insert resin cement between the cast truss and the titanium sleeves.

Fit the temporary prosthesis onto the titanium sleeves, previously replaced in the patient's mouth, and tightened with the respective screws.

Note: take great care to correctly position the titanium sleeves the patient's mouth, following the order of the model, so as to avoid creating discomfort and functional difficulties. Soft tissues can be protected by inserting a suitable shaped rubber dam to prevent sutures from being incorporated in the cement.

Polymerize the cement following the manufacturer's instructions.



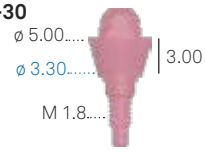
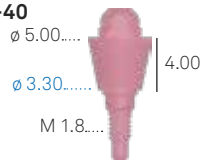
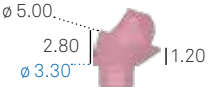
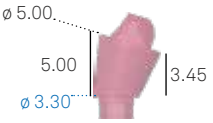
Unscrew the temporary prosthesis and trim the base: the titanium sleeves will remain incorporated by the cement inside the prosthesis, while the P.A.D. abutments will remain tightened onto the implants. After polishing the base, screw the temporary prosthesis onto the P.A.D. abutments with a torque of 20-25 Ncm. Check for occlusal relationships and for the absence of stresses. Preserve the screw heads and close the screw holes with a removable material, such as a composite or a resin. You should also instruct to turn the prosthesis over and fill in any gaps that the cement might have missed on the bottom side of the prosthesis

Important warning
It is recommended always to use test screws for the laboratory phases and to keep the new screw supplied for the final fastening in the oral cavity.

Important warning
For patients already fitted with an overdenture, a temporary prosthesis anchored on implants can be created, using the same PAD-CT titanium sleeves or the version in PEEK (code PAD-CP). In this case, the existing prosthesis must be perforated at the positions of the implants, and then glued/cemented onto these sleeves, relining directly in the patient's mouth. The excess parts of sleeves must then be cut away, to avoid discomfort and functional problems.

Temporary and definitive rehabilitation with P.A.D.r abutments

P.A.D.r abutments are simple to insert, they are short, narrow and with reduced size, particularly suitable in rehabilitation of the partially or totally edentulous arches and in situations of reduced horizontal and vertical spaces.
The P.A.D.r abutment offers to clinician maximum freedom and ergonomics of the over-structure.
The P.A.D.r components are anodized in pink, to make these solutions more mimetic and acceptable by the patient.

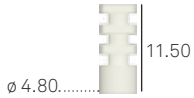
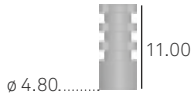
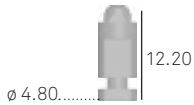
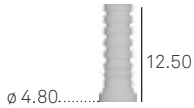
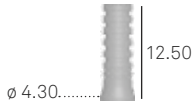
description	code
Straight P.A.D.r abutments, for direct screwing on implants with Collex One connection Transgingival h 1.50 mm Fixation screw included (cod. PADR-VM-180) Transfer incluido (cod. PADR-VTRAL-140)	**A-PADR-AD330-15** 
Straight P.A.D.r abutments, for direct screwing on implants with Collex One connection Transgingival h 3.00 mm Fixation screw included (cod. PADR-VM-180) Transfer incluido (cod. PADR-VTRAL-140)	**A-PADR-AD330-30** 
Straight P.A.D.r abutments, for direct screwing on implants with Collex One connection Transgingival h 4.00 mm Fixation screw included (cod. PADR-VM-180) Transfer incluido (cod. PADR-VTRAL-140)	**A-PADR-AD330-40** 
Angled P.A.D.r abutments for implants with Collex One connection Transgingival h 3.00 mm, angled at 17° Fixation screw included (cod. PADR-VM-180) Transfer incluido (cod. PADR-VTRAL-140)	**A-PADR-AA330-173** 
Angled P.A.D.r abutments for implants with Collex One connection Transgingival h 5.00 mm, angled at 17° Fixation screw included (cod. PADR-VM-180) Transfer incluido (cod. PADR-VTRAL-140)	**A-PADR-AA330-175** 
Angled P.A.D.r abutments for implants with Collex One connection Transgingival h 3.00 mm, angled at 30° Fixation screw included (cod. PADR-VM-180) Transfer incluido (cod. PADR-VTRAL-140)	**A-PADR-AA330-303** 
Angled P.A.D.r abutments for implants with Collex One connection Transgingival h 5.00 mm, angled at 30° Fixation screw included (cod. PADR-VM-180) Transfer incluido (cod. PADR-VTRAL-140)	**A-PADR-AA330-305** 
Single pack Pack of 10 pieces Fixation screw for angled P.A.D.r supplied with angled P.A.D.r abutments, it can also be ordered separately as a spare	**PADR-VM-180** **PADR-VM-180-10** 

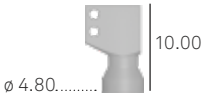
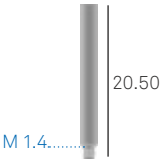
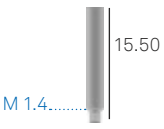
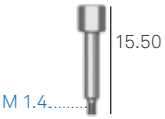
Recommended torque for fixing protection caps: 8-10 Ncm.
Recommended torque for securing the prosthetic screws: 15-20 Ncm.
Recommended torque for sleeves in PEEK: 15-20 Ncm.

Advertencia importante
Les recomendamos que utilicen siempre tornillos de prueba para las fases de laboratorio y que guarden los tornillos nuevos en dotación para la fijación final en la boca.

Page references refer to the PDF of the general manual.

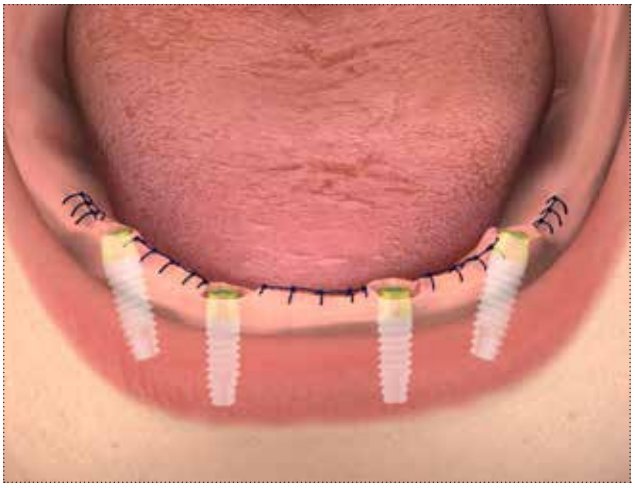
P.A.D.r prosthetic components

description	code
Protection caps in titanium PAD-VP-140 screw included	**PADR-CG** 
Protection caps in PEEK PAD-VCGP-140 screw included	**PADR-CGP** 
Snap-on cap for impression	**PADR-CAP-EX** 
Pick-up transfer, non engaging PAD-VTRAL-140 screw included	**PADR-TRA** 
Analog	**PADR-ANA** 
PEEK sleeve, non engaging PAD-VP-140 screw included	**PADR-CP** 
Titanium sleeve, non engaging PAD-VP-140 screw included	**PADR-CT** 
PMMA castable sleeve	**PADR-CCEM** 
PMMA castable sleeve, non engaging PAD-VP-140 screw included	**PADR-CC** 
Titanium sleeve without shoulder, for aesthetic reconstructions PAD-VP-140 screw included	**PADR-BAS** 
PMMA post with base in cobalt chrome, non engaging PAD-VP-140 screw included	**PADR-UCRCO** 

description	code
Scanbody for intaoral use PAD-VP-140 screw included	**PADR-INT-CAMTRA-L** 
T-Connect non engaging for abutmente P.A.D.r with cone h 4 PAD-VP-140 screw included	**PADR-TC-M-4** 
T-Connect non engaging for abutmente P.A.D.r with cone h 8 and reduction cut PAD-VP-140 screw included	**PADR-TC-M-8** 
T-Connect non engaging for abutment P.A.D.r for angled screw hole PAD-VPA-140 screw not included	**PADR-TCA-M (*)** 
Castable sleeve for T-Connect, non engaging PAD-VP-140 screw included	**PADR-TC-CC-M-8** 
Engaging castable sleeve for T-Connect for angled screw hole PAD-VP-140 screw included	**PADR-TC-CC-S-8** 
Single pack Pack of 10 pcs Spare screwfor components to be used on P.A.D.r abutments	**PAD-VP-140** **PAD-VP-140-10** 
Talladium screw for PADR-TCA-M to use with dedicated screwdrivers DSPDCLH-24 and DSPDCLH-32	**PAD-VPA-140** 
Spare screw for Pick-up transfer, long	**PAD-VTRAL-140** 
Spare screw forPick-up transfer, short	**PAD-VTRA-140** 
Spare screw for Pick-up transfer, for manual screwing	**PAD-VTRAL-140-MAN** 

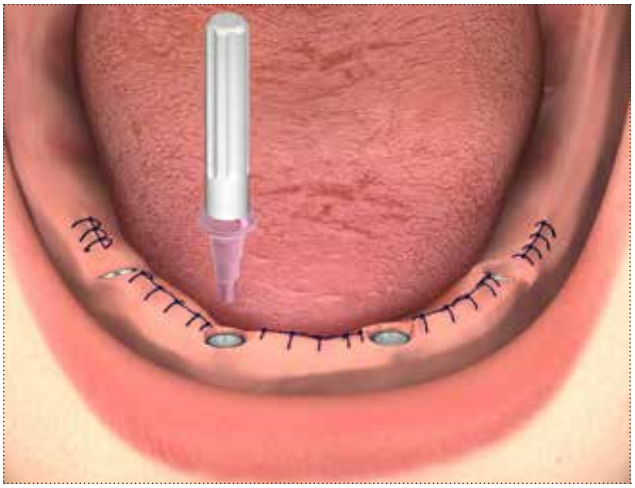
Insertion of straight P.A.D.r abutments

The following pages illustrate the insertion of straight and angled P.A.D.r abutments.
For purely explanatory purposes, the images show a lower arch with fixtures positioned with the All-on-Four* protocol, so as to illustrate the use of both straight and angled abutments.
The same insertion procedures are applicable even if rehabilitation envisages the use of a greater number of implants.

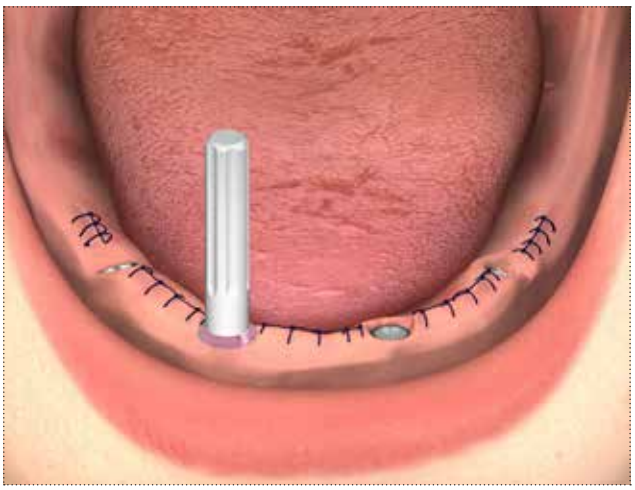


Use the abutment carrier supplied to transport straight P.A.D.r abutments into the patient's mouth. The carrier engages the upper hexagon of the P.A.D.r abutment, and it is therefore not necessary to fully insert it to obtain the correct retention.

Important warning
Straight P.A.D.r abutments are supplied in non-sterile packs. Before being used clinically, titanium abutments only must be sterilized in an autoclave. The carrier is made of POM, and can therefore not be sterilized in an autoclave. The carrier must therefore be cold-sterilized before being used to transport an abutment into the patient's mouth.



Insert the P.A.D.r abutment into the implant connection, identify the correct engagement between the abutment thread and the socket thread, and screw in for a few turns. Remove the carrier from the P.A.D.r abutment with a slight lever movement.



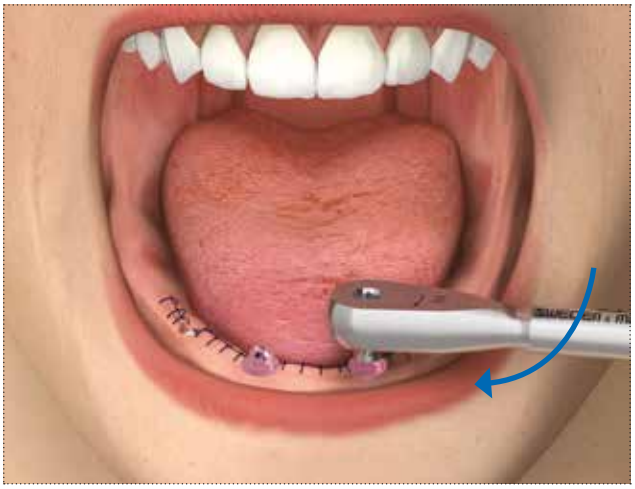
The screwing operation can be completed with the specific screwdriver (code AVV2-ABUT). This driver must be connected to the torque-control ratchet (code CRI5-KIT).

If necessary, an extension can be used (BPM-15), to be fitted between the hexagonal key and the head of the ratchet.

Important warning
To guarantee the correct operation of instruments, periodic checks must be made to ensure that the retention of the O-rubber rings is adequate, replacing any that may be worn.

The maximum tightening torque for straight P.A.D.r abutments, when directly screw retained is 25–30 Ncm. In case of excessive torque there is a risk of deforming the threaded part of the abutment. As it is difficult to control the insertion torque of prosthetic components manually, the procedure must always be completed using the torque-control ratchet.

Important warning
To stabilize the working axis of the ratchet and the instruments fitted to it, it is advisable to rest the index finger of the free hand on the ratchet wheel on the head of the ratchet.

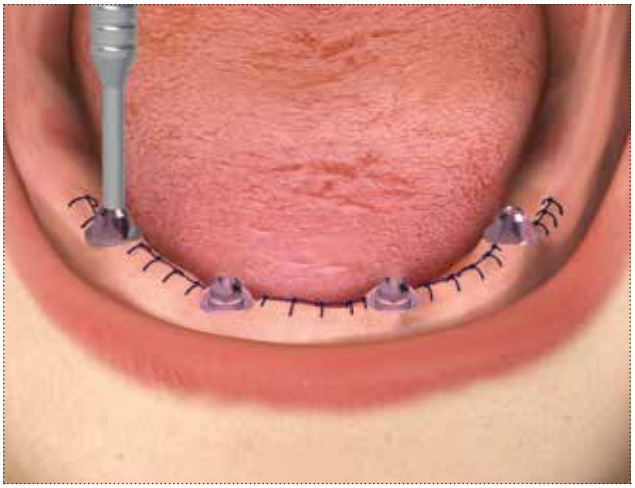


Insertion of angled P.A.D.r Abutments

To carry Angled P.A.D.r abutments inside the mouth, use the PADR-VTRAL-140-M transporter, which is sold already screwed to P.A.D.r.

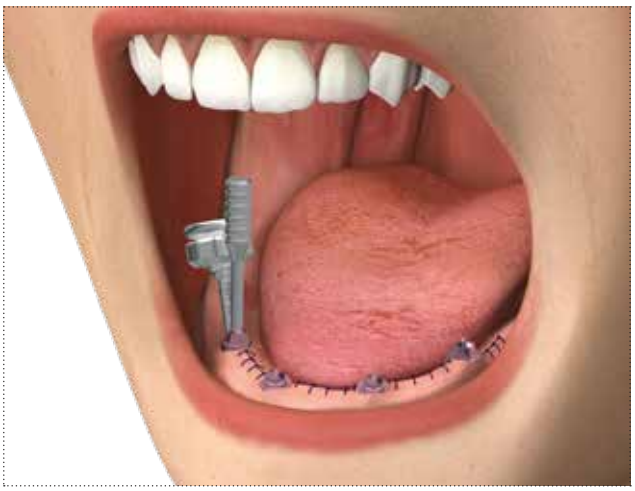
Important warning
Before being used clinically, the components must be sterilized in an autoclave.
It is advisable first to positioning the P.A.D.r in the implant connection and then to proceed with the insertion of the prosthetic screw.

Position the assembly carrier-angled P.A.D.r on the implant connection.



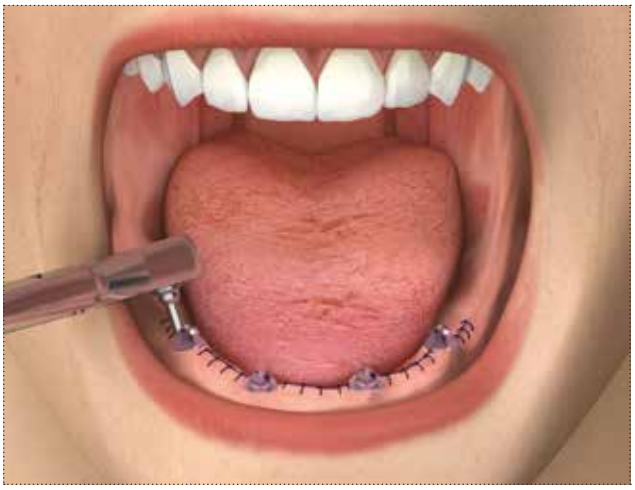
Keeping the abutment in place with the carrier, screw the connection screw fully.

Important warning
If there is a slight contact between the screwdriver and the transporter, just unscrew the transporter slightly and procede.



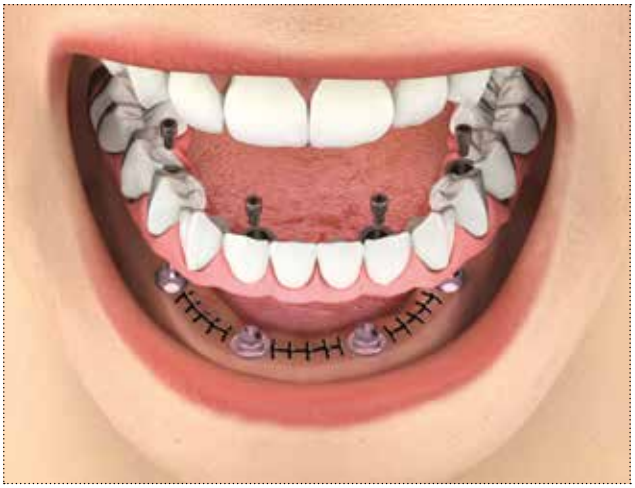
Check for correct manual tightening torque again using the screwdriver (HSM-20-EX) with the ratchet (code CRI5-KIT).

Important warning
The maximum tightening torque for angled P.A.D.r abutments, fixed with through screw, is 20-25 Ncm. As it is difficult to control the insertion torque of prosthetic components manually, the procedure should always be completed using the torque-control ratchet. It is advisable to keep the ratchet in a perpendicular position during screwing operations, keeping the index finger of the free hand on the ratchet wheel to prevent swaying movements that could damage instruments and compromise the correct positioning of the abutments. In case of excessive torque there is a risk of ruining the threaded part of the screw.



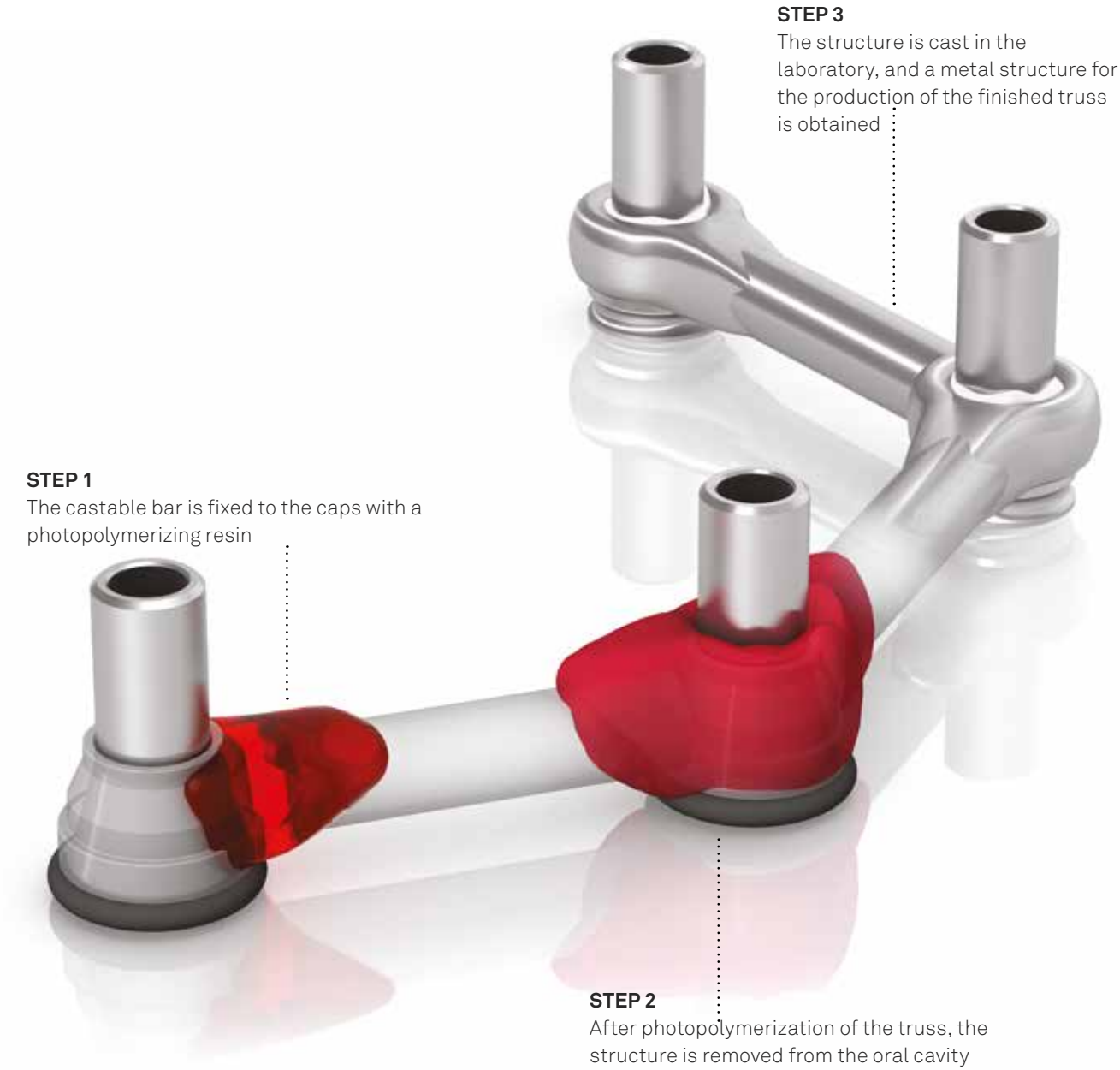
Screw with a 15-20 Ncm torque. the temporary prosthesis on the P.A.D.r abutments with the PAD-VP-140.

Important warning
It is recommended to use new screws for tightening in the mouth.



Immediate loading on 4 or 6 implants: Direct Prosthetic Framework (D.P.F.) technique

D.P.F. components were specifically developed to facilitate impression protocols and the transfer to a laboratory of multiple rehabilitations with P.A.D. abutments, regardless of their number. The intraoral cementation of the metal truss obtained subsequently by casting makes it possible to reduce insertion times for a reinforced temporary prosthesis to 8 hours after the completion of surgery, at the same time conserving all the important requirements of resistance and passivity during the initial phase of implant loading.



STEP 3
The structure is cast in the laboratory, and a metal structure for the production of the finished truss is obtained

STEP 1
The castable bar is fixed to the caps with a photopolymerizing resin

STEP 2
After photopolymerization of the truss, the structure is removed from the oral cavity

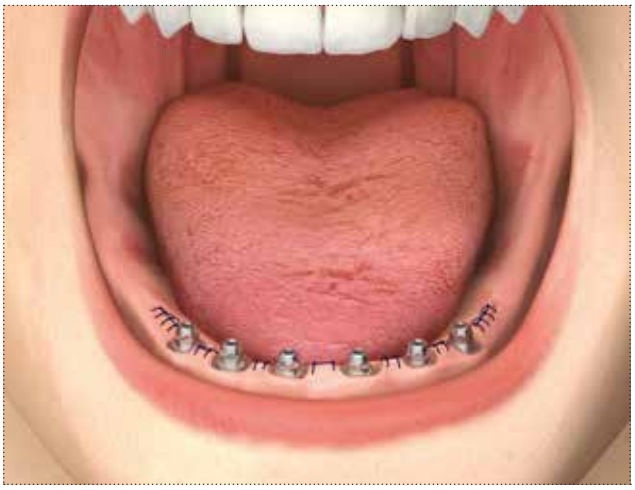
Description	Code
Complete pack of all the prosthetic components for the “D.P.F.” technique on a single P.A.D. abutment The pack includes the titanium sleeve (PAD-CT-LV), the castable centring device (PAD-CC-LV), the anti-escape plug (PAD-TR-LV), the protective O-ring (PAD-ORING-LV) and the fixation screw (PAD-VP-140) recommended screwing: 20-25 Ncm. Also available as a spare.	**PAD-LV** 
Spare titanium sleeve for the “D.P.F.” technique The pack does not include the fixation screw.	**PAD-CT-LV** 
Spare castable centring device for the “D.P.F.” technique.	**PAD-CC-LV** 
Spare anti-escape plug for the “D.P.F.” technique.	**PAD-TR-LV** 
Spare O-ring for the “D.P.F.” technique.	**PAD-ORING-LV** 
Spare screw for P.A.D. abutment prosthetic components Supplied with all the components for the realization of the superstructure is also available as a spare. Also available in packs of 10 pieces (code PAD-VP-140-10).	**PAD-VP-140** 
Castable bar, l 5.00 cm, ø 2.20 mm	**BARC**

Recommended torque for P.A.D. abutments screws: 20-25 Ncm.

Immediate loading on 4 or 6 implants: Direct Prosthetic Framework (D.P.F.) technique

Production of a prosthesis with a reinforced structure

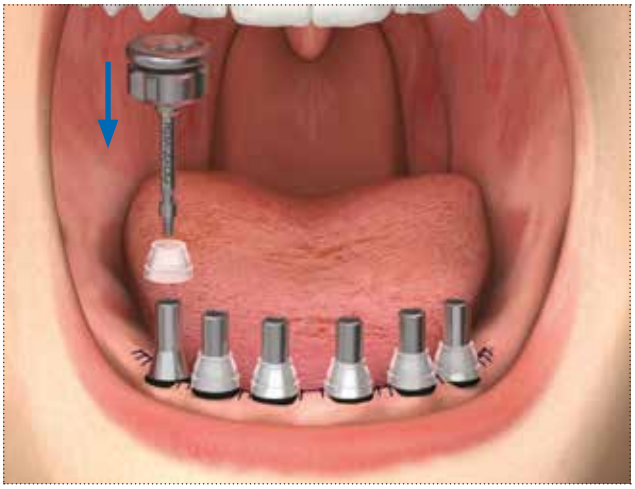
Before suturing the surgical wound, screw a P.A.D. abutment onto every implant, with a suitable transgingival height for the thickness of the patient's soft tissues. Then apply sutures as required by clinical indications.



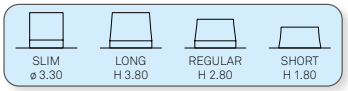
Important warning
Straight P.A.D. abutments are supplied in non-sterile packs. Before being used clinically, they must be sterilized. Abutments are made in titanium, and can therefore be sterilized in an autoclave. The AVV-ABUT-DG carrier is made in POM, and can therefore not be sterilized in an autoclave, but must instead be cold-sterilized before being used to transport an abutment into the patient's mouth.

Push the black O-ring down to the base of the sleeve, until it rests in the groove provided. A probe can be used to facilitate this operation.

Using the specific screw provided, screw a titanium sleeve for the D.P.F. technique (code PAD-CT-LV) fitted with its black O-ring (code PAD-ORING-LV) onto every P.A.D. abutment. Then fit a castable centring device (code PAD-CC-LV) onto every sleeve.

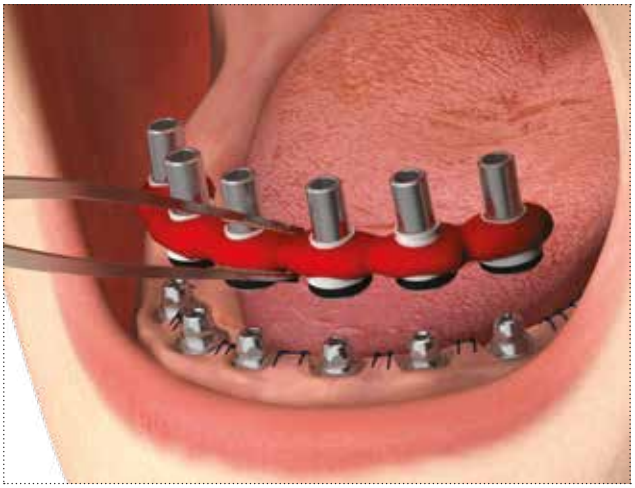


Important warning
Components for the D.P.F. technique are sold in non-sterile packs, with a kit for every single P.A.D. abutment. Every kit contains all necessary components, as indicated on page 139. Before being used clinically, components must be sterilized in an autoclave. It is advisable to also coldsterilize the silicone O-ring and the castable centring device before inserting them in the patient's mouth.



Create a castable resin structure on the PAD-CC-LV elements using preformed segments (code BARC) and a liquid photopolymerizing resin (**img. A**). Finally thicken the truss with another layer of resin (**img. B**).

When polymerization is complete, unscrew the PADVP-140 screws and remove the entire resin structure with the PAD-CT-LV sleeves still inserted.

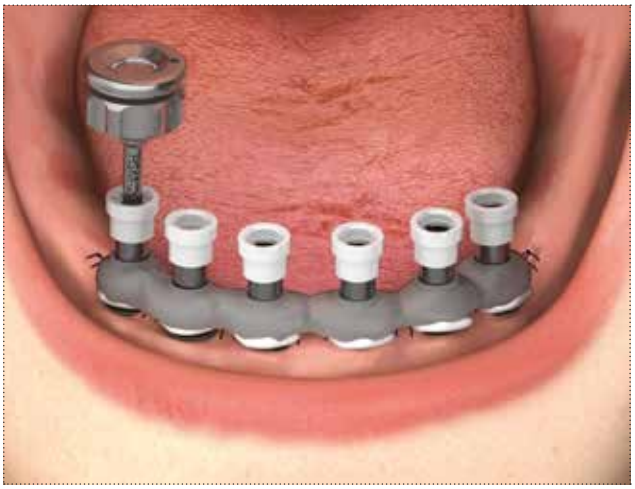


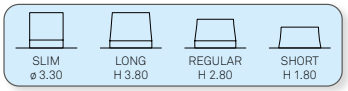
IN THE LABORATORY: if necessary thicken the structure even further. Remove the titanium sleeves and their respective screws before casting the truss.

Cast the structure using the standard protocol.
Test the structure in the patient's mouth, checking for its complete passivity. The recommended torque for tightening all over-structures obtained by casting onto P.A.D. abutments is 20-25 Ncm. Replace the titanium sleeves in the truss, which is kept in the correct position by the specific anti-escape plugs. Insert the PAD-VP-140 screws again from the top of the sleeves, and inject a small quantity of petroleum jelly into the sleeves, to prevent the screws from escaping during transport to the surgery.

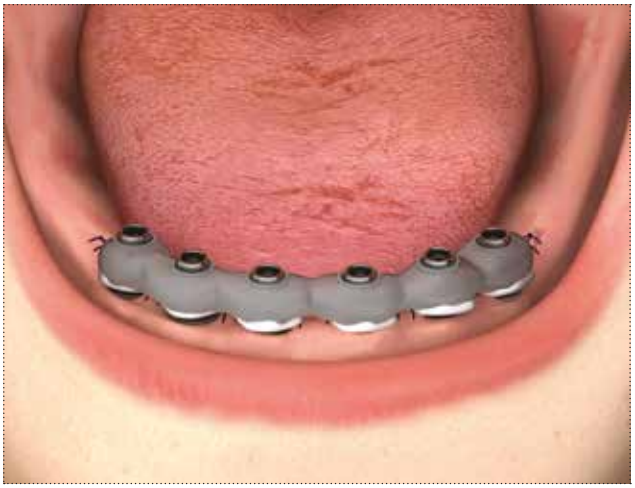
IN THE SURGERY: invert the structure received from the laboratory and insert resin cement resin cement between the cast truss and the titanium sleeves.

Screw the structure onto the P.A.D. abutments with a torque of 20-25 Ncm, and polymerize the cement.

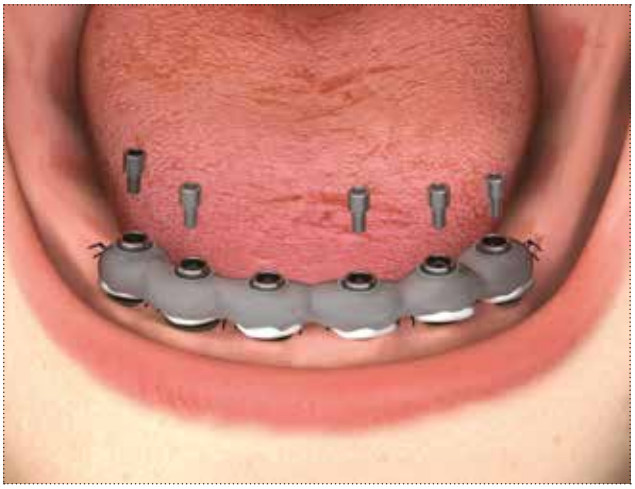




If necessary, the technician can shorten the sleeves to conform to the patient's vertical dimension.

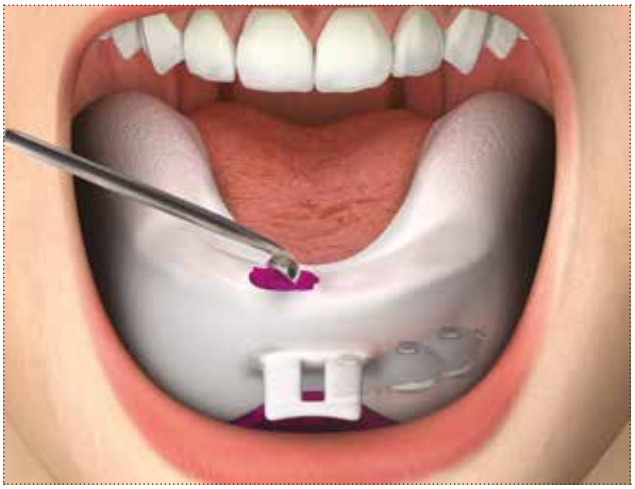


Remove all the PAD-VP-140 screws, except for one in a mesial position.



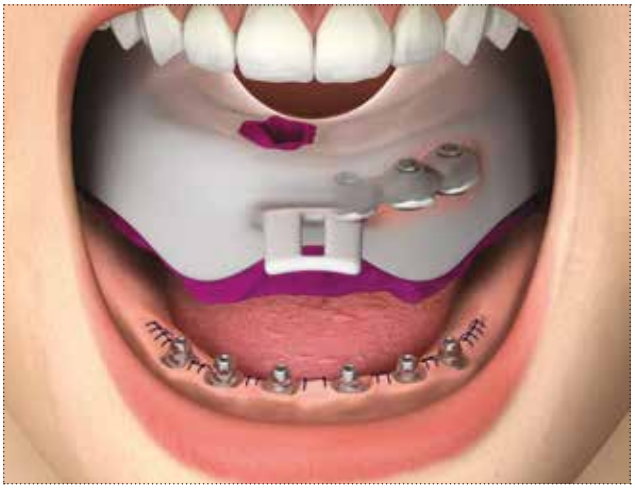
Using an individual tray, perforated at the position of the screw left in place, take an impression that incorporates the cast truss, fixed previously to the titanium sleeves. Then excavate the impression at the position of the screw.

Note: the PAD-VP-140 screw can be substituted with a PADVTRAL-140 transfer screw. In this way, it will no longer be necessary to excavate the impression, but it will be sufficient to unscrew the screw by turning it from the end projecting from the tray.

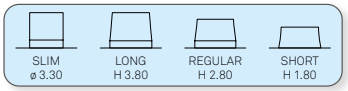


Unscrew the PAD-VP-140 screw or the transfer screw.

Lift the impression tray, inside which the truss will be incorporated.



Position the P.A.D. analogs (code PAD-ANA) in the impression tray, engaging them at the base of the cast structure.



Cast the model and free the truss from the impression, then screwing it back onto the analogues of the P.A.D. abutments.

Produce temporary resin prosthesis using normal methods, and trim the base to ensure greater comfort for the patient.

Screw the temporary prosthesis into the patient's mouth and close the holes with temporary cement.

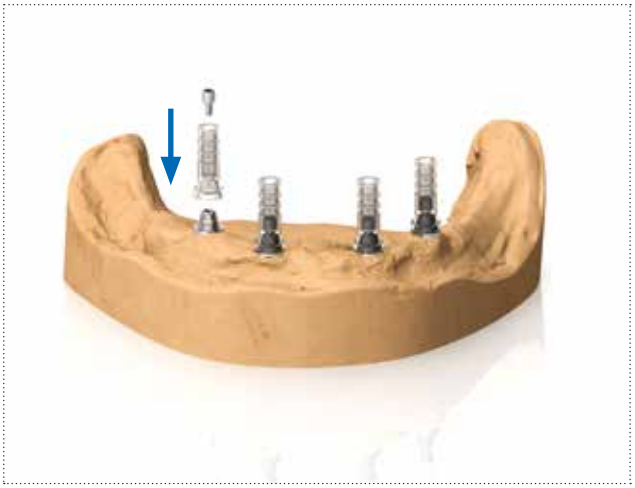
Deferred loading on 4 or 6 implants

Production of a definitive prosthesis by casting or using CAD CAM technique

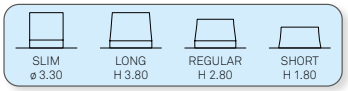
Remove the temporary prosthesis and take a definitive impression on the P.A.D. abutments with Pick-up transfers and an individual tray, following the same procedures indicated on page 36, and then cast the model. Reposition the temporary prosthesis in the patient's mouth.

Screw the castable sleeves (code PAD-CC) onto the abutments. Care must be taken during laboratory work, before casting, to avoid tightening totally castable sleeves onto models with a torque greater than 8-10 Ncm, because polymers are weaker than metal.

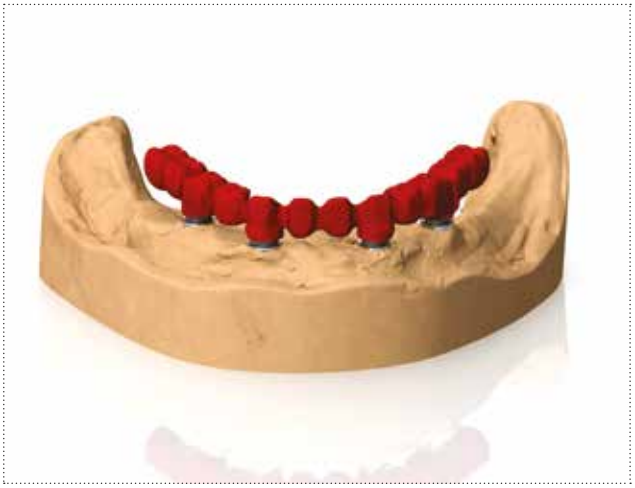
Important warning
During laboratory work, always use spare screws, available in single packs with codes PAD-VP-140. Use the definitive screws only for final tightening in the patient's mouth.



Reduce the castable sleeves to a size compatible with the patient's vertical dimension, using the silicone mask obtained from a preassembly or by placing the structure in an articulator in relationship to the space left by the antagonist.

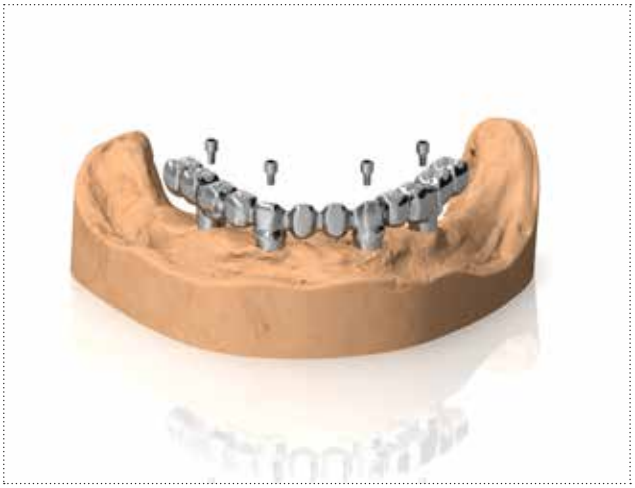


Make a castable structure, which will allow the metal framework of the final prosthesis to be obtained. Starting from the same wax-up, the structure can also be produced by duplication using CAD CAM technology.



Cast the structure or fabricate it by using CAD CAM technology. Test the structure first on the model and then in the patient's mouth, checking for its complete passivity.

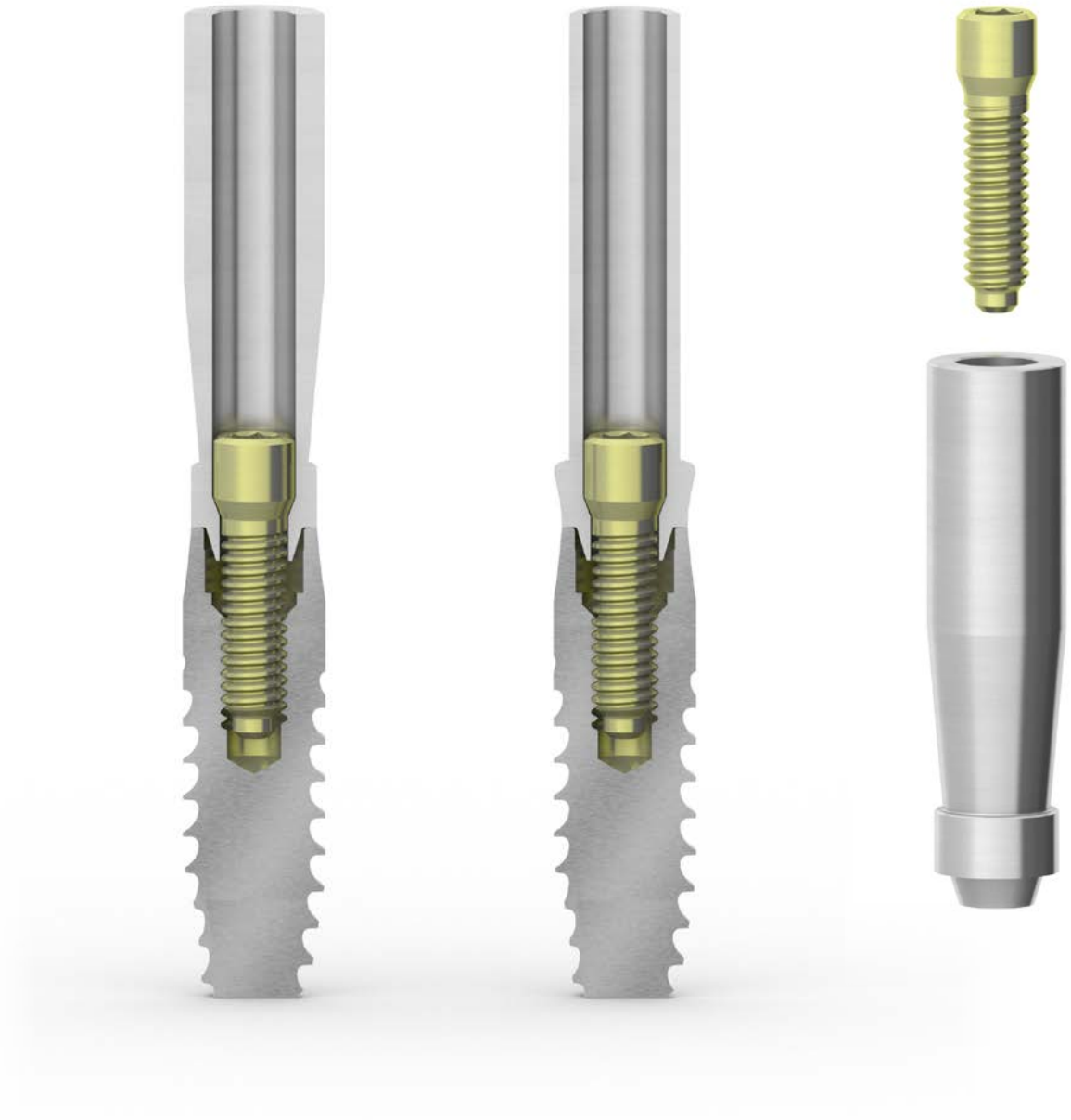
Important warning
If the structure is not completely passive, even after following the normal checking protocol before casting, adjust it as usual.



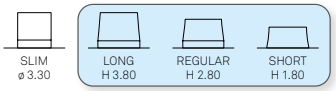
Ceramize the definitive prosthesis as usual, and tigthen it onto the P.A.D. abutments in the patient's mouth Preserve the screw heads and close the screw holes with a removable material, such as composite or a resin. The recommended torque for tightening all over-structures obtained by casting onto abutments is 20-25 Ncm.

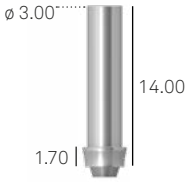
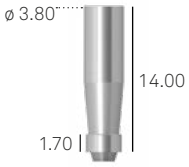
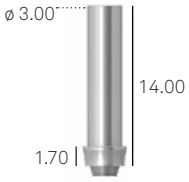
Temporary rehabilitation with sleeves for multiple screw retained structures

These sleeves have been developed to be used in cases of multiple screw retained prostheses, since thanks to their length guarantee an excellent support to the prosthesis.
The sleeves are available in cobalt-chrome and Gr. 5 titanium, making it possible to fabricate prostheses using various techniques such as casting, overcasting, luting and welding.
In order to tighten these sleeves, screws with conical support must be used, or alternatively screws with Full Head technology, in the table in the next page.



Note: the posts for luting technique, which close on the implant platform, can be used indifferently with all the diameters of the Prama implants and with all types of necks, Short, Regular and Long.



description	code
Gr. 5 titanium sleeves Non engaging H 14.00 mm Straight emergence Fixation screw with conical support included	**L-CT-340-ROT** 
Gr. 5 titanium sleeves Non engaging H 14.00 mm Anatomical emergence Fixation screw with conical support included	**L-CTR-340-ROT** 
Cobalt-chrome sleeves Non engaging H 14.00 mm Straight emergence Fixation screw with conical support included	**L-CCRCO-340-ROT** 
Cobalt-chrome sleeves Non engaging H 14.00 mm Anatomical emergence Fixation screw with conical support included	**L-CCRCOR-340-ROT** 
Single pack Pack of 10 pieces Fixation screw with conical support Supplied with sleeves, it can also be ordered separately as a spare	**L-VMS-180** **L-VMS-180-10** 
Single pack Pack of 10 pieces Full Head screw Not supplied with sleeves, available optionally*	**L-VM-180** **L-VM-180-10** 

Recommended torque for titanium sleeves: 20-25 Ncm.

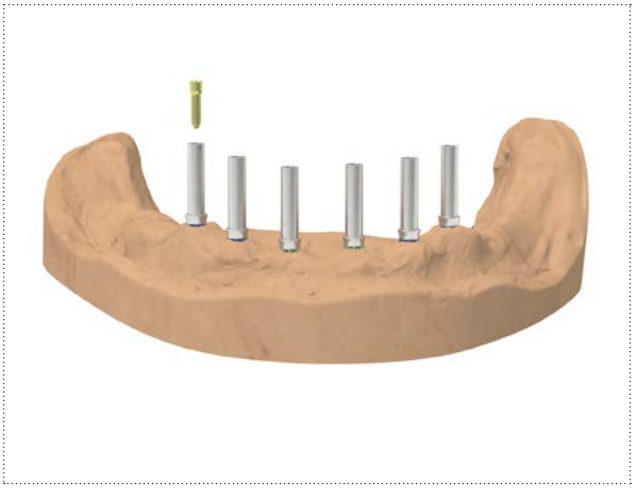
**The fixation screws with Full Head technology (L-VM-180) must be tightened with the appropriate drivers for screws with Full Head technology contained in the Prama surgical kit.*

Important warning
It is recommended always to use test screws for the laboratory phases and to keep the new screw supplied for the final fastening in the oral cavity

Important warning
It is recommended not to use standard fixation screws (code VM2-180) with these posts because standard screws do not have the conical support, so they do not interface exactly with the seat of the screw head inside these prosthetic components. Failure to observe this warning leads to the risk of unscrewing or breaking of the screw.

Temporary full arch rehabilitation with sleeves for multiple screw retained structures: luting technique

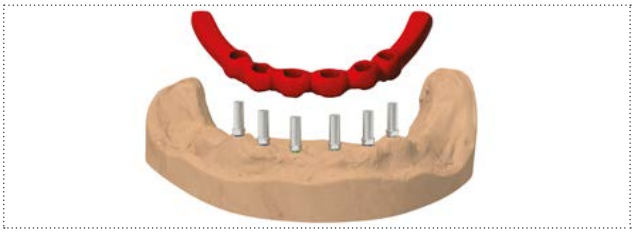
Starting from the precision model, tighten a sleeve on each analog with the supplied screw by using a screwdriver of the HSM series.

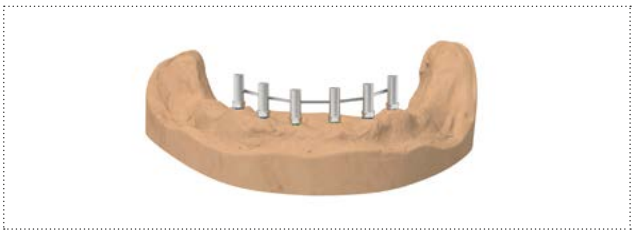


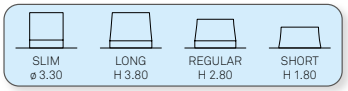
Reduce the sleeves to a size compatible with the patient's vertical dimension, using the silicone mask obtained from a previous assembly or by placing the structure in an articulator in relation to the space left by the antagonist.

Make a castable structure, which will allow the metal framework of the final prosthesis to be obtained.

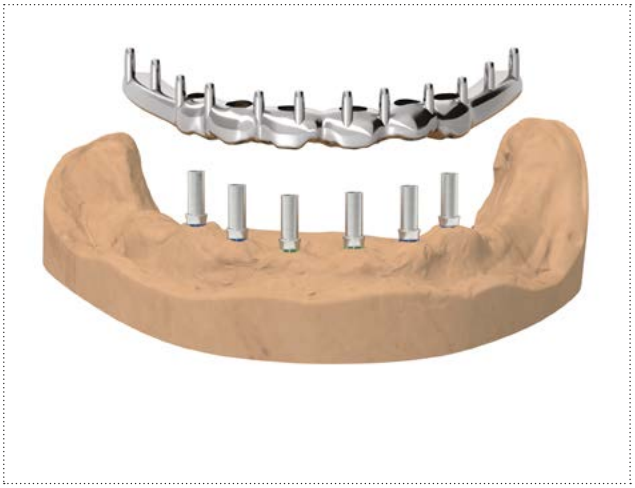
Note: *If necessary, it is possible to product a reinforced structure by extraoral welding of the sleeves using one of the various methods of welding.*





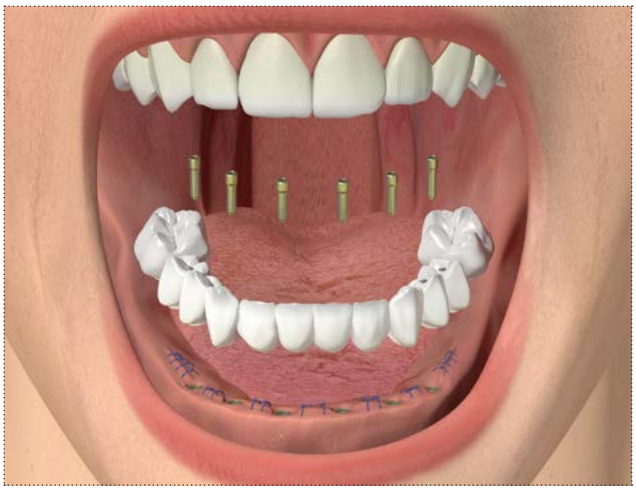


Cast the previously modelled structure around the sleeves. Test the truss on the model to check that there is no roughness that could obstruct correct positioning on the posts, and correct it if necessary with a drill.



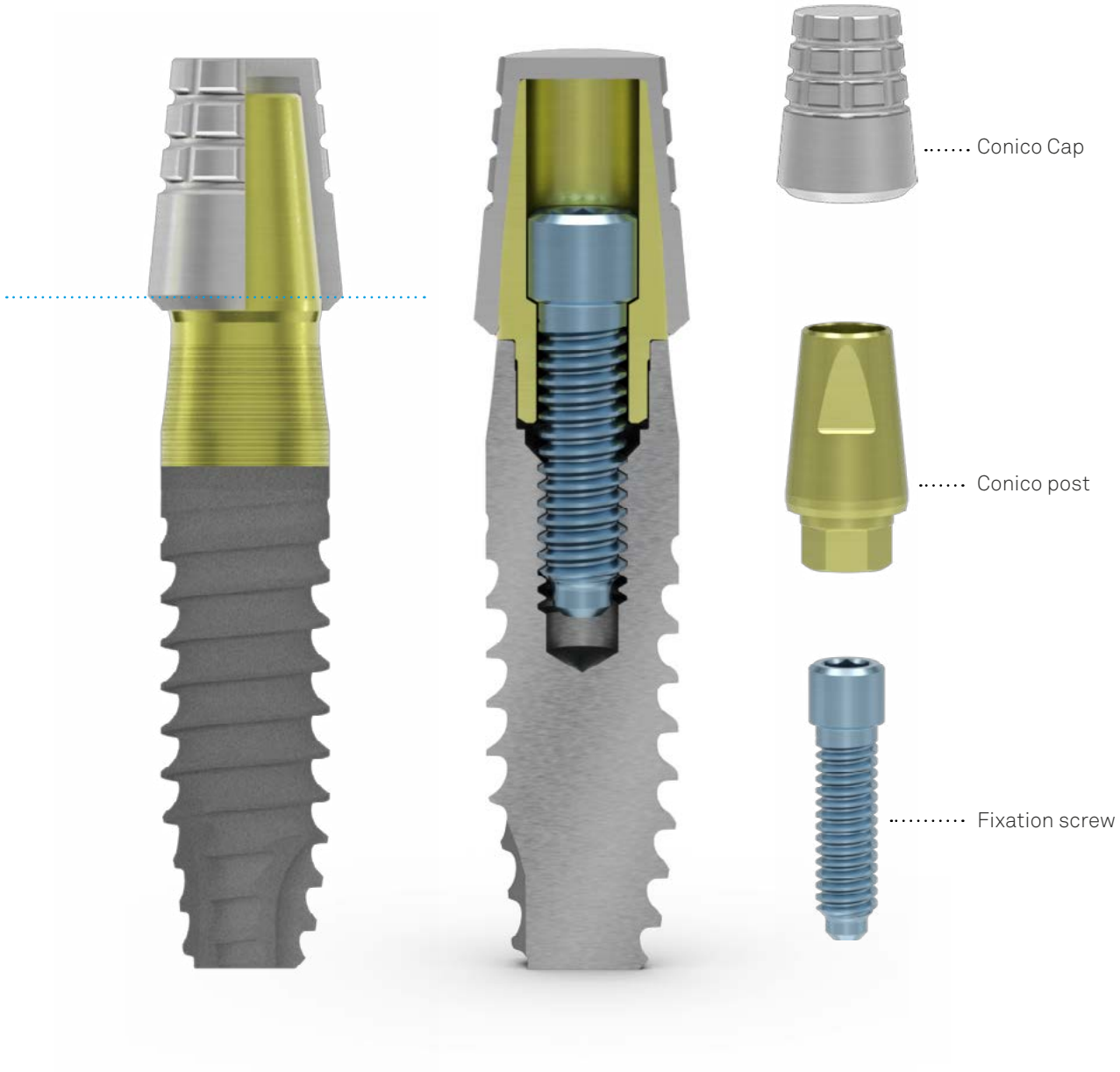
Include the cast or welded structure inside a temporary resin prosthesis loaded in an adequate manner to ensure the patient's comfort.

When polymerization is complete, unscrew the temporary structure from the model and tighten it onto the implants, taking care to keep the flaps of the soft tissue away from the connection during insertion procedures and suturing them around the emergence of the posts to allow adequate conditioning. The temporary structure must be tightened on using a driver from the HSM series. A tightening torque of 20-25 Ncm must not be exceeded.



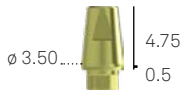
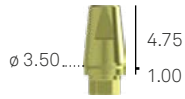
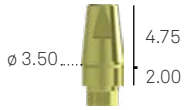
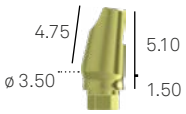
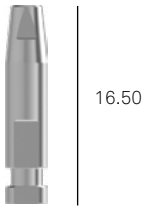
Definitive rehabilitation with conometric prosthesis Conico

Conico system allows to obtain a fixed implant-supported prosthesis without the use of cement or fixing screws between the abutment and the prosthesis, and at the same time easily removable by the clinician.
The conometric prosthesis is to be considered a fixed prosthesis, like the screwed and cemented solutions and contains the advantages of both: revisability and absence of cement of the screwed prostheses and aesthetics and absence of holes in the occlusal area of the cemented prostheses. Furthermore, the ease of removal allows a correct maintenance of the health of the peri-implant tissues, with a considerable saving of time and costs for both the patient and the technician.
Conico system includes a series of caps that allows the conometry to be exploited both in the case of immediate and deferred loading, also in combination with intraoral welding techniques.



Note: posts for the Conico technique, which close resting on the implant platform, can be used indifferently with all Prama implant diameters and with all types of necks, Short, Regular and Long.

Straight and angled posts

ø prosthetic component	ø 3.30 mm	
Straight Conico Posts Repositionable Transgingival h 0.50 mm Fixation screw ncluded	**A-MD-TS-330-05**	
Straight Conico Posts Repositionable Transgingival h 1.00 mm Fixation screw ncluded	**A-MD-TS-330-10**	
Straight Conico Posts Repositionable Transgingival h 2.00 mm Fixation screw ncluded	**A-MD-TS-330-20**	
Straight Conico Posts Repositionable Transgingival h 3.00 mm Fixation screw ncluded	**A-MD-TS-330-30**	
Conico angled posts at 7.5° Repositionable Transgingival h 2.00 mm Fixation screw ncluded	**A-MA07-TS-330-2**	
Conico angled posts at 15° Repositionable Transgingival h 2.00 mm Fixation screw ncluded	**A-MA15-TS-330-2**	
Conico angled posts at 22.5° Repositionable Transgingival h 2.00 mm Fixation screw included	**A-MA20-TS-330-2**	
Single pack Pack of 10 pieces Standard fixation screw Suppliedcwith posts and it can also be ordered separately as a spare	**VM2-180** **VM2-180-10**	
Cap per partial fixed prosthesis or full arch	**CAP2-TS-DEF**	
Anti-rotation cap for single element	**CAP2-TS-IND**	
Transfer cap in PEEK for model on Conico abutment	**CAP2-TS-IMP**	
Conico analog post	**ANA2-MD-TS**	

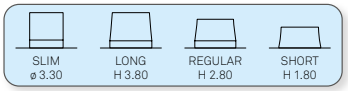
Recommended torque for Conico posts: 20-25 Ncm.

Impression and model with One Abutment-One Time technique

At the time of uncovering or, if there are the requirements for immediate loading, at the end of the surgery, place the Conical abutment of the transgingival height and/or desired angulation on the implant.
Insert the PEEK cap (code CAP2-TS-IMP) on the post with light manual pressure.

Choose a tray of adequate size, so that the entire vertical dimension of the cap and abutment is contained within the walls of the impression tray.
Inject a precision impression material (SKY IMPLANT LIGHT, code SKY14) around the cap.
Fill the impression tray with more consistent impression material (SKY IMPLANT ONEMIX-ED, code SKY08) throughout the arch.

Then place the spoon *in situ* and wait for the hardening times according to the instructions.



Vertically remove the impression tray: the PEEK cap will remain firmly embedded in the hardened material, while the abutment will remain screwed to the implant.

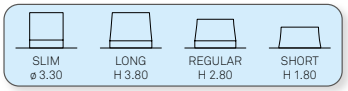
Reposition the analog of the conical abutment inside the cap and send the impression to the laboratory.
Develop the model as usual.

Single definitive rehabilitation with conometric technique

On the precision model, place the indexed conometric cap (code CAP2-TS-IND) on the analog with the help of the repositioning face and activate the conometry by exerting a vertical force on the head of the cap.

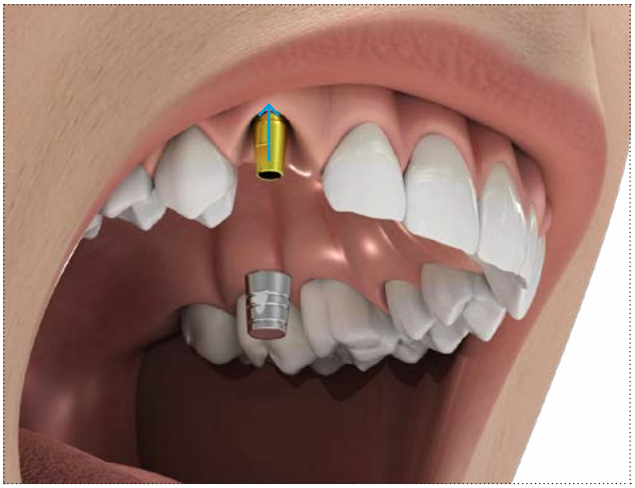
Perform a crown wax-up by placing a laboratory spacer as usual to passivate the definitive prosthesis and allow subsequent gluing. The coping will be in direct contact with the structure only on the flat occlusal surface to allow a precise reset of the structure both on the model in the laboratory and in the various intraoral trial phases.

Melt or duplicate with CAD CAM technology only the crown made of wax or resin, leaving the conical cap on the model.



Finish the crown base and proceed with veneering.
Do not yet proceed with luting technique the crown onto the coping.

Insert the definitive conometric cap (code CAP2-TS-IND) on the post with the help of the repositioning face and activate the conometry with a slight manual pressure.



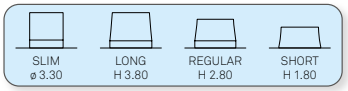
Glue the ceramic-coated crown to the coping: for this purpose it is useful to apply a thin layer of primer such as ZPrime inside the crown, before proceeding with the cementation with BisCem.
Once activated, the conometric retention of the cap is constantly maintained, also thanks to the occlusal contact, avoiding the possibility that the crown comes off or that the patient can remove it indipendently.

Multiple definitive rehabilitation with conometric technique

Place the caps on the precision model (code CAP2-TS-DEF) in titanium on the analogs with manual pressure and activates the conometry by exerting a vertical force on the head of the caps.

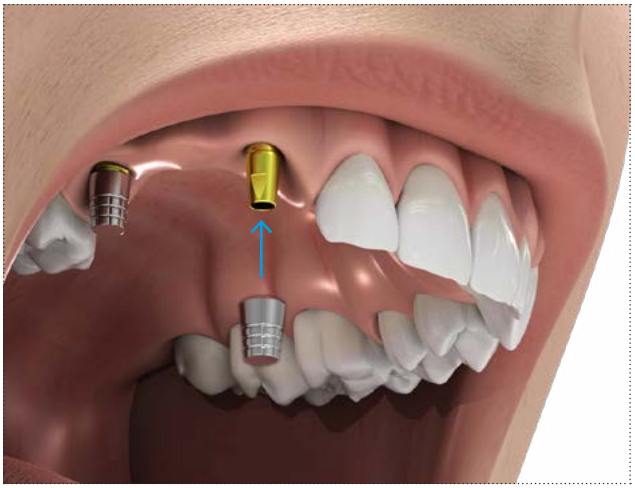
Perform a wax-up of the structure by placing a laboratory spacer as usual to passivate the final prosthesis and allow the subsequent gluing of the copings.
The copings will be in direct contact with the structure only on the flat occlusal surface to allow a precise reset of the structure both on the model in the laboratory and in the various phases of intraoral try-in.

Melt or duplicate with CAD CAM technology only the structure made of wax or resin, leaving the Conical copings on the model.

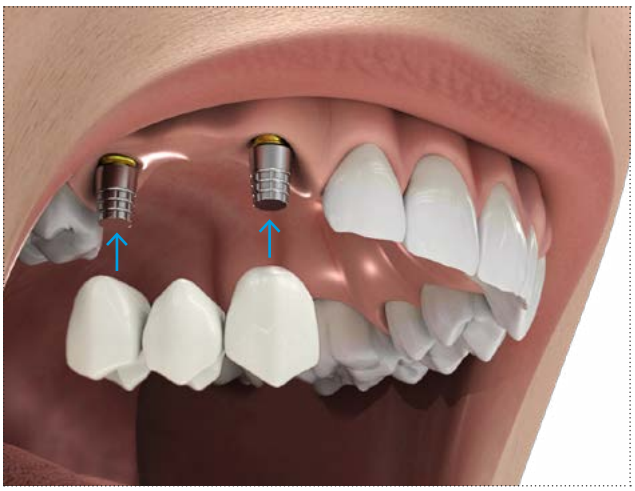


Refine the base of the framework and proceed with veneering. Do not proceed with luting technique the structure on the copings yet.

Insert the final conometric cap (code CAP2-TS-DEF) on each abutment and activate the conometry with a light manual pressure.



Glue the veneered framework to the copings:
for this purpose it is useful to apply a thin layer of primer such as ZPrime inside the structure, before proceeding with cementation with BisCem.
Once activated, the conometric retention of the caps is constantly maintained thanks to the occlusal contact, avoiding the possibility that the structure comes off or that the patient can remove it autonomously.

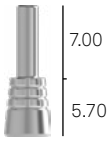
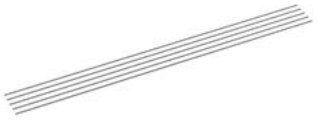
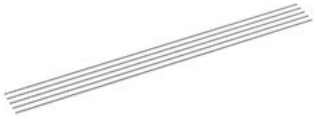


Caps for special needs

Caps for the rimotion of CAP2-TS-REM: to be used exclusively in particular conditions of multiple rehabilitation or full-arch structures, in case of patients with parafunctions. The presence of an internal thread makes it possible to engage a screw with M2 thread inside it (eg screw code VM2-200) in order to deactivate the conometry and consequently remove the prosthesis.

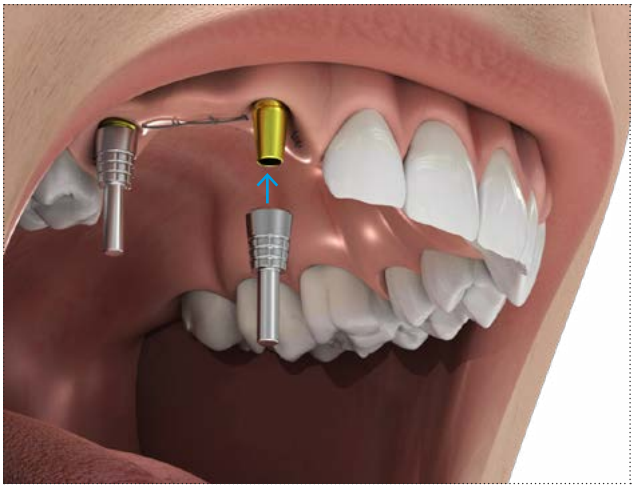
Caps for intraoral welding CAP2-TS-PIN: the pin allows the caps to be solidified with intraoral welding in immediate loading procedures, avoiding the risk of fusion between the cap and the post.

Components for conometry with intraoral welding

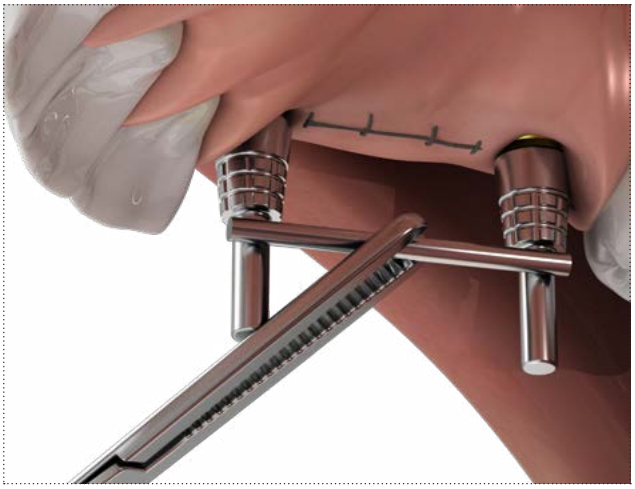
description	code
Cap with pin to be used for intraoral welding	**CAP2-TS-PIN** 
Pack of 5 pieces Bar in Gr. 2 titanium with circular profile l 150 mm, ø 1.20 mm	**DW-BARRA1.2** 
Pack of 5 pieces Bar in Gr. 2 titanium with circular profile l 150 mm, ø 1.50 mm	**DW-BARRA1.5** 
Pack of 5 pieces Bar in Gr. 2 titanium with circular profile l 150 mm, ø 1.80 mm	**DW-BARRA1.8** 
Pack of 5 pieces Bar in Gr. 2 titanium with rectangular profile l 100 mm, 3x1 mm	**DW-BARRA1X3** 
Pack of 5 pieces Bar in Gr. 2 titanium with rectangular profile l 100 mm, 4x2 mm	**DW-BARRA2X4** 

Rehabilitation with intraoral welding technique

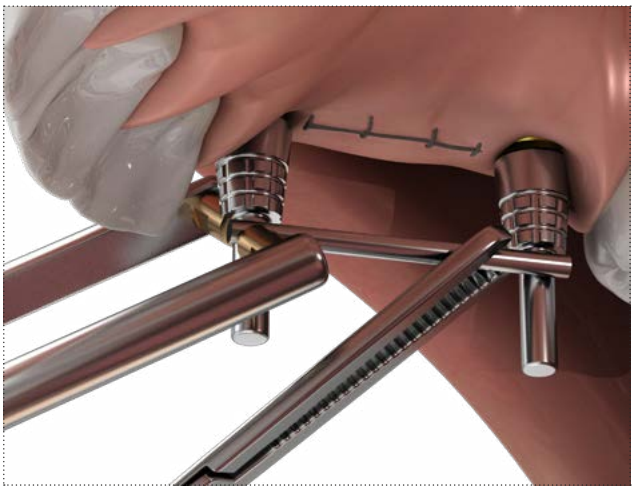
Place the caps for intraoral welding (code CAP2-TS-PIN) on the posts, exerting light pressure by hand.



Take a Gr. 2 titanium bar for intraoral welding of the most suitable thickness (choosing from those available on page 160) and manually pre-bend it congruently with the area to be rehabilitated.
Position it near the pin on the top of the cap.



Do a welding with a special intraoral welder, according to the manufacturer's instructions.
The welding between pin and bar ensures that there is no fusion between the conometric cap and the abutment.

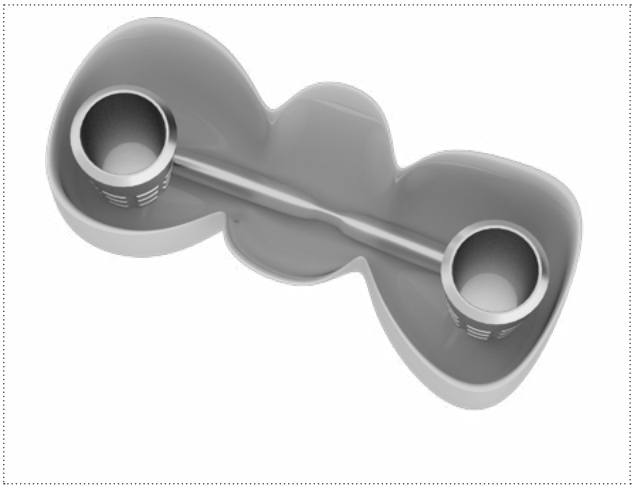


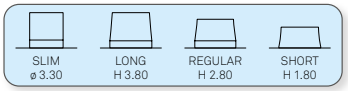
Important warning
To set the parameters of use of the welding machine and for the related indications and warnings, follow the user manual of the equipment manufacturer.

Proceed with soldering on the pin of the second cap. To further increase the passivity of the structure and eliminate any residual tension, it is advisable to subsequently weld a spot in the middle of each free titanium segment of the bar.

Remove the caps welded to the bar to eliminate the excess pin portion, in order to reduce the vertical obstruction.

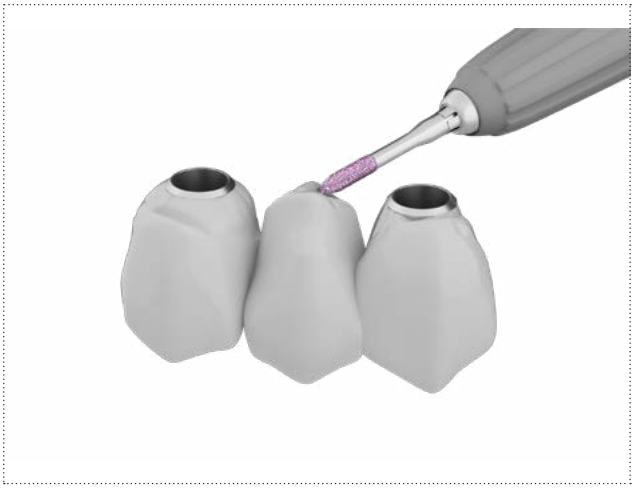
The prosthesis can be made both in the laboratory and in the dental practice, relining a shell previously prepared by the dental technician. In this case it is always advisable to check the overall dimensions of the structure inside the shell before proceeding with the subsequent construction steps.





Reposition the structure made up of the two caps welded to the bar in the patient's mouth and proceed with the direct relining by means of the shell filled with resin, eliminating the excess material. The resin will completely encompass the welded structure, making it easier for the patient to clean at home.

Remove the relined prosthesis, finish and polish it.

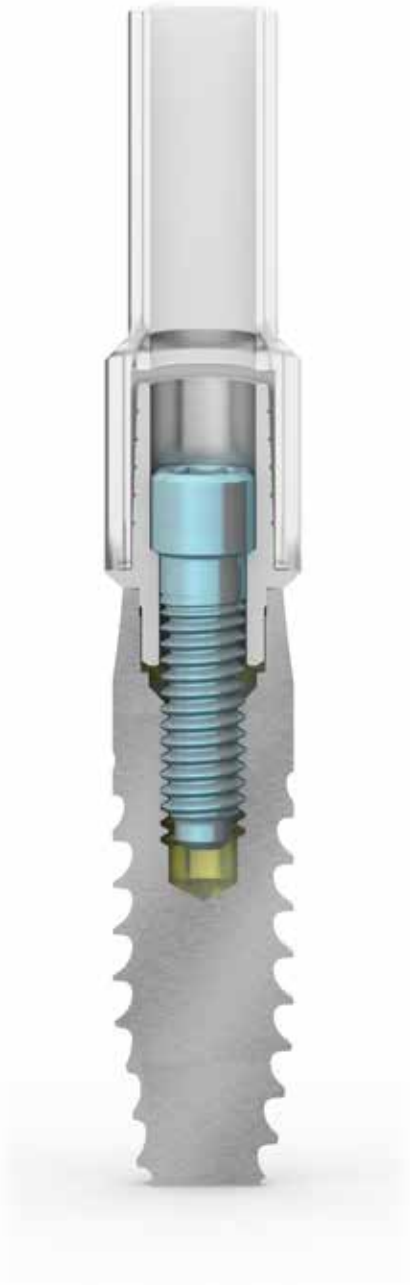


Proceed with the positioning of the prosthesis on the Conical posts and activate it with a slight manual pressure: the interaction by conometry between these and the caps will give the structure the right retentivity, which will allow the clinician to remove the prosthesis at any time, but will not allow the patient to remove it independently.

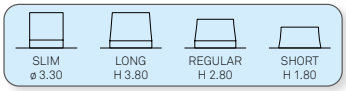
Definitive rehabilitation with T-Connect

T-Connect

T-Connect have a conical body with channels that facilitate the **bonding** of both integral crowns and multiple structures, using the luting technique for different materials with all open CAD CAM systems, including Echo by Sweden & Martina.
The T-Connect have been made both with support at the level of the prosthetic platform and with different transgingival heights (from 1.00 to 3.00 mm) to meet the different clinical needs in all those cases in which there is a high transgingival path or for deeper implant insertion.
Specific sleeves are also available that facilitate the modeling of the wax-up while respecting the volumes of the T-Connect.



Note: T-Connect can be used indifferently with all Prama implant diameters and with all types of necks, Short, Regular and Long.



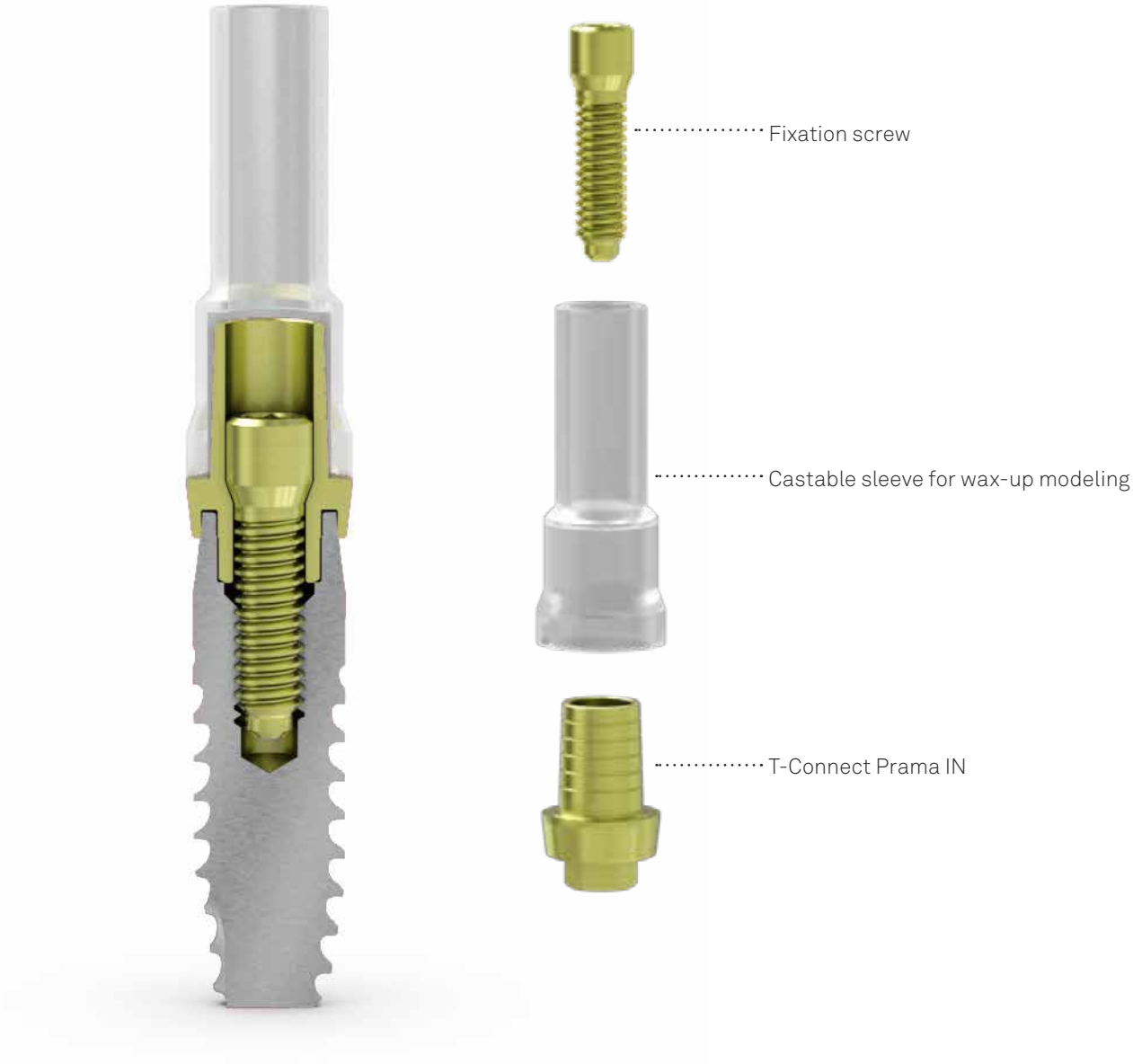
Standard T-Connect and T-Connect with different transmucosal heights

description	code
T-Connect Engaging Cementing cone h 4.00 mm Standard fixation screw included	**A-BASTZR-S-330-4**
T-Connect Engaging Cementing cone h 6.00 mm Standard fixation screw included	**A-BASTZR-S-330-6**
T-Connect Non engaging Cementing cone h 4.00 mm Standard fixation screw included	**A-BASTZR-M-330-4**
T-Connect Non engaging Cementing cone h 6.00 mm Standard fixation screw included	**A-BASTZR-M-330-6**
T-Connect with transmucosal h 1.00 mm Engaging Cementing cone h 4.00 mm Standard fixation screw included	**A-TCR-S-330-4-1**
T-Connect with transmucosal h 2.00 mm Engaging Cementing cone h 4.00 mm Standard fixation screw included	**A-TCR-S-330-4-2**
T-Connect with transmucosal h 3.00 mm Engaging Cementing cone h 4.00 mm Standard fixation screw included	**A-TCR-S-330-4-3**
T-Connect with transmucosal h 1.00 mm Non engaging Cementing cone h 4.00 mm Standard fixation screw included	**A-TCR-M-330-4-1**
T-Connect with transmucosal h 2.00 mm Non engaging Cementing cone h 4.00 mm Standard fixation screw included	**A-TCR-M-330-4-2**
T-Connect with transmucosal h 3.00 mm Non engaging Cementing cone h 4.00 mm Standard fixation screw included	**A-TCR-M-330-4-3**
Sleeve for wax-up modelling on T-Connect supports with cone h 4.00 mm	**A-CCBAS-330-4**
Sleeve for wax-up modelling on T-Connect supports with cone h 6.00 mm	**A-CCBAS-330-6**
Single pack Pack of 10 pieces Standard fixation screw Supplied with the T-Connect, it can also be ordered separately as a spare	**VM2-180** **VM2-180-10**

Recommended torque for T-Connect: 20-25 Ncm.

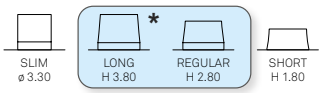
T-Connect Prama IN

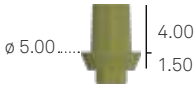
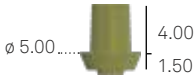
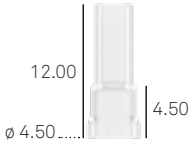
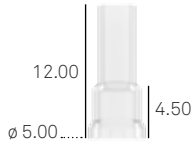
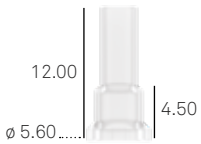
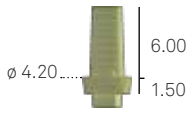
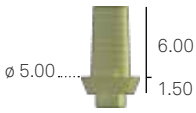
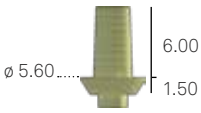
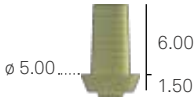
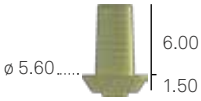
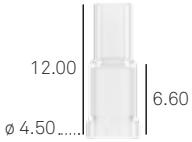
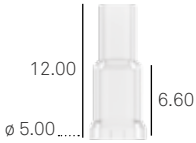
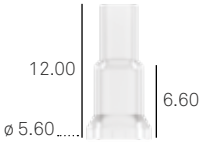
T-Connects are also available in the **Prama IN** version, with **closure on the implant neck at 0.50 mm** and with two different cone heights, namely 4 and 6 mm. They undergo a controlled passivation process that gives them the classic **golden yellow color** for highly aesthetic results. The T-Connect Prama IN were made for each diameter of the Prama system.



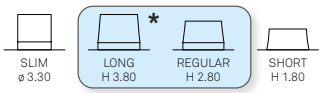
Note: the T-Connect Prama IN which include the neck by 0.50 mm can only be used on Regular collars (h 2.80 mm) and Long (h 3.80 mm).

Page references refer to the PDF of the general manual.

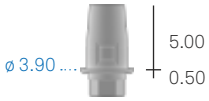
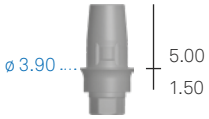
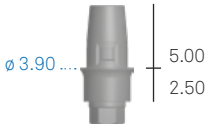
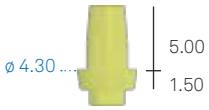
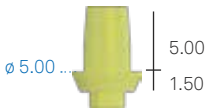
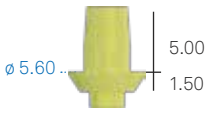


implant ø	ø 3.80	ø 4.25	ø 5.00
T-Connect Prama IN closure on the neck at 0.50 mm Engaging Cementing cone h 4.00 mm Standard fixation screw included	**L-BASTZR-S-380-4-05** 	**L-BASTZR-S-425-4-05** 	**L-BASTZR-S-500-4-05** 
T-Connect Prama IN Closure on the neck at 0.50 mm Non engaging Cementing cone h 4.00 mm Standard fixation screw included	**L-BASTZR-M-380-4-05** 	**L-BASTZR-M-425-4-05** 	**L-BASTZR-M-500-4-05** 
PMMA sleeve for wax-up modeling or for luting technique on T-Connect with cone h 4.00 mm	**A-CCBAS-380-4** 	**A-CCBAS-425-4** 	**A-CCBAS-500-4** 
T-Connect Prama IN closure on the neck at 0.50 mm Engaging Cementing cone h 6.00 mm Standard fixation screw included	**L-BASTZR-S-380-6-05** 	**L-BASTZR-S-425-6-05** 	**L-BASTZR-S-500-6-05** 
T-Connect Prama IN Closure on the neck at 0.50 mm Non Engaging Cementing cone h 6.00 mm Standard fixation screw included	**L-BASTZR-M-380-6-05** 	**L-BASTZR-M-425-6-05** 	**L-BASTZR-M-500-6-05** 
Sleeve for wax-up modeling or for luting technique on T-Connect with cone h 6.00 mm	**A-CCBAS-380-6** 	**A-CCBAS-425-6** 	**A-CCBAS-500-6** 
Single pack Pack of 10 pieces Fixation screw supplied with posts can be ordered separately as a spare	**L-VMS-180** **L-VMS-180-10** 	Utilizzare L-VMS-180	Utilizzare L-VMS-180

Recommended torque for T-Connect PRAMA IN: 20-25 Ncm.



T-Connect TCS support for chairside

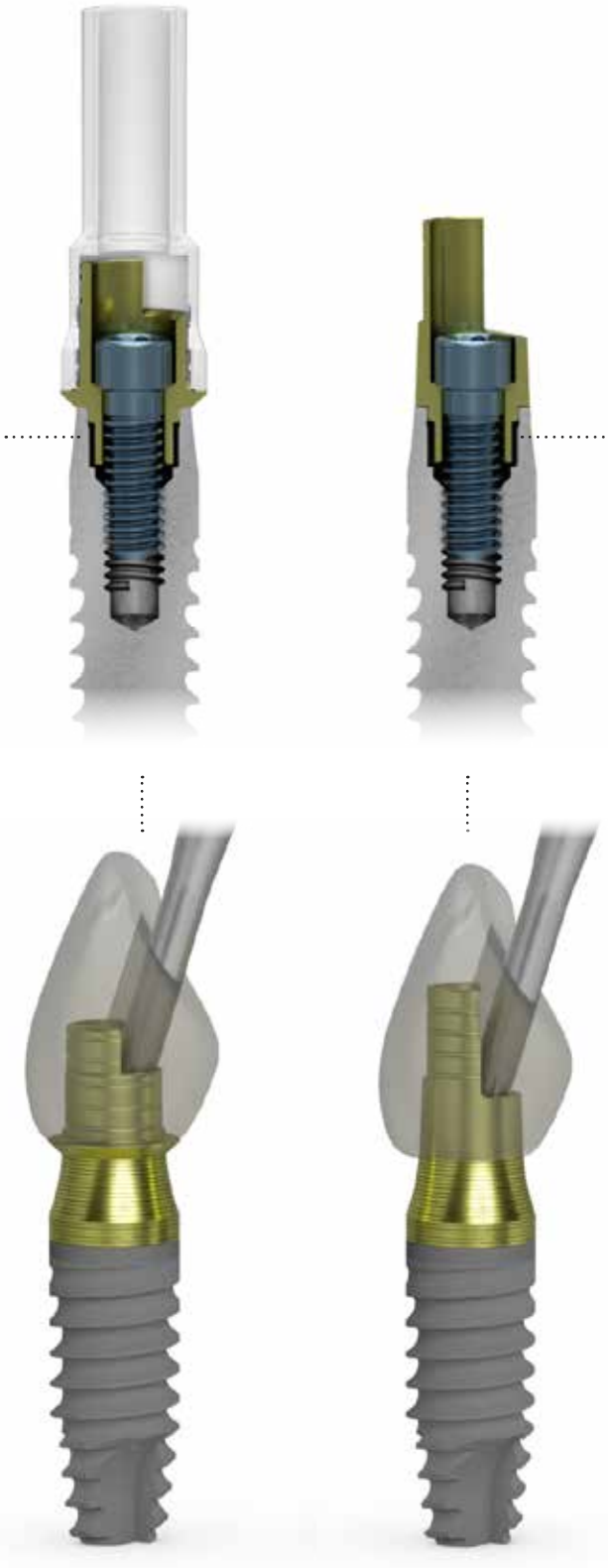
description	code	
T-Connect TCS support for chairside Engaging Cementing cone h 5.00 mm Standard fixation screw included	**A-TCS-330S-C**	
T-Connect TCS support for chairside Engaging Cementing cone h 5.00 mm Standard fixation screw included	**A-TCS-330S-C-15**	
T-Connect TCS support for chairside Engaging Cementing cone h 5.00 mm Standard fixation screw included	**A-TCS-330S-C-25**	
T-Connect TCS support for chairside Engaging Cementing cone h 5.00 mm Standard fixation screw included	**L-TCS-380S-05**	
T-Connect TCS support for chairside Engaging Cementing cone h 5.00 mm Standard fixation screw included	**L-TCS-425L-05**	
T-Connect TCS support for chairside Engaging Cementing cone h 5.00 mm Standard fixation screw included	**L-TCS-500L-05**	
Single pack Pack of 10 pieces Fixation screw supplied with posts can be ordered separately as a spare	**VM2-180** **VM2-180-10**	
Single pack Pack of 10 pieces Fixation screw with conical support Supplied with conical pre-made posts, it can also be ordered separately as a spare	**L-VMS-180** **L-VMS-180-10**	

Recommended torque for TCS: 20-25 Ncm.

Dynamica Interfase

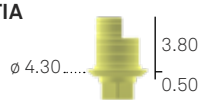
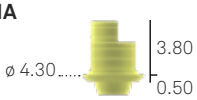
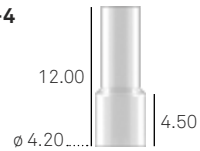
Dynamica Interfase supports have a peculiar morphology, with a lateral window, which allows to displace the hole for the passing screw in the palatal or lingual position, thus avoiding unsightly vestibular holes. Interfase Dynamica bases are available with or without a margin for the ceramic crow, in order to guarantee maximum freedom of closure of the prosthesis, which can rest both on the Prama neck and on the Interfase, closing starting from 0.50 mm under the lateral window.

Dynamica Interfase with margin for the ceramic crowns are compatible with the castable sleeve of the T-Connect to easily create structures for bonding

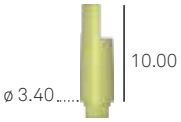
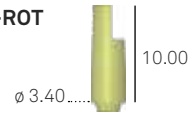


Dynamica Interfase supports without a margin for the ceramic crown, don't have a dedicated castable sleeve and can only be used with the CAD CAM technique

Dynamica Interfase with margin

description	code
Dynamica Interfase with margin Engaging Cementing cone h 4.00 mm Fixation screw not included	**IND3PKH330/TIA** 
Dynamica Interfase with margin Non engaging Cementing cone h 4.00 mm Fixation screw not included	**IND3PKR330/TIA** 
PMMA sleeve for wax-up modeling or for luting technique on T-Connect with cone h 4.00 mm	**A-CCBAS-330-4** 
Standard fixation screw Not included, can be ordered separately	**A-VMA-180** 

Dynamica Interfase without support base

description	code
Interfase Dynamica with margin Engaging Cementing cone h 6.00 mm Fixation screw not included	**L-MDT-340-6** 
Interfase Dynamica with margin Non engaging Cementing cone h 6.00 mm Fixation screw not included	**L-MDT-340-6-ROT** 
Interfase Dynamica with margin Engaging Cementing cone h 10.00 mm Fixation screw not included	**L-MDT-340-10** 
Interfase Dynamica with margin Non engaging Cementing cone h 10.00 mm Fixation screw not included	**L-MDT-340-10-ROT** 
Standard fixation screw Not included, can be ordered separately	**VM2-180** 
Angled fixation screw Not included, can be ordered separately	**A-VMA-180** 

Recommended torque for Dynamic Abutment: 20-25 Ncm.

Note: for the screw A-VMA-180 is required to use the screwdriver for Dynamic Abutment, see page 29.

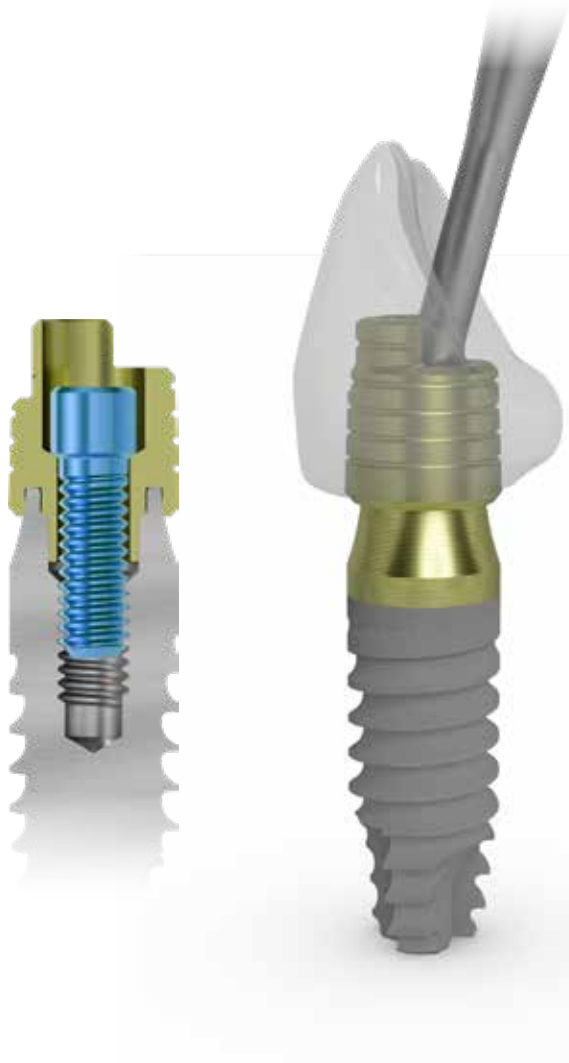
Important warning

It is recommended to always use test screws for the laboratory phases and to keep the new screw supplied for final fixing in the mouth.

T-connect Prama IN shoulderless

T-Connect Prama IN shoulderless are characterized by the absence of the classic support base, and the crown is placed directly on the cone of the Prama IN T-Connect, ensuring an excellent aesthetic result.
The second characteristic in the morphology of these components guarantees the maximum freedom thanks to the possibility of angulate the palatal screw hole.

Shoulderless T-connect allows a **closure on the neck of the implant at 0.50 or 1 mm** and are available with the transgingival height of 5 mm. They are subjected to a process of controlled passivation that gives the characteristic **pale golden colour**, for high aesthetical results.
Shoulderless T-Connect Prama IN are made for each diameter of Prama system.



T-connect Prama IN shoulderless for single crown

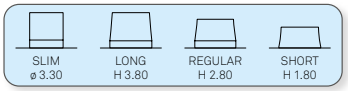
description	3.80	4.25	5.00
T-connect for single crown closing on the implant neck at 0.50mm Cementing cone h 5.00 mm Engaging Fixation screw not included	**L-TCIN-380-05** 	**L-TCIN-425-05** 	**L-TCIN-500-05** 
T-connect for single crown closing on the implant neck at 0.50mm Non engaging Cementing cone h 5.00 mm Fixation screw not included	**L-TCIN-380-05-ROT** 	**L-TCIN-425-05-ROT** 	**L-TCIN-500-05-ROT** 
T-connect for single crown closing on the implant neck at 1.00mm cone height h 5.00 mm Engaging Fixation screw not included	**L-TCIN-380-10** 	**L-TCIN-425-10** 	**L-TCIN-500-10** 
Standard fixation screw Not included, can be ordered separately	**VM2-180** 	Use VM2-180	Use VM2-180
Angled fixation screw Not included, can be ordered separately	**A-VMA-180** 	Use A-VMA-180	Use A-VMA-180

Recommended torque for T-Connect: 20-25 Ncm.

T-Connect for Prama IN shoulderless - FOR LONG NECK

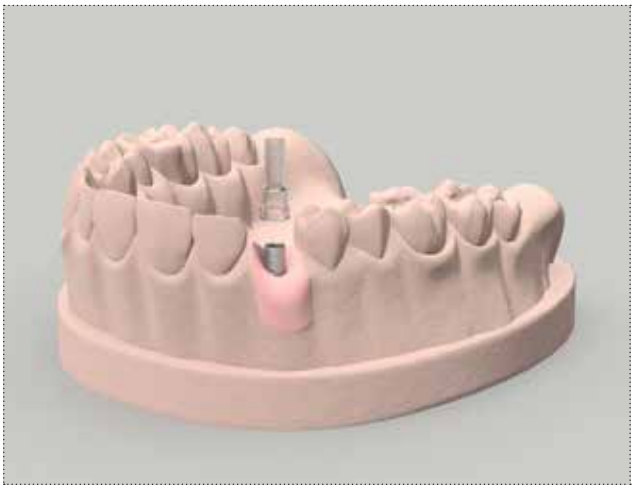
description	3.80	4.25	5.00
T-Connect for Prama IN for long neck closing on the implant neck at 1.00 mm Cementing cone h 5.00 mm	**LL-TCIN-380-10** 	**LL-TCIN-425-10** 	**LL-TCIN-500-10** 
Standard fixation screw Not included, can be ordered separately	**VM2-180** 	Use VM2-180	Use VM2-180
Angled fixation screw Not included, can be ordered separately	**A-VMA-180** 	Use A-VMA-180	Use A-VMA-180

Recommended torque for T-Connect: 20-25 Ncm.

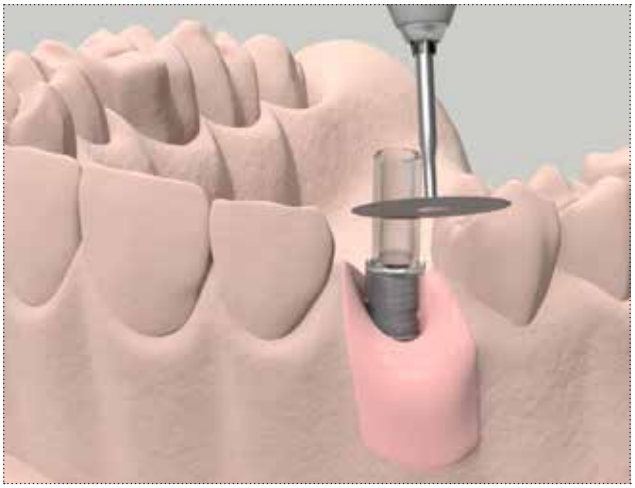


Definitive single screw retained rehabilitation with T-Connect: luting technique

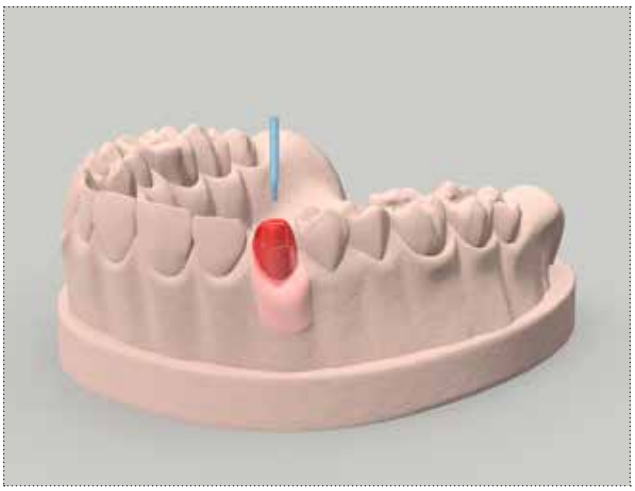
Screw the engaging T-Connect support on the precision model onto the analog using a screwdriver of the HSM series. Insert a castable sleeve of the same height of the cementing cone of the T-Connect, of 4.00 or 6.00 mm.



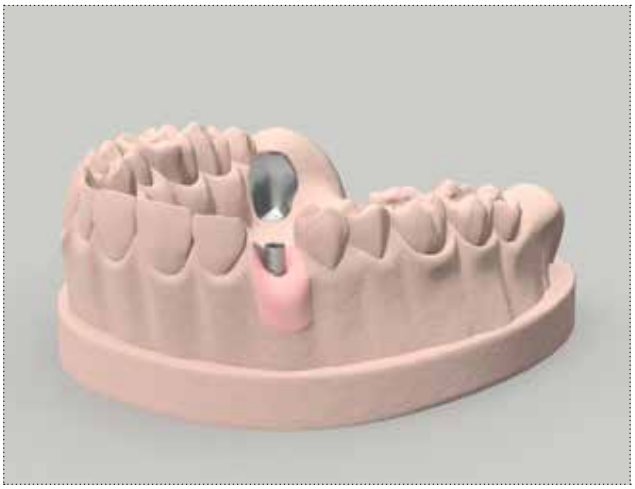
Reduce the castable sleeve to a size compatible with the patient's vertical dimension using an abrasive disk.



Model a crown in wax or resin on the castable sleeve and use a screw to keep the screw hole free.



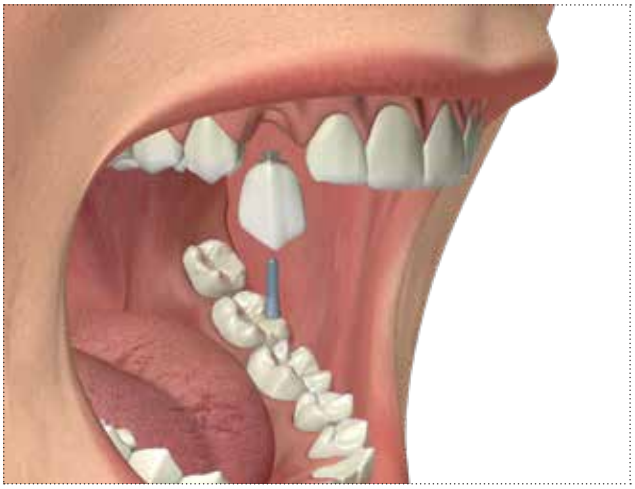
Cast the crown in wax or resin together with the reduced castable sleeve incorporated inside.

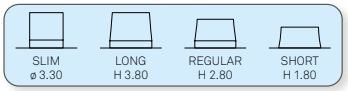


Ceramize the cast crown and lute it on the model: turn the crown upside down and insert a resin cement in the hole to lute the T-Connect. Polymerize following the manufacturer's instructions.

Tighten the crown onto the implant with the supplied screw, applying a maximum torque of 20-25 Ncm.

Important warning
It is recommended always to use test screws for the laboratory phases and to keep the new screw supplied for the final fastening in the oral cavity.

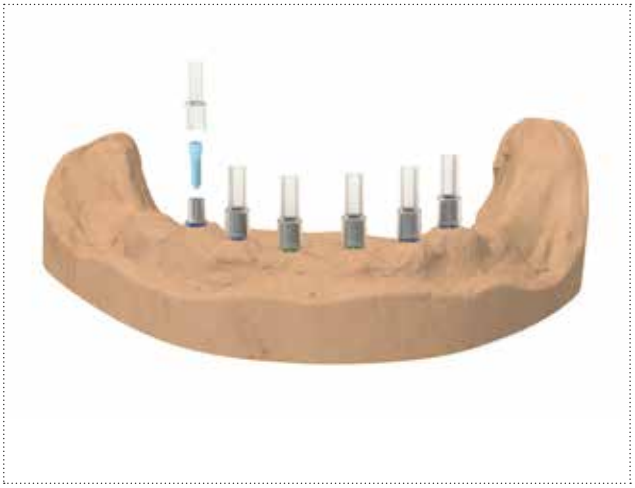




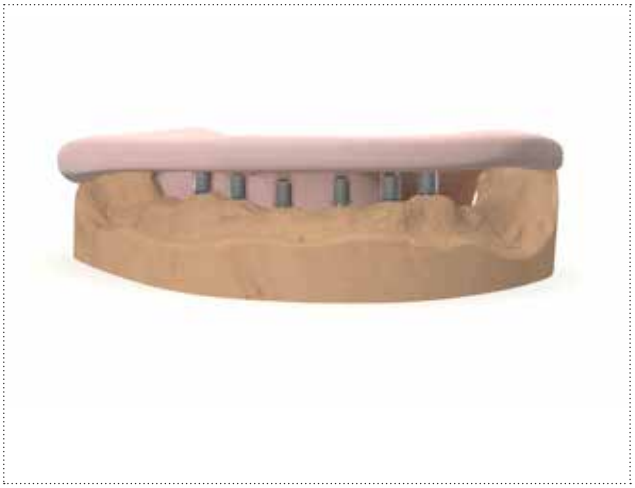
Definitive multiple screw retained rehabilitation with T-Connect: luting technique

Screw the engaging T-Connect support on the precision model onto the analog using a screwdriver of the HSM series. Insert a castable sleeve of the same height of the cementing cone of the T-Connect, of 4.00 or 6.00 mm.

Important warning
It is recommended always to use test screws for the laboratory phases and to keep the new screw supplied for the final fastening in the oral cavity.



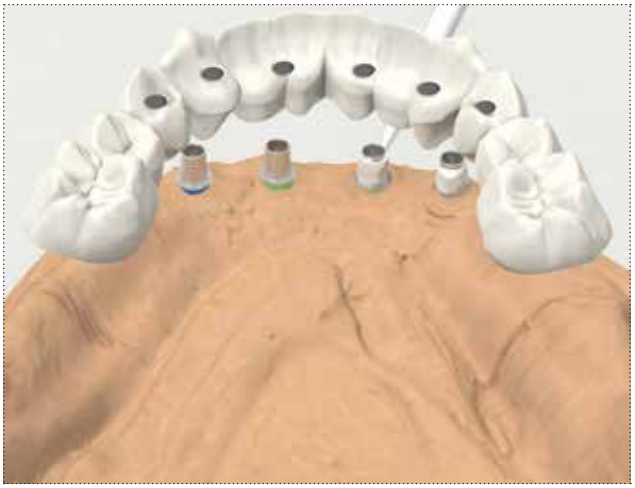
Reduce the castable sleeve to a size compatible with the patient's vertical dimension using the silicone mask obtained from a preassembly or by placing the structure in an articulator in relationship to the space left by the antagonist.



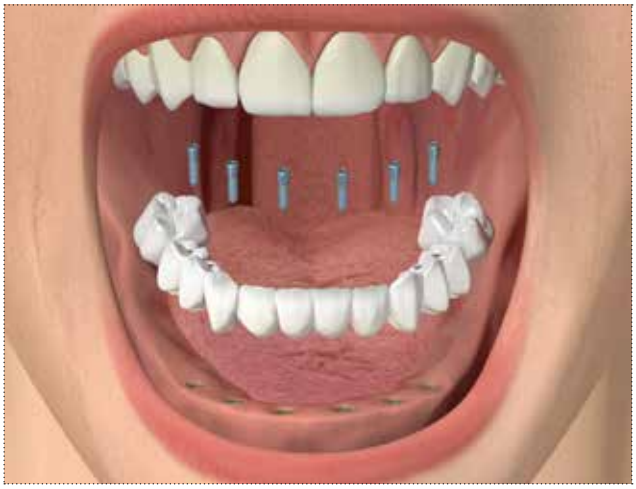
Model a full arch structure in wax or resin incorporating the sleeves.

Cast the structure in wax or resin together with the reduced castable sleeves incorporated inside.

Ceramize the structure and lute it on the model: turn it upside down and insert a resin cement in the hole to lute the T-Connect. Polymerize following the manufacturer's instructions.



When polymerization is completed, unscrew the structure from the model and tighten it onto the implants with the supplied screw, applying a maximum torque of 20-25 Ncm.



Anchoring with Locator Abutments

Locator Abutments* are a patented and versatile prosthetic solution for easily and safely attaching overdentures to dental implants. The Locator system allows easily correcting misalignment of divergent implants by up to 40° (20° for each implant) in limited occlusal spaces. Given the limited amount of space occupied, is perfect for all patients with a removable prosthesis. The abutments are made Gr. 5 titanium and are available in different transgingival heights. The Locators must be tightened at 25-30 Ncm, using the special Driver provided in the Screw Kit and also available separately on request (code 8926-SW, short, and code 8927-SW, long).

Titanium or steel cap

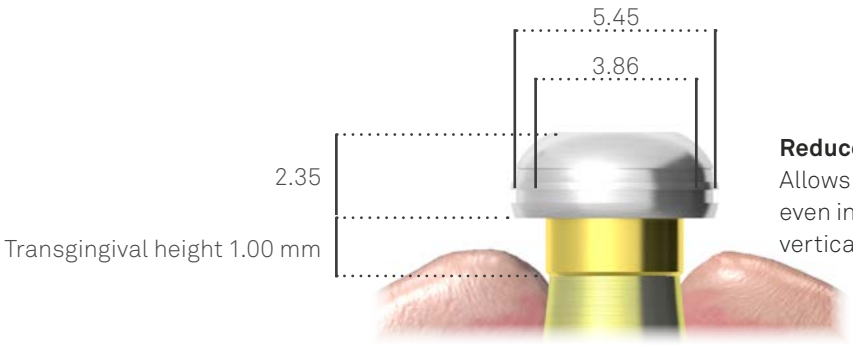
Nylon retainer

Locator Abutment

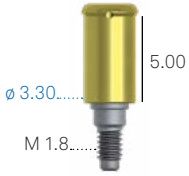
The Locator system has a practical steel or titanium cap where the retainer lodges inside the prosthesis. When it loses retentiveness, it can be easily replaced because there is no need to extract it from the resin by removing material from the prosthesis, but it can be simply extracted from the metal cap, which remains attached to the prosthesis

The self-guiding design of the head of the Locator Abutment allows easy insertion of the prosthesis. The self-alignment of the prosthesis reduces deterioration of the pieces and increases the life of the device

Note: the Locator Abutments, which close on the implant platform, can be used indifferently with all Prama implant diameters and with all types of necks, Short, Regular and Long.



Reduced vertical height
Allows anchoring of the prosthesis even in clinical situations with a short vertical dimension

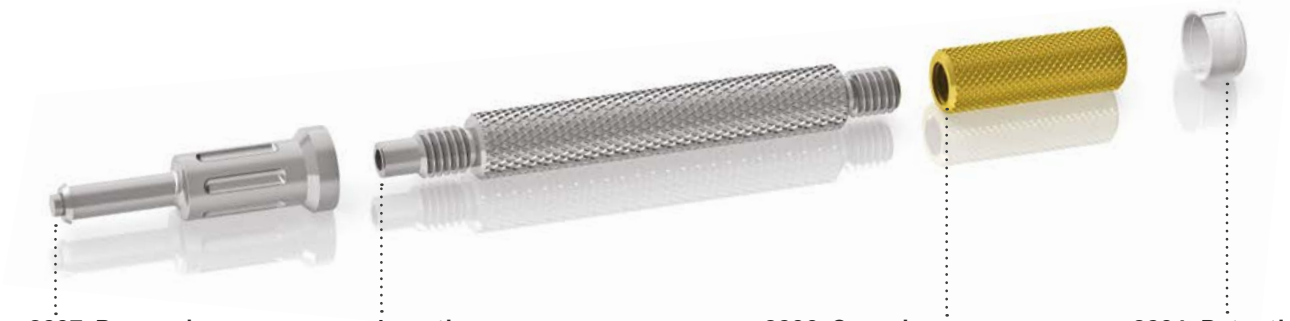
description	code
Locator abutment Straight emergence Transgingival h 1.00 mm	**1670** 
Locator abutment Straight emergence Transgingival h 2.00 mm	**1671** 
Locator abutment Straight emergence Transgingival h 3.00 mm	**1672** 
Locator abutment Straight emergence Transgingival h 5.00 mm	**1674** 

Recommended torque for Locator Abutments: 25-30 Ncm.

Locator products are medical devices manufactured and patented by Zest Anchors, Inc., 2875 Loker Avenue East, Carlsbad, CA 92010, USA.

Locator core tool

The entire Locator prosthetic protocol contemplates the use of a single instrument, common to all implant lines, which performs 4 functions at the same time.



8397: Removal
The male removal tip has a pointy end useful for gripping and removing the retainers of the metal caps incorporated in the overdenture

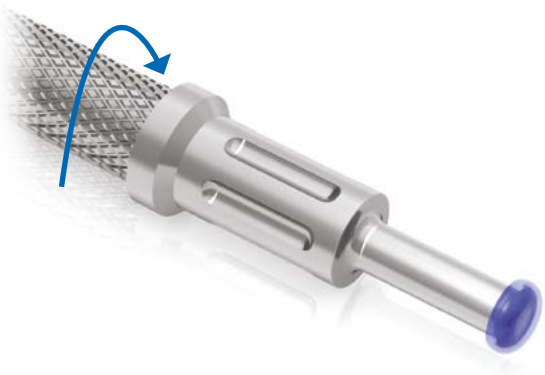
Insertion
The central part of the Locator core tool, once detached from the tip, has a cylindrical end specially designed for inserting the retainers in the metal caps

8390: Screwing
This end of the Locator core tool, with the special retention jacket, acts as a driver for carrying the Locator Abutment into the oral cavity and as a hand driver for fixing it to the implant

8394: Retention
The retainer made of polymer material allow the abutments to be transported into the patient's mouth without these components the driver 8390 cannot be used as a carrier

Important warning
Code 8393 includes the entire steel Locator core tool composed of a tip (code 8397) for inserting the retainers in the caps, a handle, a hand driver (code 8390) for screwing the Locator abutments and a retention jacket (8394 pack of 4 pieces) for the driver. Only codes 8397, 8390 and 8394 can be reordered as spares, whereas if a new handle is required you must reorder the whole instrument.

This instrument has been designed so as to perform all the functions necessary both for carrying and inserting the abutments (gold colour portion, code 8390, with cap 8394: for use see pages 183 and following), and for replacing the different retainers available. In particular the tip (code 8397) alone or partly unscrewed from the central body of the Locator Core Tool attaches to the nylon retainers and allows them to be removed from the metal caps, while, when completing scrwing, it extrudes a small cylindrical piston which releases the retainer from the tip profile.



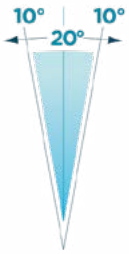
Locator products are medical devices manufactured and patented by Zest Anchors, Inc., 2875 Loker Avenue East, Carlsbad, CA 92010, USA.

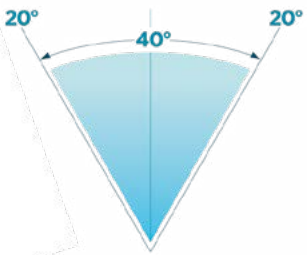
Spacer ring

In the phases of taking the impression and relining the prosthesis, it is useful to use silicone rubber spacer rings (code 8514), which allow correct resilience of the prosthesis and help prevent running of the resin or silicone material.
The ring must be positioned at the base of the groove which marks the head of the abutment, so as not to hinder fitting of the metal caps or of the transfers.

Nylon retainers

The nylon retainers for metal caps differ according to their capacity for correcting the axis of insertion of the implant and according to their retentive capacity. Those able to correct disparallelisms between 0° and 10° on each side (total 20°) have a central peduncle which engages the centre of the head of the Locator abutment, increasing its retentive capacity, while those for disparallelisms between 10° and 20° on each side (total 40°) do not have a peduncle to facilitate inserting the prosthesis. Sets 8519-2, 8540-2 and 8550-2 include two pieces of steel or titanium caps as well as two pieces of black, white, pink and blue retainers, or black, green, orange and red, depending on the degree of disparallelism of the implants. Each set allows the execution of a complete case on two implants: if the overdenture is anchored to 4 implants it is necessary to order two sets. As well as titanium caps there are also steel caps for casting-on, these are very useful if you have to anchor prostheses reinforced with a metal framework of stellite or other non-precious alloys.





1.5 lb
680 gr

3.0 lb
1361 gr

5.0 lb
2268 gr

1.0 lb
453 gr

2.0 lb
907 gr

4.0 lb
1814 gr

Image by kind permission of Zest Anchors, Inc., 2875 Loker Avenue East, Carlsbad, CA 92010, USA.

Drivers for Locator abutments

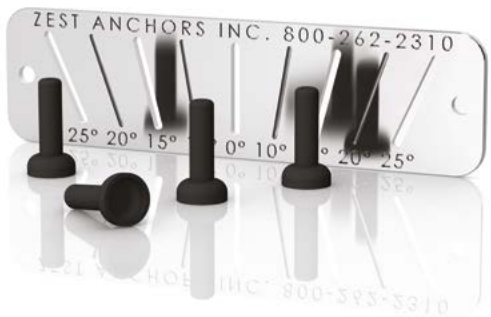
After having put the Locators in place with the driver 8390, to complete screwing it to the recommended torque of 25-30 Ncm it is necessary to use the Gr. 5 titanium drivers with attachment compatible with the dynamometric ratchet CRI5-KIT produced directly by Sweden & Martina for this purpose. The availability of a short version, as well as the long one, makes this operation easy even in distal sectors.

Impression taking on Locator abutments

For the indirect technique transfers (code 8505) and analogs (code 8530) are available which can reproduce the exact position of the Locator abutments on the model. Since the head of the abutments is standard and always the same irrespective of the diameter of the implant connection, there is only one transfer and one analog. The transfers must always be used with the black nylon retainer, dedicated for taking impressions. Each transfer is supplied complete with a black retainer; if necessary, black retainers can also be ordered as spares (code 8515).
For the use of the components see page 185.

Measuring the parallelism of implant axes

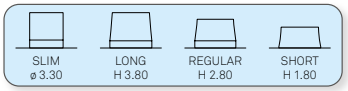
Since correct retention of the overdenture on the Locator abutment depends on the use of the appropriate retainers, it is fundamental to define the implant axes correctly, which determine whether to choose retainers with or without a central pivot. For this purpose a steel plate is available (code 9530), to be used for measuring the angles of the black polyethylene parallelism pins (code 8517), which are meant to be inserted on the head of the Locator abutments.
For the use of the components see page 183.



Accessories for overdenture on Locator

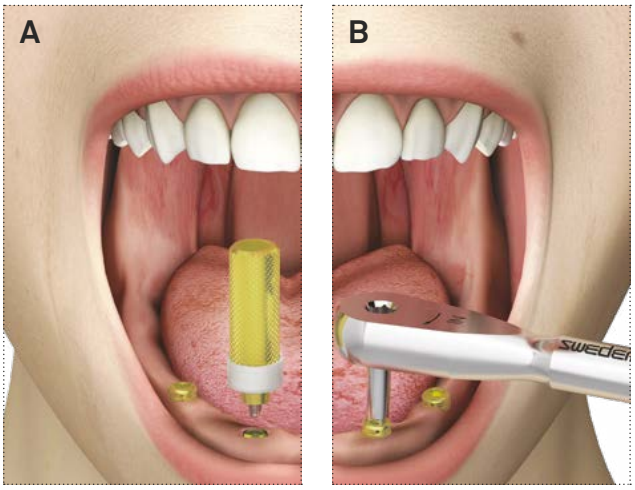
description	code
Kit containing 2 Gr. 5 titanium caps, 2 spacer rings, 2 retainers for each of the 4 different retention capacities	**8519-2** 
Kit containing 2 Gr. 5 titanium caps, 2 spacer rings, 2 retainers for each of the 4 different retention capacities, designed for severe disparallelism	**8540-2** 
Kit containing 2 caps, 2 spacer rings, 2 retainers for each of the 4 different retention capacities	**8550-2** 
Pack of 20 spacer rings in silicon rubber, for the prosthesis relining phase	**8514**
Pack of 4 black polyethylene retainers (LDPE 993I) with low retention capacity for impression taking	**8515** 
Pack of 4 transparent nylon retainers, retention 5 lb corresponding to 2268 g	**8524** 
Pack of 4 pink nylon retainers, retention 3 lb corresponding to 1361 g	**8527** 
Pack of 4 blue nylon retainers, retention 1.5 lb corresponding to 680 g	**8529** 
Pack of 4 green nylon retainers, retention 4 lb corresponding to 1814 g	**8547** 
Pack of 4 red nylon retainers, retention 1 lb corresponding to 450 g	**8548** 
Pack of 4 orange nylon retainers, retention 2 lb corresponding to 907 g	**8915** 

Anchoring with Locator Abutments



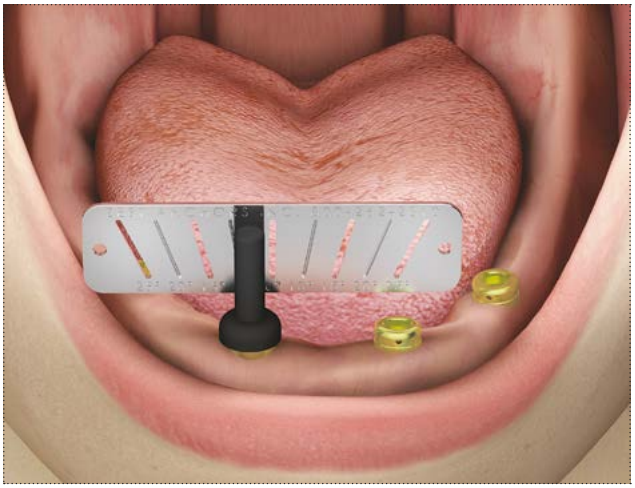
Direct method: chair-side phases

Expose the implants, or remove the transgingival healing screws, depending on whether a protocol with a double or single surgical phase was adopted. Depending on the thickness of the soft tissues, choose the Locator abutment with the most suitable transgingival height and insert the Locator abutments in the implant connection with the Locator driver (gold colour end portion of the instrument 8393, which can also be ordered separately with code 8390). The abutments can be engaged and carried safely into the oral cavity thanks to the retainer 8394, inserted on the end of the instrument 8390 (**img. A**). Insert the abutment thread in the well of the implant and screw it in a preliminary manner for a few turns, then remove the instrument 8390 and complete screwing with the dynamometric ratchet CRI5-KIT together with the driver 8926-SW or 8927-SW, depending on the space available (**img. B**). It is recommended to tighten the abutments at 25-30 Ncm.

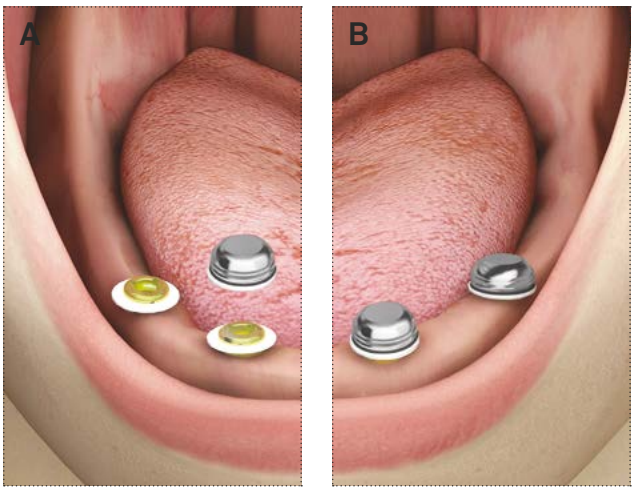


Fit the plastic pins (code 8517) onto the Locator Abutments and use the plate 9530 to check the degree of divergence between the axes of the implants. Different nylon retainers will be used depending on the disparallelism:

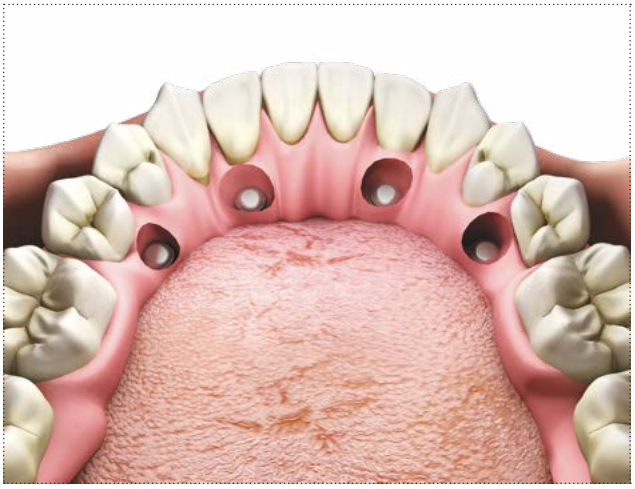
divergence <10° per side		divergence <20° per side	
8529 rit. 1.5 lb (680 g)		**8545** rit. 1 lb (453 g)	
8527 rit. 3 lb (1361 g)		**8915** rit. 2 lb (907 g)	
8524 rit. 5 lb (2268 g)		**8547** rit. 4 lb (1814 g)	



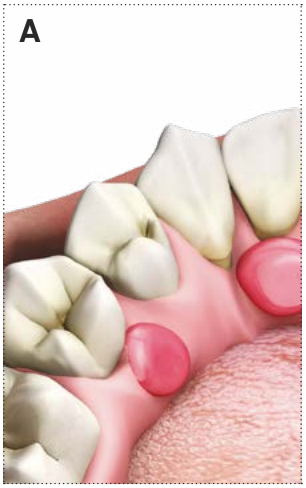
Remove the pins and position the white spacer ring around the head of each Locator abutment (img. A). Insert the black retainer in each metal cap, position the cap on the Locator abutment leaving the white spacer ring below it (**img. B**). The spacer ring also performs the function of protecting the mucous in the peri-implant area, which in this way does not come in contact with the resin. The black retainer will keep the prosthesis within the upper limit of its vertical elasticity during the procedure.

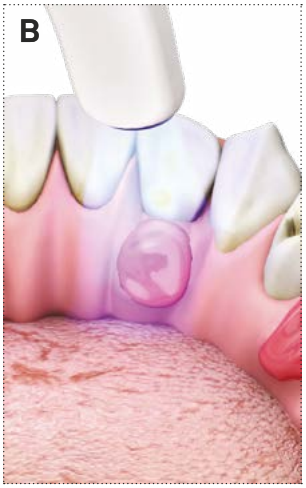


Pierce the prosthesis close to the attachments, create sufficiently large holes to allow the injection and exit of the acrylic resin.
Position the overdenture on the metal caps.

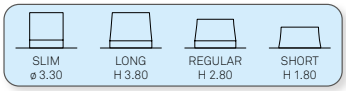


Inject the resin (**img. A**) and proceed to polymerise the material following the manufacturer's instructions (**img. B**). Then lift the prosthesis: the black retainers will remain inside the metal caps.
Polish the base of the overdenture.



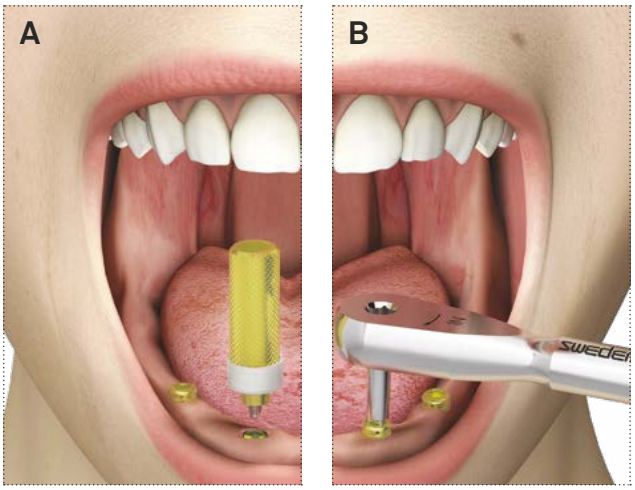


Slacken the end of the instrument 8393, unscrewing the piece for two complete turns (counterclockwise): this will allow the small piston on the tip to retract completely (**img. A**) and the sharp edge of the tip to engage the edge of the black retainer to extract it from the metal cap. Screw the end of the Locator Core Tool back on, so that the piston comes out and ejects the black retainer. Use the tip of the intermediate portion of the Locator Core Tool to push into the cap the retainer suitable for the degree of disparallelism between the implants (**img. B**). Check carefully that the retainer is completely housed in the metal cap and that its edge is at the same level as that of the cap.



Indirect method: chair-side phases

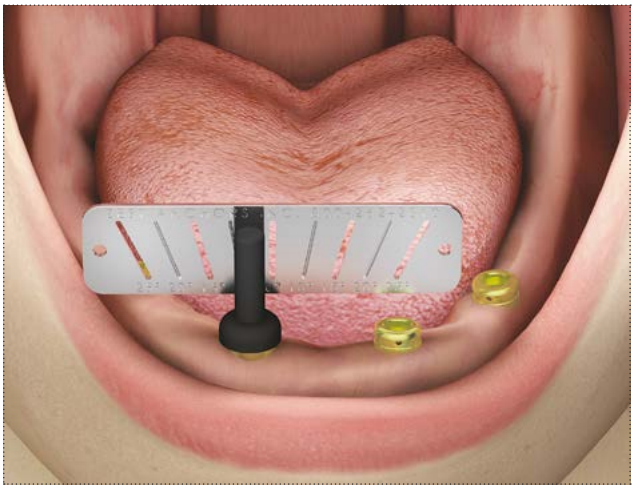
Expose the implants, or remove the transgingival healing screws, depending on whether a protocol with a double or single surgical phase was adopted. Depending on the thickness of the soft tissues, choose the Locator abutment with the most suitable transgingival height and insert the Locator abutments in the implant connection with the Locator driver (gold colour end portion of the instrument 8393, which can also be ordered separately with code 8390). The abutments can be engaged and carried safely into the oral cavity thanks to the retainer 8394, inserted on the end of the instrument 8390 (**img. A**). Insert the abutment thread in the well of the implant and screw it in a preliminary manner for a few turns, then remove the instrument 8390 and complete screwing with the dynamometric ratchet CRI5-KIT together with the driver 8926-SW or 8927-SW, depending on the space available (**img. B**). It is recommended to tighten the abutments at 25-30 Ncm.



Fit the plastic pins (code 8517) onto the Locator Abutments and use the plate 9530 to check the degree of divergence between the axes of the implants. Different nylon retainers will be used depending on the disparallelism:

divergence <10° per side		divergence <20° per side	
8529 rit. 1.5 lb (680 g)		**8545** rit. 1 lb (453 g)	
8527 rit. 3 lb (1361 g)		**8915** rit. 2 lb (907 g)	
8524 rit. 5 lb (2268 g)		**8547** rit. 4 lb (1814 g)	

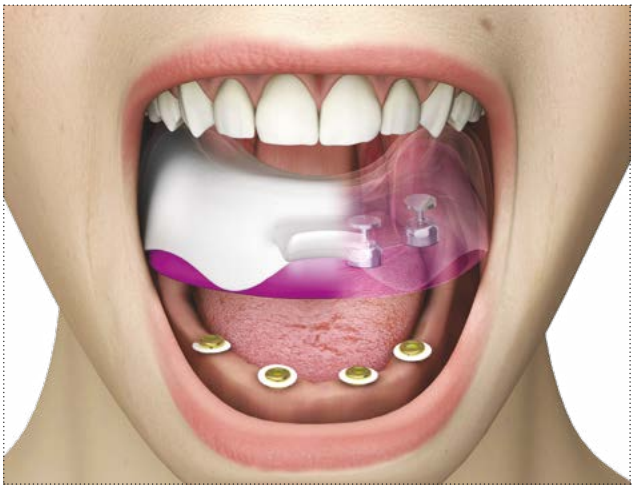
Note: in the indirect method this phase can also be performed on the model in the laboratory.



Remove the pins and fit the white spacer rings on the Locator abutments, to prevent undesired running of implant material. With a simple finger pressure, insert the Locator 8505 transfers, in which the black plastic retainer for taking the impression (8585) have already been inserted.

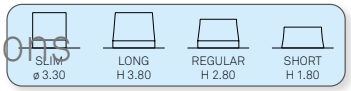
Inject a precision impression material (i.e. SKY IMPLANT LIGHT, code SKY14) only around the transfers and at the same time fill the impression tray with a more consistent material (i.e. SKY IMPLANT HEAVYMIX, code SKY04) on the whole arcH Put the closed tray in place and wait for the hardening times according to the instructions.
The particular conformation of the Locator transfers allows the maximum of retentiveness to be obtained in the minimum vertical space.

Lift the impression tray vertically: the Locator transfers will remain enclosed into the impression.



Insert a Locator analog 8530 in each Locator transfer and send the impression to the laboratory.
Since the head of the Locator abutments which interfaces with the retainers is always the same for all implant platforms, there is only one transfer and only one analog.

Anchoring with Locator Abutments - clinical indications



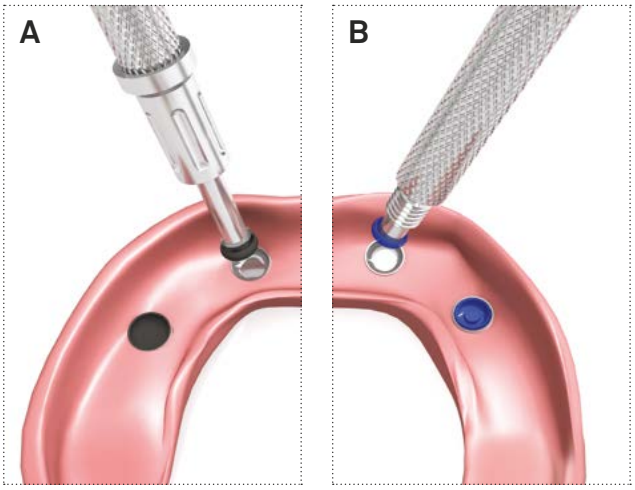
Indirect method: laboratory phases

Box the impression with wax or resin and cast the model: the Locator analog will exactly reproduce the position of the head of the Locator abutment. In the model, insert in each analog a spacer ring 8514, 0.50 mm thick, which will create the space necessary to obtain full resilience of the metal cap enclosed in the prosthesis which rotates on the head of the Locator abutment.

Position the metal caps with the preassembled black retainers on the head of the Locator analog.
The black retainer will keep the overdenture within the upper limit of its vertical resilience capacity during the work phases, so it is necessary to check that it is completely inserted inside the metal cap.

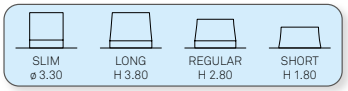
Make the overdenture with the usual protocols, checking that the overall dimensions of the abutment and the metal cap are completely included in the prosthesis.
To enclose the metal caps correctly into the structure, possibly pierce the structure at the level of the Locator abutments and position it on the model.

Slacken the end of the instrument 8393, unscrewing the piece for two complete turns (counterclockwise): this will allow the small piston on the tip to retract completely (**img. A)** and the sharp edge of the tip to engage the edge of the black retainer to extract it from the metal cap. Screw the end of the Locator Core Tool back on, so that the piston comes out and ejects the black retainer. Use the tip of the intermediate portion of the Locator Core Tool to push into the cap the retainer suitable for the degree of disparallelism between the implants (**img. B**). Check carefully that the retainer is completely housed in the metal cap and that its edge is at the same level as that of the cap.



Important warning
It is advisable to instruct patients adequately on the correct procedures for inserting and removing the prostheses, inviting them to practise these simple manoeuvres, even though the self-centring design of the Locator abutments has been conceived especially to facilitate these operations.
Patients must also be urged to report any discomfort of the prosthesis, including the loss of retention of the attachments, so as to allow the operator to perform prompt maintenance or replace any retainers that may be badly inserted or worn.

Maintenance and relining

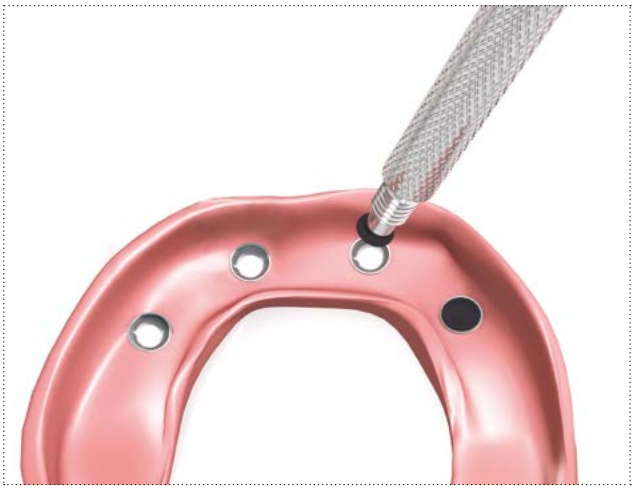


Maintenance

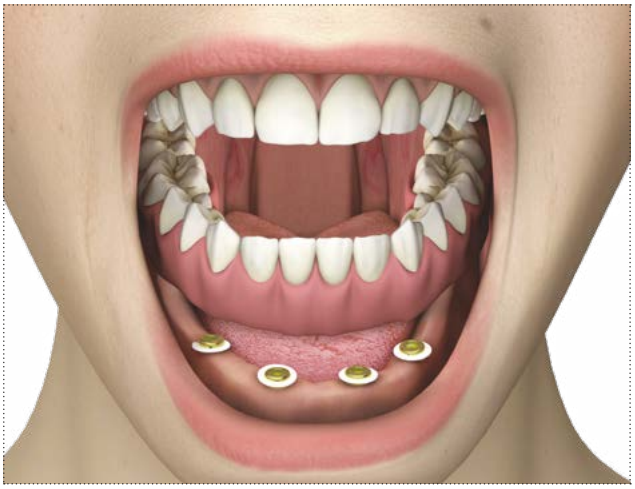
Good oral hygiene is essential both for the duration of the components of the Locator anchoring system and for the long-term success of implant therapy. The Locator metal component is made Gr. 5 titanium, so it does not require any particular precautions for cleaning or maintenance. However, to avoid the formation of plaque and the stagnation of abrasive residue in the abutment well, which could spoil the two interfaces in contact, it is recommended to brush the removable prosthesis, the abutments and the nylon retainers daily with a soft brush under running water, so that aggressive cleaning substances cannot limit the duration of these components, though they are replaceable. Also the use of ultrafloss around the abutments can help to keep the peri-implant area in good condition, and consequently the attachments too.
Patient follow-up at least every six months is recommended, at the same time checking the retentiveness and if necessary replacing any spoiled nylon retainers, or upgrading them if the patient needs a higher level of retention. During follow-up it is also recommended to check that the abutments are correctly fixed on the implants, tightening them if necessary with a torque of 25-30 Ncm. During hygiene sessions it is recommended to use only plastic instruments for scaling operations on the abutments. It is preferable to avoid using metal instruments which could scratch the surface of the abutments.

Periodic relining of the overdenture

Remove the retainers from the metal caps following the indications on page 192 and temporarily replace them with black retainers, so as to maintain a correct vertical ratio during relining. Drill any areas of compression. Apply the relining material on the inside of the prosthesis, whether it is resin or silicone, taking care to avoid the retainers.



Take a relining impression using the existing prosthesis as the impression tray. It is recommended to protect the Locators with the special silicone rubber spacer rings.



The retainer will engage the head of the Locator Abutment and keep the prosthesis in position during taking of the impression and hardening of the material. When the impression is removed, the retainers will remain inside the metal caps.

Insert a Locator analog (code 8530) in each metal cap coupled with the retainer and make the model with the customary procedure.

Important warning
Direct relining in the patient's mouth could cause problems linked to the stoichiometric difference between the structural resin of the overdenture, hot-cured under pressure, and the relining resin, cold-cured without pressure. Moreover the difficulty of controlling the material, which could get stuck under the attachments, the difference in colour, the shorter duration of the relining and the discomfort linked to the presence of resin in the patient's mouth, all mean that this option is not advisable.

Carry out the final relining of the prosthesis in the laboratory and perform tests accurately with the patient to choose a suitable new retainer.

Important warning
Should the patient present substantial modifications of his or her oral anatomy (for example after losing a lot of weight), it is necessary to perform not a simple relining but a new repositioning of the metal caps inside the overdenture. To do this the caps must be removed from the resin structure with a small burr and repositioned as described on page 176 and following.

Locator R-Tx abutments

Locator R-Tx* abutments are a versatile, simple and safe patented prosthetic solution for anchoring overdentures to implants. The new generation of the system designed by Zest Anchors features a double retention for engagement and a narrow coronal profile, for easy insertion of the prosthesis. The Locator R-Tx system allows you to correct the insertion axis up to a total of 60 ° (30 ° per implant). The abutments are made of Gr. 5 titanium and are available in different transgingival heights. They must be tightened to 25-30 Ncm using the optionally available screwdrivers, whose codes can be consulted on page 194.

“ALL-IN-ONE” PACK
A double opening vial has been specially designed to separately contain both the abutment and the components to be included in the overdenture, so as to provide everything you need in a single package and a single code.

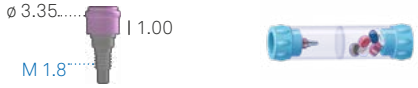
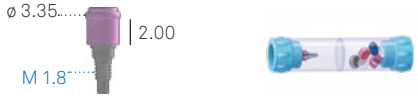
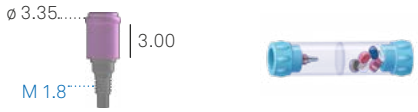
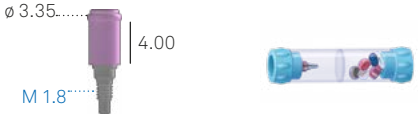
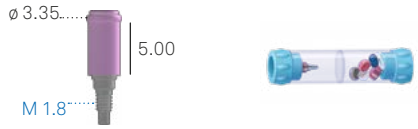
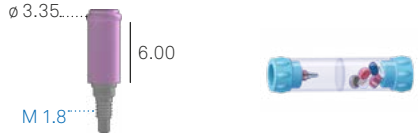
The Locator R-Tx system includes a coping with increased geometry to resist movement and colored pink for greater aesthetics.

The new DuraTec ™ treatment, a nitriding that alternates layers of titanium and carbon, gives the Locator R-Tx a highly aesthetic, robust and wear-resistant pink color.

Greater possibility of correction of the insertion axis and different degrees of retention.

Note: the Locator R-Tx Abutments, which close on the implant platform, can be used indifferently with all Prama implant diameters and with all types of necks, Short, Regular and Long.

**Locator abutments and related components presented on the following pages are medical devices manufactured and patented by Zest Anchors, Inc., 2875 Loker Avenue East, Carlsbad, CA 92010, USA.*

description	code
Locator R-Tx Abutment Straight emergence Transgingival h 1.00 mm All-in-One package with caps and inserts	**31110-01** 
Abutment Locator R-Tx Straight emergence Transgingival h 2.00 mm All-in-One package with caps and inserts	**31110-02** 
Abutment Locator R-Tx Straight emergence Transgingival h 3.00 mm All-in-One package with caps and inserts	**31110-03** 
Abutment Locator R-Tx Straight emergence Transgingival h 4.00 mm All-in-One package with caps and inserts	**31110-04** 
Abutment Locator R-Tx Straight emergence Transgingival h 5.00 mm All-in-One package with caps and inserts	**31110-05** 
Abutment Locator R-Tx Straight emergence Transgingival h 6.00 mm All-in-One package with caps and inserts	**31110-06** 

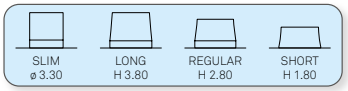
Recommended torque for R-Tx Locator Abutments: 25-30 Ncm.
During the laboratory phases and any chairside test phases, the torque must not exceed 8-10 Ncm.

Accessories for overdentures on Locator R-Tx abutments

description	code
Pack of 4 caps and 4 black retainers for impression taking	**30013** 
Grey, without retention, pack of 4 pcs	**30001** 
Blue, low retention, pack of 4 pcs	**30002** 
Pink, medium retention, pack of 4 pcs	**30003** 
White, high retention, pack of 4 pcs	**30004** 
Black, for the impression taking, pack of 4 pcs	**30012** 
Spacer rings for the prosthetic relining phase, pack of 4 pcs	**8514**
Aluminium analogs for Abutment Locator R-Tx ø 3.35 mm pack of 4 pcs	**30014** 

description	code
Aluminium analogs for Abutment Locator R-Tx ø 4.00 mm, pack of 4 pcs	**30015** 
Aluminium analogs for Abutment Locator R-Tx ø 5.00 mm, pack of 4 pcs	**30016** 
Transfer for Abutment Locator R-Tx with low retention, pack of 4 pcs, one size for all platforms	**30017** 
Spacer rings for relining phase, direct method, pack of 4 pcs	**30018** 
Locator core tool for the insertion of the retainers in the caps and in the retention sleeve for drivers for the transport of the Locator R-Tx abutments in the oral cavity	**30021** 
RA screwdriver for Locator R-Tx, hex 1.25 mm	**08008** 
Digital screwdriver for Locator R-Tx, hex 1.25 mm	**08007** 

Anchoring with Locator R-Tx abutments

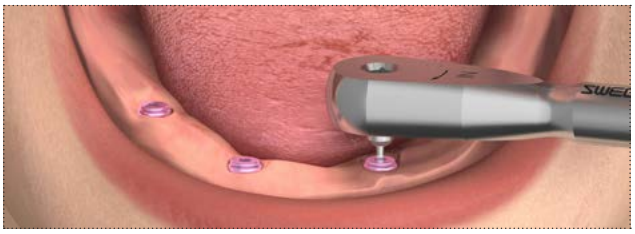


Direct method: chairside phases

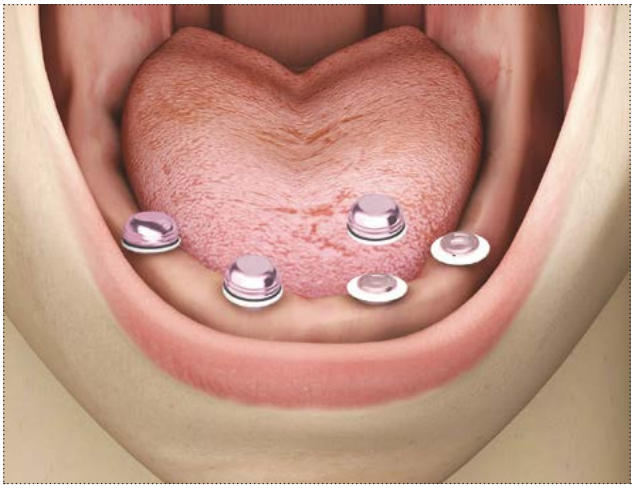
Uncover the implants or remove the transgingival healing screws, depending on whether a double or single-stage surgical protocol has been adopted.
Position the Locator R-Tx abutment in the implant using the appropriate digital screwdriver (cod. 08007).

Complete the positioning of the Locator R-Tx abutments using the screwdriver with hexagonal connection (code 08007) and the CRI5-KIT dynamometric ratchet.

It is recommended to tighten the Locator R-Tx abutments at 25-30 Ncm.

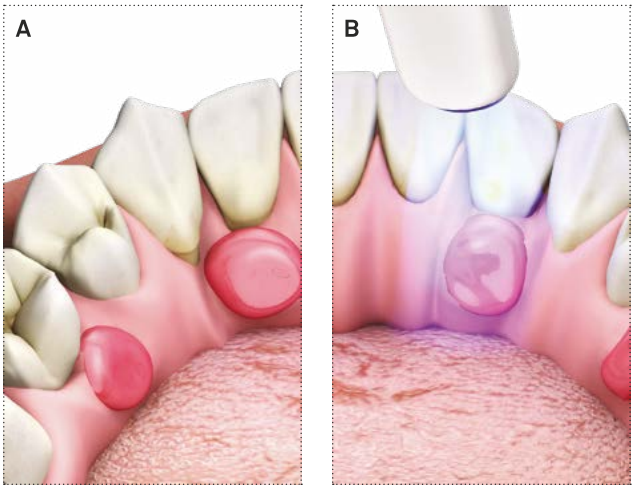


Place the white spacer ring on each abutment and push it up to the mucosal tissue.
Press the pink caps (containing the pre-assembled black retainer) onto each Locator R-Tx abutment.



Drill the prosthesis near the attachments, create sufficiently large holes to allow the injection and release of the acrylic resin.
Place the overdenture over the metal caps.

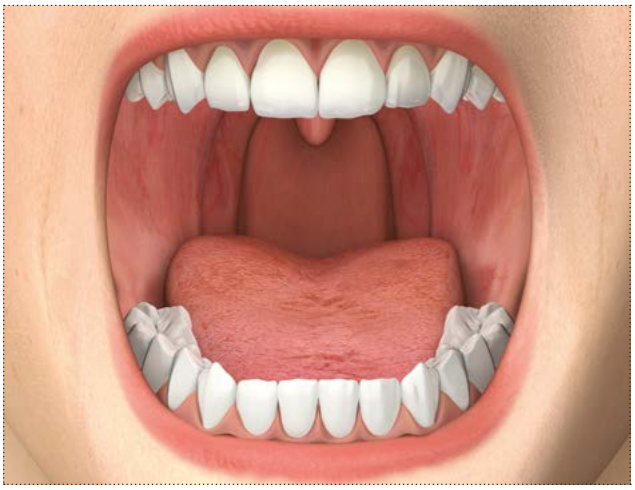
Insert the resin (**Img. A**) and proceed with the polymerization of the material following the indications of the manufacturer (**img. B**).
Then lift the artifact prosthetic: the black retainers will remain inside the metal caps.
Polish the base of the overdenture.



Remove the black retention insert from the housing cap using the removal end (OUT) of the insertion tool for retainers. To do this, proceed by anchoring the black retention insert and tilt the instrument distally or mesially inside the prosthesis until the insert completely disengages from the cap.
Use the characteristic metal slot on the back of the tool to remove the insert from the tip, by sliding the insert into the opening of the metal slot and with an upward movement to remove it.

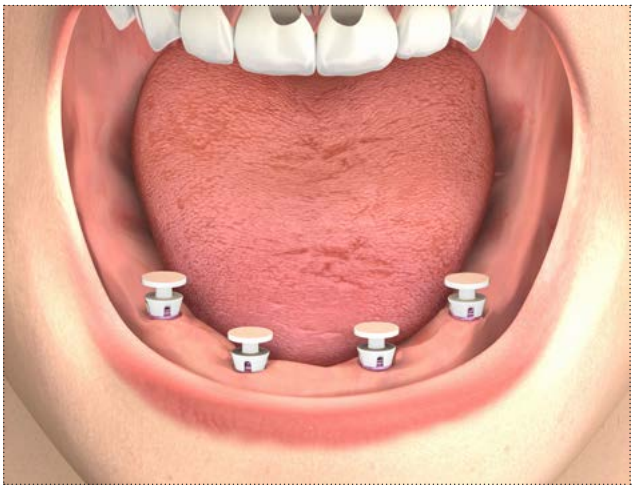
Place the insert with the selected retention in each cap using the insertion end (IN) of the instrument.
During the test phase, start by selecting the insert with the lowest degree of retention. Insert the retention insert at a slight angle, then straighten the tool and press down.

Position the overdenture and press down to anchor the inserts to the Locator R-Tx abutments, checking the occlusion. Instruct the patient on how to remove and insert the overdenture.
If retention is unsatisfactory, remove the inserts and replace them with those with the next level retention.



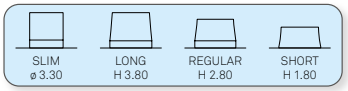
Indirect method: chairside phase

Insert the Locator R-Tx transfers (code 30017) with a simple free hand pressure, inside which the special black plastic retainer for taking an impression (code 30012) has been inserted first.



Inject a precision impression material only around the transfers and at the same time fill the impression tray with a plus material consistent throughout the arcH Place the spoon closed in situ and wait for the hardening times according to instructions. The particular conformation of the transfers Locator R-Tx allows to obtain the maximum retentivity in the minimum vertical space.

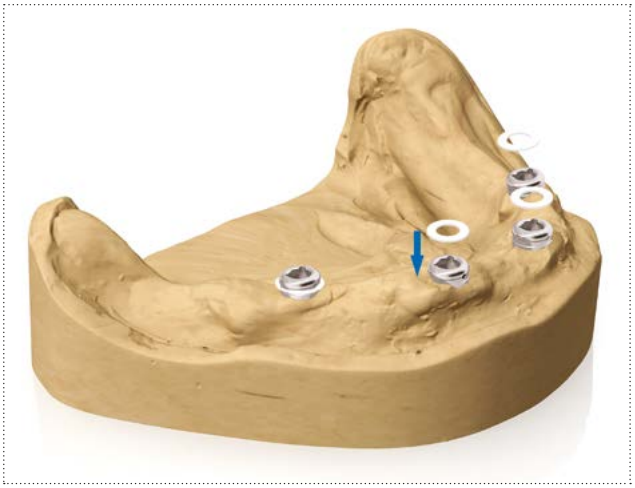
Lift the tray vertically: the Locator R-Tx transfers will remain incorporated in the impression.



Insert a Locator R-Tx analog into each Locator transfer: the analogs are available in three different diameters (3.35 mm code 30014, 4.00 mm code 30015 or 5.00 mm code 30016) and send the impression to the laboratory.

Indirect Method: laboratory phase

Develop the model as usual: the analogue Locator R-Tx will exactly reproduce the position of the head of the Locator R-Tx abutment. In the model, insert a 08514 spacer ring, 0.50 mm thick, in each analog, which will create the space necessary to obtain the full resilience of the metal cap incorporated in the prosthesis that rotates over the head of the Locator R-Tx abutment.



Place the metal caps with the black retainers pre-assembled on the head of the analog Locator R-Tx. The black retainer will keep the overdenture within the limit higher than its capacity for vertical resilience during the processing phases, therefore it is necessary check that it is completely inserted inside the metal cap.

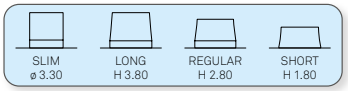
Make the overdenture as per usual protocols, checking that the overall dimensions of the abutment and metal cap are completely included in the prosthesis.
To correctly incorporate the metal caps into the structure, unload the latter in correspondence with the Locator abutments and position it on the model.

Remove the black retention insert from the housing cap using the removal end (OUT) of the insertion tool for retainers. To do this, proceed by anchoring the black retention insert and tilt the instrument distally or mesially inside the prosthesis until the insert completely disengages from the cap.
Use the characteristic metal slot on the back of the tool to remove the insert from the tip, by sliding the insert into the opening of the metal slot and with an upward movement to remove it.

Place the insert with the selected retention in each cap using the insertion end (IN) of the instrument.
During the test phase, start by selecting the insert with the lowest degree of retention. Insert the retention insert at a slight angle, then straighten the tool and press down.

Important warning
It is advisable to adequately instruct the patient on the correct procedures for positioning and removing the prosthesis, inviting him to practice with these simple maneuvers, even if the self-centering design of the Locator abutments has been specifically designed to facilitate these operations. The patient must also be urged to report any discomfort of the prosthesis, including the loss of retention of the attachments, in order to allow the operator to promptly maintain or replace retainers that are badly inserted or worn.

Maintenance and relining

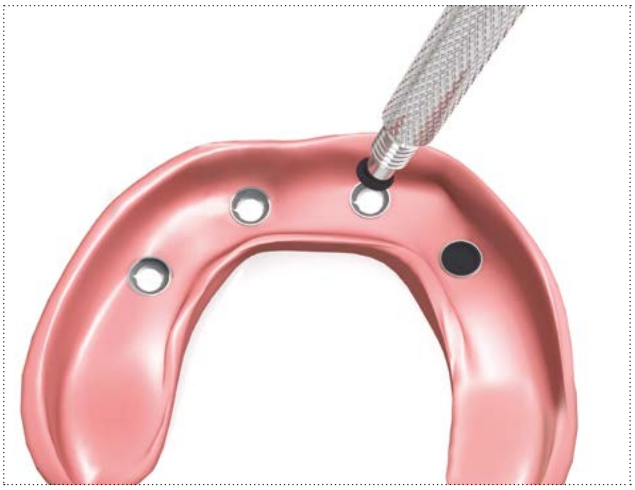


Maintenance

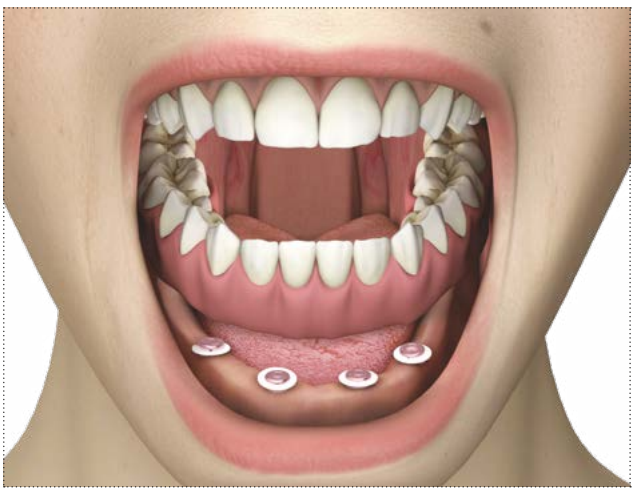
The Locator R-Tx metal components are made of Gr. 5 titanium, therefore it does not require any particular cleaning or maintenance precautions. However, to avoid the formation of plaque and the accumulation of abrasive residues in the well of the abutment, which could damage the two interfaces in contact, it is recommended to brush the removable prosthesis, the abutments and the nylon retainers daily with a soft brush under a jet of water, in order to prevent aggressive detergents from limiting the life of these components, which are in any case replaceable.
Even the use of ultrafloss-type wire around the abutments can help keep the peri-implant sulcus area and consequently the attachments themselves in good condition. Patient follow-up is recommended at least every six months, with simultaneous verification of retentivity and possible replacement of the damaged nylon retainers or their upgrade if the patient requires a higher retention level. During the follow-up it is also recommended to check the correct fixing of the abutments on the implants, screwing them back when necessary at a torque of 25-30 Ncm.
During the hygiene sessions it is recommended to use only plastic instruments for the scaling operations on the abutments. It is preferable to avoid the use of metal instruments that could scratch the surface of the abutments.

Periodic relining of the overdenture

Remove the retainers from the metal caps and temporarily replace them with black retainers, in order to maintain a correct vertical ratio during relining. Unload any compression zones. Spread the relining material, be it resin or silicone, inside the prosthesis, taking care to avoid retainers.



Take a relining impression using the existing prosthesis as an impression tray.
It is recommended to protect the Locator R-Tx with the special silicone rubber spacer rings.



The retainer will engage the head of the Locator R-Tx abutment and will hold the prosthesis in position during the impression and solidification of the material.
Upon removal of the impression, the retainers will remain inside the metal caps.

Insert an analogue Locator R-Tx in each metal cap coupled with the retainer and make the model as usual.

Important warning
Direct relining in the patient's mouth could generate problems related to the stoichiometric difference between the structural resin of the overdenture, cured under heat and under pressure, and the relining resin, cured cold and without pressure. In addition, the difficulty in controlling the material, which could anchor under the attachments, the color difference, the shorter duration of the relining and the discomfort linked to the presence of the resin in the patient's mouth make this option inadvisable.

Definitively reline the prosthesis in the laboratory and carefully perform tests with the patient to choose a new suitable retainer.

Important warning
If the patient has substantial changes in the oral anatomy (eg after a very significant weight loss) it is necessary to proceed not with a simple relining, but with a new repositioning of the metal caps inside the overdenture.
To do this, the copings themselves must be removed with a small bur from the resin structure and repositioned proceeding as described on pag. 178.

Anchoring with ball attachments

The anchoring system with ball attachments, also known as ball joints, is composed of a Gr. 5 titanium post with spherical top with a diameter of 2.20 mm and of a selection of many anchoring matrices that can be directly incorporated into the removable prosthesis.
The ball attachments have a small hexagon at the base of the ball for attaching the driver, compatible with the system's dynamometric ratchet.

Conditions and indications for anchoring with ball attachments

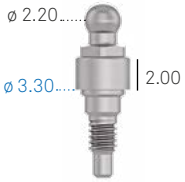
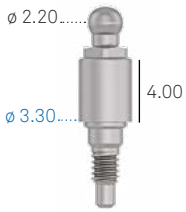
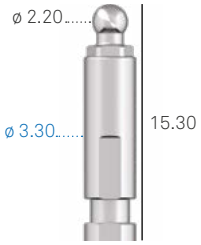
The standard prosthetic protocol with ball attachments contemplates the support of two implants, positioned preferably 22.00 mm from each other, so that the axis of rotation between the two posts allows the overdenture a certain degree of vertical movement. Absolute parallelism between the two implants is not an indispensable condition for the success of the rehabilitation, as the spherical head intrinsically allows a certain degree of correction. However, the presence of any disparallelisms may present risks of fracture, particularly for the ball attachments, in heavy load conditions, so the rehabilitation with ball attachments is preferable exclusively between parallel implants.

The long-term stability and duration of the ball attachment/cap complex is determined by various factors, including the following:

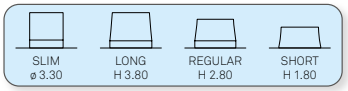
- three-dimensional alignment of the occlusal surfaces of implants and prosthesis;
- adequate positioning of the prosthetic interface (cap or ring, matrix) so that the ball does not
- touch the prosthesis in its most occlusal part;
- vertical dimension of the prosthesis such as to ensure that the cap is surrounded on all sides by an adequate layer of resin.

Since the ball must work free from restraints to guarantee the correct mucosal resting surface for the overdenture, abutments with ball attachment are available in different transgingival heights

Note: ball attachments, which close on the implant platform, can be used indifferently with all Prama implant diameters and with all types of necks, Short, Regular and Long.

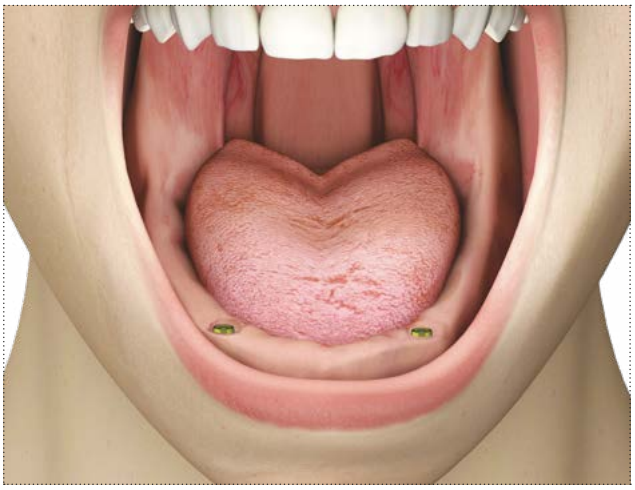
description	code	
Ball attachments Straight emergence Transgingival h 1.00 mm	**A-AS-330-1**	
Ball attachments Straight emergence Transgingival h 2.00 mm	**A-AS-330-2**	
Ball attachments Straight emergence Transgingival h 4.00 mm	**A-AS-330-4**	
Analog of the ball attachment	**ANAS**	
Steel driver for ball attachments, with connector for dynamometric ratchet or digital connector	**BASCC-EX**	

Recommended torque for ball attachments: 25-30 Ncm.



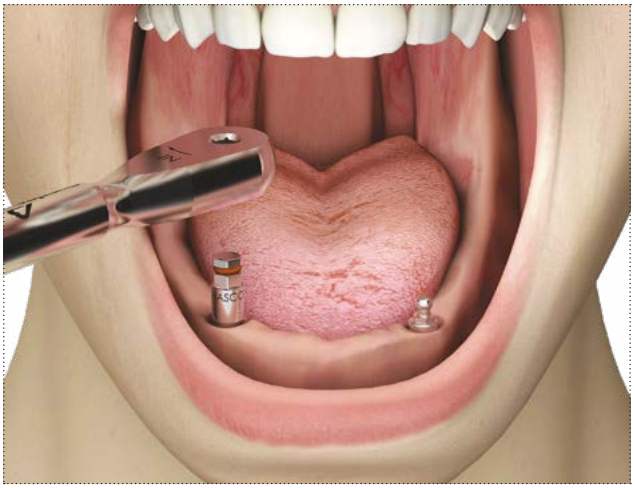
Impression and model

Expose the implants, or remove the transgingival healing screws, depending on whether a protocol with a double or single surgical phase was adopted. Depending on the thickness of the soft tissues, choose the ball attachment with the most suitable transgingival height.
For the heights available see the table on page 204.



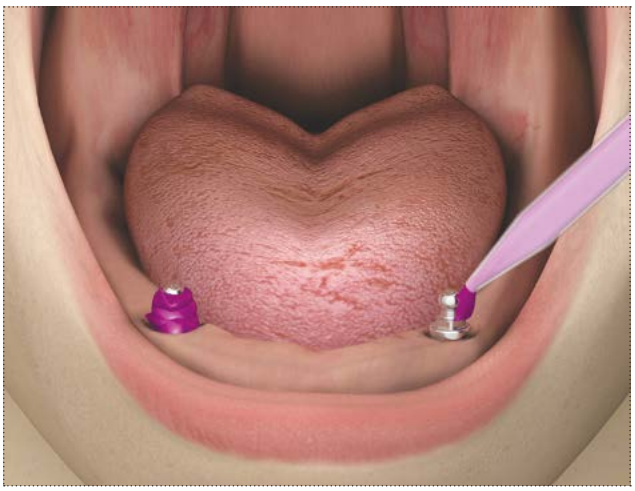
Engage the small hexagon at the base of the ball with the driver BASCC-EX and connect the other end to the dynamometric ratchet CRI5-KIT. Screw the posts into the connection of the implants with a torque of 25-30 Ncm.

Note: the driver is not contained in the surgical kits and must be requested separately, with code BASCC-EX. Instead it is included in the Screw Kit. This driver is compatible with the system's dynamometric ratchet.

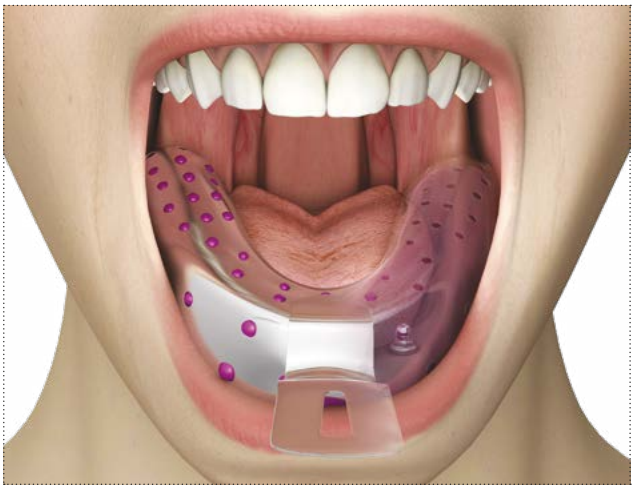


Position the closed tray and check that the whole height of the ball attachment is contained within the walls of the impression tray. Inject a precision impression material (i.e. SKY IMPLANT LIGHT, code SKY14) only around the spherical heads of the posts and at the same time fill the impression tray with a more consistent material (i.e. SKY IMPLANT HEAVYMIX, code SKY04) on the whole arch. Then position the tray in situ and wait for the hardening times as indicated by the instructions of the manufacturer.

Important warning
As you are accustomed, it is advisable to insert a suitably perforated piece of latex or dam to prevent silicone infiltrating the peri-implant sulcus.



Lift the impression tray vertically.



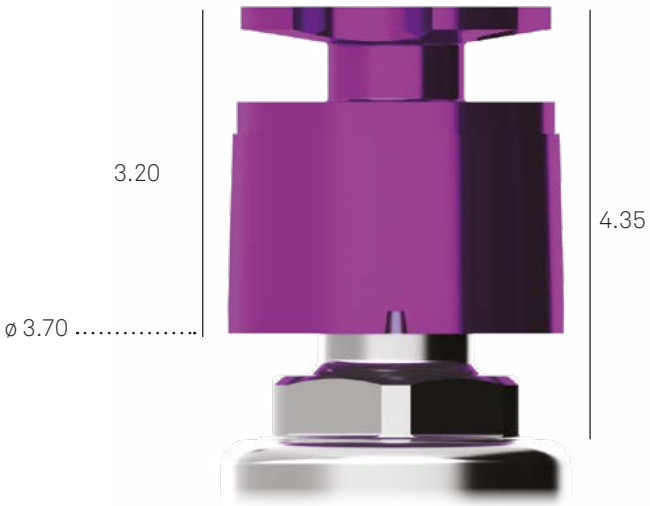
Insert the analogs of the ball attachments (code ANAS) in the empty spaces left by the retaining balls of the attachments.
Since the spherical head is always the same for all implant platforms, there is only one analog.

Develop the model according to usual techniques, incorporating the analogs of the ball attachments (code ANAS) in the chosen material.

Matrices for ball attachments

Titanium Cap CAP-TIT-1

The matrix consists of a Gr. 5 titanium cap, in two parts complete with, titanium retention spring and plastic mounting ring. Each pack contains the medium version of the retention spring (MOL1-CAP-TIT-1), but a softer spring is also available for progressive adaptation, which can be ordered separately with the code MOL2-CAP-TIT-1. Both the springs and the plastic mounting ring are also available as spares, with the codes shown in the table at the side.
A special driver is available for removing and reassembling the titanium cap; it allows rapid replacement of the retention spring and simplifies the use of the plastic relining ring, as explained in the work steps.

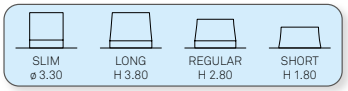


description	code
Titanium cap complete with cap in two parts, titanium retention spring, and plastic mounting ring for ball attachments ø 2.20 mm. The total height is 3.20 mm	**CAP-TIT-1** 
Spare plastic ring for titanium cap h 2.20 mm	**AN-CAP-TIT-1** 
Spare retention spring for titanium caps, average hardness, steel, ø 3.20 mm	**MOL1-CAP-TIT-1** 
Spare retention spring for titanium cap, soft, for progressive adaptation of the prosthesis, steel, ø 3.20 mm	**MOL2-CAP-TIT-1** 
Driver for mounting and maintenance of the titanium cap CAP-TIT-1	**AVV-CAP-TIT-1** 

Assembly of the titanium cap for work phases:

The titanium cap is supplied assembled on the spring with the final titanium ring. Before starting the direct protocol of anchoring the overdenture it is necessary to unscrew the preassembled titanium ring with the aid of the driver AVV-CAP-TIT-1 and set it aside with the spring.

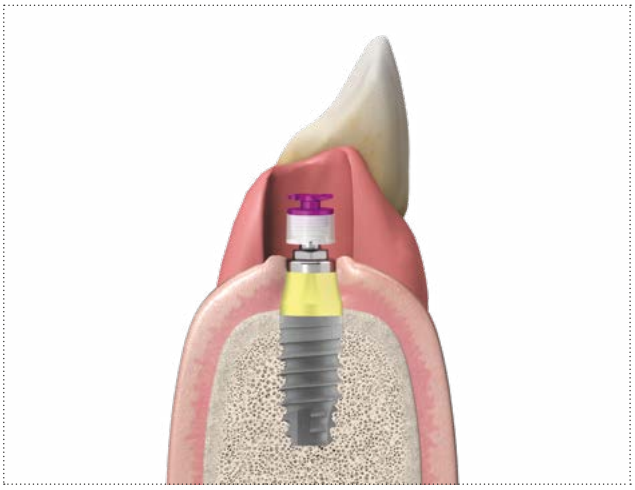
With the same driver screw the elastomeric plastic mounting ring onto the top of the titanium spring, without inserting a spring. The retention exerted by the plastic ring is minimum, but sufficient for the assembly phases.



Titanium Cap CAP-TIT-1: direct method

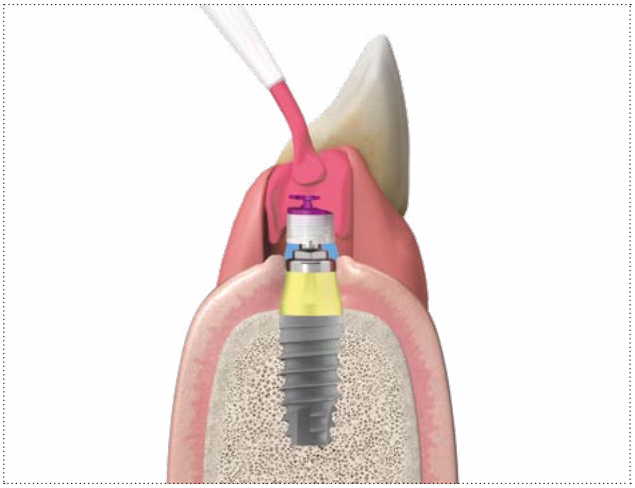
Position the caps assembled on the elastomeric plastic ring on the spherical head of the abutments.
Totally pierce the prosthesis for a radius of about 5.50 mm and put it in place to check the dimensions.
The retention of the elastomeric ring is minimum, but sufficient for the work phases.

Note: depending on the type of resin it may be useful to apply a light layer of Vaseline or wax around the transparent plastic ring to make its removal easier after its inclusion into the resin.



Fill the cavities with resin in such a way as to enclose the caps entirely and polymerise according to the manufacturer's instructions.

Important warning
Should it be necessary, protect any undercuts (highlighted in blue in the image) with impression plaster, wax, dam or other materials habitually used for this purpose..

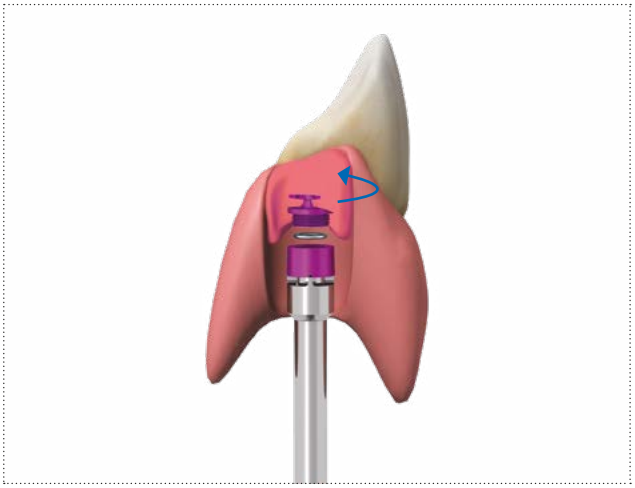


Intraoral view.

Unscrew the plastic ring with the driver AVV-CAP-TIT-1. The space left by the plastic ring is calculated so as to allow easy insertion of the titanium ring.

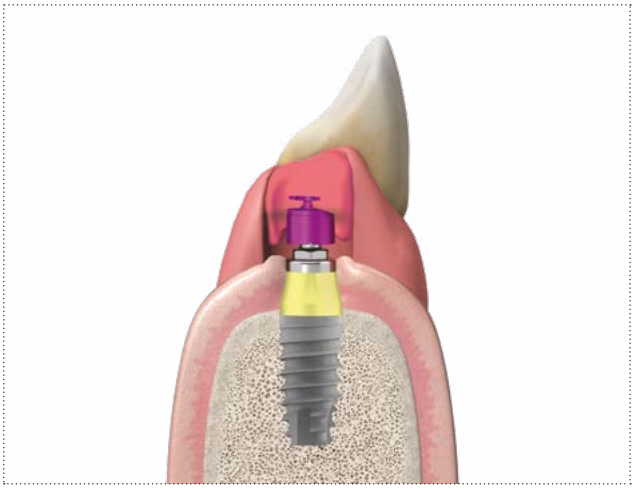
Screw the titanium ring onto the top of the cap, in which you have first inserted the retention spring.
Always insert the spring at the threaded end.

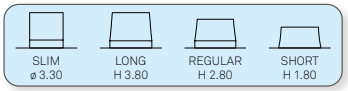
Important warning
Should the initial retention be excessive for the patient, replace the spring provided with the gold coloured one which can be bought separately with code MOL2-CAPTIT-1.



Polish the base of the overdenture and put the prosthesis in place, exerting vertical pressure until you hear the characteristic click which indicates the correct engagement of the head of the ball attachment on the retention spring.

Important warning
It is advisable to instruct patients adequately on the correct procedures for inserting and removing the prostheses, inviting them to practise these simple manoeuvres, even though the ball attachments make these operations simple and fast. Patients must also be urged to report any discomfort of the prosthesis, including the loss of retention of the attachments, so as to allow the operator to perform prompt maintenance or replace the spring or the ball attachments that may be badly inserted or worn.



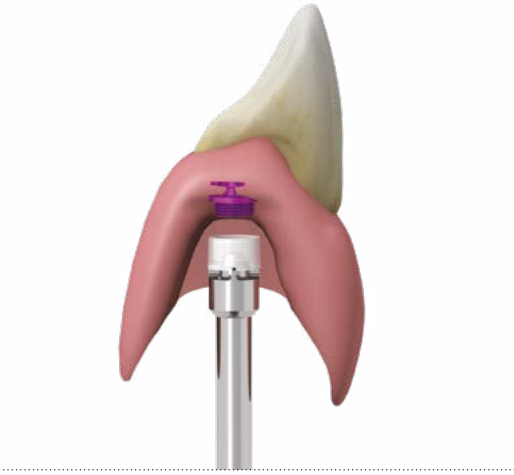


Titanium Cap CAP-TIT-1: indirect method

Position the caps assembled on the elastomeric plastic ring on the spherical head of the analogs, taking care to keep the insertion axis at a right angle to that of the analogs. Should it be necessary, relieve any undercuts with impression plaster, wax, dam or other materials habitually used for this purpose.

Make the overdenture with the customary protocols, checking that the overall dimensions of the ball attachment and the metal cap are completely included in the prosthesis.

Unscrew the plastic ring with the driver AVV-CAP-TIT-1. The space left by the plastic ring is calculated so as to allow easy insertion of the titanium ring.

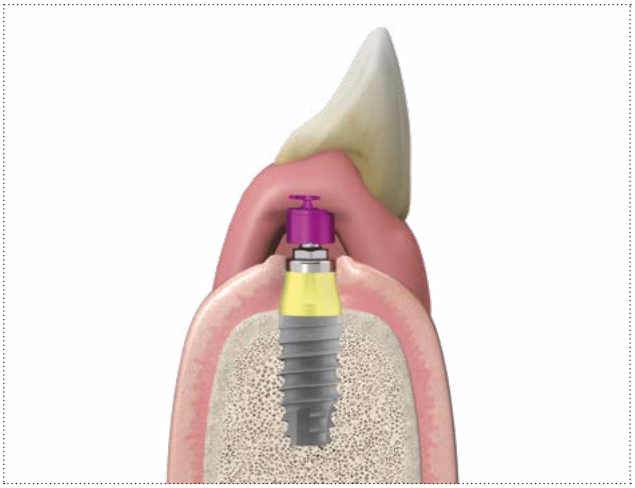


Screw the titanium ring onto the top of the cap, in which you have first inserted the retention spring.
Always insert the spring at the threaded end.

Important warning
Should the initial retention be excessive for the patient, replace the spring provided with the gold coloured one which can be bought separately with code MOL2-CAPTIT-1.

Polish the base of the overdenture and put the prosthesis in place, exerting vertical pressure until you hear the characteristic click which indicates the correct engagement of the head of the ball attachment on the retention spring.

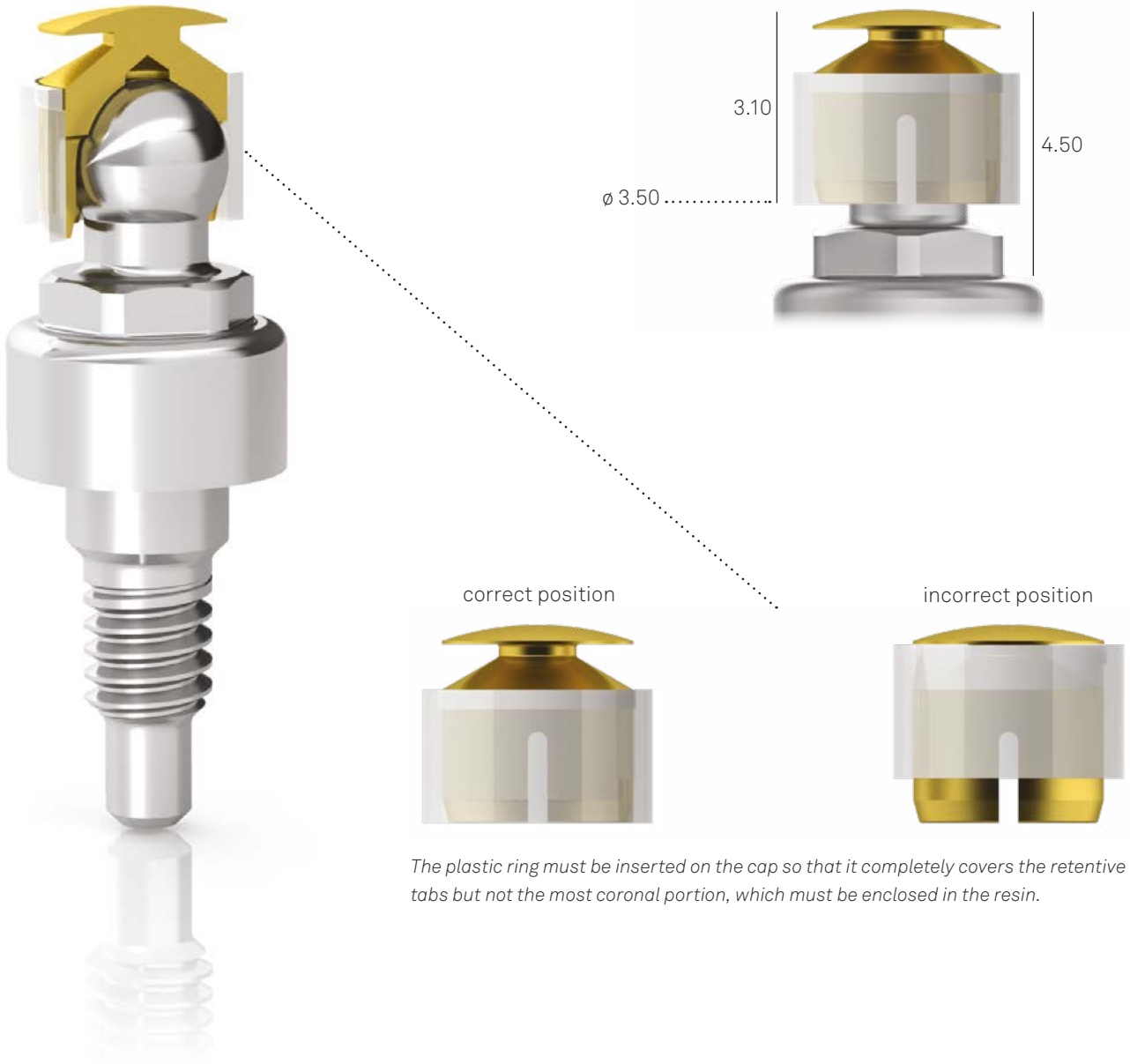
Important warning
It is advisable to instruct patients adequately on the correct procedures for inserting and removing the prostheses, inviting them to practise these simple manoeuvres, even though the ball attachments make these operations simple and fast. Patients must also be urged to report any discomfort of the prosthesis, including the loss of retention of the attachments, so as to allow the operator to perform prompt maintenance or replace the spring or the ball attachments that may be badly inserted or worn.



Matrices for ball attachments

Cap in gold alloy CAP-1

The matrix consist of a gold alloy cap characterised by 4 tabs with a particular retentive design which is supplied along with three transparent elastomeric rings and a laboratory tin spacer. The rings help maintain the elasticity of the gold alloy tabs, which otherwise would lose their retentive capacity after a brief use. For this reason it is important for the two components to be correctly positioned one on top of the other, as shown in the image at the foot of the page.



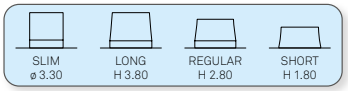
The plastic ring must be inserted on the cap so that it completely covers the retentive tabs but not the most coronal portion, which must be enclosed in the resin.

description	code
Cap in gold alloy 2, complete with plastic positioning ring for ball attachments ø 2.20 mm. The total height is 3.10 mm, and the outside diameter is 3.50 mm	**CAP-1** 

Adjusting retention

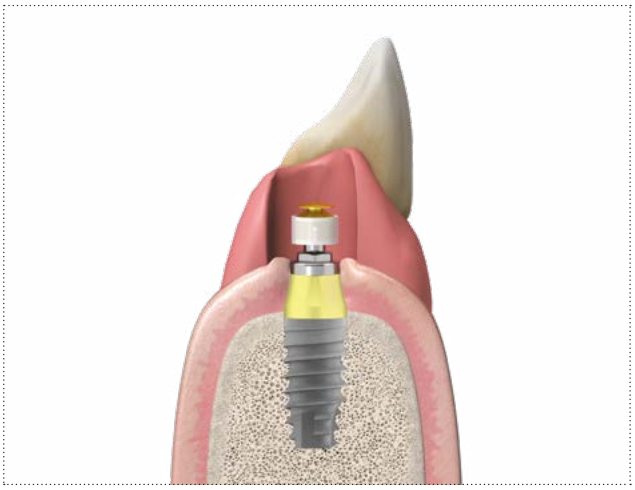
Should the alloy matrix be too difficult for the patient to remove, it is possible to slacken the retentive force of the tabs by inserting in the cap a tapered point with a growing diameter which will gradually spread the tabs. On the other hand, should the matrix lose its retentiveness it is possible to reactivate the tabs by simply inserting in the cap a point with a diameter smaller than 2.20 mm which will cause the four retentive walls to converge towards the centre. These operations must be performed gently, taking care not to detach the female from the resin.

The standard retention of the gold alloy cap is about 200 g, which is also the minimum value that can be obtained. The maximum value is about 1200 g. In the event of lack of retention despite activation, check that the female part is properly positioned; repolymerise if necessary. During any operations of modifying and relining the prosthesis it is preferable to remove the original female.



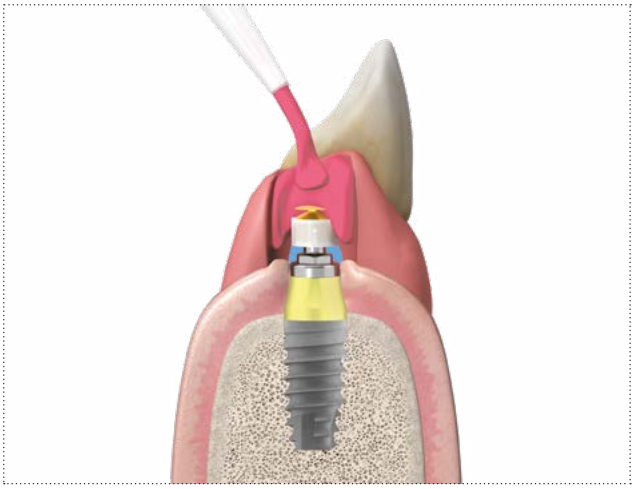
Cap in gold alloy CAP-1: direct method

Position the caps assembled on the plastic ring on the spherical head of the abutments. Pierce the prosthesis for a radius of about 5.50 mm and put it in place to check the dimensions.

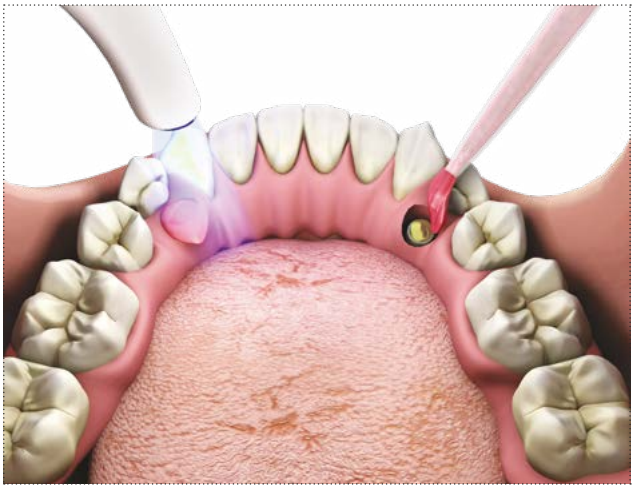


Insert a mass of resin in the hole so that it encloses the top of the cap, provided with a special peduncle that facilitates retention in the material, once it has been polymerised.

Important warning
Should it be necessary, protect any undercuts (highlighted in blue in the image) with impression plaster, wax, dam or other materials habitually used for this purpose.

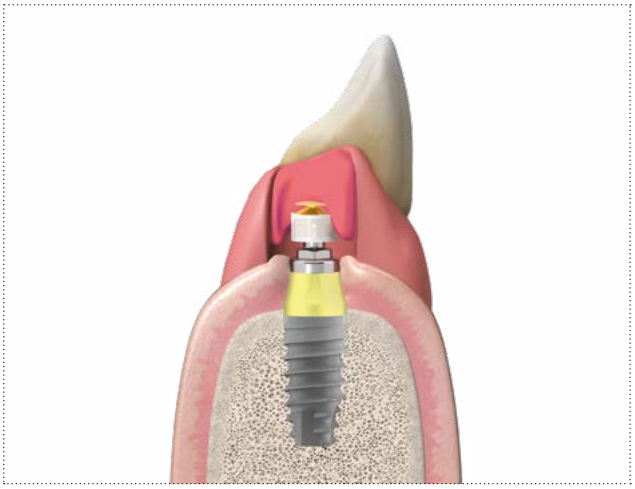


Intraoral view.

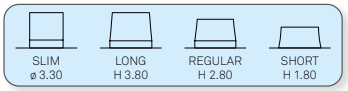


Once polymerisation is ended, lift the prosthesis and polish the base of the overdenture.

Test the retentive capacity of the gold alloy caps and put the overdenture into place. If necessary, adjust retentiveness with the operations described on page 214.



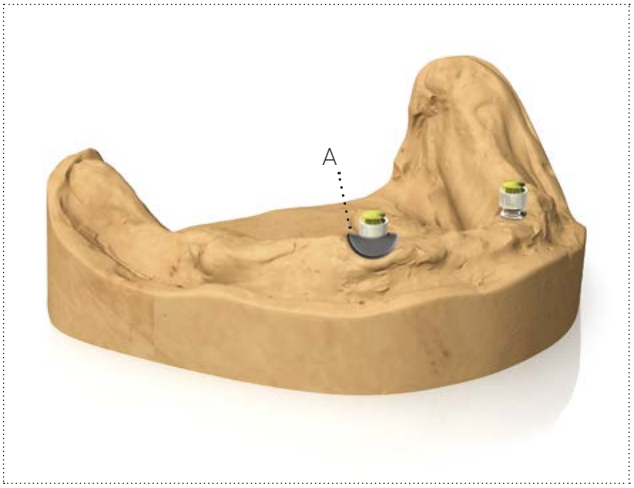
Important warning
It is advisable to instruct patients adequately on the correct procedures for inserting and removing the prostheses, inviting them to practise these simple manoeuvres, even though the ball attachments make these operations simple and fast. Patients must also be urged to report any discomfort of the prosthesis, including the loss of retention of the attachments, so as to allow the operator to perform prompt maintenance or replace any ball attachments that may be badly inserted or worn.



Cap in gold alloy CAP-1: indirect method

Position the caps assembled on the plastic ring on the spherical head of the analogs, taking care to keep the insertion axis at a right angle to that of the analogs. Should it be necessary, relieve any undercuts with impression plaster, wax, dam or other materials habitually used for this purpose.

Important warning
A tin spacer disc (A) is provided which allows optimum vertical resilience to be obtained. It can be positioned only on the model before insertion of the resin and adapted on the entire peri-implant surface, to be eliminated only after having completed the resin product. It must not be placed in the mouth as an alternative a piece of dam can be used.

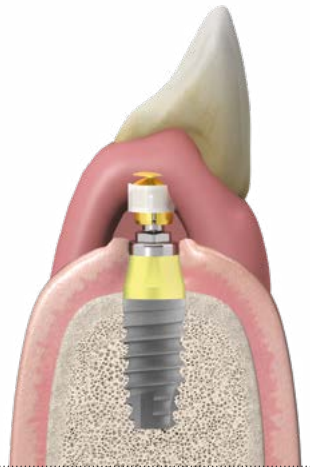


Make the overdenture with the customary protocols, checking that the overall dimensions of the ball attachment and the alloy cap are completely included in the prosthesis.

Once polymerisation is ended, lift the prosthesis and polish the base of the overdenture.

Test the retentive capacity of the gold alloy caps and put the overdenture into place. If necessary, adjust retentiveness with the operations described on page 205.

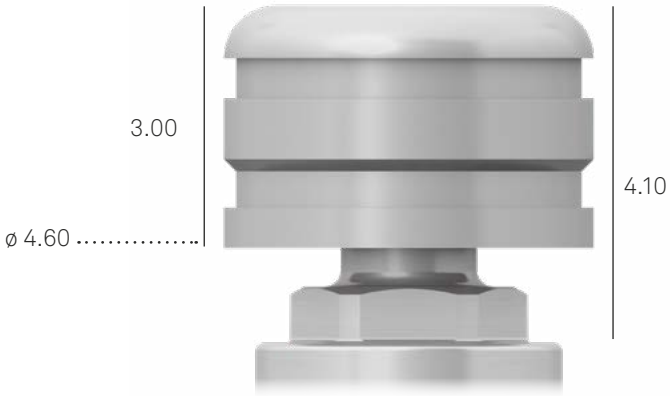
Important warning
It is advisable to instruct patients adequately on the correct procedures for inserting and removing the prostheses, inviting them to practise these simple manoeuvres, even though the ball attachments make these operations simple and fast. Patients must also be urged to report any discomfort of the prosthesis, including the loss of retention of the attachments, so as to allow the operator to perform prompt maintenance or replace any ball attachments that may be badly inserted or worn.



Matrices for ball attachments

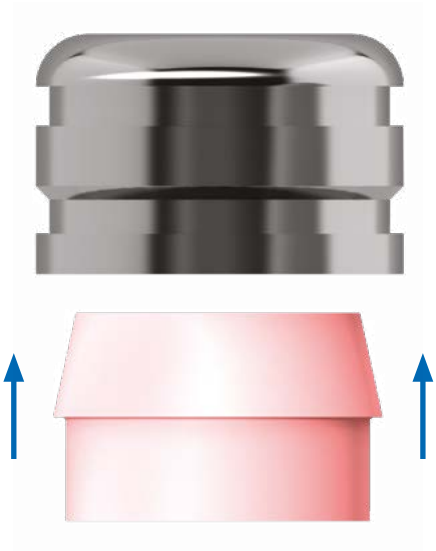
Polyamide cap CAP-TFL-1

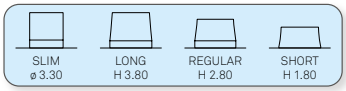
The anchoring system with polyamide cap consists of a steel container with grooves for optimal anchoring in the resin, and a polyamide retainer which can be replaced chair-side without having to adjust the structure of the overdenture.
If there is not enough space, the polyamide retainer can also be used without the metal container, however in this case it must also be considered that the cap undergoes greater wear in a shorter time, and the replacement becomes more invasive with respect to the prosthesis.



description	code
Polyamide cap for ball attachments ø 2.20 mm	**CAP-TFL-1** 
Steel container for polyamide cap with outer ø 4.80 mm The total height is 3.20 mm	**CONT-CAP-TFL-1** 

No particular instruments are required to insert the polyamide retainer in the steel cap, which can be done by hand.

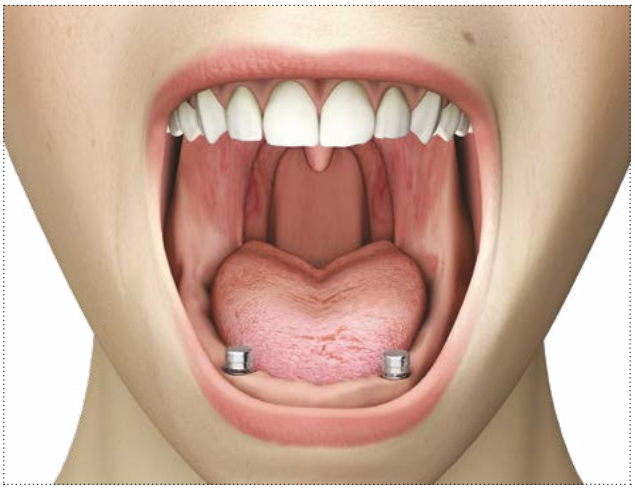




Polyamide cap CAP-TFL-1: direct method

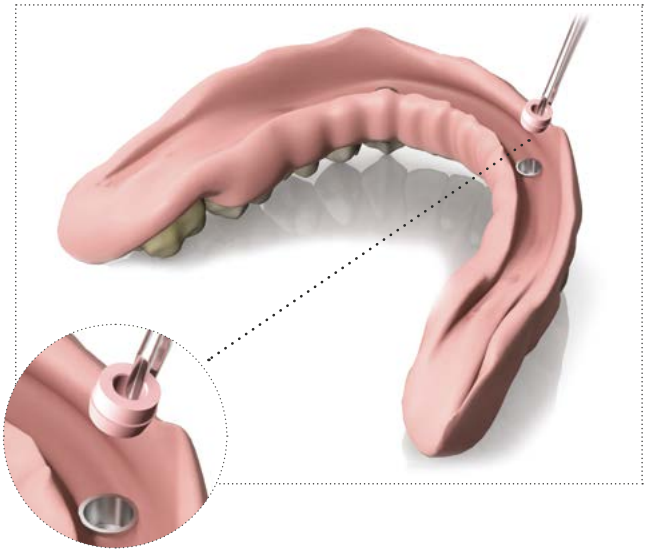
Manually insert the polyamide cap in the steel container exerting simple pressure. Position the assembled caps on the spherical head of the abutments.

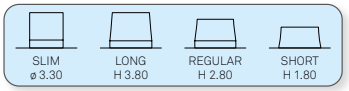
Important warning
Should it be necessary, protect any undercuts with impression plaster, wax, dam or other materials habitually used for this purpose.



Pierce the prosthesis, existing or new, for about 5.50 mm in the area of the ball attachment, to create the seat for the matrix. Try the overdenture on the edentulous crest to check the vertical dimension of the matrices in the spaces specially created.
Fill the cavities with resin so as to enclose the matrices completely, which should remain at the same level as the resin. Polymerise according to the manufacturer's instructions. Polish the base of the overdenture.

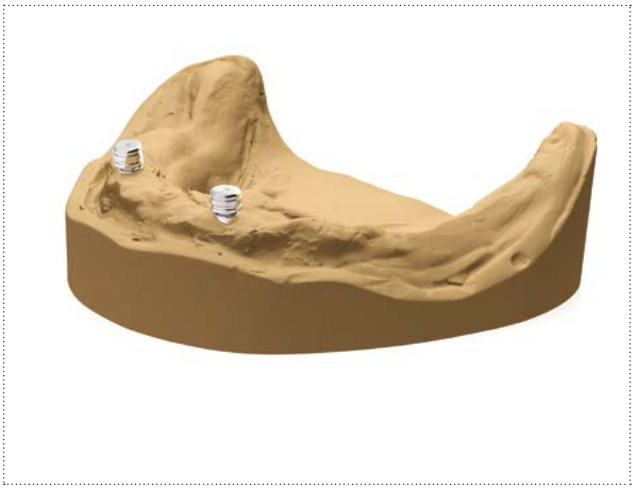
Important warning
It is advisable to instruct patients adequately on the correct procedures for inserting and removing the prostheses, inviting them to practise these simple manoeuvres, even though the ball attachments make these operations simple and fast. Patients must also be urged to report any discomfort of the prosthesis, including the loss of retention of the attachments, so as to allow the operator to perform prompt maintenance or replace the caps or the ball attachments that may be badly inserted or worn. The polyamide caps can be replaced manually chair-side, using only forceps..





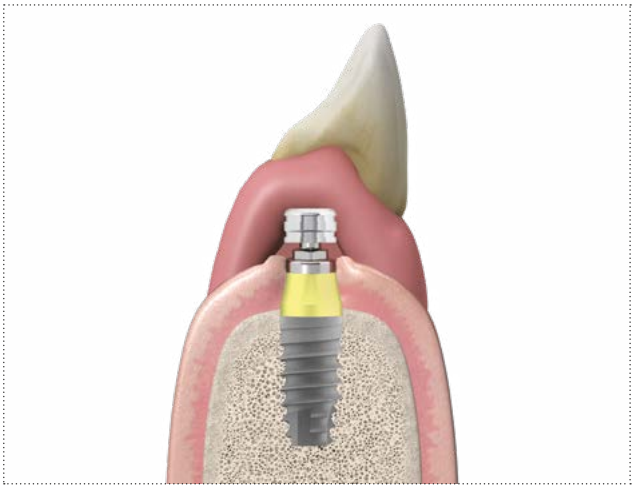
Polyamide cap CAP-TFL-1: indirect method

Manually insert the polyamide cap in the steel container exerting simple pressure. Position the assembled caps on the spherical head of the analogs.
Should it be necessary, relieve any undercuts with impression plaster, wax, dam or other materials habitually used for this purpose.



Make the overdenture with the customary protocols, checking that the overall dimensions of the ball attachment and the metal cap are completely included in the prosthesis.

Once polymerisation is ended, lift the prosthesis and polish the base of the overdenture.



Important warning
It is advisable to instruct patients adequately on the correct procedures for inserting and removing the prostheses, inviting them to practise these simple manoeuvres, even though the ball attachments make these operations simple and fast.
Patients must also be urged to report any discomfort of the prosthesis, including the loss of retention of the attachments, so as to allow the operator to perform prompt maintenance or replace the retainers or the ball attachments that may be badly inserted or worn. The polyamide caps can be replaced manually chair-side, using only forceps.

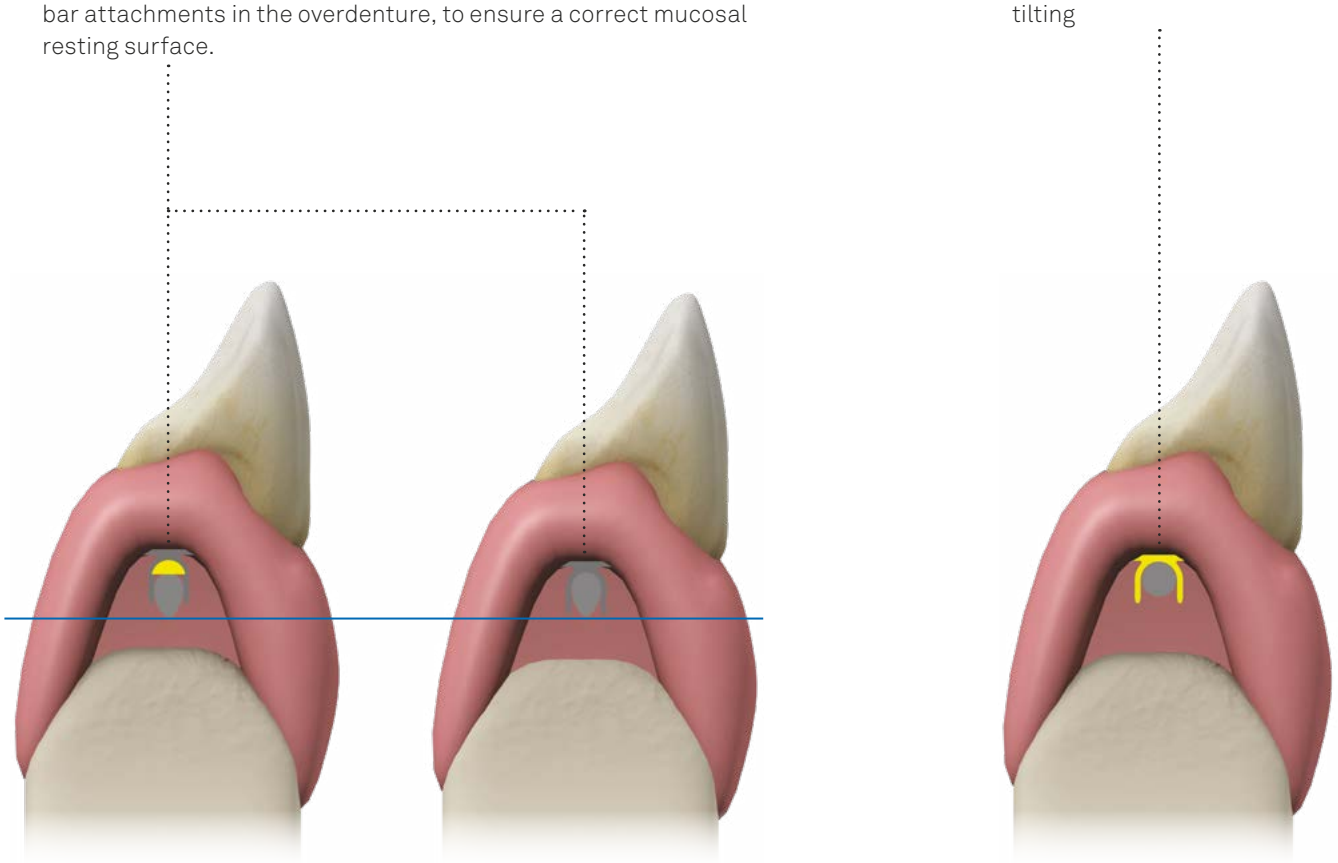
Cast or welded bars*

Rehabilitation on bars is an overdenture anchoring method that has the advantage of fixing the implants together. However, if the structure is not made in a precise manner there is the risk that the stresses that it generates may cause reabsorption and compromise the long-term duration of the implant prosthetic rehabilitation, so it is advisable to take the greatest care in checking that the fit between the bar and the implant platforms is adequate.

Two different bars are available, one with a round and the other with an ovoid section, which must be used with their respective bar attachments:

Dolder bar: bar with an asymmetrical ovoid section. Limits antero-posterior tilting movements. To allow correct resilience, it is supplied complete with a spacer to be used when fixing the bar attachments in the overdenture, to ensure a correct mucosal resting surface.

Ackermann bar: bar with a round section allowing antero-posterior tilting

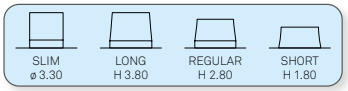


If you want to use bars with different sections from those present in the Sweden & Martina program, for example a rigid Dolder bar, these can be found on the market and used according to the manufacturer's instructions; the use of the posts to which they are joined is unvaried with respect to the one illustrated in this protocol.

***Note:** all the posts presented in the following pages can be modelled, customised and cast separately, then joined to the bar by welding. For the technical procedures, refer to the indications supplied by the manufacturers of the alloys used..

description	code
Castable bar, l 5.00 cm, h 3.00, thickness 2.20 mm Ovoid-shaped profile with spacer	**BAR-CAV-TIT** 
Divisible bar attachment in titanium for oval bars, H 3.00 mm, thickness 2.20 mm	**CAV-TIT** 
Castable bar, l 5.00 cm, ø 2.20 mm	**BARC**
Bar attachment in gold alloy 3, for round bars ø 2.20 mm	**CAV-375** 

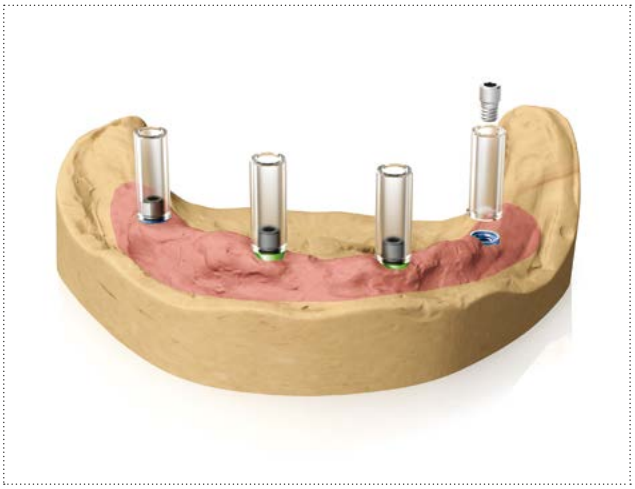
Important warning
For a correct design of the bar it is preferable to follow an indirect protocol since the laboratory model allows a precise measurement of the orthogonality of the structure.
For the impression taking protocols see pages 34 and following.



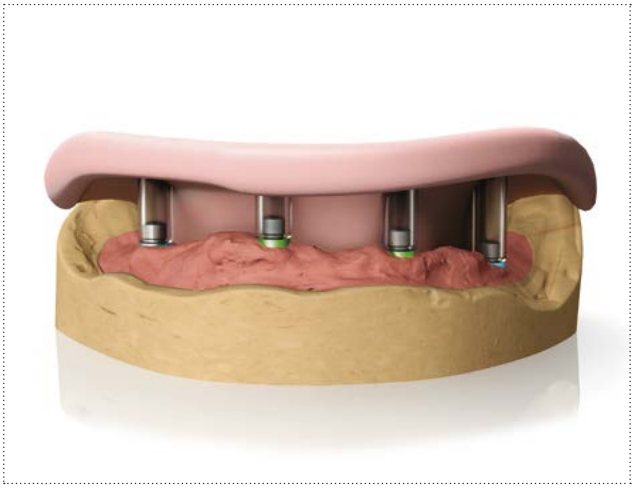
Bar on an intermediate abutment: indirect method

Once the model has been made according to the standard procedures, tighten the PLAIN abutments onto the analogs using a screwdriver of the HSM series. The final tightening torque of PLAIN abutments is 20-25 Ncm. Then fix all the castable sleeves A-PLAIN-CC* onto the PLAIN abutments by means of the fixation screws A-PLAIN-VP200 included in the pack for each sleeve.

Important warning
Always use spare screws for work in the laboratory, available in a single pack with code A-PLAIN-VP200. Use the final screws only for the final fastening in the patient's mouth.



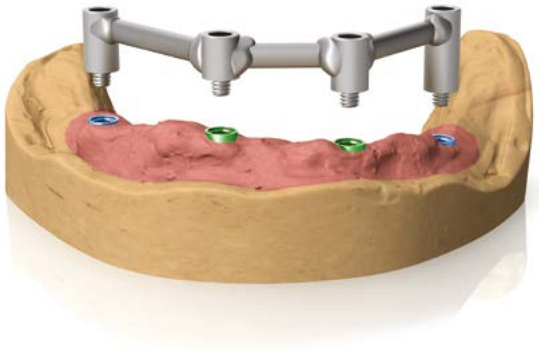
Reduce the castable sleeves to a size compatible with the patient's vertical dimension, using the silicone mask obtained from preassembly or putting the structure in an articulator with relation to the space left by the opposing arch.



Fix a Dolder castable bar with ovoid profile (code BARC-CAV-TIT) or a Ackermann castable bar with a round profile (code BARC) to the castable sleeves with resin.

Fabricate the bar by casting or using CAD CAM technology. Test the structure first on the model and then in the patient's mouth, checking for its complete passivity. The recommended torque for the final fastening of the over-structures obtained by casting to the abutments is 20-25 Ncm.

Important warning
If the structure is not completely passive, even though the normal checking protocol has been followed before casting, it can be corrected as per usual protocol.

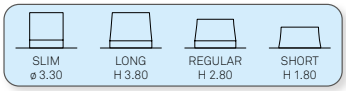


In the case of the bar with an ovoid profile, insert a segment of the spacer bar (included in the pack) between the bar attachment and the cast bar before including the attachments at the base of the overdenture: this step will ensure correct resilience of the prosthetic rehabilitation.

Fabricate the structure in wax and then transform it in resin, incorporating the top of the bar attachments, or reposition the prefabricated teeth in the mask.

Important warning
Attention must be paid to ensure that the resin does not completely cover the side walls of the bar attachments, hampering their horizontal movement which allows the anchoring and release of the bar. Each bar requires the use of a specific bar attachment, since the sections of the bars are different and are not compatible.

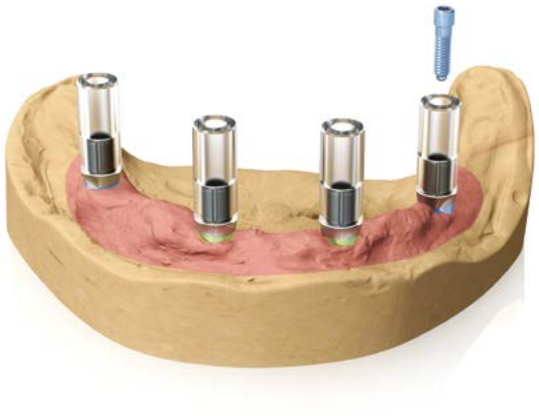
Important warning
It is advisable to instruct patients adequately on the correct procedures for inserting and removing the prostheses, inviting them to practise these simple manoeuvres. Patients must also be urged to report any discomfort of the prosthesis, including the loss of retention of the bar attachments, so as to allow the operator to perform prompt maintenance or replace the retainers or the bar attachments..



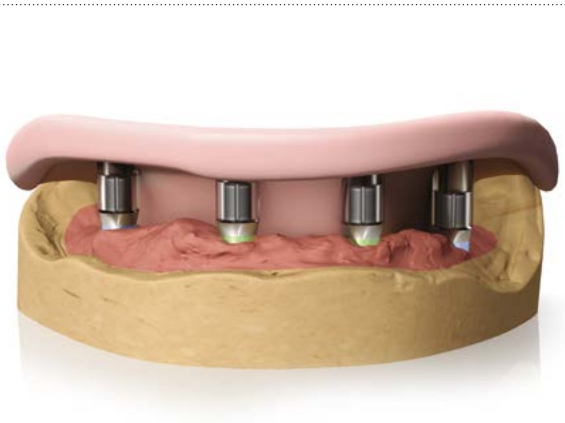
Bar obtained with castable posts with a metal base: indirect method

Once the model has been made according to the standard procedures, tighten the castable posts with a metal base onto the analogs using a driver from the HSM or L-HSM according to the chosen post.
The final tightening torque for prosthetic products on castable posts with a metal base is 20-25 Ncm.

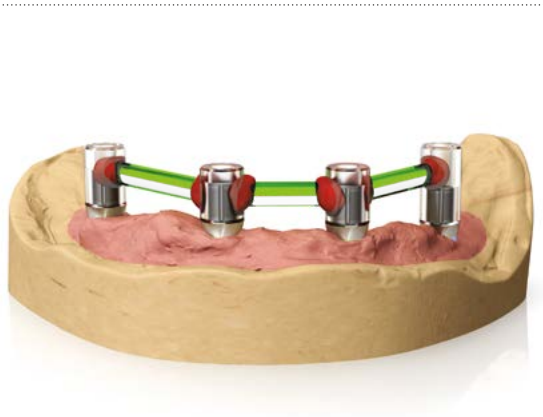
Important warning
It is advisable to always use test screws for laboratory work, keeping the new screws supplied for definitive fixing in the patient's mouth.



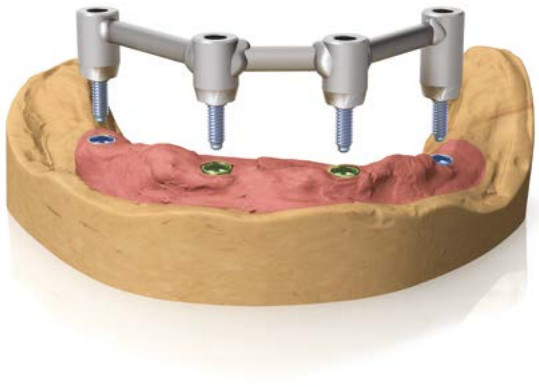
Reduce the castable sleeves to a size compatible with the patient's vertical dimension, using the silicone mask obtained from preassembly or putting the structure in an articulator with relation to the space left by the opposing arch.



Fix a Dolder castable bar with ovoid profile (code BARC-CAV-TIT) or a Ackermann castable bar with a round profile (code BARC) to the castable sleeves with resin.



Fabricate the bar by casting or using CAD CAM technology. Test the structure first on the model and then in the patient's mouth, checking for its complete passivity The recommended torque for the final fastening of the over-structures obtained by casting to the abutments is 20-25 Ncm.

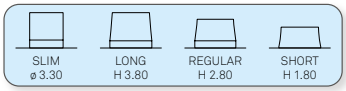


In the case of the bar with an ovoid profile, insert a segment of the spacer bar (included in the pack) between the bar attachment and the cast bar before including the attachments at the base of the overdenture: this step will ensure correct resilience of the prosthetic rehabilitation.

Fabricate the structure in wax and then transform it in resin, incorporating the top of the bar attachments, or reposition the prefabricated teeth in the mask.

Important warning
Make the structure in wax and then transform it in resin, incorporating the top of the bar attachments, or reposition the prefabricated teeth in the mask.

Important warning
It is advisable to instruct patients adequately on the correct procedures for inserting and removing the prostheses, inviting them to practise these simple manoeuvres. Patients must also be urged to report any discomfort of the prosthesis, including the loss of retention of the bar attachments, so as to allow the operator to perform prompt maintenance or replace the retainers or the bar attachments.

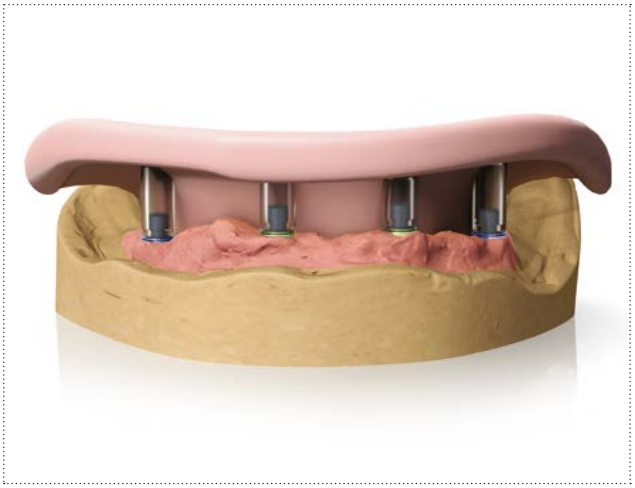


Bar obtained with entirely castable posts: indirect method

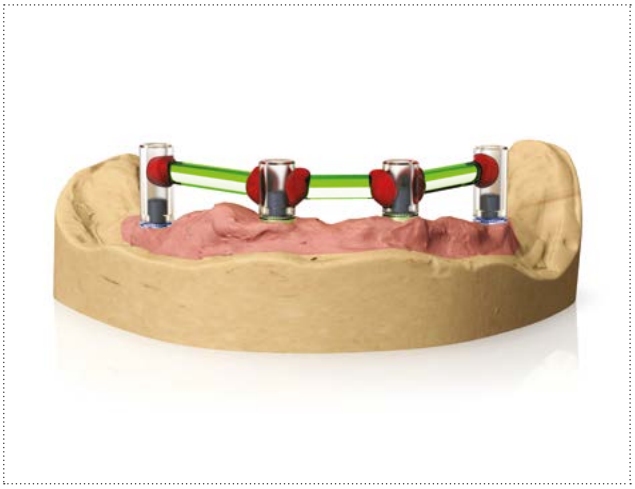
Once the model has been made according to the standard procedures, tighten the castable posts onto the analogs using a screwdriver of the HSM series. Before casting, care must be taken in the laboratory to ensure that the entirely castable posts are not fastened onto the models with a torque exceeding 8-10 Ncm, because polymers are not as resistant as metal.

Important warning
Always use spare screws for work in the laboratory, these are available in a single pack with codes VM2-180. Use the final screws only for the final fastening in the patient's mouth

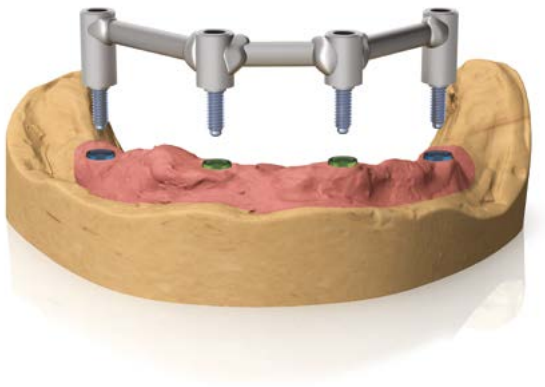
Reduce the castable sleeves to a dimension suited to the patient's vertical dimension, using the silicone mask obtained from preassembly or putting the structure in an articulator with relation to the space left by the opposing arch.



Fix a Dolder castable bar with ovoid profile (code BARC-CAV-TIT) or a Ackermann castable bar with a round profile (code BARC) to the castable posts with resin.



Cast the structure according to the standard protocol. Try out the structure first on the model and then in the patient's mouth to check its complete passivity. The recommended tightening torque for all the over-structures obtained by casting to the abutments is 20-25 Ncm.

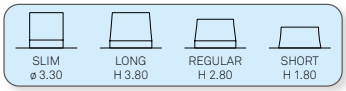


In the case of the bar with an ovoid profile, insert a segment of the spacer bar (included in the pack) between the bar attachment and the cast bar before including the attachments at the base of the overdenture: this step will ensure correct resilience of the prosthetic rehabilitation.

Fabricate the structure in wax and then transform it in resin, incorporating the top of the bar attachments, or reposition the prefabricated teeth in the mask.

Important warning
Attention must be paid to ensure that the resin does not completely cover the side walls of the bar attachments, hampering their horizontal movement which allows the anchoring and release of the bar. Each bar requires the use of a specific bar attachment, since the sections of the bars are different and are not compatible.

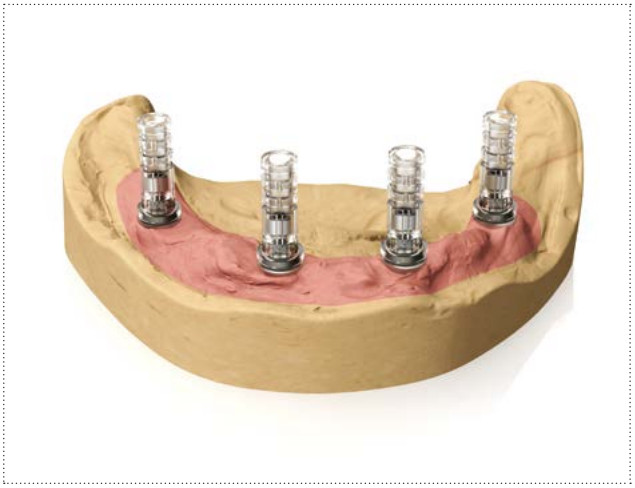
Important warning
It is advisable to instruct patients adequately on the correct procedures for inserting and removing the prostheses, inviting them to practise these simple manoeuvres. Patients must also be urged to report any discomfort of the prosthesis, including the loss of retention of the bar attachments, so as to allow the operator to perform prompt maintenance or replace the retainers or the bar attachments..



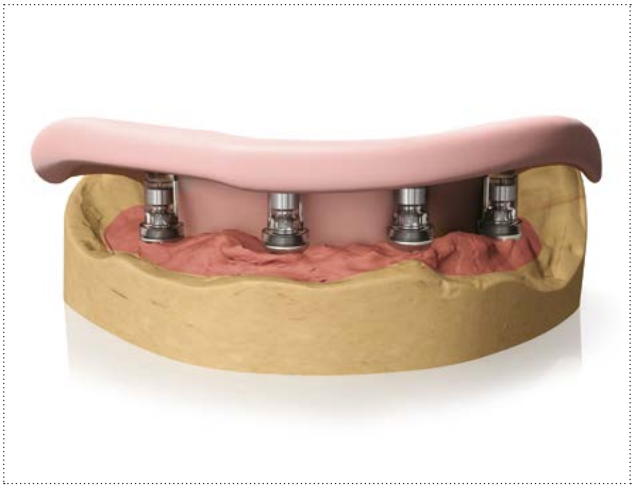
Bar on P.A.D. with castable sleeves: indirect method

Once the model has been made according to the standard procedures (as indicated from page 122) tighten the castable sleeves PAD-CC onto the abutments analogs. Before casting, care must be taken in the laboratory to ensure that the entirely castable posts are not fastened onto the models with a torque exceeding 8-10 Ncm, because polymers are not as resistant as metal.

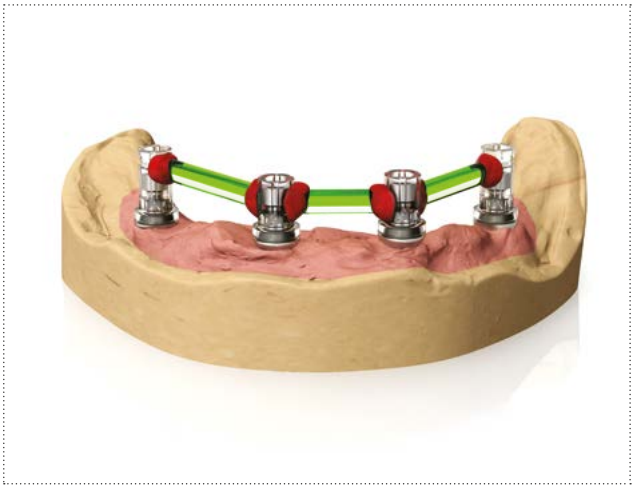
Important warning
Always use spare screws for work in the laboratory, these are available in a single pack with codes PAD-VM-180. Use the final screws only for the final fastening in the patient's mouth.



Reduce the castable sleeves to a dimension suited to the patient's vertical dimension, using the silicone mask obtained from preassembly or putting the structure in an articulator with relation to the space left by the opposing arch.

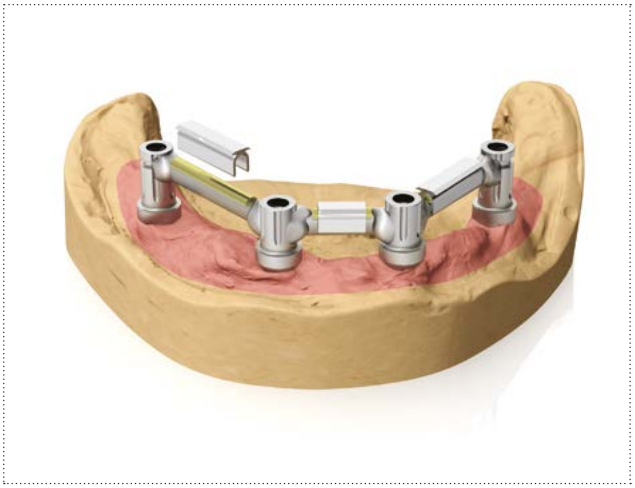


Fix a Dolder castable bar with ovoid profile (code BARC-CAV-TIT) or a Ackermann castable bar with a round profile (code BARC) to the castable sleeves with resin.



Cast the structure according to the standard protocol. Try out the structure first on the model and then in the patient's mouth to check its complete passivity. The recommended tightening torque for all the over-structures obtained by casting to the abutments is 20-25 Ncm.

In the case of the bar with an ovoid profile, insert a segment of the spacer bar (included in the pack) between he bar attachment and the cast bar before including the attachments at the base of the overdenture: this step will ensure correct resilience of the prosthetic rehabilitation.



Fabricate the structure in wax and then transform it in resin, incorporating the top of the bar attachments, or reposition the prefabricated teeth in the mask.

Important warning
Attention must be paid to ensure that the resin does not completely cover the side walls of the bar attachments, hampering their horizontal movement which allows the anchoring and release of the bar. Each bar requires the use of a specific bar attachment, since the sections of the bars are different and are not compatible.

Important warning
It is advisable to instruct patients adequately on the correct procedures for inserting and removing the prostheses, inviting them to practise these simple manoeuvres. Patients must also be urged to report any discomfort of the prosthesis, including the loss of retention of the bar attachments, so as to allow the operator to perform prompt maintenance or replace the retainers or the bar attachments.

Cleaning/sterilisation/storage of prosthetic components and instruments

Warning! All surgical instruments for dental implants are sold in non-sterile condition. Before use, the instruments must be cleaned, disinfected and sterilised according to the following procedure validated by Sweden & Martina. These processes are to be performed before first use, and before each subsequent re-use.
Repeating the processes described in this section has a minimal effect on these devices' wear and tear.

Make sure to always check the functionality of the instruments before use. Any instrument showing signs of wear should be replaced with a new device immediately. Specifically, it is recommended that the correct retention of the screwdrivers inside the engagement wells on the heads of the screws that are to be taken out and screwed in with those tools always be checked. Failure to comply with these instructions may result in cross infection and intraoperative complications.

a.Cleaning
Containers and transport to be used for cleaning have no special requirements. If automated cleaning is applied: use ultrasonic bath with a suitable cleaning solution. It is recommended that only neutral detergents be used. The concentration of the solution and the duration of the cleaning process should be in accordance with the solution manufacturer's instructions. Use demineralised water to prevent the formation of stains and marks.
When draining, check that residues have been completely removed from recesses, holes, etc., in the devices. If necessary, repeat the cycle or clean manually.

If manual cleaning is performed, use a suitable neutral detergent, following the manufacturer's instructions for use. Brush the products with soft bristles under running water. Using the brush, apply the cleaning solution to all surfaces. Rinse with distilled water for at least 4 minutes.
Ensure that plenty of running water flows through any holes. When cleaning drills with internal irrigation, use the pins provided with the handpieces to ensure that the irrigation holes have been thoroughly cleaned and cleared of any residual bone chips or biological tissue. After rinsing, dry the devices completely and pack them in suitable sterilisation bags. If a drying cycle is performed as part of the washing and disinfection machine cycle, do not exceed 120 °C.

b.Sterilisation
When using a vacuum autoclave, sterilise using the following procedures:
- autoclave (Gravity-Displacement Cycles) at the temperature of 121 °C with a minimum of 30 minutes of exposure and a 15-minute drying cycle;
- autoclave (Dynamic-Air-Removal Cycles) at the temperature of 132 °C with 4 minutes of exposure and at least a 20-minute drying cycle.

c. Storage
After sterilisation, the product should remain in the pouches used for sterilisation. The pouches should only be opened immediately prior to reuse. Sterilisation pouches are normally capable of maintaining sterility inside the pouch unless the pouch is damaged. Care should therefore be taken to not use components if the pouches in which they were stored are damaged and to re-sterilise them in new pouches before re-use. The shelf life of sterilised products in pouches should not exceed that recommended by the pouch manufacturer. The product should be stored in a cool, dry place, away from direct sunlight, and from sources of water and heat.

Please visit the website **https://www.sweden-martina.com/en_gb/ifu/** for more information on:
- material composition;
- maintenance, cleaning/sterilization/storage of prosthetic components, surgical instrumentation and the
- CRI5-KIT torque control ratchet,
- legend of symbols used in packaging.

THE LAST REVISION DATE OF THIS MANUAL IS JULY 2022.

The design and manufacture of the devices covered by this manual has been undertaken in compliance with the most up-to-date directives and harmonised standards with regard to materials used, manufacturing processes, sterilisation, information provided and packaging.

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The implants, standard prosthetic components and surgical instruments contained in this catalogue are Medical devices and are manufactured by Sweden & Martina S.p.A. They conform to the ISO 9001 and ISO 13485 standards and are certified with the CE Mark (Class I) and CE 0476 mark (Class IIA and class IIB) in compliance with Regulation (EU) Medical Devices n.2017/745. They are conform to the QSR and 21 CFR part 820 and are approved by FDA.

The Sweden & Martina plant manufactures Medical Devices in compliance with the CGMPs in force in the USA and in other countries worldwide.