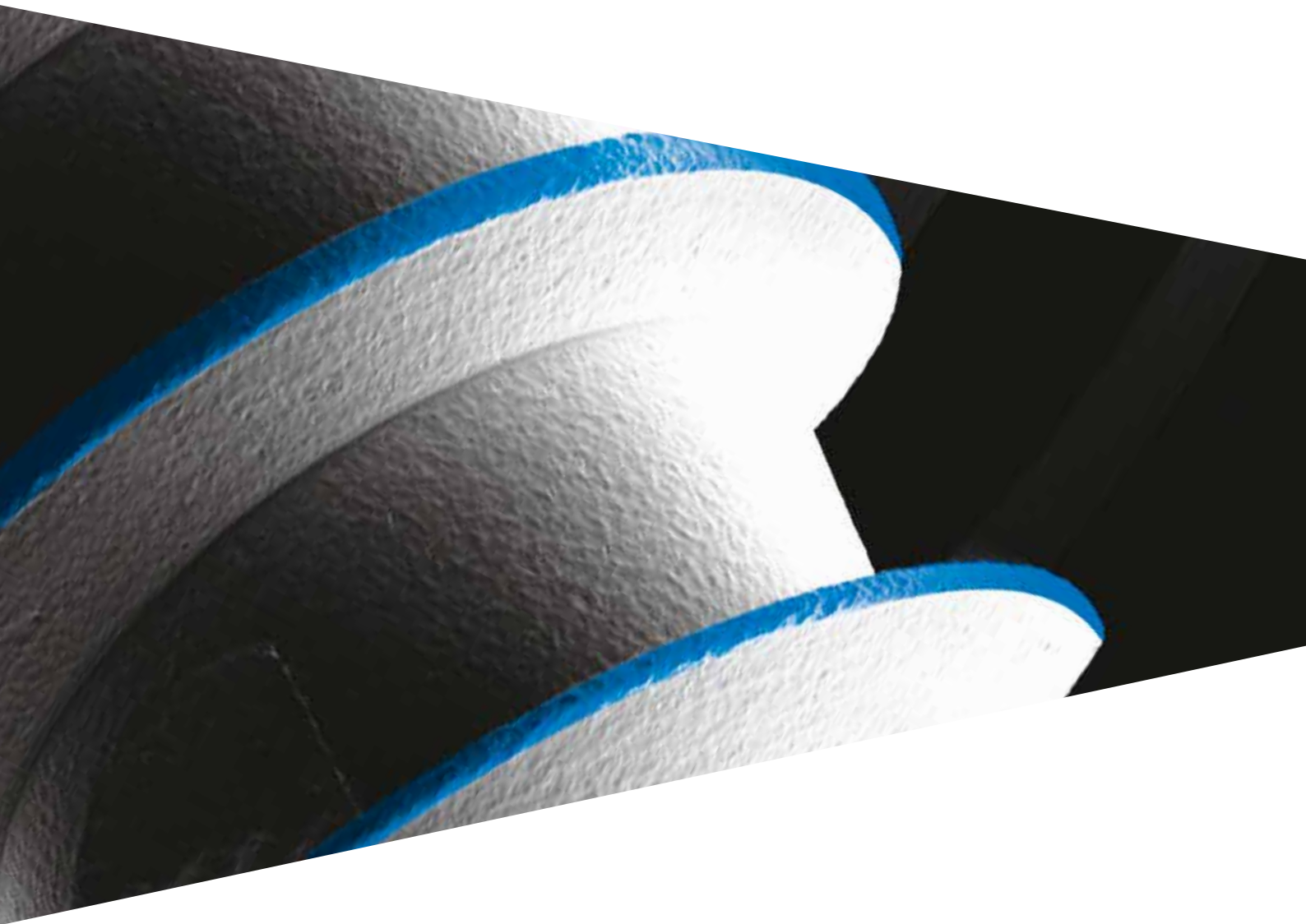


Catalogue

SHELTA





# Shelta



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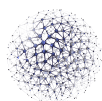
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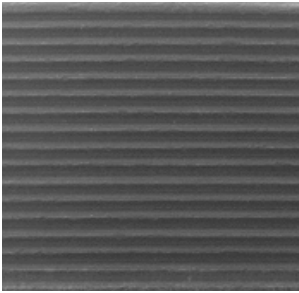
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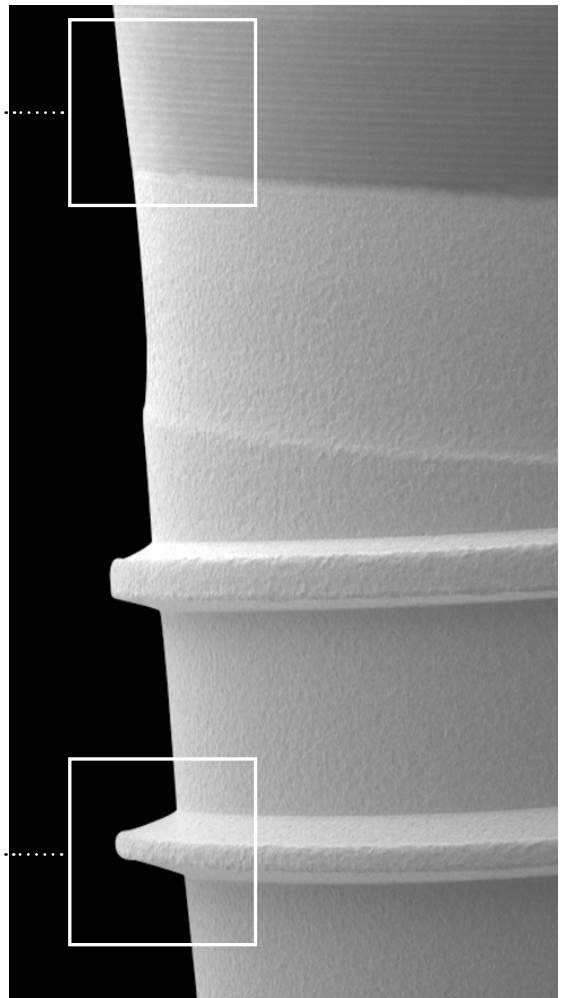
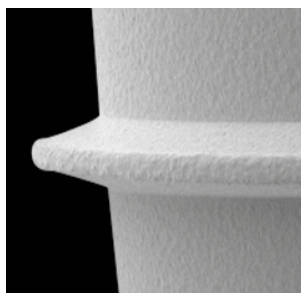
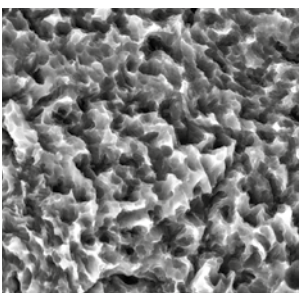
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# ZirTi surface

Shelta implants are available in ZirTi surface, characterized by **sand-blasting with zirconium oxide and etching with mineral acids.**



The collar presents a **UTM (Ultrathin Threaded Microsurface)** surface that allows the perfect quality control of the connection diameter in the production phase and **prevents the accumulation of plaque** in the area where it joins the post.



Sand-blasting with zirconium oxide and etching with mineral acids give surfaces a characteristic micromorphology **capable of significantly increasing the bone-to-implant contact area and promote osseointegration.**

# Key to the implant codes





The implant codes are so-called “mnemonic” codes, i.e. they allow easy identification of the piece. Below is a table showing how the mnemonic codes work using **SH-ZT-380SL-115** as an example:

type of implant	surface	diameter	spire	length
SH-	ZT-	380	SL-	115
<b>SH:</b> Shelta implant	<b>ZT:</b> ZirTi surface	<b>380:</b> 3.80 mm <b>425:</b> 4.25 mm <b>500:</b> 5.00 mm <b>600:</b> 6.00 mm  Is the size of the diameter of the implant connection	<b>SL:</b> wide spire  If no specifications are available, it refers to a standard spire (that is a spire that maintains its geometry along the body of the implant)	<b>085:</b> 8.50 mm <b>100:</b> 10.00 mm <b>115:</b> 11.50 mm <b>130:</b> 13.00 mm <b>150:</b> 15.00 mm  Refers to the length of the implant

**All measurements are in mm, unless otherwise indicated.**

## Table of colour codes

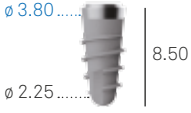
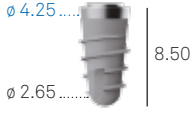




















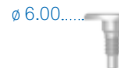
A colour code system has been defined in the Shelta implant system for identifying the intraosseous diameter of the implant. The final drills and the sequence on the surgical tray are also identified with the colour code.

implant diameter	3.80	4.25	5.00	6.00
colour code on pack				

# Shelta implants

Shelta implants are characterised by tapering the gradually decreases as the length of the implants increases. The angle remains unchanged between implants of different diameters, but of the same length.



implant $\phi$	3.80	4.25	5.00	6.00
8.50	<b>SH-ZT-380-085</b> 	<b>SH-ZT-425-085</b> 	<b>SH-ZT-500-085</b> 	<b>SH-ZT-600-085</b> 
10.00	<b>SH-ZT-380-100</b> 	<b>SH-ZT-425-100</b> 	<b>SH-ZT-500-100</b> 	<b>SH-ZT-600-100</b> 
11.50	<b>SH-ZT-380-115</b> 	<b>SH-ZT-425-115</b> 	<b>SH-ZT-500-115</b> 	<b>SH-ZT-600-115</b> 
13.00	<b>SH-ZT-380-130</b> 	<b>SH-ZT-425-130</b> 	<b>SH-ZT-500-130</b> 	<b>SH-ZT-600-130</b> 
15.00	<b>SH-ZT-380-150</b> 	<b>SH-ZT-425-150</b> 	<b>SH-ZT-500-150</b> 	-
Surgical cover screw*	<b>SH-VT-380-VE</b> 	<b>SH-VT-425-BL</b> 	<b>SH-VT-500-VI</b> 	<b>SH-VT-600-GR</b> 

\*Each implant is sold with its own surgical cover screw with matching diameter. The surgical cover screws are also available on sale individually in a sterile pack and must be tightened to 10 Ncm.

If a Switching Platform protocol is adopted starting from the very beginning, surgical cover screws with smaller diameter can also be purchased separately.

See technical characteristics of Gr. 4 titanium on page 97.

# Shelta SL implants

The conical geometry of Shelta SL implants replicates that of Shelta implants with a standard spire with the same length and connection diameter.





implant $\phi$	3.80	4.25	5.00
8.50	<b>SH-ZT-380SL-085</b> 	<b>SH-ZT-425SL-085</b> 	<b>SH-ZT-500SL-085</b> 
10.00	<b>SH-ZT-380SL-100</b> 	<b>SH-ZT-425SL-100</b> 	<b>SH-ZT-500SL-100</b> 
11.50	<b>SH-ZT-380SL-115</b> 	<b>SH-ZT-425SL-115</b> 	<b>SH-ZT-500SL-115</b> 
13.00	<b>SH-ZT-380SL-130</b> 	<b>SH-ZT-425SL-130</b> 	<b>SH-ZT-500SL-130</b> 
15.00	<b>SH-ZT-380SL-150</b> 	<b>SH-ZT-425SL-150</b> 	<b>SH-ZT-500SL-150</b> 
Surgical cover screw*	<b>SH-VT-380-VE</b> 	<b>SH-VT-425-BL</b> 	<b>SH-VT-500-VI</b> 

\*Each implant is sold with its own surgical cover screw with matching diameter. The surgical cover screws are also available on sale individually in a sterile pack and must be tightened to 10 Ncm.

If a Switching Platform protocol is adopted starting from the very beginning, surgical cover screws with smaller diameter can also be purchased separately.

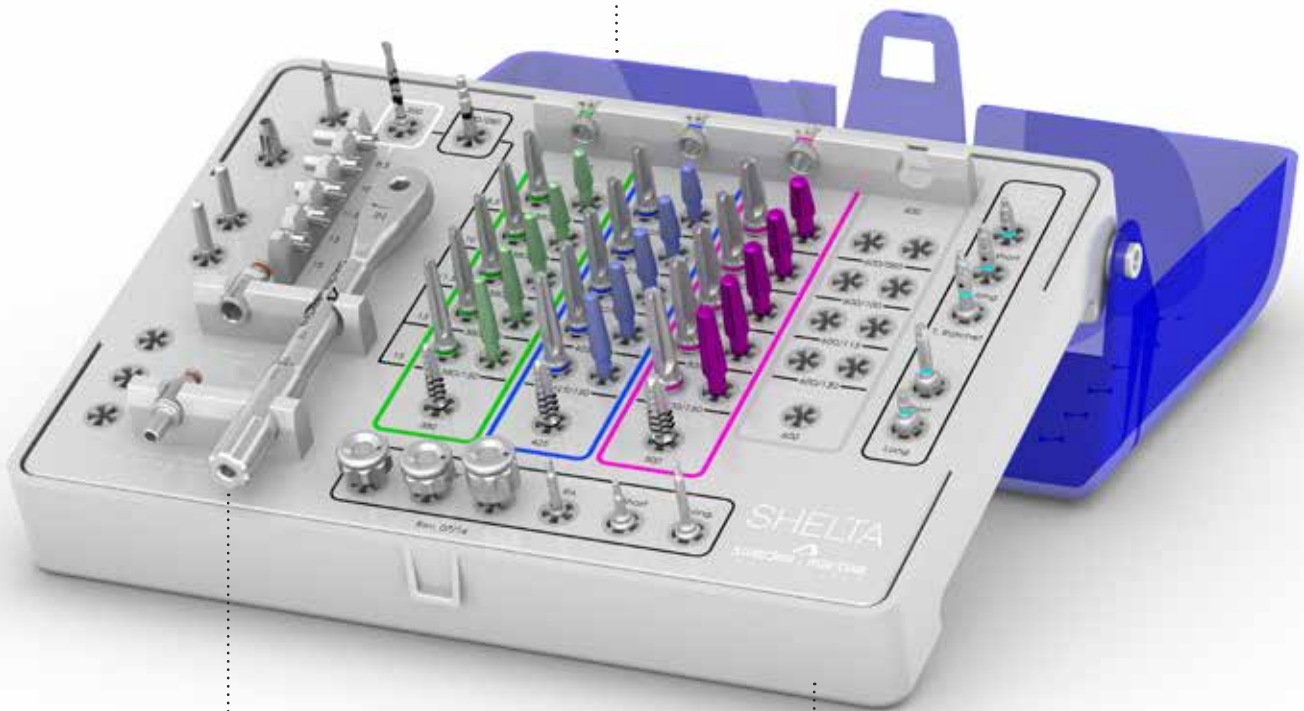
See technical characteristics of Gr. 4 titanium on page 97.

# Surgical kit

The Shelta surgical kit has been designed and made to offer ease of use and immediate placing in the sequence of instruments. The instruments, all made of stainless steel, have their descriptions screen-printed on the tray to allow the user to identify each instrument more easily and to put it back after the cleansing and cleaning phases, with the aid of a colour code system that traces the suitable surgical procedures for the various implant diameters.



The Shelta surgical kit is also supplied with the templates for the graphic representation of the implant measurements to allow choosing the most suitable implant diameters and lengths by means of radiographic or tomographic analyses.

The compact dimensions of the kit make it very practical in everyday use and in transport



A practical ratchet is also included that acts as a dynamometric key for checking the closing torque of the prosthetic screws and as a surgical key for inserting the implants. The ratchet has a very small head, making it easy to use even in distal sectors

The kit consists of a practical box in Radel with a surgical tray inside that is set-up to hold the instruments according to a guided procedure. The sequences of use of the instruments are indicated by coloured marks

description	code
Complete surgical kit of the instruments necessary for Shelta and Shelta SL implants	<b>ZSHELTA</b>  A white surgical instrument tray with a blue handle, containing various surgical instruments organized in rows. The instruments are color-coded: green, purple, and pink.
Radel instrument tray for Shelta and Shelta SL instruments	<b>SH-TRAY</b>  A white surgical instrument tray with a blue handle, containing various surgical instruments organized in rows. The instruments are color-coded: green, purple, and pink.

# A complete surgical kit for Premium and Shelta systems

The combined Premium Shelta surgical kit contains the instruments for the surgical and prosthetic phases of the fixtures of both implant systems.

The instrument tray is made in autoclavable Radel plastic and offers simplicity and immediacy for the correct sequence of the instruments required, marked with a system of colour codes that follow the most suitable surgical procedures for the various implant diameters. Descriptions of these instruments are indicated on the tray, allowing users to easily identify all instruments and to replace them in the correct position after cleansing and sterilisation procedures.





The surgical kit also contains X-ray templates for Premium and Shelta implants, to allow the most suitable implant diameters, lengths and morphologies to be chosen using radiographic or tomographic analyses.

All drills have practical depth stops that can be fitted to drills very easily and removed in the tip-> shank direction

Screwdrivers for surgical cover screws are also included, together with prosthesis screwdrivers to tighten connecting screws, also provided in a version with ratchet connector

The kit contains a practical ratchet that can be used as a fixed key when inserting implants or as a dynamometric key to control the torque applied when tightening connecting screws

REPLY replies are included, allowing checks to be made on site preparation and on the parallelism of Shelta system implants

description	code
Surgical kit containing the instruments necessary for Premium and Shelta implants	<p><b>ZPRESH</b></p> 
Radel instrument tray for Premium and Shelta instruments	<p><b>PRESH-TRAY</b></p> 
Kit with 5 spare silicon supports for surgical trays, for drills or instruments with right angle shanks	<p><b>GROMMET-CA-1</b></p> 
Kit with 5 spare silicon supports for surgical trays, for instruments fitted with connection hexagon	<p><b>GROMMET-CA-2</b></p> 

# Screw kit





The Sweden & Martina Screw Kit is a handy set containing the necessary drivers for the prosthetic phases after removal of the Shelta healing abutments. It includes digital and right-angle drivers, as well as a dynamometric ratchet. Small and easy to carry, it allows simple and immediate management of the prosthetic rehabilitation phase after surgery.

As well as digital and right-angle drivers, the Screw Kit includes a carrier for offset P.A.D. abutments, thus also favouring rapid full-arch prosthetic rehabilitations



The compact dimensions of this kit and the intuitive layout of the tray with the names of the instruments indicated in their place, allow the surgeon practical and easy management of the post-surgical rehabilitation phase, with notable optimisation of the time spent at the chair

The Screw Kit contains all the drivers for the various prosthetic solutions: for standard posts, for abutments, for P.A.D. prostheses, for Locator abutments, for ball attachments and the respective retainer caps

description	code
Screw kit complete with prosthetic instruments	<b>ZSCREW</b> 
Radel instrument tray for Screw kit	<b>SCREW-KIT</b> 
Kit with 5 spare silicon supports for surgical trays, for drills or instruments with right angle shanks	<b>GROMMET-CA-1</b> 
Kit with 5 spare silicon supports for surgical trays, for instruments fitted with connection hexagon	<b>GROMMET-CA-2</b> 

# Initial and intermediate drills

All Sweden & Martina drills are made of stainless steel with high resistance to corrosion and wear. The extreme accuracy of design and production allows use completely free from vibrations and oscillations.

**Precision drill:** very sharp and precise, it facilitates the opening of the implant site especially in the case of very hard cortical bone

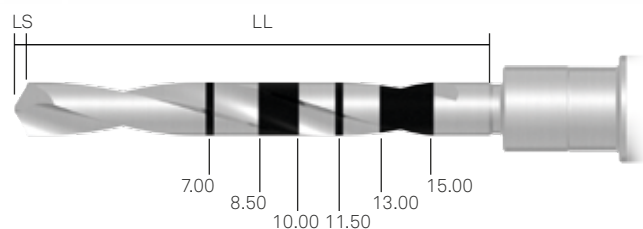
**Intermediate drill:** the shape with progressive diameter of the intermediate drill allows gradual expansion of the bone when using a drill with a diameter much larger than the previous one, so as to reduce bone stress to a minimum

**Pilot drill:** the different heights of the laser markings allow better visibility in the surgical field and greater ease of recognition of the different depths during use




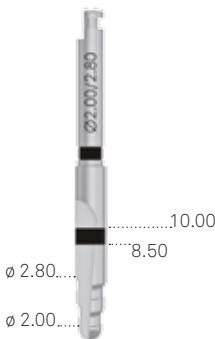
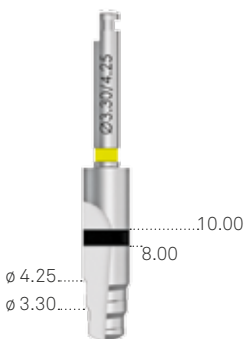
**LL:** Total length of the working part, including the tip.

**LS:** Length of the tip. This measurement must be calculated in addition to the length of the preparation hole.








**Please note:** the initial drills always make a hole that is longer than the implant to be inserted. The oversizing (LS) is equal to the height of the tip of the drill that is being used. See drawing above.



precision drill	intermediate drill	optional intermediate drill*
<p><b>FS-230</b> precision drill</p> 	<p><b>FG-200/280XS</b> intermediate drill <math>\varnothing</math> 2.00 - 2.80 mm</p> 	<p><b>FG-330/425XS</b> intermediate drill <math>\varnothing</math> 3.30 - 4.25 mm</p> 

\*Not included in the surgical kit. Can be purchased separately.

pilot drill and relative stops					
<p><b>FPT3-200-LXS</b> pilot drill</p> 	<p><b>STOP*-200-085</b> stop 8.50 mm for pilot drill</p> 	<p><b>STOP*-200-100</b> stop 10.00 mm for pilot drill</p> 	<p><b>STOP*-200-115</b> stop 11.50 mm for pilot drill</p> 	<p><b>STOP*-200-130</b> stop 13.00 mm for pilot drill</p> 	<p><b>STOP*-200-150</b> stop 15.00 mm for pilot drill</p> 
























\*The word STOP is followed by a number (3 or 4) indicating the revision of the accessory. Both versions are compatible with the dedicated drill.

# Final conical drills and their stops

Always made of stainless steel with high resistance to corrosion and wear, the final conical drills are characterised by four straight cutting edges.



**Please Note:** the drills always make a hole that is longer than the implant to be inserted. The oversizing (LS) is equal to the height of the tip of the drill that is being used. See drawing above.

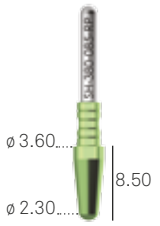
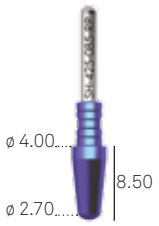
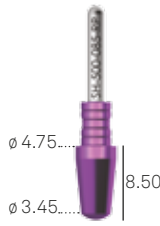

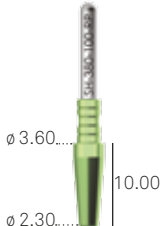
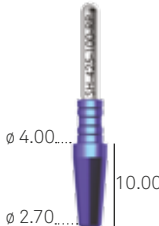
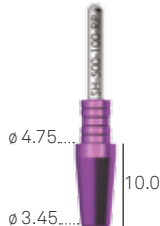

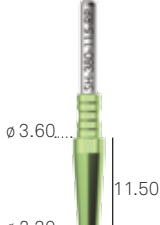

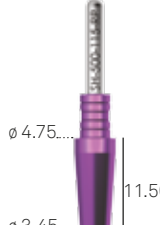

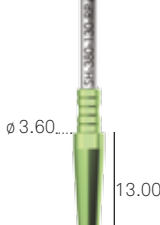
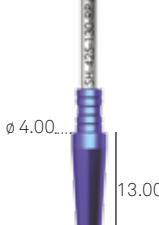


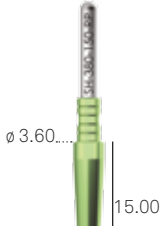
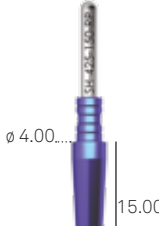


implant $\phi$	3.80	4.25	5.00	6.00
Final conical drill for implant h. 8.50 mm	<b>SH-FK380-085</b>  $\phi$ 3.60 0.42   8.92	<b>SH-FK425-085</b>  $\phi$ 4.00 0.54   9.04	<b>SH-FK500-085</b>  $\phi$ 4.75 0.75   9.25	<b>SH-FK600-085</b>  $\phi$ 5.75 0.88   9.45
Final conical drill for implant h. 10.00 mm	<b>SH-FK380-100</b>  $\phi$ 3.60 0.44   10.44	<b>SH-FK425-100</b>  $\phi$ 4.00 0.56   10.56	<b>SH-FK500-100</b>  $\phi$ 4.75 0.77   10.77	<b>SH-FK600-100</b>  $\phi$ 5.75 0.88   10.95
Final conical drill for implant h. 11.50 mm	<b>SH-FK380-115</b>  $\phi$ 3.60 0.46   11.96	<b>SH-FK425-115</b>  $\phi$ 4.00 0.57   12.07	<b>SH-FK500-115</b>  $\phi$ 4.75 0.79   12.29	<b>SH-FK600-115</b>  $\phi$ 5.75 0.88   12.45
Final conical drill for implant h. 13.00 mm	<b>SH-FK380-130</b>  $\phi$ 3.60 0.47   13.47	<b>SH-FK425-130</b>  $\phi$ 4.00 0.59   13.59	<b>SH-FK500-130</b>  $\phi$ 4.75 0.80   13.80	<b>SH-FK600-130</b>  $\phi$ 5.75 0.88   13.95
Final conical drill for implant h. 15.00 mm	<b>SH-FK380-150</b>  $\phi$ 3.60 0.52   15.52	<b>SH-FK425-150</b>  $\phi$ 4.00 0.64   15.64	<b>SH-FK500-150</b>  $\phi$ 4.75 0.85   15.85	-
Stop for conical drill	<b>SH-STOP-FK380</b> 	<b>SH-STOP-FK425</b> 	<b>SH-STOP-FK500</b> 	<b>SH-STOP-FK600</b> 

# Reply: replies for Shelta implants

The REPLY replies are made of Gr. 5 titanium and reply the morphology of the final drills of the related Shelta implants. They are useful to verify the depth of the preparation hole made with the final drills, and to verify the axis of the preparation made with the drill.

Reply replies are included in the Shelta surgical kit, except for  $\varnothing$  6.00 mm. A separate radel tray is available, it can be easily sterilized by autoclave. This tray allow to store REPLY components by height and diameter.



implant $\phi$	3.80	4.25	5.00	6.00
Reply for implant h. 8.50 mm	<b>SH-380-085-RP</b> 	<b>SH-425-085-RP</b> 	<b>SH-500-085-RP</b> 	<b>SH-600-085-RP</b> 
Reply for implant h. 10.00 mm	<b>SH-380-100-RP</b> 	<b>SH-425-100-RP</b> 	<b>SH-500-100-RP</b> 	<b>SH-600-100-RP</b> 
Reply for implant h. 11.50 mm	<b>SH-380-115-RP</b> 	<b>SH-425-115-RP</b> 	<b>SH-500-115-RP</b> 	<b>SH-600-115-RP</b> 
Reply for implant h. 13.00 mm	<b>SH-380-130-RP</b> 	<b>SH-425-130-RP</b> 	<b>SH-500-130-RP</b> 	<b>SH-600-130-RP</b> 
Reply for implant h. 15.00 mm	<b>SH-380-150-RP</b> 	<b>SH-425-150-RP</b> 	<b>SH-500-150-RP</b> 	-
Radel case for Reply components*	<b>REPLY-TRAY</b> 			

\*The separate radel tray is optional and it is not supplied with Shelta surgical kit which already contains the replies, except for  $\phi$  6.00 mm.

See technical characteristics of Gr. 5 titanium on page 98.

# Osteotomes

Osteotomes for expansion protocols, which are not included in the surgical kit, are available separately. The laser-etched codes on the handles indicate the osteotome diameter, to make it easier to recognize the correct surgical sequence. A practical universal instrument case is available to hold these osteotomes.



The use of osteotomes is indicated in bone expansion procedures

Shelta osteotomes have two laser-etched markings: one for implant height, and a smaller one to monitor the procedure in progress

implant $\phi$	3.80		4.25		5.00 - 6.00	
Osteotome for implants h. 8.50 and 10.00 mm	SH-OS-380-100-PP  $\phi$ 3.50...10.00 8.50 $\phi$ 2.00	SH-OS-380-100-PR  $\phi$ 3.50...10.00 8.50 $\phi$ 2.00	SH-OS-425-100-PP  $\phi$ 3.80...10.00 8.50 $\phi$ 2.30	SH-OS-425-100-PR  $\phi$ 3.80...10.00 8.50 $\phi$ 2.30	SH-OS-500-100-PP  $\phi$ 4.60...10.00 8.50 $\phi$ 3.10	SH-OS-500-100-PR  $\phi$ 4.60...10.00 8.50 $\phi$ 3.10
Osteotome for implants h. 11.50 mm	SH-OS-380-115-PP  $\phi$ 3.50...11.50 10.00 $\phi$ 2.00	SH-OS-380-115-PR  $\phi$ 3.50...11.50 10.00 $\phi$ 2.00	SH-OS-425-115-PP  $\phi$ 3.80...11.50 10.00 $\phi$ 2.30	SH-OS-425-115-PR  $\phi$ 3.80...11.50 10.00 $\phi$ 2.30	SH-OS-500-115-PP  $\phi$ 4.60...11.50 10.00 $\phi$ 3.10	SH-OS-500-115-PR  $\phi$ 4.60...11.50 10.00 $\phi$ 3.10
Osteotome for implants h. 13.00 mm	SH-OS-380-130-PP  $\phi$ 3.50...13.00 10.00 $\phi$ 2.00	SH-OS-380-130-PR  $\phi$ 3.50...13.00 10.00 $\phi$ 2.00	SH-OS-425-130-PP  $\phi$ 3.80...13.00 10.00 $\phi$ 2.30	SH-OS-425-130-PR  $\phi$ 3.80...13.00 10.00 $\phi$ 2.30	SH-OS-500-130-PP  $\phi$ 4.60...13.00 10.00 $\phi$ 3.10	SH-OS-500-130-PR  $\phi$ 4.60...13.00 10.00 $\phi$ 3.10
Osteotome for implants h. 15.00 mm	SH-OS-380-150-PP  $\phi$ 3.50...15.00 10.00 $\phi$ 2.00	SH-OS-380-150-PR  $\phi$ 3.50...15.00 10.00 $\phi$ 2.00	SH-OS-425-150-PP  $\phi$ 3.80...15.00 10.00 $\phi$ 2.30	SH-OS-425-150-PR  $\phi$ 3.80...15.00 10.00 $\phi$ 2.30	SH-OS-500-150-PP  $\phi$ 4.60...15.00 10.00 $\phi$ 3.10	SH-OS-500-150-PR  $\phi$ 4.60...15.00 10.00 $\phi$ 3.10
tip	flat	round	flat	round	flat	round

description	code
Universal case in Radel for osteotomes Can hold up to 12 instruments	OS-TRAY 

# Bone taps and parallelism pins

Shelta implants are self-tapping implants with excellent cutting and insertion capabilities. However, the use of a bone tap is recommended in all cases where the type of bone requires it. The absence of tapping in cases where this is recommended may lead to problems later when inserting the implant. They are available both with right angle shank and with a connector for dynamometric ratchet. As an option, shorter drills are available that are very practical in distal sectors with limited oral opening. They are available in the two diameters of cylindrical drills present in the surgical kit ( $\varnothing$  2.00 and  $\varnothing$  2.80 mm).

**Parallelism pins:** they have one side with  $\varnothing$  2.00 mm and the other  $\varnothing$  2.80 mm so as to be able to check the insertion axis of the implants already from the preliminary hole with the  $\varnothing$  2.00 mm drill



**Right-angle bone taps:** for better control of the insertion axis and more uniform preparation




**Drills for distal sectors:** short length, very practical in cases of limited oral opening



**Bone taps**

implant ø	3.80	4.25	5.00	6.00	kit
Bone taps with right angle attachment	<b>SH-MS-380-CA</b> 	<b>SH-MS-425-CA</b> 	<b>SH-MS-500-CA</b> 	<b>SH-MS-600-CA*</b> 	<b>ZSHELTA</b>  <b>*SH-MS-600-CA</b> <b>Not included in the surgical kit, available separately</b>
Bone taps with hexagonal attachment	<b>SH-MS-380</b> 	<b>SH-MS-425</b> 	<b>SH-MS-500</b> 	-	<b>Not included in the surgical kit, available separately</b>

**Parallelism pin**

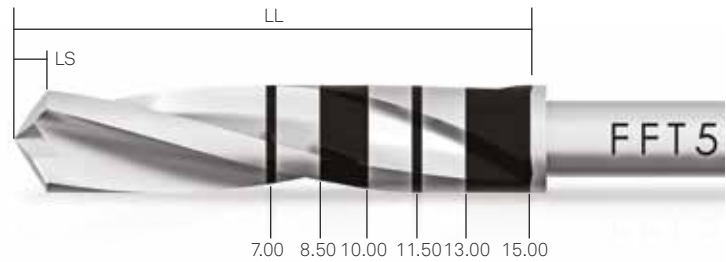
description	code	kit
Parallelism pin with one side ø 2.00 and the other ø 2.80 mm	<b>PP-2/28</b> 	<b>ZSHELTA</b>
Parallelism pin with depth laser marking, small version	<b>PPTS-2-28</b> 	<b>Not included in the surgical kit, available separately</b>
Parallelism pin with depth laser marking, large version	<b>PPTL-2-28</b> 	<b>Not included in the surgical kit, available separately</b>

# Drills for distal sectors

As an option, shorter drills are available that are very practical in distal sectors with limited oral opening. They come in a wide range of diameters and are also useful for preparations in extremely compact bone where, in the most coronal portion, you want to widen the preparation diameter by 0.10 mm with respect to the size of the standard drills to facilitate the insertion of the implants. On the other hand, in low-density bone they can be used to under-prepare the implant site so as to obtain optimum primary stability.

**LL:** Total length of the working part, including the tip.

**LS:** Length of the tip. This measurement must be calculated in addition to the length of the preparation hole.



**Please note:** The drills always make a hole that is longer than the implant to be inserted. The oversizing (Ls) is equal to the height of the tip of the drill that is being used. See drawing above.



drill $\phi$	2.00	2.80	2.90	3.00	3.20
Drill for distal sector	<b>FFT5-200-LXS</b>	<b>FFT5-280-LXS</b>	<b>FFT5-290-LXS</b>	<b>FFT5-300-LXS</b>	<b>FFT5-320-LXS</b>
drill $\phi$	3.30	3.40	3.60	4.25	4.45
Drill for distal sector	<b>FFT5-330-LXS</b>	<b>FFT5-340-LXS</b>	<b>FFT5-360-LXS</b>	<b>FFT5-425-LXS</b>	<b>FFT5-445-LXS</b>

The drills for distal sectors are not included in any surgical kit. They cannot be used with depth stops.

# Bone profilers

The bone profilers are very useful for levelling a very irregular bone crest at the coronal level, especially in the subsequent use of P.A.D. abutments.



description	code	kit
Wide bone profiler for levelling irregular bone crest for P.A.D. abutment	<b>A-PAD-PS380-L</b> 	<b>Not included in the surgical kit, available separately</b>
Narrow bone profiler for levelling irregular bone crest for P.A.D. abutment	<b>A-PAD-PS380-S</b> 	<b>Not included in the surgical kit, available separately</b>

# Optional cylindrical drill $\varnothing$ 2.50 mm

An optional cylindrical drill made in surgical stainless steel with a diameter of  $\varnothing$  2.50 mm is available. It can be useful for underpreparation protocols. The related stops are available, meant to guarantee a safety preparation of implant insertion. The stops are available in single pack.

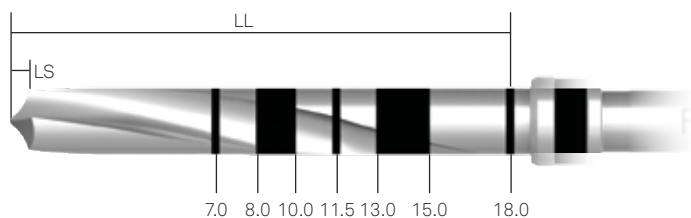


cylindrical drill $\varnothing$ 2.50 mm and related stops**						
<b>FFT3-250-LXS</b> cylindrical drill 	<b>STOP*-250-070</b> stop 7.00 mm for cylindrical drill 	<b>STOP*-250-085</b> Stop 8.50 mm for cylindrical drill 	<b>STOP*-250-100</b> stop 10.00 mm for cylindrical drill 	<b>STOP*-250-115</b> stop 11.50 mm for cylindrical drill 	<b>STOP*-250-130</b> Stop 13.00 mm for cylindrical drill 	<b>STOP*-250-150</b> Stop 15.00 mm for cylindrical drill 

**Please Note:** the drills always make a hole that is longer than the implant to be inserted. The oversizing (LS) is equal to the height of the tip of the drill that is being used. See drawing on the side.

**LL:** Total length of the working part, including the tip.

**LS:** Length of the tip. This measurement must be calculated in addition to the length of the preparation hole.



\*The word STOP is followed by a number (3 or 4) indicating the revision of the accessory. Both versions are compatible with the dedicated drill.

\*\*The cylindrical drill  $\varnothing$  2.50 mm and its stops are not contained in the surgical kit and must be purchased separately. The whole set of drills and stops can be ordered with the code **KIT-INTEGRA-250**.

# Optional conical drill $\varnothing$ 2.50 mm

An optional conical drill made in surgical stainless steel with a diameter of  $\varnothing$  2.50 mm is available. Its diameter is ideal to underprepare implant sites with a tapered morphology and a diameter of  $\varnothing$  3.80 mm. The different depth levels of the drill insertion are indicated by laser markings at heights: 7.00, 8.50, 10.00, 11.50, 13.00 and 15.00 mm. The related stops are available, meant to guarantee a safety preparation of implant insertion. The stops are available in single pack.



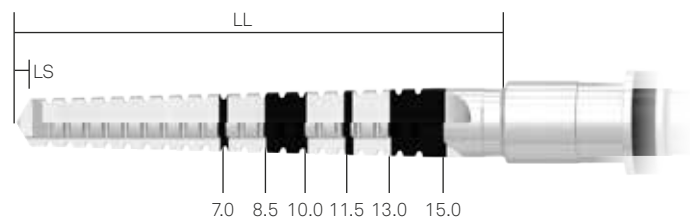
## conical drill $\varnothing$ 2.50 mm and related stops

SE-FK250 conical drill	CSR- STOP-2028-085 stop 8.50 mm for conical drill	CSR- STOP-2028-100 stop 10.00 mm for conical drill	CSR- STOP-2028-115 stop 11.50 mm for conical drill	CSR- STOP-2028-130 stop 13.00 mm for conical drill	CSR- STOP-2028-150 stop 15.00 mm for conical drill

**Please note:** the drills always make a hole that is longer than the implant to be inserted. The oversizing (LS) is equal to the height of the tip of the drill that is being used. See drawing on the side.

**LL:** Total length of the working part, including the tip.

**LS:** Length of the tip. This measurement must be calculated in addition to the length of the preparation hole.



*\*The conical drill SE-FK250 and its stops are not contained in the surgical kit and must be purchased separately.*

# Additional instruments

All the additional instruments for inserting Shelta and Shelta SL implants, made of surgical stainless steel, have been designed to offer maximum ergonomics and ease of use. All the instruments have a laser-marked code for easy identification of the pieces. All the instruments are available individually as spare parts.




**Easy Insert driver:** patented geometry: the particular geometry of the hexagon helps limit sticking and prevents deformations in the implant connection .....

**Steel drivers:** solid help for removing implants



**Prosthesis screwdrivers:** designed for the retention and fastening of prosthesis connecting screws

## Drivers

description	code	kit
Short manual driver, with right angle shank, for implants	EASYC4-EX230-CA 	ZSHELTA
Long driver with right angle shank	EASYL4-EX230-CA 	ZSHELTA
Driver with connector for dynamometric key	EASY4-EX230-EX 	ZSHELTA


## Drivers

description	code	kit
Short driver	BC-EX230 	ZSHELTA
Long driver	BL-EX230 	ZSHELTA




## Ratchet

description	code	kit
Kit composed of a ratchet, which can be used in dynamometric or fixed mode, and accessories for quick torque adjustment and periodic maintenance (Allen wrench and lubricant). The ratchet has torque limits from 10 to 70 Ncm, with adjustment lines at 10-20- 25-30-35-50-70 Ncm.	CRI5-KIT 	ZSHELTA ZSCREW





**Torque wrench with control lever**

description	code	kit
<p>Torque wrench with control lever allowing torque to be displayed during use. Laser-etched marks at 0–10–20–30–50–70–90 Ncm.</p>	<p><b>TWL</b></p> 	<p><b>Not included in the surgical kit, available separately</b></p>

**Surgical screwdrivers**

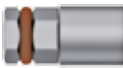






description	code	kit
<p>Driver for tap screws and fixation screws, digital, extra-short</p>	<p><b>HSMXS-20-DG</b></p> 	<p><b>ZSHELTA ZSCREW</b></p>
<p>Driver for tap screws and fixation screws, digital, short</p>	<p><b>HSM-20-DG</b></p> 	<p><b>ZSHELTA ZSCREW</b></p>
<p>Driver for tap screws and fixation screws, digital, long</p>	<p><b>HSML-20-DG</b></p> 	<p><b>ZSHELTA ZSCREW</b></p>

**Prosthetic screwdrivers**

description	code	kit
<p>Driver for connecting screws, with hexagonal connector for dynamometric key or hand knob, short</p>	<p><b>HSM-20-EX</b></p> 	<p><b>ZSHELTA ZSCREW</b></p>
<p>Driver for connecting screws, with hexagonal connector for dynamometric key or hand knob, long</p>	<p><b>HSML-20-EX</b></p> 	<p><b>ZSHELTA ZSCREW</b></p>
<p>Driver for connecting screws, with hexagonal connector for dynamometric key or hand knob, extra-long</p>	<p><b>HSMXL-20-EX</b></p> 	<p><b>ZSHELTA</b></p>
<p>Driver for connecting screws, with right angle shank</p>	<p><b>HSM-20-CA</b></p> 	<p><b>ZSHELTA ZSCREW</b></p>









## Other prosthetic screwdrivers

description	code	kit
Driver for ball attachments, with hexagonal connector for dynamometric key	<b>BASCC-EX</b> 	<b>ZSCREW</b>
Driver for standard abutments and for straight P.A.D. abutments, with hexagonal connector for dynamometric key	<b>AVV2-ABUT</b> 	<b>ZSCREW</b>
Driver for screwing abutment locators, with hexagonal connector for dynamometric key, short	<b>8926-SW</b> 	<b>ZSCREW</b>
Driver for screwing abutment locators, with hexagonal connector for dynamometric key, long	<b>8927-SW</b> 	<b>ZSCREW</b>
Instrument for inserting, fitting and maintaining the titanium cap for CAPTIT-1 ball attachments	<b>AVV-CAP-TIT-1</b> 	<b>ZSCREW</b>
3.0 Dynamic Abutment screwdriver 24 mm length	<b>DSPDCLH-24</b> 	<b>Not included in the surgical kit, available separately</b>
3.0 Dynamic Abutment screwdriver 32 mm length	<b>DSPDCLH-32</b> 	<b>Not included in the surgical kit, available separately</b>

**Important warning**

All the screwdrivers, contained or not in the surgical kit, can be ordered and purchased separately using the codes reported in the tables.


**Extensions and adapter**

description	code	kit
Extension for drivers, screwdrivers and manual drivers, with hexagonal connector for ratchet	<b>BPM-15</b> 	<b>ZSHELTA ZSCREW</b>
Extension for surgical drills	<b>PROF-CAL3</b> 	<b>ZSHELTA ZSCREW</b>
Mechanical adapter with right angle shank for instruments with hexagonal connector	<b>B-AVV-CA3</b> 	<b>ZSCREW</b>
Driver for right angle and manual instruments and instruments with hexagonal connection for ratchet	<b>AVV-CA-DG-EX</b> 	<b>ZSHELTA ZSCREW</b>
P.A.D. transfer screw for manual screwing	<b>PAD-VTRAL-140-MAN</b> 	<b>Not included in the surgical kit, available separately</b>
Carrier to transfer angled P.A.D. abutments into the oral cavity, sterilizable and reusable It must be fixed to abutments with screw PAD-VTRAL-140	<b>PAD-CAR</b> 	<b>ZSCREW</b>

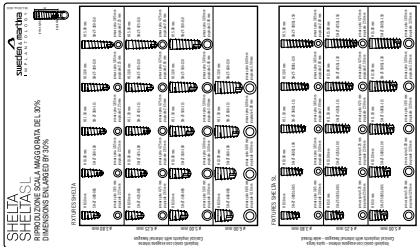
**Depth gauge**

description	code	kit
Depth gauge	<b>PROF3</b> 	<b>Not included in the surgical kit, available separately</b>

Spare O-ring

















description	code	kit
Kit with 5 spare O-rings for all accessories with hexagonal connector for dynamometric key	ORING180-088 	-

X-ray templates

description	code	kit
X-ray template for Shelta and Shelta SL implants, real dimensions	SH-L100 	ZSHELTA
X-ray template for Shelta and Shelta SL implants, dimensions increased by 20%	SH-L120 	ZSHELTA
X-ray template for Shelta and Shelta SL implants, dimensions increased by 30%	SH-L130 	ZSHELTA

# Implant platforms and prosthetic combinations

The connection platforms of the various implant sizes are characterized by the presence of the same hexagon and external Collex collar, which allows the choice of the size of the abutment. According to the chosen prosthetic protocol, a Platform Switching can be made or a matching size post can be used.

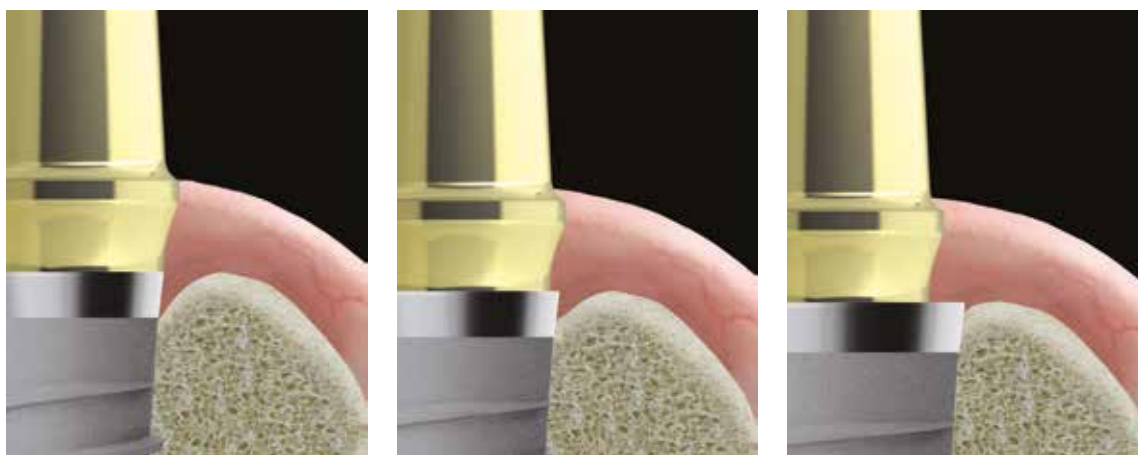
	Shelta, Shelta SL			Shelta
implant $\phi$	3.80	4.25	5.00	6.00
Packaging colour code				
main dimensions				
$\phi$ connection platform				
external $\phi$ of the collar				
internal $\phi$ of the collar				
prosthetic compatibility				
with smaller size post			  	 
with matching size post				

**Important warning**

Prosthetic components with  $\phi$  3.30 mm determine prosthetic Platform Switching with  $\phi$  3.80 mm implants. These components should only be used for single crowns in frontal sectors (premolar excluded), and in distal sectors only to support multiple restorations. They must not be used with implants with  $\phi$  4.25, 5.00 and 6.00 mm.

# The biologic advantage of one single connection

As demonstrated by literature, there is a relationship between the extension of Platform Switching (mismatching) and preservation of the marginal bone dimensions. In fact, the greater the mismatch, the greater the volumes of hard and soft tissues around the dental implant. The undeniable advantage of one single connection, which characterizes Shelta implants, is that it allows choosing the desired level of mismatching based on the aesthetic and functional needs of each individual case.



*Peri-implant bone reabsorption of implants rehabilitated with the Platform Switching technique is inversely proportional to the extent of the mismatching adopted.*

## Bibliography on Switching Platform concept

- Canullo L., Caneva M., Tallarico M.; Ten-year hard and soft tissue results of a pilot double-blinded randomized controlled trial on immediately loaded post-extractive implants using Platform-Switching concept; *Clinical Oral Implant Research* 00, 2016, 1-9
- Strietzel F.P., Neumann K., Hertel M.; Review article: impact of Platform Switching on marginal peri-implant bone-level changes. A systematic review and meta-analysis; *Clinical Oral Implant Research*, 2015, 26(3): 342-358
- Bressan E., Lang N.P., Corazza B., Rizzi S., Almagro Urrutia Z., Botticelli D.; The Platform Switching concept revisited. An experimental study in dogs; *Clinical Oral Implant Research*, 2013
- Annibaldi S., Bignozzi I., Cristalli M.P., Graziani F., La Monaca G., Polimeni A.; Peri-implant marginal bone level: a systematic review and meta-analysis of studies comparing Platform Switching versus conventionally restored implants; *Journal of Clinical Periodontology*, 2012; 39: 1097-1113
- Canullo L., Baffone G.M., Botticelli D., Pantani F., Beolchini M., Lang N.P.; Effect of wider implant/abutment mismatching: an histological study in dogs; *Clinical Oral Implant Research*, 22(9), 2011:910
- Baffone G.M., Botticelli D., Canullo L., Scala A., Beolchin M., Lang N.P.; Effect of mismatching abutments on implants with wider platforms – an experimental study in dogs; *Clinical Oral Implant Research*, Early View, First Published online on 2011, November 2nd
- Della Via C., Canullo L., Allievi C., Lang N.P., Pellegrini C.; Soft tissue surrounding switched platform implants: an immunohistochemical evaluation; *Clinical Oral Implant Research*, Early View, First Published online on 2011, September 29th
- Canullo L., Pace F., Coelho P., Sciubba E., Vozza I.; The influence of Platform Switching on the biomechanical aspects of the implant-abutment system. A three dimensional finite element study; *Med Oral Patol Oral Cir Bucal*. 2011 Sep 1;16 (6):e852-6
- Canullo L., Iannello G., Götz W.; The influence of individual bone loss: preliminary report from a 3-year randomized clinical and histologic trial in patients treated with implants restored with matching-diameter abutments or the Platform Switching concept; *International Journal of Oral and Maxillofacial implants*, 2011 May-Jun;26(3):618-30
- Farronato D., Santoro G., Canullo L., Botticelli D., Maiorana C., Lang N.P.; Establishment of the epithelial attachment and connective tissue adaptation to implants installed under the concept of "Platform Switching": a histologic study in minipigs; *Clinical Oral Implant Research*, Early View, First Published online on 2011, April 15th
- Canullo L., Pellegrini G., Allievi C., Trombelli L., Annibaldi S., Dellavia C.; Soft tissues around long-term Platform Switching implant restorations: a histological human evaluation. Preliminary results; *Journal of Clinical Periodontology*, 2011; 38: 86-94
- Canullo L., Iannello G., Netuschil L., Jepsen S.; Platform Switching and matrix metalloproteinase-8 levels in peri-implant sulcular fluid; *Clinical Oral Implant Research*, Early View, First Published online on 2011, March 28th
- Baffonato G.M., Botticelli D., Pantani F., Cardoso L.C., Schweikert M.T., Lang N.P.; Influence of various implant platform configurations on peri-implant tissue dimensions: an experimental study in dog; *Clinical Oral Implant Research* 22, 2011; 438-444
- Canullo L., Bignozzi I., Cocchetto R.; "One Abutment One Time": optimizing Platform Switching concept. Three year controlled prospective study; *Clinical Oral Implant Research*, 21(10):1085, 2010
- Canullo L., Rossi Fedele G., Iannello G., Jepsen S.; Platform Switching and marginal bone-level alterations: the results of a randomized-controlled trial; *Clinical Oral Implant Research*, 21:115-121, 2010
- Momen A.A., Hadeel M.I., Ahmad H.A.; Platform Switching for marginal bone preservation around dental implants: a systematic review and meta-analysis; *Journal of Periodontology*, 81(10):1350-1366, 2010
- Canullo L., Iannello G., Jepsen S.; Matrix-metalloproteinases and bone loss at implants restored according to the Platform Switching concept: a randomized controlled trial on the influence of different mismatching; *Clinical Oral Implant Research*, 20(9):873-874, 2009
- Crespi R., Capparè P., Gherlone E.; Radiographic evaluation of marginal bone levels around platform-switched and non-platform-switched implants used in an immediate loading protocol; *The International Journal of Oral and Maxillofacial Implants*, 24:920-926, 2009

# Healing abutments

The healing abutments in Gr. 5 titanium are identified via a laser-marking that reports the diameter, emergence profile and height. In case of healing abutments with straight emergence profile, the marking only reports the platform diameter and height. The healing abutments must be tightened at a torque of 10 Ncm, using the HSM series of drivers, the full details and codes of which can be found on page 34.

**Healing abutments with anatomical emergence profile:** the laser marking, on the upper surface, shows the connection diameter (in the example 38 = 3.80 mm), the maximum crown size (in the example 46 = 4.60 mm) and the transgingival height (in the example 5 = 5.00 mm)



**Guiding cylinder:** facilitates centring when inserting the implant

**Healing abutments with straight emergence profile:** the laser marking, on the side, allows immediate recognition of the connection diameter (in the example 33 = 3.30 mm) and of the transgingival height (in the example 2 = 2.00 mm)

prosthetic component $\phi$	3.30	3.80	4.25	5.00
for implant $\phi$	3.80	3.80 - 4.25 - 5.00 - 6.00	4.25 - 5.00 - 6.00	5.00 - 6.00
Healing abutment Anatomical emergence Transgingival h. 2 mm	<b>A-TMGR-330-2</b>  $\phi$ 3.80 $\phi$ 3.30   2.00 M 1.8	<b>A-TMGR-380-2</b>  $\phi$ 4.60 $\phi$ 3.80   2.00 M 1.8	<b>AS-TMGR-425-2</b>  $\phi$ 5.20 $\phi$ 4.25   2.00 M 1.8	<b>AS-TMGR-500-2</b>  $\phi$ 6.00 $\phi$ 5.00   2.00 M 1.8
Healing abutment Anatomical emergence Transgingival h. 3 mm	<b>A-TMGR-330-3</b>  $\phi$ 3.80 $\phi$ 3.30   3.00 M 1.8	<b>A-TMGR-380-3</b>  $\phi$ 4.60 $\phi$ 3.80   3.00 M 1.8	<b>AS-TMGR-425-3</b>  $\phi$ 5.20 $\phi$ 4.25   3.00 M 1.8	<b>AS-TMGR-500-3</b>  $\phi$ 6.00 $\phi$ 5.00   3.00 M 1.8
Healing abutment Anatomical emergence Transgingival h. 5 mm	<b>A-TMGR-330-5</b>  $\phi$ 3.80 $\phi$ 3.30   5.00 M 1.8	<b>A-TMGR-380-5</b>  $\phi$ 4.60 $\phi$ 3.80   5.00 M 1.8	<b>AS-TMGR-425-5</b>  $\phi$ 5.20 $\phi$ 4.25   5.00 M 1.8	<b>AS-TMGR-500-5</b>  $\phi$ 6.00 $\phi$ 5.00   5.00 M 1.8
Healing abutment Anatomical emergence Transgingival h. 7 mm	-	<b>A-TMGR-380-7</b>  $\phi$ 4.60 $\phi$ 3.80   7.00 M 1.8	<b>AS-TMGR-425-7</b>  $\phi$ 5.20 $\phi$ 4.25   7.00 M 1.8	<b>AS-TMGR-500-7</b>  $\phi$ 6.00 $\phi$ 5.00   7.00 M 1.8
Healing abutment Straight emergence Transgingival h. 2 mm	<b>A-TMG-330-2</b>  $\phi$ 3.30   2.00 M 1.8	<b>A-TMG-380-2</b>  $\phi$ 3.80   2.00 M 1.8	-	-
Healing abutment Straight emergence Transgingival h. 3 mm	<b>A-TMG-330-3</b>  $\phi$ 3.30   3.00 M 1.8	<b>A-TMG-380-3</b>  $\phi$ 3.80   3.00 M 1.8	-	-
Healing abutment Straight emergence Transgingival h. 5 mm	<b>A-TMG-330-5</b>  $\phi$ 3.30   5.00 M 1.8	<b>A-TMG-380-5</b>  $\phi$ 3.80   5.00 M 1.8	-	-

Recommended torque for healing abutments: 8-10 Ncm.

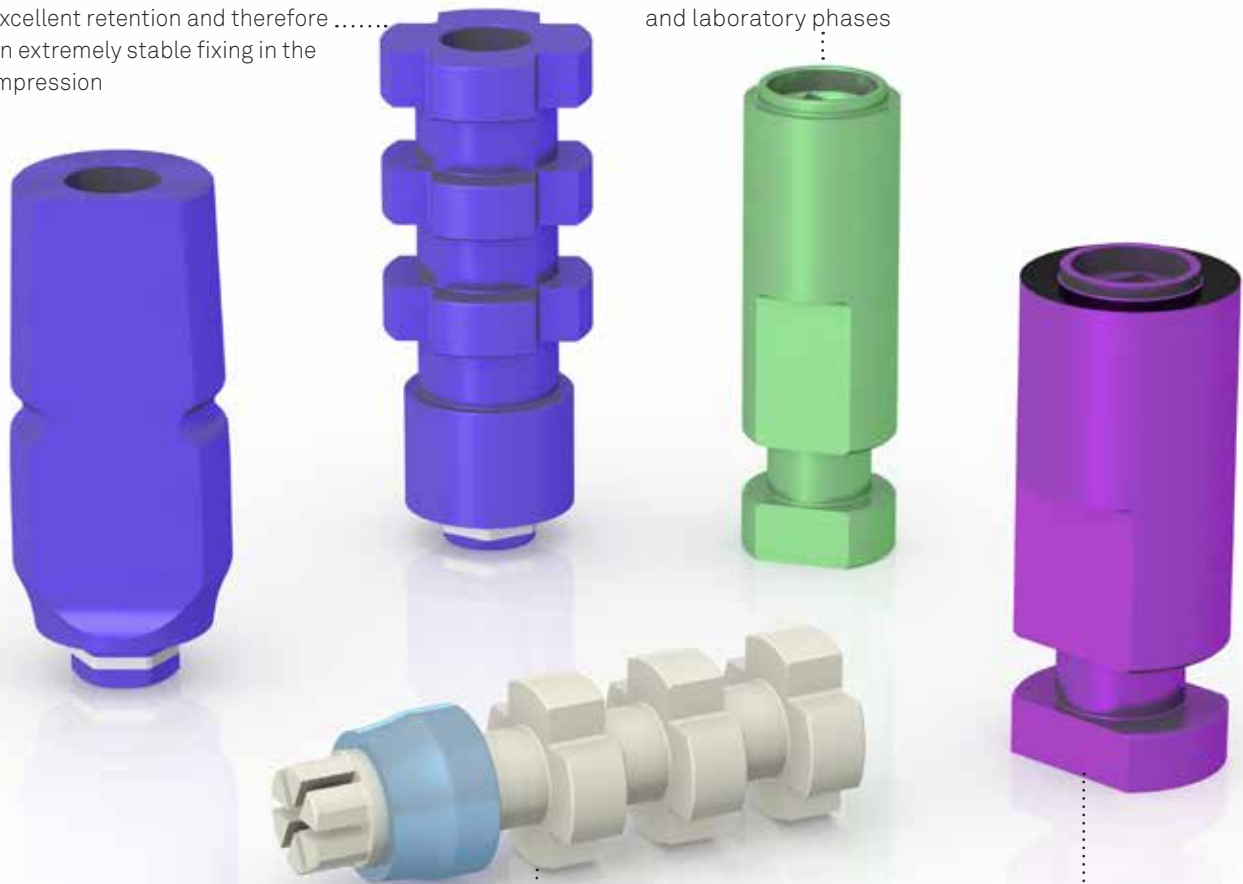
See technical characteristics of Gr. 5 titanium on page 97.

# Impression and model phase

The components for the impression and the creation of the model are produced with the same machines that make the implants. This ensures maximum precision and allows the faithful reproduction of the clinical situation. The open-tray and closed-tray transfers are made of Gr.5 titanium, anodised according to the colour code of the reference platform, facilitating the identification of any different diameters that may be used. The Pull-up transfers are made of radiopaque PEEK with a titanium ring at the base to check the proper seating of the transfer with an Rx.

**Pick-up transfers:** the design of the upper portion guarantees excellent retention and therefore ..... an extremely stable fixing in the impression

**Implant analog:** anodised according to the colour code to facilitate recognition and laboratory phases


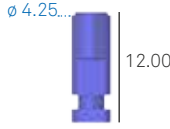

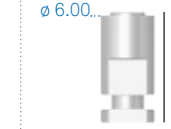


**Pull-up transfer:** the connection with tabs clicks into the implant fixation hexagon, without requiring a screw

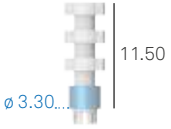
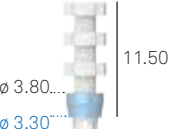
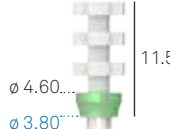


Analogs and transfers of  $\varnothing$  4.25 mm and 5.00 mm present respectively a white and a black laser marking to distinguish them from other equivalent components



### Analogs

implant $\phi$	3.30	3.80	4.25	5.00	6.00
Analogs	-	<b>A-ANA-380</b> 	<b>SH-ANA-425</b> 	<b>SH-ANA-500</b> 	<b>SH-ANA-600</b> 

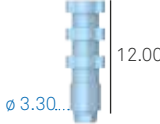
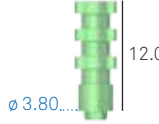
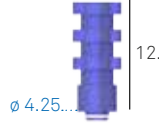


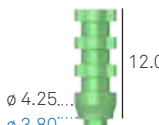
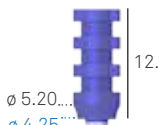




### Pull-up transfers

prosthetic component $\phi$	3.30	3.80	4.25	5.00
for implant $\phi$	3.80	3.80 - 4.25 - 5.00 - 6.00	4.25 - 5.00 - 6.00	5.00 - 6.00
Pull-up transfer in radiopaque PEEK Gr. 5 titanium sleeve Straight emergence	<b>A-TRAP-330</b> 	-	-	-
Pull-up transfer in radiopaque PEEK Gr. 5 titanium sleeve Anatomical emergence	<b>A-TRARP-330</b> 	<b>A-TRARP-380</b> 	<b>AS-TRARP-425</b> 	<b>AS-TRARP-500</b> 

#### Important warning

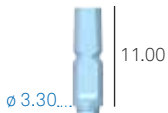





As the pull-up transfers are made of polymer material, to guarantee precision it is recommended to use new transfers for taking each impression.

Open-tray transfers

prosthetic component $\phi$	3.30	3.80	4.25	5.00
for implant $\phi$	3.80	3.80 - 4.25 - 5.00 - 6.00	4.25 - 5.00 - 6.00	5.00 - 6.00
Pick-up transfer Straight emergence Connecting screw included	<b>A-TRA-330</b>  $\phi$ 3.30... 12.00	<b>A-TRA-380</b>  $\phi$ 3.80... 12.00	<b>AS-TRA-425</b>  $\phi$ 4.25... 12.00	<b>AS-TRA-500</b>  $\phi$ 5.00... 12.00
Pick-up transfer Anatomical emergence Connecting screw included	<b>A-TRAR-330</b>  $\phi$ 3.80... $\phi$ 3.30... 12.00	<b>A-TRAR-380</b>  $\phi$ 4.25... $\phi$ 3.80... 12.00	<b>AS-TRAR-425</b>  $\phi$ 5.20... $\phi$ 4.25... 12.00	<b>AS-TRAR-500</b>  $\phi$ 6.00... $\phi$ 5.00... 12.00
Connecting screw for pick-up transfer Supplied with the transfers, it can also be ordered separately as a spare	<b>VTRA2-180-15</b>  M 1.8... 15.00	Use VTRA2-180-15	Use VTRA2-180-15	Use VTRA2-180-15
Connecting screw for pick-up transfer Not supplied with transfer, available separately as a spare in single pack	<b>VTRA2-180-20</b>  M 1.8... 20.00	Use VTRA2-180-20	Use VTRA2-180-20	Use VTRA2-180-20
Connecting screw for pick-up transfer For manual screwing Not supplied with transfer, available separately as a spare in single pack	<b>VTRA2-180-MAN</b>  M 1.8... 17.00	Use VTRA2-180-MAN	Use VTRA2-180-MAN	Use VTRA2-180-MAN

Recommended torque for transfer screws: 8-10 Ncm.

**Closed-tray transfer**

prosthetic component $\phi$	3.30	3.80	4.25	5.00
for implant $\phi$	3.80	3.80 - 4.25 - 5.00 - 6.00	4.25 - 5.00 - 6.00	5.00 - 6.00
Closed-tray transfer Straight emergence Connecting screw included	<b>A-TRAS-330</b> 	-	-	-
Closed-tray transfer Anatomical emergence Connecting screw included	<b>A-TRARS-330</b> 	<b>A-TRARS-380</b> 	<b>AS-TRARS-425</b> 	<b>AS-TRARS-500</b> 
Single pack  Connecting screw for closed-tray transfer Supplied with the transfers, it can also be ordered separately as a spare	<b>VTRA2-180-10</b> 	Use VTRA2-180-10	Use VTRA2-180-10	Use VTRA2-180-10

Recommended torque for transfer screws: 8-10 Ncm.

# SIMPLE temporary posts

Temporary posts can be used in a conventional way after the bone healing period, or immediately after surgical insertion of the implants, if conditions for immediate loading are present. They can also be used as an alternative to the traditional healing abutments for soft tissues reconditioning, depending on the prosthetic protocols adopted.

PEEK is an extremely strong biocompatible material, even though it can be easily milled at the chairside. The titanium base guarantees maximum connection precision. PEEK posts are ideal to support single cemented crowns




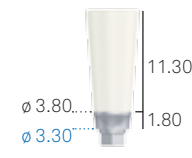
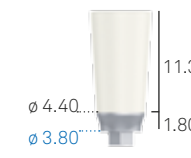
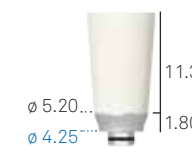
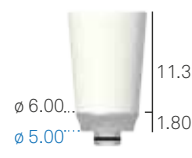
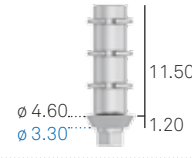
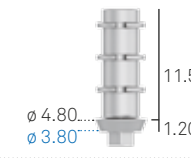
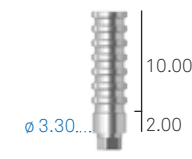
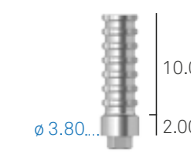
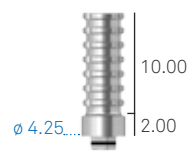
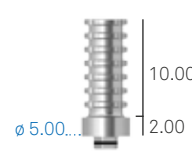
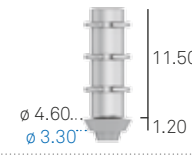
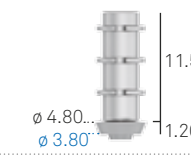
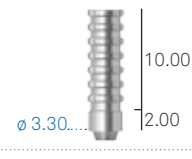
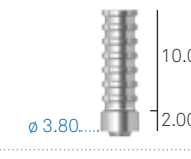
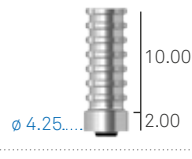
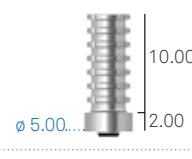
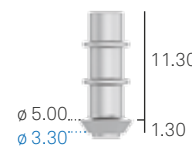
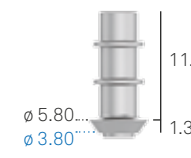

The centring cone of temporary posts without repositioning hexagon and the narrow transgingival profile considerably facilitate the creation of multiple temporary structures to be screwed directly onto the implants even in the presence of significant parallelism defects

The versions with the widest flaring of the transgingival profile, adaptable to any anatomy by drilling, simplify the immediate aesthetic conditioning of the mucosa

The hexagon which guarantees the non engaging aspect makes this post perfect for making single screwed temporary posts

**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.

prosthetic component $\phi$	3.30	3.80	4.25	5.00
for implant $\phi$	3.80	3.80 - 4.25 - 5.00 - 6.00	4.25 - 5.00 - 6.00	5.00 - 6.00
SIMPLE temporary posts in PEEK with a titanium base Engaging Straight emergence Connecting screw included	<b>A-MPSC-330</b> 	-	-	-
SIMPLE temporary posts in PEEK with a titanium base Engaging Anatomical emergence Connecting screw included	<b>A-MPSCR-330</b> 	<b>A-MPSCR-380</b> 	<b>AS-MPSCR-425</b> 	<b>AS-MPSCR-500</b> 
SIMPLE temporary posts in titanium Engaging Anatomical emergence Connecting screw included	<b>A-MPSA-330-EX</b> 	<b>A-MPSA-380-EX</b> 	-	-
SIMPLE temporary posts in titanium Engaging Straight emergence Connecting screw included	<b>A-MPSCI-330-EX</b> 	<b>A-MPSCI-380-EX</b> 	<b>AS-MPSCI-425-EX</b> 	<b>AS-MPSCI-500-EX</b> 
SIMPLE temporary posts in titanium Non engaging Straight emergence Connecting screw included	<b>A-MPSA-330</b> 	<b>A-MPSA-380</b> 	-	-
SIMPLE temporary posts in titanium Non engaging Straight emergence Connecting screw included	<b>A-MPSCI-330</b> 	<b>A-MPSCI-380</b> 	<b>AS-MPSCI-425</b> 	<b>AS-MPSCI-500</b> 
SIMPLE temporary aesthetic posts in titanium Non engaging Wide emergence Connecting screw included	<b>A-MPS-330</b> 	<b>A-MPS-380</b> 	-	-
Single pack Pack of 10 pieces	<b>VM2-180</b> <b>VM2-180-10</b>	Use VM2-180	Use VM2-180	Use VM2-180
Connecting screw for posts Supplied with the posts, it can also be ordered separately as a spare	 M 1.8			

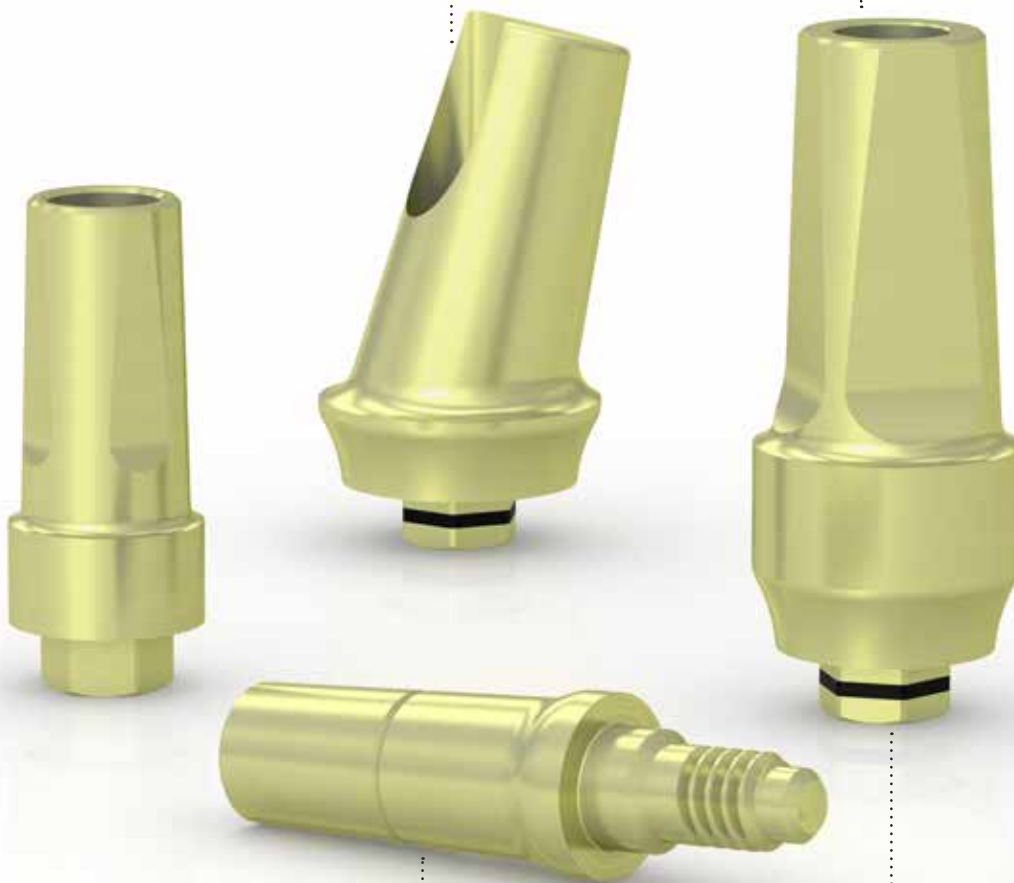
Recommended torque for connecting screws: 20-25 Ncm.

# Pre-made posts

Made in Gr. 5 titanium, these posts 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 surface. The direct screw retained posts have a well on the head into which is inserted the standard screwdriver of the system for screwing on the posts (family HSM see page 34 for the codes).



**Angled posts:** with a passing screw they offer 15° or 25° angles

**Colour:** the golden colour makes the ideal for prosthetic rehabilitations of particular aesthetic importance

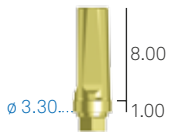
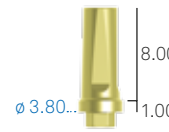
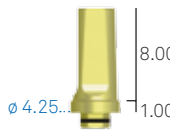
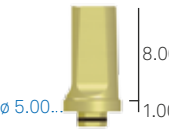
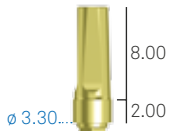
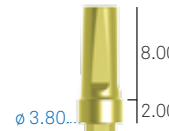
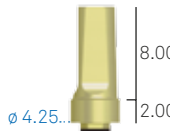
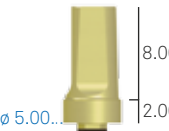

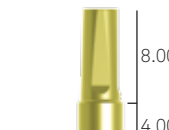





**Direct screw retained posts:** they are ideal for securing titanium stabilisation bars inside the oral cavity for rehabilitations with immediate loading because this technique guarantees the absolute immobility of the prosthesis and implant. They are also useful for cementing multiple prostheses on parallel implants

**Hexagon:** guarantees repositioning and the non-rotational aspect; this type of post is therefore indicated for making single structures

prosthetic component $\phi$	3.30	3.80	4.25	5.00
for implant $\phi$	3.80	3.80 - 4.25 - 5.00 - 6.00	4.25 - 5.00 - 6.00	5.00 - 6.00
Pre-made direct screw retained posts Non engaging	<b>A-MDAD-330</b> 	<b>A-MDAD-380</b> 	-	-

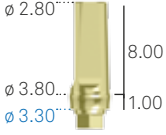
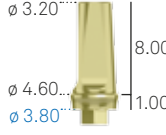
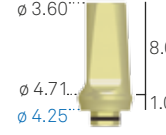

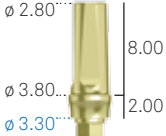
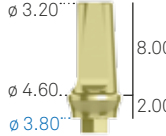
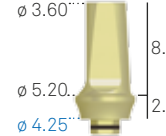
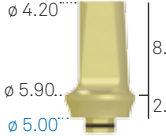
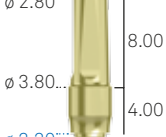
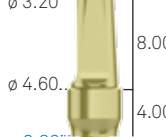
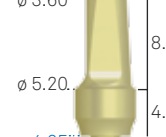
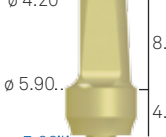

Recommended tightening torque: 25-30 Ncm.

prosthetic component $\phi$	3.30	3.80	4.25	5.00
for implant $\phi$	3.80	3.80 - 4.25 - 5.00 - 6.00	4.25 - 5.00 - 6.00	5.00 - 6.00
Pre-made posts Engaging Straight emergence Transgingival h. 1.00 mm Connecting screw included	<b>A-MD-330-1</b> 	<b>A-MD-380-1</b> 	<b>AS-MD-425-1</b> 	<b>AS-MD-500-1</b> 
Pre-made posts Engaging Straight emergence Transgingival h. 2.00 mm Connecting screw included	<b>A-MD-330-2</b> 	<b>A-MD-380-2</b> 	<b>AS-MD-425-2</b> 	<b>AS-MD-500-2</b> 
Pre-made posts Engaging Straight emergence Transgingival h. 4.00 mm Connecting screw included	<b>A-MD-330-4</b> 	<b>A-MD-380-4</b> 	<b>AS-MD-425-4</b> 	<b>AS-MD-500-4</b> 
Single pack Pack of 10 pieces	<b>VM2-180</b> <b>VM2-180-10</b>	Use VM2-180	Use VM2-180	Use VM2-180
Connecting screw for posts Supplied with the posts, it can also be ordered separately as a spare				

Recommended torque for connecting screws: 20-25 Ncm.

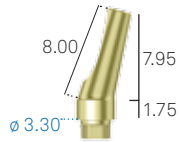
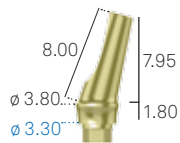
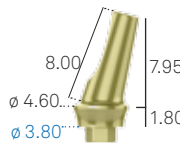
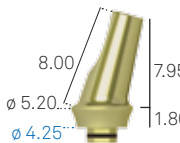
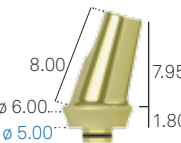
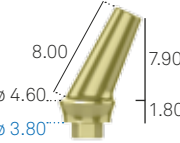
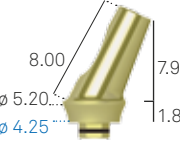

**Important warning**

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.

prosthetic component $\phi$	3.30	3.80	4.25	5.00
for implant $\phi$	3.80	3.80 - 4.25 - 5.00 - 6.00	4.25 - 5.00 - 6.00	5.00 - 6.00
Pre-made posts Engaging Anatomical emergence Transgingival h. 1.00 mm Connecting screw included	<b>A-MDR-330-1</b> 	<b>A-MDR-380-1</b> 	<b>AS-MDR-425-1</b> 	<b>AS-MDR-500-1</b> 
Pre-made posts Engaging Anatomical emergence Transgingival h. 2.00 mm Connecting screw included	<b>A-MDR-330-2</b> 	<b>A-MDR-380-2</b> 	<b>AS-MDR-425-2</b> 	<b>AS-MDR-500-2</b> 
Pre-made posts Engaging Anatomical emergence Transgingival h. 4.00 mm Connecting screw included	<b>A-MDR-330-4</b> 	<b>A-MDR-380-4</b> 	<b>AS-MDR-425-4</b> 	<b>AS-MDR-500-4</b> 
Single pack Pack of 10 pieces  Connecting screw for posts Supplied with the posts, it can also be ordered separately as a spare	<b>VM2-180</b> <b>VM2-180-10</b>  	Use VM2-180	Use VM2-180	Use VM2-180

Recommended torque for connecting screws: 20-25 Ncm.



prosthetic component $\phi$	3.30	3.80	4.25	5.00
for implant $\phi$	3.80	3.80 - 4.25 - 5.00 - 6.00	4.25 - 5.00 - 6.00	5.00 - 6.00
Pre-made posts angled at 15° Engaging Straight emergence Transgingival h. 1.75 mm Connecting screw included	<b>A-MA15-330</b> 	-	-	-
Pre-made posts angled at 15° Engaging Anatomical emergence Transgingival h. 1.80 mm Connecting screw included	<b>A-MAR15-330</b> 	<b>A-MAR15-380</b> 	<b>AS-MAR15-425</b> 	<b>AS-MAR15-500</b> 
Pre-made posts angled at 25° Engaging Anatomical emergence Transgingival h. 1.80 mm Connecting screw included	-	<b>A-MAR25-380</b> 	<b>AS-MAR25-425</b> 	-
Single pack Pack of 10 pieces  Connecting screw for posts Supplied with the posts, it can also be ordered separately as a spare	<b>VM2-180</b> <b>VM2-180-10</b>  	Use VM2-180	Use VM2-180	Use VM2-180

Recommended torque for connecting screws: 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.

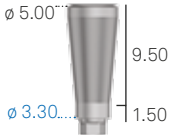
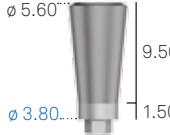


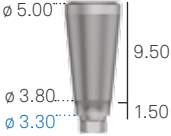
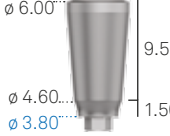


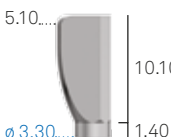
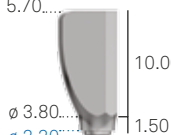
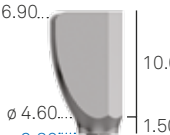



# Standard preparable posts

They are made of Gr.5 titanium and are able to respond to complex anatomical requirements in terms of both narrow prosthetic spaces and parallel implants.

**Pre-cut posts:** allow very pronounced angles to be reached, up to 25°, limiting the time needed to reduce them by milling



**Straight preparable posts,** with their characteristic profile in the shape of an inverted cone, are suitable for angles of up to 10° and small profiles

prosthetic component ø	3.30	3.80	4.25	5.00
for implant ø	3.80	3.80 - 4.25 - 5.00 - 6.00	4.25 - 5.00 - 6.00	5.00 - 6.00
Straight preparable posts Engaging Straight emergence Connecting screw included	<b>A-MF-330</b> 	<b>A-MF-380</b> 	<b>AS-MF-425</b> 	<b>AS-MF-500</b> 
Straight preparable posts Engaging Straight emergence Anatomical emergence Connecting screw included	<b>A-MFR-330</b> 	<b>A-MFR-380</b> 	<b>AS-MFR-425</b> 	<b>AS-MFR-500</b> 
Pre-cut preparable posts Engaging Straight emergence Connecting screw included	<b>A-MFP-330</b> 	-	-	-
Pre-cut preparable posts Engaging Anatomical emergence Connecting screw included	<b>A-MFPR-330</b> 	<b>A-MFPR-380</b> 	<b>AS-MFPR-425</b> 	<b>AS-MFPR-500</b> 
Single pack Pack of 10 pieces  Connecting screw for posts Supplied with the temporary posts, it can also be ordered separately as a spare	<b>VM2-180</b> <b>VM2-180-10</b> 	Use VM2-180	Use VM2-180	Use VM2-180

Recommended torque for connecting screws: 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.

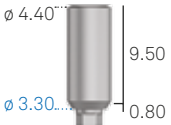
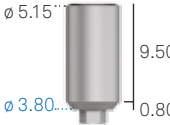
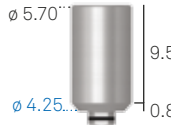

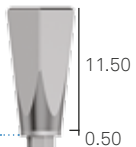

# Preparable posts: excellent solutions

Alongside the traditional prosthetic protocols, Sweden & Martina has developed innovative solutions in collaboration with distinguished professionals and universities. Among these, the SIMPLE Technique allows perfect conditioning of the mucosa starting with temporary posts (see pages 44-45) and uses a preparable post with large dimensions for making a primarily custom-built final prosthesis. Instead the Interceptivo Technique uses posts characterised by two wide faces, which guarantee unequivocal repositioning on a model developed from an impression taken directly on the posts.

**Preparable posts for the Interceptivo Technique** have an emergence profile that simplifies the taking of the impression with closed tray technique, while the two wide faces guarantee unequivocal repositioning



**SIMPLE preparable posts** have a very wide emergence profile which can be adapted to any anatomy obtained with SIMPLE temporary aesthetic posts in the immediate conditioning phase

prosthetic component $\phi$	3.30	3.80	4.25	5.00
for implant $\phi$	3.80	3.80 - 4.25 - 5.00 - 6.00	4.25 - 5.00 - 6.00	5.00 - 6.00
SIMPLE preparable posts Engaging Very wide emergence Connecting screw included	<b>A-MFS-330</b> 	<b>A-MFS-380</b> 	<b>AS-MFS-425</b> 	<b>AS-MFS-500</b> 
Preparable posts for Interceptive Technique Engaging Connecting screw included	-	<b>A-MFTI-380</b> 	-	-
Single pack Pack of 10 pieces  Connecting screw for posts Supplied with the posts, it can also be ordered separately as a spare	<b>VM2-180</b> <b>VM2-180-10</b> 	Use VM2-180	Use VM2-180	Use VM2-180

Recommended torque for connecting screws: 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.

# Solutions of excellence: B.O.P.T. prostheses

This line of prostheses has been developed to allow the mucosae to be conditioned using the B.O.P.T. technique. The vertical design of the posts is tapered to allow greater space to be made available for the tissues and to permit better adaptation to the emergence profiles of the prosthetic restoration.

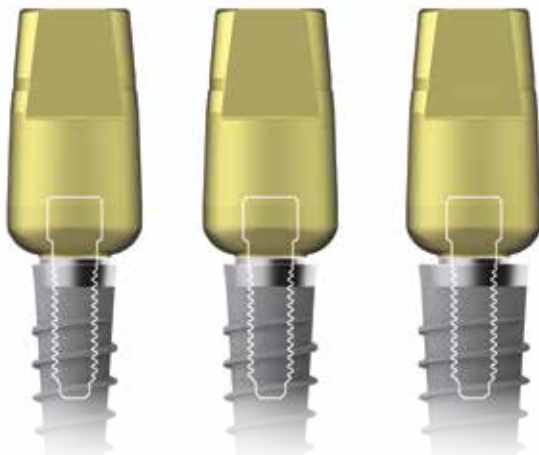
The aesthetic healing abutments and B.O.P.T. screw retained posts for temporary prostheses are made in REEF resin, with a special nanostoichiometric conformation that gives a high capacity of resistance to bacterial attacks which lasts over time and makes the adherence of plaque more difficult, promoting healing



Also available is a cap for taking high precision impressions directly from the post, making it unnecessary to use transfers



REEF resin is extremely simple to use at the chairside, permitting easy construction of the morphology of the restoration



The Gr. 5 titanium posts that form part of the B.O.P.T. prosthetic range have been specifically designed to rest securely on the COLLEX collar

ø 3.80

ø 4.25

ø 5.00

prosthetic component ø	3.30	3.80	4.25	5.00
for implant ø	3.80	3.80 - 4.25 - 5.00 - 6.00	4.25 - 5.00 - 6.00	5.00 - 6.00
B.O.P.T. healing abutments	<b>A-TMG-MEFL-330</b> ø 5.40... ø 5.50...  4.00	Use A-TMG-MEFL-330	Use A-TMG-MEFL-330	Use A-TMG-MEFL-330
B.O.P.T. aesthetic healing abutments Connecting screw included	Use A-PEFL-380	<b>A-PEFL-380</b>  11.00	<b>AS-PEFL-425</b>  11.00	<b>AS-PEFL-500</b>  11.00
B.O.P.T. engaging temporaries in resin Connecting screw included	<b>A-PPF-330-EX</b> ø 3.10...  10.00	Use A-PPF-330-EX	Use A-PPF-330-EX	Use A-PPF-330-EX
B.O.P.T. Non engaging temporaries in resin Connecting screw included	<b>A-PPF-330</b> ø 3.10...  10.00	Use A-PPF-330	Use A-PPF-330	Use A-PPF-330
B.O.P.T. preparable posts in titanium Connecting screw included	<b>A-MEFL-330</b> ø 4.50... ø 5.50...  10.10	Use A-MEFL-330	Use A-MEFL-330	Use A-MEFL-330
Pack of 5 pieces Caps for taking impressions	<b>CAP-MEFL-5</b>  4.00	Use CAP-MEFL-5	Use CAP-MEFL-5	Use CAP-MEFL-5
Single pack Pack of 10 pieces Connecting screw Supplied with the posts, it can also be ordered separately as a spare	<b>VM2-180</b> <b>VM2-180-10</b>  M 1.8.....	Use VM2-180	Use VM2-180	Use VM2-180

Recommended torque for connecting screws: 20-25 Ncm.

Recommended torque for healing abutments and B.O.P.T. temporary posts: 8-10 Ncm.

**Important warning**

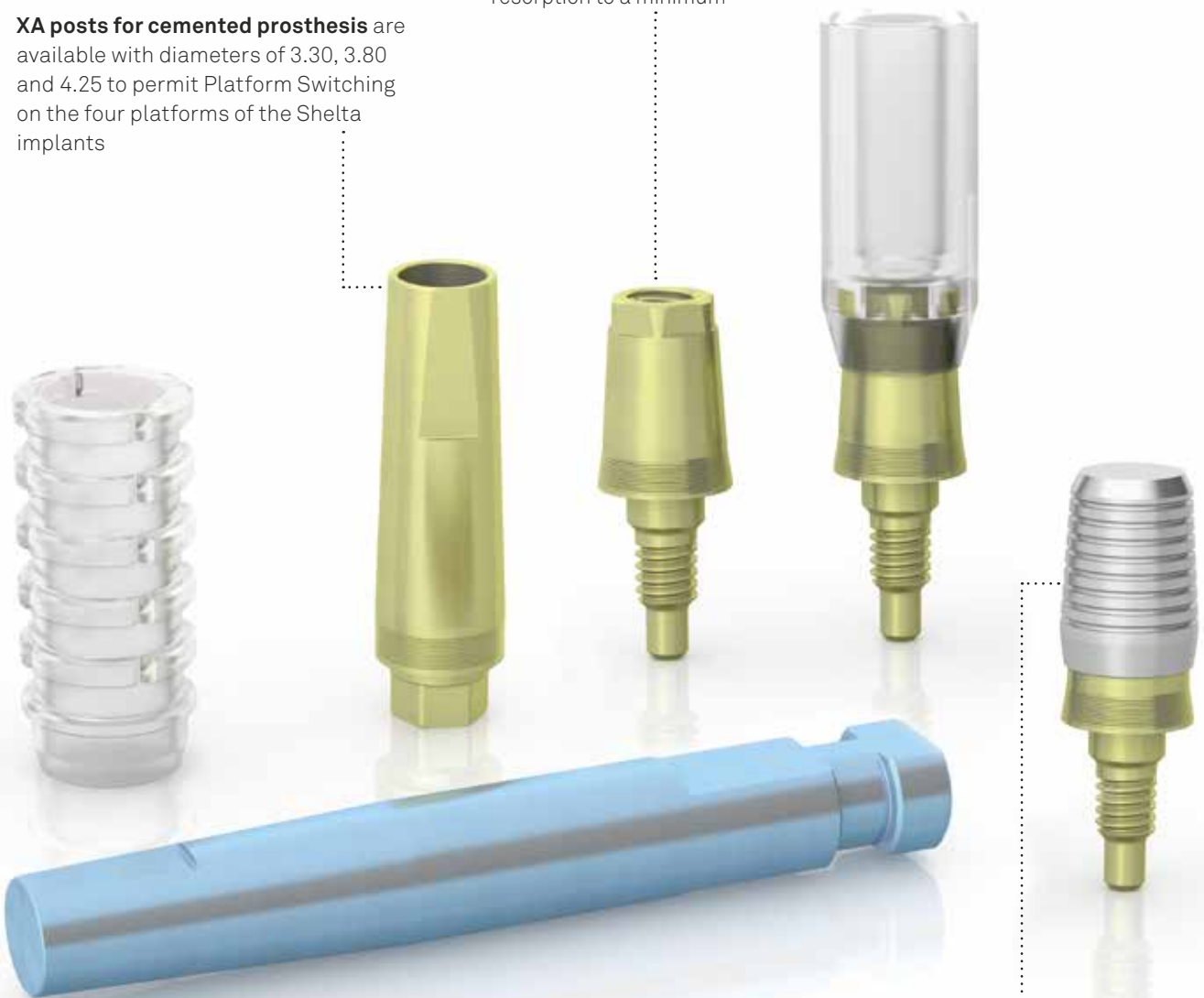
It is recommended always to use test screws for the laboratory phases and to keep the new screw supplied for the final fastening in the oral cavity.

# Prostheses on XA posts

These posts, made of Gr. 5 titanium, have microgrooves on the base of the post that promotes the stabilization of circular fibres. They are available in two versions, one for cemented restorations and one for screw retained restorations. Both types of post allow the One-Abutment-One-Time technique to be used, leaving the XA post tightened into the patient's mouth and reproducing its form and position in the laboratory model with great precision, using a dedicated transfer and analog.

**XA posts for cemented prosthesis** are available with diameters of 3.30, 3.80 and 4.25 to permit Platform Switching on the four platforms of the Shelta implants

The single available diameter of 3.80 mm of the **abutment for screw retained prostheses** permits the greatest possible prosthetic simplification, and ensures Platform Switching that is extremely favourable in reducing peri-implant bone resorption to a minimum



On posts with heights of 5.50 and 6.50 mm, an extremely safe conometric prosthesis can be fitted by using Conoweld caps



**XA posts for cemented restorations**

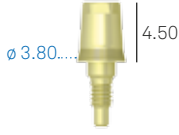

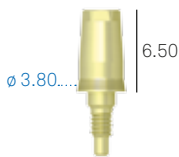

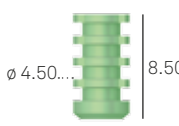

prosthetic component $\phi$	3.30	3.80	4.25
for implant $\phi$	3.80	3.80 - 4.25 - 5.00 - 6.00	4.25 - 5.00 - 6.00
Pre-made XA post Engaging Transgingival h. 1.00 mm Connecting screw included	<p><b>SH-MD-F-330-1</b></p>	<p><b>SH-MD-F-380-1</b></p>	<p><b>SH-MD-F-425-1</b></p>
Pre-made XA post Engaging Transgingival h. 2.00 mm Connecting screw included	<p><b>SH-MD-F-330-2</b></p>	<p><b>SH-MD-F-380-2</b></p>	<p><b>SH-MD-F-425-2</b></p>
Single pack Pack of 10 pieces  Connecting screw with conical support	<p><b>L-VMS-180</b> <b>L-VMS-180-10</b></p>	Utilizzare L-VMS-180	Utilizzare L-VMS-180
Analog for pre-made XA posts for cemented restorations	<p><b>SH-ANA-MD-F-330</b></p>	<p><b>SH-ANA-MD-F-380</b></p>	<p><b>SH-ANA-MD-F-425</b></p>
Transfer for pre-made XA posts for cemented restorations	<p><b>SH-TRA-MD-F-330</b></p>	<p><b>SH-TRA-MD-F-380</b></p>	<p><b>SH-TRA-MD-F-425</b></p>

Recommended torque for connecting screws: 20-25 Ncm.

**Important warning**

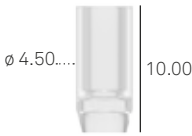
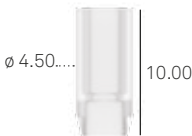
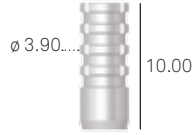
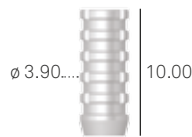


It is recommended always to use test screws for the laboratory phases and to keep the new screw supplied for the final fastening in the oral cavity.

**XA abutments for screw retained restorations**

prosthetic component $\phi$	3.80 mm
for implant $\phi$	3.80 - 4.25 - 5.00 - 6.00
Intermediate XA abutment h. 4.50 mm	<p><b>SH-ABU-F-TS-380-4</b></p> 
Intermediate XA abutment h. 5.50 mm	<p><b>SH-ABU-F-TS-380-5</b></p> 
Intermediate XA abutment h. 6.50 mm	<p><b>SH-ABU-F-TS-380-6</b></p> 
Analogue for XA intermediate abutments	<p><b>SH-ANABU-F-380</b></p> 
Transfer intermediate XA abutments Transfer screw included	<p><b>SH-TRABU-F-380</b></p> 
Single pack Transfer screw	<p><b>SH-VTRABU-F-200</b></p> 
Healing cap in PEEK for intermediate XA abutments	<p><b>SH-CG-ABU-F-380</b></p> 

Recommended torque for intermediate XA abutments: 25-30 Ncm.

**Accessories for screw retained restorations on XA posts**

description	code
Castable sleeve for XA abutments Engaging Connecting screw included	<b>SH-CCABU-F-380</b> 
Castable sleeve for XA abutments Non engaging Connecting screw included	<b>SH-CCABU-F-380-ROT</b> 
Titanium sleeve for XA abutments Engaging Connecting screw included	<b>SH-CTABU-F-380</b> 
Titanium sleeve for XA abutments Non engaging Connecting screw included	<b>SH-CTABU-F-380-ROT</b> 
Connecting screw for XA superstructures	<b>A-PLAIN-VP200</b> 
Conoweld cap for luting	<b>CAP-TS-DEF</b> 

*Recommended torque for definitive fastening of structures on abutments: 20-25 Ncm.*

# Castable posts with base in gold alloy, titanium, and cobalt chrome

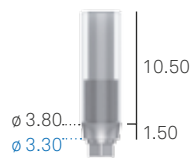
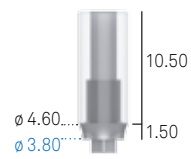
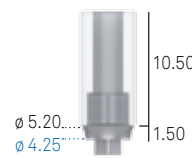
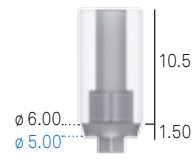
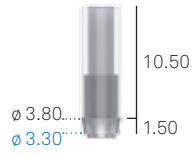
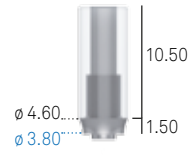
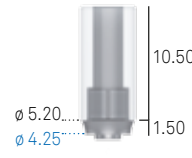
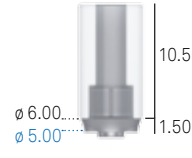
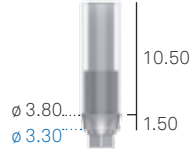
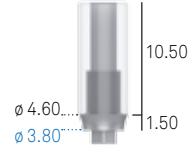
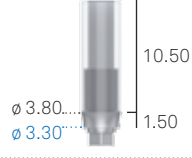
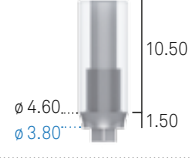
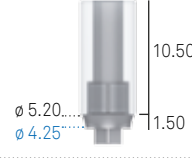
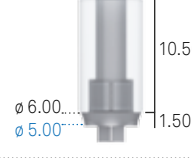
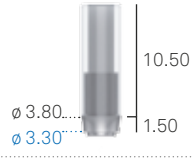
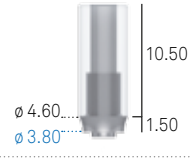
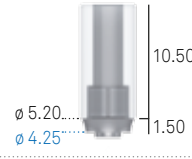
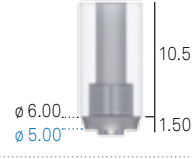

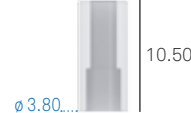



Castable posts with a metal base combine the simplicity of castable solutions with a base of gold alloy, cobalt chrome or titanium, highly biocompatible materials. The melting point of the above mentioned alloys is such as to preserve the base against dimensional alterations at the time of overcasting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

The engaging version is suitable for creating single crowns

The non engaging version presents a cylinder which, when inscribed in the hexagon of the connection, guarantees the simple insertion of multiple structures



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

prosthetic component $\varnothing$	3.30	3.80	4.25	5.00
for implant $\varnothing$	3.80	3.80 - 4.25 - 5.00 - 6.00	4.25 - 5.00 - 6.00	5.00 - 6.00
Castable posts with a pre-made base in <b>gold alloy "1"</b> Engaging Anatomical emergence Connecting screw included	<b>A-UCR-330-EX</b> 	<b>A-UCR-380-EX</b> 	<b>AS-UCR-425-EX</b> 	<b>AS-UCR-500-EX</b> 
Castable posts with a pre-made base in <b>gold alloy "1"</b> Non engaging Anatomical emergence Connecting screw included	<b>A-UCR-330</b> 	<b>A-UCR-380</b> 	<b>AS-UCR-425</b> 	<b>AS-UCR-500</b> 
Castable posts with pre-made base in <b>titanium</b> Engaging Anatomical emergence Connecting screw included	<b>A-UCTR-330-EX</b> 	<b>A-UCTR-380-EX</b> 	-	-
Castable posts with pre-made base in <b>cobalt chrome</b> Engaging Anatomical emergence Connecting screw included	<b>A-UCRCO-330-EX</b> 	<b>A-UCRCO-380-EX</b> 	<b>AS-UCRCO-425-EX</b> 	<b>AS-UCRCO-500-EX</b> 
Castable posts with pre-made base in <b>cobalt chrome</b> Non engaging Anatomical emergence Connecting screw included	<b>A-UCRCO-330</b> 	<b>A-UCRCO-380</b> 	<b>AS-UCRCO-425</b> 	<b>AS-UCRCO-500</b> 
Spare castable sleeves for castable posts with alloy base Without connecting screw	<b>A-CCUCR-330</b> 	<b>A-CCUCR-380</b> 	<b>AS-CCUCR-425</b> 	<b>AS-CCUCR-500</b> 
Single pack Pack of 10 pieces	<b>VM2-180</b> <b>VM2-180-10</b>	Use VM2-180	Use VM2-180	Use VM2-180
Connecting screw for posts Supplied with the posts, it can also be ordered separately as a spare				

Recommended torque for connecting screws: 20-25 Ncm.

**Important warning**


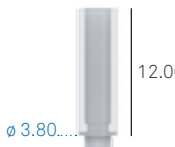
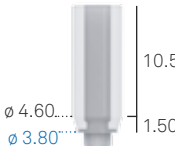
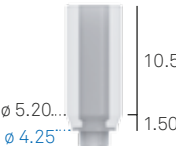
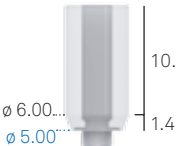
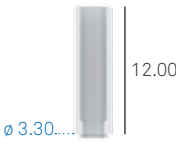
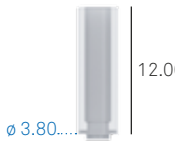
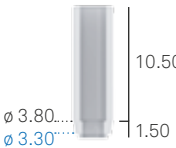
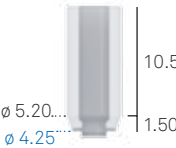
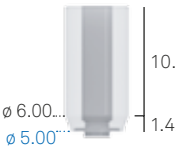

It is recommended always to use test screws for the laboratory phases and to keep the new screw supplied for the final fastening in the oral cavity.

# Fully castable posts

The posts made entirely of PMMA, a resin that does not leave any residue in casting, are produced not by moulding but by turning, like all Sweden & Martina prosthetic components, allowing the respect of micrometric tolerances and enabling a precise connection to be obtained even after the casting process. The stop of the connecting screw head allows an extremely versatile adaptation to prosthetic needs.



Castable posts allow maximum ease of modelling

prosthetic component $\phi$	3.30	3.80	4.25	5.00
for implant $\phi$	3.80	3.80 - 4.25 - 5.00 - 6.00	4.25 - 5.00 - 6.00	5.00 - 6.00
Castable posts for casting Engaging Straight emergence Connecting screw included	<b>A-CC-330-EX</b> 	<b>A-CC-380-EX</b> 	-	-
Castable posts for casting Engaging Anatomical emergence Connecting screw included	<b>A-CCR-330-EX</b> 	<b>A-CCR-380-EX</b> 	<b>AS-CCR-425-EX</b> 	<b>AS-CCR-500-EX</b> 
Castable posts for casting Non engaging Straight emergence Connecting screw included	<b>A-CC-330</b> 	<b>A-CC-380</b> 	-	-
Castable posts for casting Non engaging Anatomical emergence Connecting screw included	<b>A-CCR-330</b> 	<b>A-CCR-380</b> 	<b>AS-CCR-425</b> 	<b>AS-CCR-500</b> 
Single pack Pack of 10 pieces	<b>VM2-180</b> <b>VM2-180-10</b>	Use VM2-180	Use VM2-180	Use VM2-180
Connecting screw for posts Supplied with the castable posts, it can also be ordered separately as a spare	 M 1.8			

Recommended torque for connecting screws: 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.










## 3.0 Dynamic Abutment posts

The 3.0 Dynamic Abutment\* post is a patented solution that allows prostheses to be freely angled up to 28°. The primary benefit of this innovative technology consists in the possibility of moving the hole for the connecting screw to a palatal or lingual position, avoiding unsightly vestibular hole and permitting a greater vestibular thickness of the ceramic structure. 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.





*\*3.0 Dynamic Abutment posts are medical devices manufactured and patented by Talladium España S.L., Avenida Blondel, 54 3º, 25002 Lleida, Spain. 3.0 Dynamic Abutment is a registered trademark of this company.*



prosthetic component $\varnothing$	3.30	3.80
for implant $\varnothing$	3.80	3.80 - 4.25 - 5.00 - 6.00
3.0 Dynamic Abutment with cobalt chrome base for overcasting Engaging Connecting screw not included	<b>PD3PKH330/CC</b> 	<b>PD3PKH380/CC</b> 
3.0 Dynamic Abutment with cobalt chrome base for overcasting Non engaging Connecting screw not included	<b>PD3PKR330/CC</b> 	<b>PD3PKR380/CC</b> 
3.0 Dynamic Abutment, entirely castable Engaging Connecting screw not included	<b>PD3PKH330/P</b> 	<b>PD3PKH380/P</b> 
3.0 Dynamic Abutment, entirely castable Non engaging Connecting screw not included	<b>PD3PKR330/P</b> 	<b>PD3PKR380/P</b> 
Fixation screw for 3.0 Dynamic Abutment Must be ordered separately	<b>TPDH18L66</b> 	Use TPDH18L66

Recommended torque for connecting screws: 20-25 Ncm. During laboratory phases and any chairside trials, the tightening torque must be 8-10 Ncm.

description	code
Screwdriver for 3.0 Dynamic Abutment length 24 mm Must be ordered separately	<b>DSPDCLH-24</b> 
Screwdriver for 3.0 Dynamic Abutment length 32 mm Must be ordered separately	<b>DSPDCLH-32</b> 

**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.

# Prostheses on intermediate abutments

These abutments have a straight emergence profile and are made up of an engaging titanium base, characterised by a small upper cone with a height of 0.70 mm, the same for all the connection diameters, which allows easy insertion and removal of the over-structures, even in case of slight disparallelism.

The abutment is supplied with the castable sleeves for modelling and casting the over-structure and with the passing screw for the “packet” fastening of the over-structure and abutments to the implants. Normally, when these abutments are used, the impression is taken directly on the implants using the transfers. Instead when the titanium base of the abutments is used to make a temporary posts, the impression is transferred to the laboratory with the use of the special transfers and the castable sleeve is sent to the laboratory with the relative connecting screw (option available only for  $\varnothing \leq 4.25$  mm). A titanium sleeve is normally used to create the temporary prosthesis, which is supplied complete with the relative connecting screw.

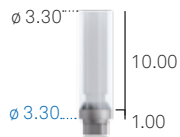
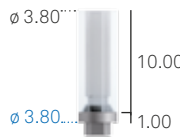
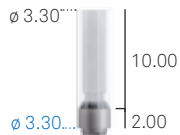
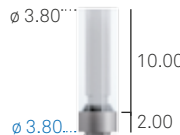

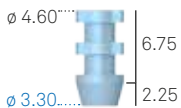
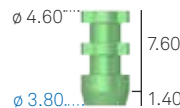

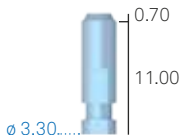
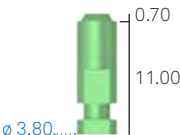
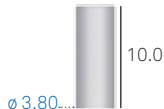


A titanium sleeve is normally used to create the temporary prosthesis, which is supplied complete with the relative connecting screw



The transfers and the dedicated analogs help to transfer the abutment position to the laboratory



The intermediate abutments have a straight emergence profile

prosthetic component $\varnothing$	3.30	3.80
for implant $\varnothing$	3.80	3.80 - 4.25 - 5.00 - 6.00
Straight abutments with passing screw Engaging Transgingival h. 1.00 mm Connecting screw included	<b>A-ABU-330-1</b> 	<b>A-ABU-380-1</b> 
Straight abutments with passing screw Engaging Transgingival h. 2.00 mm Connecting screw included	<b>A-ABU-330-2</b> 	<b>A-ABU-380-2</b> 
Connecting screw for abutments Supplied with the abutments, it can also be ordered separately as a spare	<b>A-VABU-180</b> 	Use A-VABU-180
Pick-up transfers for non engaging standard abutments Connecting screw included	<b>A-TRABU-330</b> 	<b>A-TRABU-380</b> 
Single pack  Spare screw for abutment transfers Supplied with the transfers, it can also be ordered separately as a spare	<b>A-VTRABU-180</b> 	Use A-VTRABU-180
Analog for non engaging standard abutments Connecting screw included	<b>A-ANABU-330</b> 	<b>A-ANABU-380</b> 
Single pack  Titanium sleeves for abutments Connecting screw included	-	<b>A-CTABU-380-ROT</b> 
Single pack  Spare castable sleeves for abutments Connecting screw not included	<b>A-CCABU-330-ROT</b> 	<b>A-CCABU-380-ROT</b> 

Recommended torque for connecting screws: 20-25 Ncm.

Recommended torque for transfer screws: 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.

# P.A.D. (Disparallel Screwed Prosthesis)

P.A.D. system has been developed to facilitate the realization of multiple screw retained prostheses even in presence of divergent implants and disparallel prosthetic emergence axes. In particular, P.A.D. angled abutments are simple and predictable solutions for implants positioned with an extreme inclination in distal saddles. P.A.D. system is characterized by its great versatility, including a wide range of straight abutments (available in various transgingival heights, from 1.50 mm to 4.00 mm), angled abutments (available with inclinations of 30° and 17° and transgingival heights of 3.00 and 5.00 mm), and a complete line of components necessary for the production of over-structures (transfers, analogs, sleeves, etc).



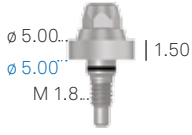
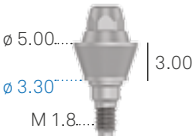
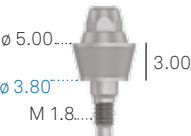
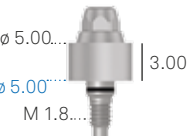


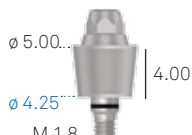
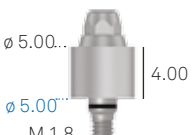
P.A.D. abutments all have the same upper cone, angled at 15°, which facilitates the manoeuvres of inserting and removing multiple screw retained prostheses.



The upper cone allows further repositioning of the prosthetic structure by 15° on each side, which in the case of angled P.A.D. abutments are added to the angle of 17° or 30°. This characteristic allows easy management of disparallelism of up to 45° on each side.

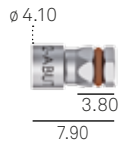


**Straight P.A.D.**

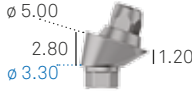
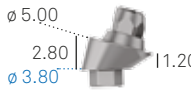
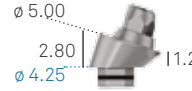
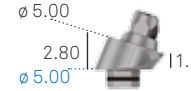

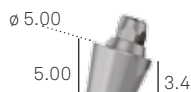
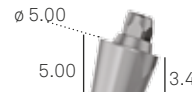
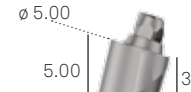
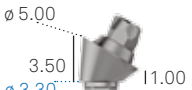
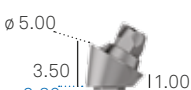
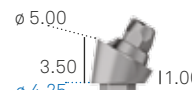
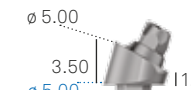
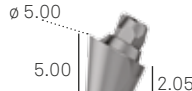
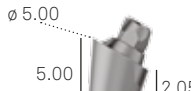

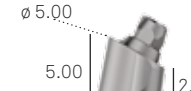

prosthetic component $\phi$	3.30	3.80	4.25	5.00
for implant $\phi$	3.80	3.80 - 4.25 - 5.00 - 6.00	4.25 - 5.00 - 6.00	5.00 - 6.00
Straight P.A.D. abutments Direct screw retained Transgingival h. 1.50 mm	<b>A-PAD-AD330-15</b> 	<b>A-PAD-AD380-15</b> 	<b>AS-PAD-AD425-15</b> 	<b>AS-PAD-AD500-15</b> 
Straight P.A.D. abutments Direct screw retained Transgingival h. 3.00 mm	<b>A-PAD-AD330-30</b> 	<b>A-PAD-AD380-30</b> 	<b>AS-PAD-AD425-30</b> 	<b>AS-PAD-AD500-30</b> 
Straight P.A.D. abutments Direct screw retained Transgingival h. 4.00 mm	<b>A-PAD-AD330-40</b> 	<b>A-PAD-AD380-40</b> 	<b>AS-PAD-AD425-40</b> 	<b>AS-PAD-AD500-40</b> 

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



**Note:** to transfer straight abutments into the oral cavity each package contains a practical plastic carrier (code AVV-ABUT-DG, not available separately).

description	code
Screwdriver for standard abutments and straight P.A.D. abutments, with hexagonal connector for ratchet	<b>AVV2-ABUT</b> 

**Angled P.A.D.**

prosthetic component $\phi$	3.30	3.80	4.25	5.00
for implant $\phi$	3.80	3.80 - 4.25 - 5.00 - 6.00	4.25 - 5.00 - 6.00	5.00 - 6.00
P.A.D. abutment angled at 17° Transgingival h. 3.00 mm Connecting screw included	<b>A-PAD-AA330-173</b> 	<b>A-PAD-AA380-173</b> 	<b>AS-PAD-AA425-173</b> 	<b>AS-PAD-AA500-173</b> 
P.A.D. abutment angled at 17° Transgingival h. 5.00 mm Connecting screw included	<b>A-PAD-AA330-175</b> 	<b>A-PAD-AA380-175</b> 	<b>AS-PAD-AA425-175</b> 	<b>AS-PAD-AA500-175</b> 
P.A.D. abutment angled at 30° Transgingival h. 3.00 mm Connecting screw included	<b>A-PAD-AA330-303</b> 	<b>A-PAD-AA380-303</b> 	<b>AS-PAD-AA425-303</b> 	<b>AS-PAD-AA500-303</b> 
P.A.D. abutment angled at 30° Transgingival h. 5.00 mm Connecting screw included	<b>A-PAD-AA330-305</b> 	<b>A-PAD-AA380-305</b> 	<b>AS-PAD-AA425-305</b> 	<b>AS-PAD-AA500-305</b> 
Single pack Pack of 10 pieces	<b>PAD-VM-180</b> <b>PAD-VM-180-10</b>	Use PAD-VM-180	Use PAD-VM-180	Use PAD-VM-180
Connecting screw for posts Supplied with the temporary posts, it can also be ordered separately as a spare	 M 1.8			






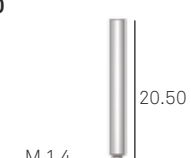

Recommended torque for connecting screws: 20-25 Ncm.

description	code
P.A.D. transfer screw for manual screwing for transferring angled P.A.D. into the oral cavity, sterilisable and reusable	<b>PAD-VTRAL-140-MAN</b>  M 1.4
Carrier for transferring angled abutments into the oral cavity, sterilisable and reusable Not included in the surgical kit, included in the Screw Kit and can also be ordered separately	<b>PAD-CAR</b> 

**Important warning**

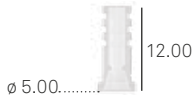



It is recommended always to use test screws for the laboratory phases and to keep the new screw supplied for the final fastening in the oral cavity.

**P.A.D. components**



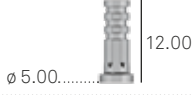
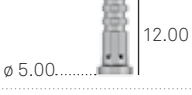


description	code
Protection caps for P.A.D. abutments in Gr.5 titanium Connecting screw included (code PAD-VP-140)	<b>PAD-CG</b> 
Protection caps for P.A.D. abutments in PEEK Connecting screw included (code PAD-VP-140)	<b>PAD-CGP</b> 
Rotating caps in POM for direct impression taking on P.A.D. abutments Non engaging	<b>PAD-CAP</b> 
Non-rotating caps in POM for direct impression taking on abutment P.A.D., with hexagon Engaging	<b>PAD-CAP-EX</b> 
Pick-up transfer in Gr. 5 titanium for P.A.D. abutments, rotating Long transfer screw included (code PAD-VTRAL-140)	<b>PAD-TRA</b> 
Pick-up transfer in Gr. 5 titanium for P.A.D. abutments, with hexagon, non-rotating Long transfer screw included (code PAD-VTRAL-140)	<b>PAD-TRA-EX</b> 
Spare screw for P.A.D. abutment transfer Supplied with the transfers, it can be ordered separately as a spare	<b>PAD-VTRAL-140</b> 
Spare screw for P.A.D. transfers supplied with transfers and also available separately as a spare	<b>PAD-VTRA-140</b> 
Analog for P.A.D. abutment in Gr. 5 titanium	<b>PAD-ANA</b> 
Castable sleeves in PMMA for P.A.D. abutments, rotating Connecting screw included	<b>PAD-CC</b> 

Recommended torque for transfer screws: 8-10 Ncm



description	code
Castable sleeves in PMMA for P.A.D. abutments, with hexagon, non-rotating. Connecting screw included (code PAD-VP-140)	<b>PAD-CC-EX</b> 
Castable posts in PMMA with a pre-made base in gold alloy type "1", rotating, not engaging, for overcasting on P.A.D. abutments Connecting screw included (code PAD-VP-140)	<b>PAD-UC</b> 
Castable posts in PMMA with a pre-made base in cobalt chrome, rotating, not engaging, for overcasting on P.A.D. abutments Connecting screw included (code PAD-VP-140)	<b>PAD-UCRCO</b> 
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)	<b>PAD-VP-140</b> 

## P.A.D. components

description	code
Sleeves in PEEK, for P.A.D. abutments, rotating for the relining of existing prosthesis Connecting screw included (code PAD-VP-140)	<b>PAD-CP</b> 
Sleeves in PEEK, for P.A.D. abutments, with hexagon, non-rotating, for the relining of existing prosthesis Connecting screw included (code PAD-VP-140)	<b>PAD-CP-EX</b> 
Sleeves in Gr. 5 titanium for P.A.D. abutments, rotating for the relining of existing prosthesis Connecting screw included (code PAD-VP-140)	<b>PAD-CT</b> 
Sleeves in Gr. 5 titanium for P.A.D. abutments, with hexagon, non-rotating for the relining of existing prosthesis Connecting screw included (code PAD-VP-140)	<b>PAD-CT-EX</b> 
Castable sleeves in PMMA for cementing techniques on sleeves in Gr. 5 titanium	<b>PAD-CCEM</b> 
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)	<b>PAD-VP-140</b> 

Recommended tightening torque for fixing protection caps: 8-10 Ncm.

Recommended tightening torque for securing the prosthetic screws: 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. prostheses for “D.P.F.” Technique (Direct Prosthetic Framework)

P.A.D. abutments have proven to be a valid support for creating various simplified prosthetic protocols, including the creation of temporary posts for full-arch implant rehabilitations with immediate loading with a very simple and safe procedure. The D.P.F. components have been specially developed for creating a castable resin structure directly in the oral cavity that is absolutely passive, not restricted by connection geometries and with the additional advantage of being made without errors due to the taking of the impression and the development of the model. The intra-oral cementing of the metal truss obtained subsequently by casting allows the times for inserting the reinforced temporary post to be reduced to 8 hours after the end of surgery, while still maintaining the important properties of resistance and passivity during the first phase of implant loading. The temporary post created in this way can also be used as a positioning stent for making the final prosthesis.

## STEP 1

The castable bar is fixed to the caps with a photopolymerisable resin


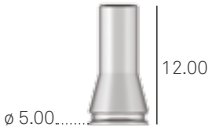





## STEP 3

The product is cast in the laboratory, obtaining the metal structure for making the finished truss

## STEP 2

After photo-polymerisation of the truss, the product is removed from the oral cavity



description	code
<p>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 connecting screw (PAD-VP-140)</p>	<p><b>PAD-LV</b></p> 
<p>Spare titanium sleeve for the “D.P.F.” technique The pack does not include the connecting screw</p>	<p><b>PAD-CT-LV</b></p> 
<p>Spare castable centring device for the “D.P.F.” technique</p>	<p><b>PAD-CC-LV</b></p> 
<p>Spare anti-escape plug for the “D.P.F.” technique</p>	<p><b>PAD-TR-LV</b></p> 
<p>Spare O-ring for the “D.P.F.” technique PAD-ORING</p>	<p><b>PAD-ORING-LV</b></p> 
<p>Single pack Pack of 10 pieces</p> <p>Spare screw for P.A.D. abutment prosthetic components</p>	<p><b>PAD-VP-140</b> <b>PAD-VP-140-10</b></p> 
<p>Castable bar, L. 5.00 cm, ø 2.20 mm</p>	<p><b>BARC</b></p> 

Recommended tightening torque for securing the prosthetic screws: 20-25 Ncm.

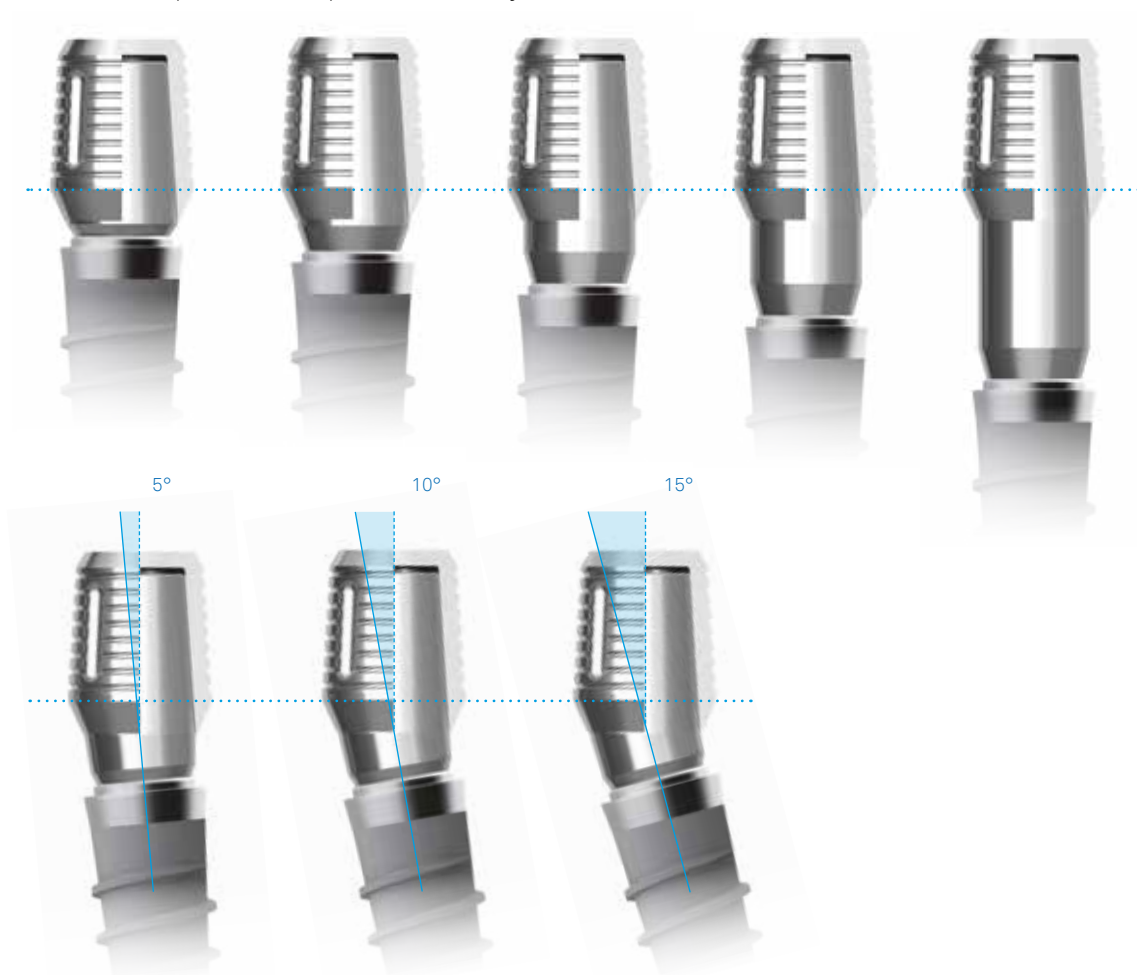
# Conoweld posts

These abutments are made of Gr. 5 titanium for the purpose of using the Conoweld conometric technique. This technique embraces the advantages of two protocols already widely established in oral implantoprosthesis: intraoral welding and conometric retention, both for temporary and final solution, employing cement-less prosthetic components and removable by the clinician. The Gr. 5 titanium posts that form part of the Conoweld prosthetic range have been specifically designed to rest securely on the COLLEX collar. The same Conoweld straight and angled posts with a 2.30 mm hexagon are used on all diameters of Shelta implants, that is 3.80, 4.25, 5.00 and 6.00 mm.



### Conoweld conometric caps

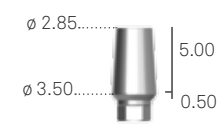








The Conoweld range includes three different caps, which are universal in relation to the diameters of the posts and the implant platforms: this is due to the fact that conometric retention is in the most coronal portion of the post, which always has the same dimensions.



The two titanium caps differ in thickness: the cap designed for the construction of a welded structure intraorally for the temporary stage is thicker in order to withstand the welding with the titanium bars, without bonding with the underlying post, while the cap designed to anchor the final prosthesis glued on is thinner, in order to reduce the impact on the anatomical morphology of the prosthesis; it should not, therefore, be used for the welding.

A cap in PMMA is also available, which allows a precise impression to be taken even when working without an intraoral welding machine and which can be used for modelling and casting a structure entirely in cobalt chrome or other alloys, when the decision has been taken not to use gluing techniques for assembly.





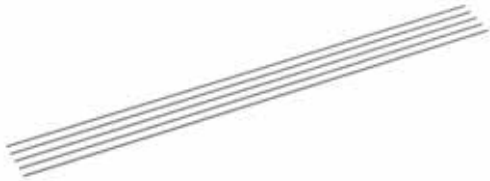




<p>prosthetic component hexagon</p>	<p>2.30</p>
<p>for implant <math>\varnothing</math></p>	<p>3.80 - 4.25 - 5.00 - 6.00</p>
<p>Conoweld post in Gr. 5 titanium Straight Transgingival h. 0.50 mm Connecting screw included</p>	<p><b>A-MD-TS-EX230-05</b></p> 
<p>Conoweld post in Gr. 5 titanium Straight Transgingival h. 1.00 mm Connecting screw included</p>	<p><b>A-MD-TS-EX230-1</b></p> 
<p>Conoweld post in Gr. 5 titanium Straight Transgingival h. 2.00 mm Connecting screw included</p>	<p><b>A-MD-TS-EX230-2</b></p> 
<p>Conoweld post in Gr. 5 titanium Straight Transgingival h. 3.00 mm Connecting screw included</p>	<p><b>A-MD-TS-EX230-3</b></p> 
<p>Conoweld post in Gr. 5 titanium Straight Transgingival h. 5.00 mm Connecting screw included</p>	<p><b>A-MD-TS-EX230-5</b></p> 
<p>Conoweld post in Gr. 5 titanium angled at 5° Connecting screw included</p>	<p><b>A-MA05-TS-EX230</b></p> 
<p>Conoweld post in grade 5 titanium angled at 10° Connecting screw included</p>	<p><b>A-MA10-TS-EX230</b></p> 
<p>Conoweld post in Gr. 5 titanium, Angled at 15° Connecting screw included</p>	<p><b>A-MA15-TS-EX230</b></p> 
<p>Single pack Pack of 10 pieces</p> <p>Connecting screw for Conoweld posts Supplied with the posts and also available separately as a spare</p>	<p><b>VM2-180</b> <b>VM2-180-10</b></p> 

Recommended tightening torque: 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.

description	code
Temporary cap for intraoral welding	<p><b>CAP-TS-PRO</b></p>  <p>5.70</p>
Final cap for luting	<p><b>CAP-TS-DEF</b></p>  <p>5.70</p>
Cap for impression taking	<p><b>CAP-TS-IMP</b></p>  <p>5.70</p>
Analog of the Conoweld post for intraoral welding	<p><b>ANA-TS</b></p>  <p>17.00</p>
<p>Package of 5 pieces</p> <p>Bar in Gr. 2 titanium, L. 150 mm, <math>\varnothing</math> 1.20 mm</p>	<p><b>DW-BARRA1.2</b></p> 
<p>Package of 5 pieces</p> <p>Bar in Gr. 2 titanium, L. 150 mm, <math>\varnothing</math> 1.50 mm</p>	<p><b>DW-BARRA1.5</b></p> 
<p>Package of 5 pieces</p> <p>Bar in Gr. 2 titanium, L. 150 mm, <math>\varnothing</math> 1.80 mm</p>	<p><b>DW-BARRA1.8</b></p> 

# Prostheses on PLAIN abutments

PLAIN abutments exploit the completely flat geometry of the upper part which, by means of a very small guide, is matched to normal castable sleeves. The usefulness of these abutments is therefore that they maximise centring and repositioning operations of structures tightened onto several implants.



The healing caps allow optimum tissue conditioning thanks to an emergence profile that is very flared at the crown. The healing caps do not have a passing screw but are screwed directly onto the abutment











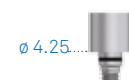

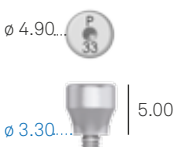

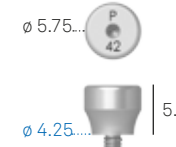
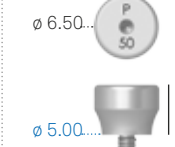





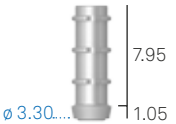
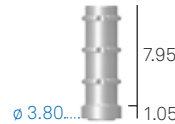
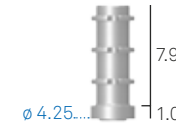
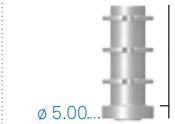
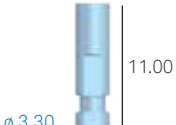
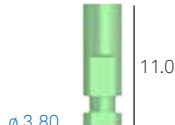
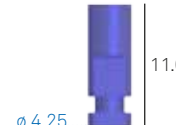

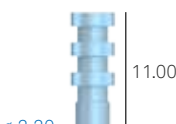
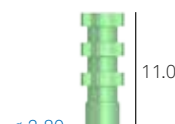
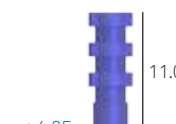

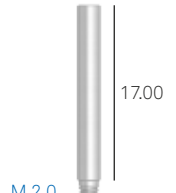
The PLAIN system also includes transfers and analogs which allow the impression to be taken directly on the abutment. The open-tray transfer has a special long screw supplied with it

The guide for lodging the castable sleeves is only 0.2 mm, the minimum indispensable for centring 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.



prosthetic component $\varnothing$	3.30	3.80	4.25	5.00
for implant $\varnothing$	3.80 - 4.25 - 5.00 - 6.00	3.80 - 4.25 - 5.00 - 6.00	4.25 - 5.00 - 6.00	5.00 - 6.00
Direct screw retained PLAIN abutment Transgingival h. 2.00 mm	<b>A-PLAIN-ABU330-2</b> 	<b>A-PLAIN-ABU380-2</b> 	<b>AS-PLAIN-ABU425-2</b> 	<b>AS-PLAIN-ABU500-2</b> 
Direct screw retained PLAIN abutment Transgingival h. 3.00 mm	<b>A-PLAIN-ABU330-3</b> 	<b>A-PLAIN-ABU380-3</b> 	<b>AS-PLAIN-ABU425-3</b> 	<b>AS-PLAIN-ABU500-3</b> 
Direct screw retained PLAIN abutment Transgingival h. 4.00 mm	<b>A-PLAIN-ABU330-4</b> 	<b>A-PLAIN-ABU380-4</b> 	<b>AS-PLAIN-ABU425-4</b> 	<b>AS-PLAIN-ABU500-4</b> 
Healing cap for PLAIN abutment	<b>A-PLAIN-CG330</b> 	<b>A-PLAIN-CG380</b> 	<b>A-PLAIN-CG425</b> 	<b>A-PLAIN-CG500</b> 
Castable sleeve for PLAIN abutments Connecting screw included	<b>A-PLAIN-CC330</b> 	<b>A-PLAIN-CC380</b> 	<b>A-PLAIN-CC425</b> 	<b>A-PLAIN-CC500</b> 
Single pack Pack of 10 pieces	<b>A-PLAIN-VP200</b> <b>A-PLAIN-VP200-10</b>	Use A-PLAIN-VP200	Use A-PLAIN-VP200	Use A-PLAIN-VP200
Connecting screw for castable sleeve for PLAIN abutments				
Titanium post for PLAIN abutment Connecting screw included	<b>A-PLAIN-CT330</b> 	<b>A-PLAIN-CT380</b> 	<b>A-PLAIN-CT425</b> 	<b>A-PLAIN-CT500</b> 
Analog for PLAIN abutment	<b>A-PLAIN-ANA-330</b> 	<b>A-PLAIN-ANA-380</b> 	<b>A-PLAIN-ANA-425</b> 	<b>A-PLAIN-ANA-500</b> 
Transfer for PLAIN abutment Connecting screw included	<b>A-PLAIN-TRA-330</b> 	<b>A-PLAIN-TRA-380</b> 	<b>A-PLAIN-TRA-425</b> 	<b>A-PLAIN-TRA-500</b> 
Spare screw for PLAIN transfer Supplied with the transfers for PLAIN abutments, it can also be ordered separately as a spare	<b>A-PLAIN-VTRA200</b> 	Use A-PLAIN-VTRA200	Use A-PLAIN-VTRA200	Use A-PLAIN-VTRA200

Recommended torque for connecting screws 20-25 Ncm, for abutment 25-30 Ncm, for transfer screws: 8-10 Ncm.

# Echo custom-made prosthesis

Maximum aesthetic results and design flexibility, in the case of custom-made prosthesis, can be reached with custom-made Echo posts and Echo Direct Bridges, designed using CAD-CAM technique and produced by Sweden & Martina Echo milling centre.

Custom-made titanium posts represent the evolution of millable posts, as they permit excellent adaptation of the prosthesis to the patient's gingival anatomy, difficult to achieve with conventional laboratory techniques.

Posts in zirconium oxide are also available, currently representing the most advanced custom-made solution, as they offer many advantages in terms of the translucence of restorations, extreme personalization of the manufacture, biocompatibility and the absence of corrosion in the oral cavity, maximum connection precision, excellent resistance to occlusal loads, lower invasiveness due to perfect adaptation to tissues and shorter chairside times.

The aluminium Scan-transfer is available for scanning. Analogs for models manufactured by means of 3D printers are also available (see following pages).

For further information on the Echo system, contact Sweden & Martina CAD-CAM product specialists.



• **Custom-made posts:**

- Biomedical Gr. 5 titanium
- Zirconia
- Milled cobalt chrome
- Laser-melted cobalt chrome
- PEEK
- Biomedical resin for temporary structures
- Fibreglass
- Lithium disilicate

CAD CAM  
*echo*

**Milled bars screwed onto implants:**

- Milled biotitanium
- Milled cobalt chrome





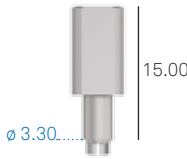
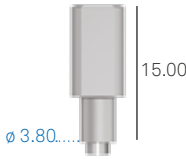
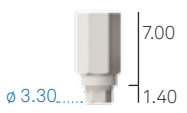
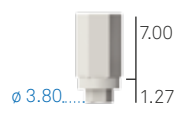



**DIRECT/TORONTO Bridge and screwed bridges with connector for T-Connect supports cementing:**

- Biomedical Gr. 5 titanium
- Zirconia
- Milled cobalt chrome
- Sintered cobalt chrome
- PMMA
- PEEK
- Biomedical resin for temporary structures
- Fibreglass
- Lithium disilicate





**Bridge structure screwed to DIRECT/TORONTO Bridge:**

- Biomedical Gr. 5 titanium
- Zirconia
- Milled cobalt chrome
- Biomedical resin for temporary structures

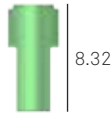


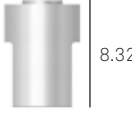


prosthetic component $\varnothing$	3.30	3.80
for implant $\varnothing$	3.80	3.80 - 4.25 - 5.00 - 6.00
Laboratory scanbodies in Ergal to transfer implant connection position Engaging Connecting screw included	<b>A-CAMETRA330</b> 	<b>A-CAMETRA380</b> 
Scanbodies in PEEK for intraoral use Connecting screw included	<b>A-INT-CAMTRA330</b> 	<b>A-INT-CAMTRA-380</b> 
Single pack Pack of 10 pieces  Spare screw for ECHO Scan-transfer Supplied with the scan transfers, it can also be ordered separately as a spare	<b>VM2-180</b> <b>VM2-180-10</b> 	Use VM2-180
Single pack  Spare screw for fastening individual posts in zirconium oxide and ECHO prosthetic overstructures in zirconium oxide directly onto implants (in Gr. 5 titanium complete with lock ring washer)	<b>A-CAMTVABU180</b> 	Use A-CAMTVABU180
Single pack Pack of 10 pieces  Spare screw for fastening individual posts in titanium and for ECHO prosthetic over-structures in titanium and cobalt chrome screwed directly onto implants (in Gr. 5 titanium)	<b>VM2-180</b> <b>VM2-180-10</b> 	Use VM2-180

Recommended torque for connecting screws: 20-25 Ncm.

description	code
Laboratory scanbodies in Ergal to transfer P.A.D. connection position Engaging Connecting screw included	<b>PAD-CAMETRA500</b> 
Single pack Spare screw for fastening prosthetic overstructures in zirconium oxide on P.A.D. abutments in Gr. 5 titanium, complete with lock ring washer	<b>PAD-VCAM-140</b> 
Single pack Pack of 10 pieces Spare screw for fastening ECHO prosthetic overstructures in titanium and cobalt chrome on P.A.D. abutments in Gr. 5 titanium	<b>PAD-VP-140</b> <b>PAD-VP-140-10</b> 
Pack of 10 pieces Spare lock ring washers for the head of the connecting screw, for individual ECHO posts in zirconium oxide, made of classic PEEK, and for zirconium oxide over-structures	<b>CAMPRON205-10</b> 

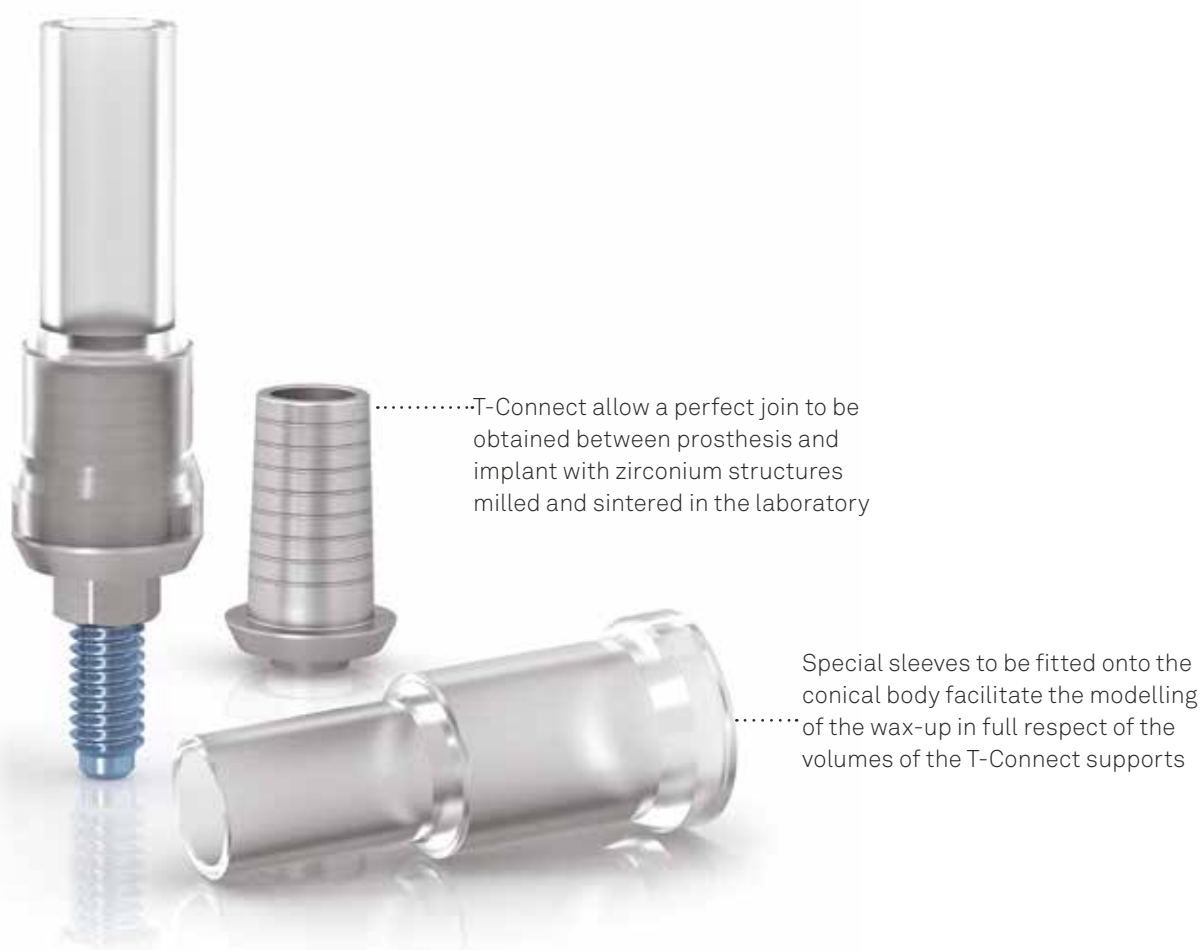
Recommended torque for prosthetic screws: 20-25 Ncm.









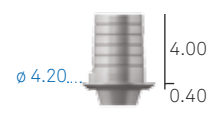



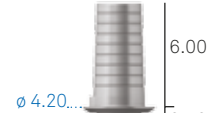












description	code
Shelta analog $\varnothing$ 3.80 mm for 3D printed models from intraoral scanning	<b>A-INT-CAMANA-380</b> 
Shelta analog $\varnothing$ 4.25 mm for 3D printed models from intraoral scanning	<b>SH-INT-CAMANA-425</b> 
Shelta analog $\varnothing$ 5.00 mm for 3D printed models from intraoral scanning	<b>SH-INT-CAMANA-500</b> 
Shelta analog $\varnothing$ 6.00 mm for 3D printed models from intraoral scanning	<b>SH-INT-CAMANA-600</b> 

# T-Connect

T-Connect supports are made of Gr. 5 titanium and can be used to create custom-made posts for single or multiple prostheses in titanium, zirconia, cobalt chrome, PEEK and biomedical resin, using open CAD-CAM systems, including Echo by Sweden & Martina, without sacrificing the micrometric precision in coupling between platforms that can be obtained with conventional components. Echo users can also choose to use T-Connect supports: posts in zirconium produced in this way have a small titanium base that prevents the contact between the zirconium body and the implant platform.

If posts are made through Echo software, see page 84 for the scan transfer codes to be used. For further information on compatible systems contact Sweden & Martina CAD-CAM product specialists at 049-9124394.



prosthetic component $\phi$	3.30	3.80	4.25	5.00
for implant $\phi$	3.80	3.80 - 4.25 - 5.00 - 6.00	4.25 - 5.00 - 6.00	5.00 - 6.00
T-Connect supports for single prosthesis Cone h. 4.00 mm Connecting screw included	<b>A-BASTZR-S-330-4</b> 	<b>A-BASTZR-S-380-4</b> 	<b>AS-BASTZR-S-425-4</b> 	<b>AS-BASTZR-S-500-4</b> 
T-Connect supports for single prosthesis Cone h. 6.00 mm Connecting screw included	<b>A-BASTZR-S-330-6</b> 	<b>A-BASTZR-S-380-6</b> 	<b>AS-BASTZR-S-425-6</b> 	<b>AS-BASTZR-S-500-6</b> 
T-Connect supports for multiple prosthesis Cone h. 4.00 mm Connecting screw included	<b>A-BASTZR-M-330-4</b> 	<b>A-BASTZR-M-380-4</b> 	<b>AS-BASTZR-M-425-4</b> 	<b>AS-BASTZR-M-500-4</b> 
T-Connect supports for multiple prosthesis Cone h. 6.00 mm Connecting screw included	<b>A-BASTZR-M-330-6</b> 	<b>A-BASTZR-M-380-6</b> 	<b>AS-BASTZR-M-425-6</b> 	<b>AS-BASTZR-M-500-6</b> 
Sleeve for wax-up modelling on T-Connect supports with cone h. 4.00 mm	<b>A-CCBAS-330-4</b> 	<b>A-CCBAS-380-4</b> 	<b>A-CCBAS-425-4</b> 	<b>A-CCBAS-500-4</b> 
Sleeve for wax-up modelling on T-Connect supports with cone h. 6.00 mm	<b>A-CCBAS-330-6</b> 	<b>A-CCBAS-380-6</b> 	<b>A-CCBAS-425-6</b> 	<b>A-CCBAS-500-6</b> 
Single pack Pack of 10 pieces  Connecting screw supplied with T-Connects Supplied with the T-Connect supports, it can also be ordered separately as a spare	<b>VM2-180</b> <b>VM2-180-10</b>  	Utilizzare VM2-180	Utilizzare VM2-180	Utilizzare VM2-180

Recommended torque for connecting screws: 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.

# Locator abutment

Locator abutments\* are a patented and versatile prosthetic solution for attaching overdentures to dental implants easily and safely. The Locator system allows easily correcting misalignment of divergent implants by up to 40° (20° for each implant) in limited occlusal spaces and, given the limited amount of space occupied, is perfect for patients with a removable prosthesis.

The abutments are made of Gr.5 titanium and are available in different transgingival heights. The Locators must be tightened at 25-30 Ncm, using the special Allen wrench provided in the Screw Kit and also available separately on request (code 8926-SW, short, and code 8927-SW, long).

See following pages for the list of accessories available.

The Locator system has a practical steel or titanium cap where the retainer lodges inside the prosthesis. When the retainer 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.












*\*Locator abutments are medical devices manufactured and patented by Zest Anchors, Inc., 2061 Wineridge Place, Escondido, CA 92029, USA. Locator is a registered trademark of Zest Anchors, Inc. The European Agent for the purposes of MDD 93/42/EEC is Ventura Implant and Attachment Systems, 69 The Avenue, Ealing, London W13 8JR, England.*














prosthetic component $\varnothing$	3.30	3.80
for implant $\varnothing$	3.80	3.80 - 4.25 - 5.00 - 6.00
Locator abutment Straigh emergence Transgingival h. 1.00 mm	<b>1670</b> 	<b>1675</b> 
Locator abutment Straigh emergence Transgingival h. 2.00 mm	<b>1671</b> 	<b>1676</b> 
Locator abutment Straigh emergence Transgingival h. 3.00 mm	<b>1672</b> 	<b>1677</b> 
Locator abutment Straigh emergence Transgingival h. 4.00 mm	-	<b>1678</b> 

Recommended torque for Locator abutments: 20-25 Ncm.

# Accessories for overdenture on Locator




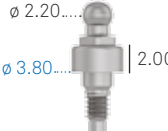
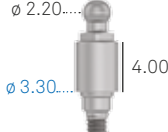
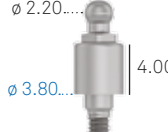

description	code
<p>Kit containing 2 Gr.5 titanium caps, 2 spacer rings in silicon rubber, 2 black polyethylene retainers (LDPE 993I) with low retention capacity for impression taking and 2 nylon retainers for each of the 4 different retention capacities</p>	<p><b>8519-2</b></p> 
<p>Kit containing 2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


description	code
Pack of 4 aluminium analogs for Locator abutments, one size for all platforms	<p><b>8530</b></p> 
Pack of 4 aluminium transfers for Locator abutments, one size for all platforms. 4 black polyethylene retainers (LDPE 993I) with low retention included (code 8515), available also as a spare	<p><b>8505</b></p> 
Pack of 4 black polyethylene retainers (LDPE 993I) with low retention capacity for impression taking	<p><b>8515</b></p> 
Pack of 4 black nylon parallelism pins (LDPE 993I) for Locator abutments	<p><b>8517</b></p> 
Steel plate AISI 316L for measuring angles	<p><b>9530</b></p> 
Locator Core Tool. Steel instrument composed of a handle, driver (8390) for screwing Locator abutments, tip (8397) for inserting the retainers in the caps and the retention jacket (8394) for the driver (8390) for transferring the Locator abutments into the oral cavity	<p><b>8393</b></p> 
Steel push rod for inserting the retainers in the caps Not necessary for those who already own or order the complete Locator Core Tool separately	<p><b>8397</b></p> 
Steel driver for abutment screwing/unscrewing Not necessary for those who already own or order the complete Locator Core Tool separately	<p><b>8390</b></p> 
Retention jacket for the driver (8390) for transferring the Locator abutments into the oral cavity	<p><b>8394</b></p> 
Short driver in Gr. 5 titanium for screwing the Locator abutments The driver is compatible with the dynamometric ratchet	<p><b>8926-SW</b></p> 
Long driver in Gr. 5 titanium for screwing the Locator abutments The driver is compatible with the dynamometric ratchet	<p><b>8927-SW</b></p> 

# Overdentures anchored with ball attachments

There is a small hexagon at the base of the ball for attaching the driver (the driver is not included in the surgical kit, it is in the Screw kit of prosthetic drivers and may be ordered separately, with code BASCC-EX). This driver is compatible with the system's dynamometric ratchet. See following pages for the list of the available matrices and respective accessories.





prosthetic component $\varnothing$	3.30	3.80
for implant $\varnothing$	3.80	3.80 - 4.25 - 5.00 - 6.00
Straight emergence Transgingival h. 1.00 mm	<b>A-AS-330-1</b> $\varnothing$ 2.20... $\varnothing$ 3.30...   1.00 	<b>A-AS-380-1</b> $\varnothing$ 2.20... $\varnothing$ 3.80...   1.00 
Straight emergence Transgingival h. 2.00 mm	<b>A-AS-330-2</b> $\varnothing$ 2.20... $\varnothing$ 3.30...   2.00 	<b>A-AS-380-2</b> $\varnothing$ 2.20... $\varnothing$ 3.80...   2.00 
Straight emergence Transgingival h. 4.00 mm	<b>A-AS-330-4</b> $\varnothing$ 2.20... $\varnothing$ 3.30...   4.00 	<b>A-AS-380-4</b> $\varnothing$ 2.20... $\varnothing$ 3.80...   4.00 
Analog of the ball attachment	<b>ANAS</b> $\varnothing$ 2.20... 	Use ANAS

description	code	kit
Steel driver for ball attachments, with connector for dynamometric ratchet or digital connector	<b>BASCC-EX</b> 	<b>ZSCREW</b>





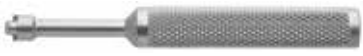
Recommended torque for ball attachments: 25-30 Ncm.

# Accessories for overdentures on ball attachments


## Polyamide caps for ball attachments

description	code
Polyamide cap for ball attachments $\varnothing$ 2.20 mm	<b>CAP-TFL-1</b> 
Steel container for polyamide cap with outer $\varnothing$ 4.80 mm The total height is 3.20 mm	<b>CONT-CAP-TFL-1</b> 





## Titanium caps for ball attachments

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

## Caps in gold alloy for ball attachments

descrizione	codice
Cap in gold alloy 2, complete with plastic positioning ring for ball attachments $\varnothing$ 2.20 mm. The total height is 3.10 mm, and the outside diameter is 3.50 mm	<b>CAP-1</b> 

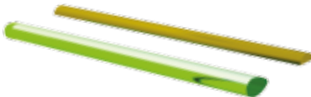



## O-ring retention devices for ball attachments

description	code	
Pack of 6 pieces  Metal container in the shape of a ring for rubber O-rings. For ball attachments $\varnothing$ 2.20 mm. The total height is 1.50 mm and the outside diameter is 4.50 mm	99-440044*	
Pack of 12 pieces  Red ring in silicon for laboratory use, outside $\varnothing$ 4.50 mm h 1.50 mm	99-443034*	
Pack of 12 pieces  White ring in natural rubber, soft, outside $\varnothing$ 4.50 mm h 1.50 mm	99-443035*	
Pack of 12 pieces  Black ring in natural rubber, hard, outside $\varnothing$ 4.50 mm h 1.50 mm	99-443036*	

\*The retention O-rings for ball attachments are manufactured by Implant Direct Sybron International, 27030 Malibù Hills Road, Calabasas Hills, 91301 U.S.A.

The European Agent for the purposes of MDD 93/42/EEC is Kerr Italia S.r.l., via Passanti 332, 84018 Scafati (SA) Italy.

## Overdenture on bars

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, $\varnothing$ 2.20 mm	BARC	
Bar attachment in gold alloy 3, for round bars $\varnothing$ 2.20 mm	CAV-375	

# Composition of the materials

## Gr. 2 titanium\* ASTM F67-13, ISO 5832-2:2012

chemical composition	maximum allowed values (%)	tolerance
nitrogen	0.03	+/- 0.02
carbon	0.08	+/- 0.02
hydrogen	0.015	+/- 0.002
iron	0.30	+/- 0.10 (%<0.25) +/- 0.15 (%>0.25)
oxygen	0.25	+/- 0.02 (%<0.20) +/- 0.03 (%>0.20)
titanium	remainder	-

mechanical properties	Minimum allowed values (%)
tensile stress (for bars with diameter up to 44.55 mm)	500 MPa (N/mm <sup>2</sup> )
yield strength (0.2%)	275 MPa (N/mm <sup>2</sup> )
elongation at yield	20%
section reduction	30%

\* This technical information complies with the express specifications of the regulations in force on the use of titanium Gr. 2 in implantology.



**Gr. 4 titanium (cold worked)\* ASTM F67-13, ISO 5832-2:2012**

chemical composition	maximum allowed values (%)	tolerance
nitrogen	0.05	+/- 0.02
carbon	0.10	+/- 0.02
hydrogen	0.015	+/- 0.002
iron	0.25	+/- 0.10 (%<0.25) +/- 0.15 (%>0.25)
oxygen	0.20	+/- 0.02 (%<0.20) +/- 0.03 (%>0.20)
titanium	remainder	-

*This technical information complies with the express specifications of the regulations in force on the use of Gr. 4 titanium in implantology:*

- ASTM F67-13: Standard Specification for unalloyed titanium, for surgical implant applications.
- ISO 5832-2: 2012: Implants for surgery – Metallic materials – Part 2: Unalloyed titanium.

**Please note:** the use of **cold-worked** Gr. 4 titanium bars for the production of Sweden & Martina implants allows the exploitation of mechanical characteristics higher than those required by applicable standards. Furthermore, the excellent results documented since 1996 corroborate the choice of the cold-working production process and of **ZirTi surface treatments**, which express and enhance the raw material potential selected by Sweden & Martina.

**Gr. 5 titanium\*\* ASTM F136-13, ISO 5832-3:2012**

chemical composition	maximum allowed values (%)	tolerance
nitrogen	0.05	+/- 0.02
carbon	0.08	+/- 0.02
hydrogen	0.012	+/- 0.002
iron	0.25	+/- 0.10
oxygen	0.13	+/- 0.02
aluminium	5.5÷6.5	+/- 0.40
vanadium	3.5÷4.5	+/- 0.15
titanium	remainder	-

\*\* This technical information complies with the express specifications of the regulations in force on the use of Gr. 5 titanium in implantology:

- ASTM F 136-13: Standard Specification for wrought Titanium-6 Aluminium-4 Vanadium Eli (Extra low interstitial) Alloy for surgical applications;
- ISO 5832-3:2012: Implants for surgery – Metallic materials – Part 3: Wrought Titanium-6 Aluminium-4 Vanadium Alloy.

**PEEK**

<b>PEEK</b>	
chemical designation	polyether ether ketone
colour	opaque white cream

<b>physical and mechanical properties</b>	
density	1.14 g/cm <sup>3</sup>
modulus of elasticity in tension (DIN EN ISO 527-2)	4100 MPa
yield strength (DIN EN ISO 527-2)	>90 MPa
yield strength at 0.2% (DIN EN ISO 527-2)	>70 MPa
elongation at 0.2 % (DIN EN ISO 527-2)	5 %
elongation at break (DIN EN ISO 527-2)	13 %
flexural strength (DIN EN ISO 178)	174 MPa
modulus of flexural elasticity (DIN EN ISO 178)	4000 MPa
modulus of compressibility (EN ISO 604)	3500 MPa

<b>thermal properties</b>	
glass transition temperature	150 °C
maximum temperature for short-term use	300 °C
maximum temperature for continuous use	260 °C

<b>chemical properties</b>	
absorption at 23°C in 24/96 hours (DIN EN ISO 62)	0.02/0.03%

**PMMA**

<b>PMMA</b>	
chemical designation	polymethylmethacrylate
colour	transparent

<b>physical and mechanical properties</b>	
density	1.19 g/cm <sup>3</sup>
yield strength (DIN EN ISO 527-2)	80 MPa
elongation at break (DIN EN ISO 527-2)	5.5 %
modulus of elasticity in tension (DIN EN ISO 527-2)	3300 MPa
hardness ball falling (ISO 2039-1)	175 MPa
impact strength (Charpy) (DIN EN ISO 179-1eU)	15 kJ/m <sup>2</sup>

<b>thermal properties</b>	
maximum temperature for continuous use	80 °C
maximum temperature for short-term use	85 °C
coefficient of linear thermal expansion (0-50 °C, long) (DIN 53752-A)	7x10 <sup>-5</sup> 1/K
thermal conductivity (DIN 52612)	0.19 W/(K*m)
Heat Deflection Temperature (HDT-B) at 0.46 MPa (DIN ISO 75)	113 °C
Heat Deflection Temperature (HDT-A) at 1.80 MPa (DIN ISO 75)	105 °C

**POM**

<b>POM</b>	
chemical designation	polyoxymethylene (copolymer)
colour	opaque white

<b>physical and mechanical properties</b>	
density	1.41 g/cm <sup>3</sup>
yield strength (DIN EN ISO 527-2)	67 MPa
elongation at break (DIN EN ISO 527-2)	32%
modulus of elasticity in tension (DIN EN ISO 527-2)	2800 MPa
hardness ball falling (ISO 2039-1)	165 MPa
impact strength (Charpy) (DIN EN ISO 179-1eU)	Not broken

<b>thermal properties</b>	
melting point (DIN 53765)	166 °C
maximum temperature for continuous use	100 °C
maximum temperature for short-term use	140 °C
specific thermal capacity	1,4 J/(g*K)
thermal expansion (CLTE) 23°C-60°C (DIN EN ISO 11359-1;2)	13x10 <sup>-5</sup> 1/K
thermal expansion (CLTE) 23°C-100°C (DIN EN ISO 11359-1;2)	14x10 <sup>-5</sup> 1/K

<b>chemical properties</b>	
absorption (DIN EN ISO 62) 24h/96h (23 °C)	0.05/0.1%

**Gold alloy**

gold alloy	gold alloy 1	gold alloy 2
designation	gold alloy 1	gold alloy 2
colour	white	yellow

composition	% of reference	
Au	60 %	> 68.60 %
Pt	24 %	2.45 %
Pd	15 %	3.95 %
Ir	1 %	0.05 %
Ag	-	11.85 %
Cu	-	10.60 %
Zn	-	2.50 %
Au+Pt group metals	-	75.35 %
Ru	-	-

physical and mechanical properties		
density	18.1 g/cm <sup>3</sup>	15.0 g/cm <sup>3</sup>
melting range	1400 ÷ 1460 °C	880 ÷ 940 °C
modulus of elasticity in tension	115 GPa	97 GPa
Vickers hardness HV5 (gold alloy 2)	160 (annealed) 250 (tempered) 220 (after deformation) 240 (after casting)	> 240
limit of elasticity	400 MPa (annealed) 700 (after deformation) 800 (after casting)	> 710 MPa
elongation	20 % (annealed) 15 % (after deformation) 1 % (after firing)	> 4 %

- Gold alloy "1": all castable posts with a premade alloy base (e.g. VSR-UCR, etc).
- Gold alloy "2": CAP-1 cap for ball attachments in gold alloy.

**Cobalt chrome alloy**

chemical composition	maximum allowed values (%)
C	0.10
Mn	1.00
Cr	26.00 ÷ 30.00
Ni	1.00
Mo	5.00 ÷ 7.00
N	0.25
Fe	0.75
Co	remainder

physical and mechanical properties	
density	8.27 g/cm <sup>3</sup>
modulus of elasticity in tension	241 GPa
yield strength (0.2%)	585 MPa
tensile stress	1035 MPa
elongation at yield	25 %
section reduction	23 %
hardness	30 HTc

thermal properties	
melting range	1400 ÷ 1450 °C
coefficient of thermal expansion	
at 500 °C	14.15
at 600 °C	14.47
thermal conductivity	
at 600 °C	25.76W/mK

**Reef resin**

<b>reef resin</b>	
<b>description</b>	acrylic material resistant to bacterial colonization
<b>colour</b>	translucent white

<b>physical and mechanical properties</b>	
<b>hardness (ASTMD92/ISO 6507)</b>	17.5 +/- 0.5 Vickers
<b>tensile strength</b>	28.3 +/- 3.8 MPa
<b>compressive strength (ASTM D3410)</b>	404.2 +/- 22 MPa
<b>bending strength (ASTM D790M)</b>	67.5 +/- 15.3 MPa



# Advice for overcasting with base alloys

By **Loris Zamuner, dental clinician**

Casting with base alloys, which is less predictable than casting with precious alloys, increases the difficulty of maintaining precision at the level of the prosthetic connection, because apart from the factors involving intimate contact between the alloys and mechanical resistance, problems of corrosion may also emerge, as dental technicians are well aware.

As these alloys are oxidized when heated, additional precautions must be adopted when preparing models and during coating and casting procedures, to avoid not only mechanical but also biological complications (e.g. gingival tattoos, namely the blackish marks caused by the redox reaction of prosthesis metals, which are extremely difficult to treat and remove).

With regard to this we would like to offer some advice, which although it may not completely eliminate these problems, may be useful in the laboratory for the correct use of castable posts with a cobalt chrome base:

- Remove the castable sleeve from the base and seal the interstitial space with wax or castable resin, to prevent the possible formation of cracks.
- Apply a layer of deoxidizing solution (e.g. flux) to the metal surface before repositioning and fixing the castable sleeve. This may reduce the quantity of oxides produced during heating of the alloy.
- Modelling must very clearly delimit the area of the junction between the castable sleeve and the prefabricated base with a well-defined closure edge, so as to prevent the overcast alloy from penetrating the base of the post.
- The formation of pins for the creation of cylinders must be carried out in an area with an adequate surrounding volume, to prevent the injected alloy from cooling before it has completely filled the final form. Do not position casting pins in thin areas, to avoid deformations caused by the heat of the molten alloy.
- The expansion of the refractory casting coating must be limited to a minimum, to prevent the formation of spaces between the metal base and the coating caused by the different expansion of the two layers. If the coating and the metal base are not in intimate contact, a thin film of metal could form on the prefabricated base, which if it reaches the connection platform between the implant and the prosthesis could affect precision, giving rise to evident biomechanical and biological problems.
- All parts of the cylinder must be heated uniformly. Since internally it incorporates the prefabricated metal components, which by their very nature absorb heat, it is advisable to maintain the final heating temperature for an extended time, then raising it by about 20–30 °C higher than the temperature recommended by the manufacturer of the alloy.
- When choosing the alloy for overcasting, its fusion temperature must be attentively considered with respect to the fusion temperature of the component to be overcasted, which must be around 80–100 °C higher, to avoid deformations but at the same time to ensure correct bonding between the two alloys.
- After casting, leave the cylinder to cool slowly, to prevent the formation of stresses between the two alloys.
- Avoid contact between the ceramic and the base alloy while firing the ceramic, because the different thermal expansion coefficients may cause cracking in the coating layer.
- Where possible (in non-aesthetic areas) keep the area of interface between the prefabricated base and the overcast structure out of the gingival sulcus.
- With composite screw retained prostheses, incorporate the interface line between the prefabricated base and the overcast structure inside the aesthetic coating.
- Use the same type of alloy for the entire prosthetic reconstruction, to avoid partial weakenings, breakages and the incorrect distribution of forces on the implants.

Remember that this technique may be subject to the problems of mechanical resistance, corrosion and galvanic reactions typical of precious alloys, which are therefore present to a greater extent in base alloys.

# Bibliography on Sweden & Martina implants since 2013

For older publications please consult Scientifica

- Gandolfi M.G., Siboni F., Piattelli A., Prati C.; Nano-topography, micro-chemical properties and calcium phosphates nucleation of premium implant surfaces; 30th Annual Congress, American Academy of Osseointegration, San Francisco, 12-14 March 2015, Poster Id 2088727
- Caneva M., Lang N.P., Calvo Guirado J.L., Spriano A.M., Iezzi G., Botticelli D.; Bone healing at bicortically installed implants with different surface configurations. an experimental study in rabbits; *Clinical Oral Implant Research*, 2015; 26:293-299  
doi: 10.1111/clr.12475
- Beolchini M., Lang N.P., Gomez Moreno G., Iezzi G., Botticelli D., Calvo Guirado J.L.; Bone healing at implants with different surface configurations: an experimental study in dogs, *Clinical Oral Implant Research*, 2015; 00:1-7, doi: 10.1111/clr.12562
- Baffone G., Lang N.P., Pantani F., Favero G., Ferri M., Botticelli D.; Hard and soft tissue changes around implants installed in regular-sized and reduced alveolar bony ridges. An experimental study in dogs. *Clinical Oral Implant Research*, 2015; 26:96-101; doi: 10.1111/clr.12306
- Bengazi F., Lang N.P., Caroprese M., Velez J.U., Favero V., Botticelli D.; Dimensional changes in soft tissues around dental implants following free gingival grafting: an experimental study in dogs; *Clinical Oral Implant Research*, 2015; 26:176-82; doi: 10.1111/clr.12280
- Morelli F., Lang N.P., Bengazi F., Baffone D., Vila Morales C.D., Botticelli D.; Influence of bone marrow on osseointegration in long bones: an experimental study in sheep; *Clinical Oral Implant Research*, 2015; 26:300-306; doi: 10.1111/clr.12487
- Mainetti T., Lang N., Bengazi F., Sbricoli L., Soto Cantero L., Botticelli D.; Immediate loading of implants installed in a healed alveolar bony ridge or immediately after tooth extraction: an experimental study in dogs; *Clinical Oral Implant Research*, 2015; 26:435-441; doi: 10.1111/clr.12389
- Borgia V., Alfonsi F., Toti P., Tonelli P., Covani U., Barone A.; Immediate restoration of post-extraction implants. a 7 years prospective single cohort study; 30th Annual Congress, American Academy of Osseointegration, San Francisco, 12-14 March 2015, Poster
- Guazzotti P.P.; Carico immediato di impianti post estrattivi: presentazione di un caso clinico full-arch; *Doctor OS*, 2015; XXVI, 01
- Agustín Panadero R., Serra Pastor B., Chust López C., Fons Font A., Ferreira A.; Immediate placement of single implant simultaneously with immediate loading in a fresh socket associated to periapical infection: a clinical case report; *Journal of Clinical and Experimental Dentistry* 2015;7(1):e175-9
- Crespi R., Bruschi G. B., Gastaldi G., Cappare P., Gherlone E.F.; Immediate loaded implants in split-crest procedure; *Clinical Implant Dentistry and Related Research*, Article first published online: 17 MAR 2015; DOI: 10.1111/cid.12316
- Peñarrocha Oltra D., Covani U., Peñarrocha Diago M., Peñarrocha Diago M.A.; Immediate versus conventional loading with fixed full-arch prostheses in mandibles with failing dentition: a prospective controlled study; *The International Journal of Oral & Maxillofacial Implants* 2015;30:427-434; doi: 10.11607/jomi.3534
- Canullo L., Peñarrocha Oltra D., Covani U., Botticelli D., Serino G., Peñarrocha Diago M.; Clinical and microbiological findings in patients with peri-implantitis: a cross-sectional study; *Clinical Oral Implants Research* 2015; 00:1-7; doi: 10.1111/clr.12557
- Requena Gómez E., Cervantes Haro M.N., Aragoneses Lamas J.M.; ¿Es la cirugía guiada junto a la carga inmediata una técnica predecible? a propósito de un caso clínico; *Numeri Uno* 2015; 04: 16-19
- Peñarrocha Oltra D., Covani U., Peñarrocha Diago M., Peñarrocha Diago M.A.; Immediate versus conventional loading for the maxilla with implants placed into fresh and healed extraction sites to support a full-arch fixed prosthesis: nonrandomized controlled clinical study; *The International Journal of Oral & Maxillofacial Implants* 2015;30:427-434; doi: 10.11607/jomi.3534
- Bruschi G.B., Crespi R., Cappare P., Grande N., Bruschi E., Gherlone E.; Radiographic evaluation of crestal bone levels of delayed implants at medium-term follow-up; *The International Journal of Oral & Maxillofacial Implants* 2014;29:441-447  
doi: 10.11607/jomi.3254
- Prati C., Zamparini F., Ciulla A., Buonavoglia A., Gatto M.R., Piattelli A., Gandolfi M.G.; Evaluation of marginal bone level of premium implants; *IADR General Session*, Boston 11-14 Marzo 2015, Poster
- Canullo L., Peñarrocha Oltra D., Soldini C., Mazzocco F., Peñarrocha Diago M., Covani U.; Microbiological assessment of the implant-abutment interface in different connections: cross-sectional study after 5 years of functional loading; *Clinical Oral Implantology*, 2015; 26:426-434, doi: 10.1111/clr.12383
- Kern J.S., Kern T., Wolfart S., Heussen N.; Review - a systematic review and meta-analysis of removable and fixed implant-supported prostheses in edentulous jaws: post-loading implant loss; *Clinical Oral Implants Research* 2015; 00:1-22 ; doi: 10.1111/clr.12531
- Martín Anciburo M.A.; Rehabilitación unitaria implantosoportada utilizando la técnica B.O.P.T. , *Numeri Uno* 2015; 04:11-14
- Agustín Panadero R., Serra Pastor B., Roig Vanaclocha A., Román Rodríguez J.L., Fons Font A.; Mechanical behavior of provisional implant prosthetic abutments; *Medicina Oral, Patología Oral y Cirugía Bucal* 2015; 20(1):e94-102
- Crespi R., Cappare P., Polizzi E.M., Gherlone E.F. ; Tissue remodeling after bone expansion in grafted and ungrafted sockets  
*The International Journal of Oral & Maxillofacial Implants*, 2014;29:699-704; doi: 10.11607/jomi.3535
- Negri B., López Marí M., Maté Sánchez de Val J.E., Iezzi G., Bravo González L.A., Calvo Guirado J.L.; Biological width formation to immediate implants placed at different level in relation to the crestal bone: an experimental study in dogs; *Clinical Oral Implant Research*, 2014; 00:1-11 ;doi: 10.1111/clr.12345
- Esposito M., Ardebili Y., Worthington H.V.; Interventions for replacing missing teeth: different types of dental implants (review); *Cochrane database of systematic reviews*, 2014;22:7; doi: 10.1002/14651858.CD003815.pub4.
- Canullo L., Peñarrocha Oltra D., Peñarrocha Diago M., Rocio A.G., Peñarrocha Diago M.A.; Piezoelectric vs. conventional drilling in implant site preparation: pilot controlled randomized clinical trial with crossover design; *Clinical Oral Implants Research* 2014; 25:1336-43; doi: 10.1111/clr.12278
- Lumetti S., Di Blasio A., Manfredi E., Ghiacci G., Toffoli A., Bonanini M., Macaluso G.M., Galli C.; Implant surface microtopography affects cell the pattern of cell growth, cell-to-cell contacts and the expression of connexin 43; *Clinical Oral Implant Research*, 2014; 25 Suppl 10:222
- Negri M., Galli C., Smerieri A., Macaluso G.M., Manfredi E., Ghiacci G., Toffoli A., Bonanini M., Lumetti S.; The effect of age, gender and insertion site on marginal bone loss around endosseous implants: results from a 3-year trial with premium implant system; *BioMed research International*, 2014; Article ID 369051: 7; doi.org/10.1155/2014/369051
- Quaranta A., Andreana S., Pompa G., Procaccini M.; Active implant peri-apical lesion: a case report treated via guided bone regeneration with a 5-year clinical and radiographic follow-up ; *Journal of Oral Implantology* 2014;40:313-319; doi: 10.1563/AAID-JOI-D-11-00214
- Bowen Antolín A., Ariño B., Arlandi Garrido M.; Regeneración ósea periimplantaria con fosfato de calcio bifásico y ácido poliláctico; *Gaceta Dental*, 2014, 260(7): 174-186
- Mainetti T., Lang N.P., Bengazi F., Favero V., Soto Cantero L., Botticelli D.; Sequential healing at implants installed immediately into extraction sockets. An experimental study in dogs; *Clinical Oral Implant Research*, 2014; 00:1-9; doi: 10.1111/clr.12533
- Covani U., Marconcini S., Ferrini F., Gelpi F., Finotti M., Barone A.; Post-traumatic use of dental implants immediately after tooth extraction - clinical study, *The Journal of Craniofacial Surgery*, 2014; 25:796-798; doi 10.1097/SCS.0000000000000522
- Engelhardt S., Papacosta S., Rathe F., Ozen J., Jansen J.A., Junker R.; Annual failure rates and marginal bone-level changes of immediate compared to conventional loading of dental implants. a systematic review of the literature and meta-analysis; *Clinical Oral Implants Research* 2014;00:1-17; doi: 10.1111/clr.12363
- Romanos G.R., Javed F.; Platform switching minimises crestal bone loss around dental implants: truth or myth? *Journal of Oral Rehabilitation*, 2014; 41:700-708; doi: 10.1111/joor.12189
- Strietzel F.P., Neumann K., Hertel M.; Review article: impact of platform switching on marginal peri-implant bone-level changes. a systematic review and meta-analysis. *Clinical Oral Implant Research*, 2014; 00:1-16; doi: 10.1111/clr.12339
- Kinaia B.M., Shah M., Neely A.L., Goodies H.E.; Crestal bone level changes around immediately placed implants: a systematic review and meta-analyses with at least 12 months' follow-up after functional loading; *Journal of Periodontology*, 2014; 85:1537-48; doi: 10.1902/jop.2014.130722. Epub 2014 May 2
- Covani U., Canullo L., Toti P., Alfonsi F., Barone A.; Tissue stability of implants placed in fresh extraction sockets: a 5-year prospective single-cohort study ; *Journal of Periodontology*, 2014; 85:e323-332; doi: 10.1902/jop.2014.140175. Epub 2014 May 16.
- D'Ercole S., Tripodi D., Marzo G., Bernardi S., Continenza M.A., Piattelli A., Iaculli F., Mummolo S.; Microleakage of bacteria in different implant-abutment assemblies: an in vitro study ; *Journal of Applied Biomaterial and Functional Materials*, 2014, accepted June 12; doi: 105301/jabfm.5000214
- Peñarrocha Oltra D., Rossetti P.H., Covani U., Galluccio F., Canullo L.; Microbial leakage at the implant/abutment connection due to implant insertion maneuvers: cross-sectional study 5 years post loading in healthy patients; *Journal of Oral Implantology*, 2014; 23 [Epub ahead of print]

- Maiorana C., Farronato D., Pieroni S., Cicciù M., Andreoni D., Santoro F.; A four-year survival rate multicenter prospective clinical study on 377 implants: correlations between implant insertion torque, diameter and bone quality; *Journal of Oral Implantology* 2014;11 [Epub ahead of print]
- Crespi R., Bruschi G.B., Cappare P., Gherlone E.; The utility of the electric mallet; *The Journal of Craniofacial Surgery*, 2014;25:793-795; doi: 10.1097/SCS.0000000000000523
- Schirripa G., Schirripa F.; Carico immediato; *Numeri Uno*, 2014, 19, 22-24
- Csonka M.; Trattamento implantologico delle creste sottili: split crest o gbr?; *Numeri Uno*, 19: 12-14, 2014
- Machín Muñoz A.; Regeneración ósea y gingival en implantes inmediatos post-extracción; *Numeri Uno* 2014; 01: 20-21
- Peñarrocha Oltra D., Peñarrocha Diago M.A., Canullo L., Covani U., Peñarrocha Diago M.; Patient-reported outcomes of immediate versus conventional loading with fixed full-arch prostheses in the maxilla: a nonrandomized controlled prospective study; *The International Journal of Oral & Maxillofacial Implants*, 2014;29:690-698; doi: 10.11607/jomi.3516
- Baldi D., Colombo J., Pera P., Hauschild U.; Una tecnica minimamente invasiva: implantologia con utilizzo di impianti a diametro ridotto e tecniche cad cam per una provvisorizzazione a lungo termine; *Numeri Uno*, 2014;18: 6-9
- Calesini G., Zarone F., Sorrentino R., Micarelli C., Fabianelli A., Papacchini F., Gherlone E.; Effect of 2 impression techniques on the dimensional accuracy of working implant prosthesis models: an in vitro study; *Journal of Craniofacial Surgery* 2014;25:822-827
- Pellicer Chover H., Peñarrocha Oltra D., Bagán L., Fichy Fernandez A.J., Canullo L., Peñarrocha Diago M.; Single-blind randomized clinical trial to evaluate clinical and radiological outcomes after one year of immediate versus delayed implant placement supporting full-arch prostheses; *Medicina Oral Patología Oral y Cirugía Bucal*, 2014; 19: e295-301
- Morandini E.; La precisione nel cr.co. laser sinterizzato rivestito in ceramica parte 2; *NumeriUno*, 2014;18: 16-19
- De Santis E., Lang N.P., Favero G., Beolchini M., Morelli F., Botticelli D.; Healing at mandibular block-grafted sites. an experimental study in dogs; *Clinical Oral Implant Research*, 2014; 00:1-7; doi: 10.1111/clr.12434
- Cocchetto R.; Improved cementation technique for implant restorations to avoid peri-implant cement remnants: clinical and microscopical evaluation with two different abutment design; *Clinical Oral Implants Research* 2014; 25(Suppl. 10); Doi 10.1111 clr.12458\_94
- J. Viña Almunia; Microbial colonization of the implant connection with cemented versus screw retained suprastructures *Clinical Oral Implants Research*, 2014; 25: DOI 10.1111/clr.12458\_91
- Cicciù M., Bramanti E., Maticena G., Guglielmino E., Risitano G.; Fem evaluation of cemented-retained versus screw retained dental implant single-tooth crown prosthesis ; *International Journal of Clinical and Experimental Medicine* 2014; 7(4):817-825
- Vischia F., Roncoroni F.; Ortodonzia protesica mediante tecnica B.O.P.T. ; *Numeri Uno*, 2014;19:19-21
- Loi I.; Tecnica B.O.P.T. su denti e impianti per la riabilitazione di un'arcata completa; *Numeri Uno*, 2014;18:21-22
- Vedove F.; Riabilitazione di elemento singolo in zona estetica con impianto Prama; *Numeri Uno*, 2014;20:18-19
- Gorni F.; Riabilitazione di elemento singolo in zona estetica con impianto Prama RF; *Numeri Uno*, 2014;20:16-17
- Andreoni D.; Riabilitazione di elemento singolo in posizione 4.6 con impianto Prama; *Numeri Uno*, 2014; 20: 20-21
- Sandri L.P.; Utilizzo clinico dei nuovi impianti Prama: inserimento e riabilitazione con un singolo impianto; *Numeri Uno* 2014; 20:22-24
- Loi I.; Riabilitazione impianto-protesica di elemento incisivo frontale con impianto Prama; *Numeri Uno*, 2014; 20:12-13
- Loi I.; Riabilitazione implantoprotesica di ponte distale con impianti Prama ;*Numeri Uno*, 2014; 20:14-15
- Canullo L., Peñarrocha Oltra D., Marchionni S., Bagán L., Peñarrocha Diago M.A., Micarelli C.; Soft tissue cell adhesion to titanium abutments after different cleaning procedures: preliminary results of a randomized clinical trial; *Medicina Oral, Patología Oral y Cirugía Bucal* 2014;19(2):e177-83
- Canullo L., Micarelli C., Bettazzoni L., Magnelli A., Baldissara P.; Shear bond strength of veneering porcelain to zirconia after argon plasma treatment; *The International Journal of Prosthodontics* 2014;27(2):137-139; doi: 10.11607/ijp.3722
- Canullo L., Micarelli C., Bettazzoni L., Koçi B., Baldissara P.; Zirconia-composite bonding after plasma of argon treatment; *The International Journal of Prosthodontics* 2014; 27:267-269; doi: 10.11607/ijp.3686
- Marchetti E., Ratta S., Mummolo S., Tecco S., Pecci R., Bedini R., Marzo G.; Evaluation of an endosseous oral implant system according to uni en iso 14801 fatigue test protocol; *Implant Dentistry*, 2014, Early View in ahead of print; doi: 10.1097/id.151
- Crespi R., Cappare P., Gastaldi G., Gherlone E.F.; Immediate occlusal loading of full-arch rehabilitations: screw retained versus cement-retained prosthesis. an 8 year clinical evaluation; *International Journal of Oral & Maxillofacial Implants* 2014;29:1406-1411; doi: 10.11607/jomi.3746
- Peñarrocha Oltra D., Candel Martí M.E., Peñarrocha Diago M., Agustín-Panadero R., Canullo L., Peñarrocha Diago M.A.; The horizontal denture: a prosthodontic alternative for patients with severe maxillary atrophy. a technical note; *Journal of Oral Implantology* 2014; 8 [Epub ahead of print]
- Gaspari L.; Tecnica conometrica con provvisorio elettrosaldato per carico immediato; *Italian Dental Journal* 2014; 29, agosto
- Gaspari L.; Implantoprotesi conometrica elettrosaldato chairside a carico immediato - caso clinico; *Numeri Uno* 2014;18:12-14
- Pradies Ramiro G., Abad Coronel C., García Martínez I., Ferreira Navarro A.; Impresiones fiables: dos propuestas para un mismo objetivo; *Numeri Uno* 2014; 01:6-9
- Beolchini M., Lang N.L., Ricci E., Bengazi F., Garcia Triana B., Botticelli D.; Influence on alveolar resorption of the buccal bony plate width in the edentulous ridge expansion (e.r.e.) – an experimental study in the dog; *Clinical Oral Implant Research*, 2013; 00:1-6 ;doi: 10.1111/clr.12308
- Petrilli N.; Carico immediato full-arch mascellare e mandibolare: un nuovo approccio chirurgico e protesico; *Il Dentista Moderno*, 2013, Novembre: 82-96
- Sisti A., Mottola M.P., Mottola P.; Riabilitazione bilaterale con chirurgia guidata; *Numeri Uno*, 2013; 16:16-18
- Ponzi A.; Echoplan: accuracy dell'implantologia guidata; *Numeri Uno*, 2013;16:12-13
- Morandini E.; La precisione nel cr.co. laser sinterizzato rivestito in ceramica parte 1; *NumeriUno*, 2013; 17: 9-11
- Figliuzzi M. M., De Fazio R., Tiano R., Scordamaglia F., Fortunato L.; Riabilitazione con impianto post-estrattivo immediato in zona estetica: case report; *Numeri Uno*, 17, 2013, 21-22
- Canullo L., Cicchese P., Marinotti F.; Riabilitazione impianto-supportata di entrambi i mascellari edentuli con carico immediato; *Numeri Uno*, 2013; 16, 14-15
- Beolchini M., Lang N.L., Viganò P., Bengazi F., Triana B.G., Botticelli D.; The edentulous ridge expansion (ere) technique an experimental study in the dog; *Clinical Oral Implant Research*, 2013; 25:1207-1211; doi: 10.1111/clr.12263. Epub 2013 Sep 12
- Bengazi F., Botticelli D., Favero V., Perini A., Urbizo Velez J., Lang N.P.; Influence of presence or absence of keratinized mucosa on the alveolar bony crest level as it relates to different buccal marginal bone thicknesses. an experimental study in dogs; *Clinical Oral Implant Research*, 2014; 25:1065-71 ;doi: 10.1111/clr.12233. Epub 2013 Jul 29.
- Crespi R., Cappare P., Gherlone E.F.; Electrical mallet in implants placed in fresh extraction sockets with simultaneous osteotome sinus floor elevation; *The International Journal of Oral & Maxillofacial Implants* 2013;28:869-874; doi: 10.11607/jomi.2679
- Crespi R., Cappare P., Gherlone E.F.; Electrical mallet provides essential advantages in split-crest and immediate implant placement; *International Journal of Oral and Maxillofacial Surgery* 2014;18:59-64; doi: 10.1007/s10006-013-0389-2. Epub 2013 Jan 18
- Csonka M.; Split crest di una cresta molto sottile con il magnetic mallet; *Numeri Uno*, 2013,16:22-23
- Calesini G., Scipioni A.; Approccio rigenerativo sistematico finalizzato all'integrazione morfo-funzionale in implantoprotesi *Numeri Uno*, 16: 6-9, 2013
- Bressan E., Lang N.P., Corazza B., Rizzi S., Almagro Urrutia Z., Botticelli D.; The platform switching concept revisited. an experimental study in dogs. *Clinical Oral Implant Research*, 2013; 00:1-7; doi: 10.1111/clr.12262
- Corrente G., Abundo R., Greppi M., Perelli M., Villa A.; Posizionamento implantare e ricostruzione dei tessuti duri e molli: un protocollo semplificato ; *Numeri Uno*, 2013, 17:14-17
- Guidi R., Viscioni A., Dattola F., Carinci F.; Dental implants inserted in native bone: cases series analyses.; *Dental Research Journal* 2012;9:s175-180; doi: 10.4103/1735-3327.109747
- Canullo L., Cicchese P., Marinotti F.; Valutazione di una procedura clinica e tecnica per la riabilitazione di mascellari edentuli; *Il dentista moderno*, 2012; Marzo: 86-102
- Covani U., Ricci M., Tonelli P., Barone A.; An evaluation of new designs in implant-abutment connections: a finite element method assessment; *Implant Dentistry / volume 22, Number 3* 2013; DOI: 10.1097/ID.0b013e318292625f
- Micarelli C., Canullo L., Grusovin M.G., Peñarrocha Oltra D.; Cell adhesion to titanium abutments after different cleaning procedures; *Clinical Oral Implants Research* 2013;24,79-102 (Suppl. 9); doi: 10.11607/jomi.2664
- Canullo L., Peñarrocha Oltra D., Covani U., Micarelli C., Massidda O.; Hard tissue response to plasma of argon cleaning treatment on titanium abutments: 2-year follow-up rct; *Clinical Oral Implants Research* 2013; 24:27-47 (Suppl. 9)
- Canullo L., Peñarrocha Oltra D., Micarelli C., Massidda O., Bazzoli M.; Risposta dei tessuti duri alla pulizia con plasma di argon/sterilizzazione di plastrini in titanio individualizzati, vs pulizia di 5 secondi con vapore: risultati di un studio controllato randomizzato in pazienti con una situazione parodontale favorevole con follow-up a 2 anni dal carico; *European Journal of Oral Implantology* 2013;6(3):251-60
- Canullo L., Peñarrocha Oltra D., Clementini M., Iannello G., Micarelli C.; impact of plasma of argon cleaning treatment on implant abutments in patients with a history of periodontal disease and thin biotype: radiographic results at 24-month follow-up of a rct; *Clinical Oral Implants Research* 2015;26(1):8-14; doi: 10.1111/clr.12290. Epub 2013 Nov 6
- Canullo L., Cassinelli C., Götz W., Tarnow D.; Plasma of argon accelerates murine fibroblast adhesion in early stages of titanium disk colonization; *The International Journal of Oral & Maxillofacial Implants* 2013;28(4):957-62; doi: 10.11607/jomi.2664

## BIBLIOGRAPHY

- Avellino W., De Maria A., Milan U., Tamagnone L., Delle Rose D.; Direct prosthetic framework (D.P.F.)  
Numeri Uno, 2013; 17:18-20
- Agustín Panadero R., Fons Font A., Román Rodríguez J.L., Solá Ruiz M.F., Cebriá J.R.; Sobredentadura implantosoportada de inserción horizontal; Gaceta Dental 249, 2013; 100-112
- Sandri L.P.; Preparazione protesica mediante tecnica B.O.P.T.: caso clinico; Numeri Uno, 2013;17:6-8
- Canullo L., Cicchese P., Marinotti F., Sisti A.; Strategia protesica minimamente invasiva negli impianti post-estrattivi: posizionamento e avvistamento; Il Dentista Moderno, 2011, Dicembre: 46-54
- Bengazi F, Lang NP, Caroprese M, Velez JU, Favero V, Botticelli D; Dimensional changes in soft tissues around dental implants following free gingival grafting: an experimental study in dogs; Clinical Oral Implant Research 26, 176-182, 2015, doi: 10.1111/clr.12280
- Micarelli C, Canullo L, Giuliano I.; Implant/abutment connection deformation after prosthetics procedures - an in vitro study ; International Journal of Prosthodontics, 1-9,2014, Early view in ahead of print, accepted July 21st, 2015 doi to be attributed
- Peñarrocha-Oltra D, Covani U, Peñarrocha M, Peñarrocha-Diogo M.; Immediate versus conventional loading with fixed full-arch prostheses in mandibles with failing dentition: a prospective controlled study; International Journal of Oral and Maxillofacial Implants 30, 2015:427-434; doi: 10.11607/jomi.3534
- Prati C, Zamparini F, Ciulla A, Buonavoglia A, Gatto MR, Piattelli A, Gandolfi MG; Evaluation of marginal bone level of Premium implants; XXIII Congress SIO, Milano 6-7 febbraio Poster; 2015
- Gandolfi MG, Siboni F, Piattelli A, Prati C; Nano-topography, microchemical properties and calcium phosphate nucleation of Premium implants; 30th Annual Congress, American Academy of Osseointegration, San Francisco, 12-14 March Poster, 2015 Id 2088727
- Guazzotti PP; Carico immediato di impianti post estrattivi: presentazione di un caso clinico full-arch; Doctor Os, XXVI, 01, gennaio 24-29 ; 2015
- Penarrocha-Oltra D, Rossetti PHO, Covani U, Galluccio F, Canullo L; Microbial leakage at the implant/abutment connection due to implant insertion maneuvers: cross-sectional study 5 years post loading in healthy patients.; Journal of Oral Implantology, accepted for publication January 2015
- Agustín-Panadero R., Serra-Pastor B., Chust-López C., Fons-Font A., Ferreira A. ; Immediate placement of single implant simultaneously with immediate loading in a fresh socket associated to periapical infection: A clinical case report; Journal of Clinical and Experimental Dentistry. ;7(1), 2015:175-9
- Canullo L., Peñarrocha-Oltra D., Covani U., Botticelli D., Serino G., Peñarrocha M.; Clinical and microbiological findings in patients with peri-implantitis: a cross-sectional study; Clinical Oral Implant Research, 00, 1-7,2015 ; doi: 10.1111/clr.12557
- Mainetti T, Lang NP, Bengazi F, Favero V, Soto Cantero L, Botticelli D; Sequential healing at implants installed immediately into extraction sockets. An experimental study in dogs; Clinical Oral Implant Research, 00, 1-9, 2014, doi: 10.1111/clr.12533
- Beolchini M, Lang NP, Gomez Moreno G, Iezzi G, Botticelli D, Calvo Guirado JL; Bone healing at implants with different surface configuration: an experimental study in dogs; Clinical Oral Implant Research 00, 1-7, 2015, doi: 10.111/clr.12562
- Borgia V, Alfonsi F, Toti P, Tonelli P, Covani U, Barone A; Immediate restoration of post-extraction implants. A 7 years prospective single cohort study.; 30th Annual Congress, American Academy of Osseointegration, San Francisco, 12-14 March Poster ; 2015
- Kern JS, Kern T, Wolfart S, Heussen N; A systematic review and meta-analysis of removable and fixed implant-supported prostheses in edentulous jaws: post-loading implant loss; Clinical Oral Implant Research, 00, 1-22, 2015, doi: 10.1111/clr.12531
- Crespi R, Bruschi GB, Gastaldi G, Capparè P, Gherlone EF ; Immediate loaded implants in split-crest procedure; Clin Implant Dent Relat Res., Mar 17, 2015 doi: 10.1111/cid.12316
- Martín Anciburo Miguel Ángel; Rehabilitación unitaria implantosoportada utilizando la técnica B.O.P.T.; Numeri Uno 04, 2015: 11-14
- Requena Gómez E., Cervantes Haro MN, Aragoneses Lamas JM ; ¿Es la cirugía guiada junto a la carga inmediata una técnica predecible? A propósito de un caso clínico; Numeri Uno 04, 2015: 16-19
- Canullo L, Peñarrocha-Oltra D, Marchionni S, Bagán L, Peñarrocha-Diogo MA, Micarelli C.; Soft tissue cell adhesion to titanium abutments after different cleaning procedures: Preliminary results of a randomized clinical trial.; Medicina Oral y Patología Oral Cirugía Bucal, published on line 2013 Oct 13, 2014 Mar 1;19(2): el 77-83, doi: 10.4317/medoral.19329
- Pellicer-Chover H, Peñarrocha-Oltra D, Bagán L, Fichy-Fernandez AJ, Canullo L, Peñarrocha-Diogo M; Single blind randomized clinical trial to evaluate clinical and radiological outcomes after one year of immediate versus delayed implant placement supporting full-arch prosthesis; Medicina Oral y Patología Oral Cirugía Bucal, 1; 19(3), 2014: 295-301, doi: 10.4317/medoral.19536
- Crespi R, Capparè P, Polizzi E, Gherlone E; Fresh-socket implants of different collar length: Clinical evaluation in the aesthetic zone; Clinical Implant Dentistry and Related research, 00, 2014 : 1-8, early view in ahead of print, first published on line 7 Feb 2014 doi 10.1111/cid.12202
- Negri B, López Marí M, Maté Sánchez de Val JE, Iezzi G, Bravo González LA, Calvo Guirado JL; Biological width formation to immediate implants placed at different levels in relation to the crestal bone - an experimental study in dogs; Clinical Oral Implant Research, 00, 2014: 1-11, Early view in ahead of print, accepted 06 January 2014 doi 10.1111/clr.12345,
- Strietzel FP, Neumann K, Hertel M ; Impact of platform switching on marginal peri-implant bone-level changes. A systematic review and meta-analysis; Clinical Oral Implant Research, 00, 2014: 1-16, Early view in ahead of print, accepted 11 December 2013, doi 10.1111/clr.123339
- Peñarrocha-Oltra D, Candel-Martí E, Peñarrocha-Diogo M, Agustín-Panadero R, Canullo L, Peñarrocha M; The Horizontal Denture®: a prosthodontic alternative for Severe Maxillary Atrophy. A technical note; Journal of Oral Implantology, Early view in ahead of print, accepted 8 January 2014, 2014
- Maiorana C, Farronato D, Pieroni S, Cicciù M, Andreoni D, Santoro F; A four-year survival rate multicenter prospective clinical study on 377 implants - correlations between implant insertion torque, diameter and bone quality; Journal of Oral Implantology, 2014, Early view in ahead of print, accepted 11 February 2014
- Canullo L, Peñarrocha-Oltra D, Soldini C, Mazzocco F, Peñarrocha M, Covani U; Microbiological assessment of the implant-abutment interface in different connections: cross-sectional study after 5 years of functional loading; Clinical Oral Implant Research, 00, 2014: 1-9, Early view in ahead of print, accepted 22 February 2014, doi 10.1111/clr.12383
- Mainetti T, Lang N, Bengazi F, Sbricoli L, Soto Cantero L, Botticelli D.; Immediate loading of implants installed in a healed alveolar bony ridge or immediately after tooth extraction: an experimental study in dogs; Clinical Oral Implant Research, 00, 2014: 1-8, Early view in ahead of print, accepted 5 March 2014, doi 10.1111/clr.12389
- Engelhardt S, Papacosta S, Rathe F, Ozen J, Jansen J.A., Junker R.; Annual failure rates and marginal bone-level changes of immediate compared to conventional loading of dental implants. A systematic review of the literature and meta-analysis; Clinical Oral Implant Research, 00, 2014: 1-17, Early view in ahead of print, accepted 9 February 2014, doi 10.1111/clr.12363
- Bruschi GB, Crespi R, Capparè P, Grande N, Bruschi E, Gherlone E; Radiographic evaluation of crestal bone levels of delayed implants at 5 medium term follow up; International Journal of Oral & Maxillofacial Implants, 29;2014: 441-447 doi 10.11607/jomi.3254
- Sbordone C, Toti P, Martuscelli R, Guidetti F, Sbordone L, Ramaglia L; A 5-year implant follow-up in maxillary and mandibular horizontal osseous onlay grafts and native bone; Journal of Oral Implantology, Early view in ahead of print, accepted 4 March 2014; 2014
- Canullo L, Micarelli C, Bettazzoni L, Magnelli A, Baldissara P; Shear bond strength of veneering porcelain to zirconia after argon plasma treatment; International Journal of Prosthodontics, Mar-Apr, 27(2), 2014: 137-9, 2014 doi: 10.11607/ijp.3722
- Canullo L, Micarelli C, Bettazzoni L, Koçi B, Baldissara P; Zirconia-Composite bonding after plasma of argon treatment; International Journal of Prosthodontics, 27:267-269, 2014, doi: 10.11607/ijp.3686
- Peñarrocha-Oltra D, Peñarrocha-Diogo M, Canullo L, Covani U, Peñarrocha Miguel; Patient-reported outcomes of immediate versus conventional loading with fixed full-arch prostheses in the maxilla: a non-randomized controlled prospective study; The International Journal of Oral & Maxillofacial Implants, 29 (3), 690-698; 2014
- Covani U, Canullo L, Toti P, Alfonsi F, Barone A; Tissue stability of implants placed in fresh extraction sockets - a 5 year prospective single cohort study; Journal of Periodontology, 85: 323-332, 2014, doi 10.1902/jop2014.140175
- De Santis E, Lang NP, Favero G, Beolchini M, Morelli F, Botticelli D.; Healing at mandibular block-grafted sites. An experimental study in dogs; Clinical Oral Implant Research, 00, 2014: 1-7, Early view in ahead of print, accepted 17 May 2014, doi 10.1111/clr.12434
- Crespi R, Bruschi GB, Capparè P, Gherlone E.; The utility of the electric mallet; The Journal of Craniofacial Surgery, 25 May (3), 793-795, 2014, doi 10.1097/SCS.0000000000000523;2014
- Covani U, Marconcini S, Ferrini F, Gelpi F, Finotti M, Barone A.; Post-traumatic use of dental implants immediately after tooth extraction - clinical study; The Journal of Craniofacial Surgery, 25 May (3), 796-798, 2014, doi 10.1097/SCS.0000000000000522
- Calesini G, Zarone F, Sorrentino R, Micarelli C, Fabianelli A, Papacchini F, Gherlone E.; Effect of 2 impression techniques on the dimensional accuracy of working implant prosthesis models - an in vitro study; The Journal of Craniofacial Surgery, 25 May (3), 822-827, 2014, doi 10.1097/SCS.0000000000000715
- Quaranta A, Andreana S, Pompa G, Procaccini M; Active implant peri-apical lesion - a case report treated via guided bone regeneration with a 5-year clinical and radiographic follow-up; Journal of Oral Implantology, 40 (3), 313-319, 2014, doi: 10.1563/AAL.JOI.D.11.00214
- J. Viña-Almunia ; Microbial colonization of the implant connection with cemented versus screw retained suprastructures; Oral presentation ,Clinical research - Prosthetically oriented
- EAO Congress, Rome 25-27 September 2014, Clinical Oral Implant Research, 25 (suppl. 10), 93, 2014
- Cocchetto R.; Improved cementation technique for implant restorations to avoid periimplant cement remnants: clinical and microscopical evaluation with two different abutment design; Oral presentation, Clinical research - Prosthetically oriented
- EAO Congress, Rome 25-27 September 2014, Clinical Oral Implant

- Research, 25 (suppl. 10), 96; 2014
- Augustin-Panadero R, Serra-Pastor B, Roig-Vanaclocha A, Román-Rodríguez JL, Fons-Font A; Mechanical behavior of provisional implant prosthetic abutments; *Medicina Oral Patología Oral y Cirugía Bucal*, 1-9, 2014, Early view in ahead of print, accepted July 2014, doi 10.4317/medoral.19958,
- Micarelli C, Canullo L, Giuliano I.; Implant/abutment connection deformation after prosthetics procedures - an in vitro study; *International Journal of Prosthodontics*, 1-9, 2014, Early view in ahead of print, accepted July 21st, 2015 doi to be attributed
- Kinaia BM, Shah M, Neely AL, Goodies HE; Crestal bone level changes around immediately placed implants - A systematic review and meta-analyses with at least 12 months follow up after functional loading; *Journal of Periodontology*, 2014, early view in ahead of print, doi: 10.1902/jop2014.130722; 2014
- Cicciù M, Bramanti E, Matacena G, Guglielmino E, Risistano G.; FEM evaluation of cemented-retained versus screw retained dental implant single-tooth crown prosthesis; *International Journal of Clinical and Experimental Medicine* 7(4) , 2014: 817-825; doi: 1940-5901. ijcem.1402025
- Crespi R, Capparè P, Polizzi EM, Gherlone EF.; Tissue remodeling after bone expansion in grafted and ungrafted sockets; *The International Journal of Oral and Maxillofacial Implants*, 29, 2014: 699-704, , doi: 10.11607/jomi.3535
- Bruschi GB, Crespi R, Capparè P, Gherlone E.; Clinical Study of flap design to increase the keratinized gingiva around implants - a 4 year follow-up; *Journal of Oral Implantology*, 40(4) , 2014: 459-464, doi: 10.1563/aid-joi-d-11-00236
- Romanos GR, Javed F.; Platform switching minimises crestal bone loss around dental implants - truth or myth?; *Journal of Oral Rehabilitation*, 2014, early view in ahead of printing, accepted for publication 30 April 2014, doi 10.1111/joor.12189
- Gaspari L.; Técnica conométrica con provvisorio elettrosaldato per carico immediato; *Italian Dental Journal*, agosto, 29; 2014
- Lumetti S, Galli C, Smerieri A, Macaluso G, Manfredi E, Ghiacci G, Di Blasio A, Megri M.; The effect of age, gender and insertion site on marginal bone loss around endosseous implants: results for a 3 year trial; Poster, EAO Congress, Rome 25-27 September 2014, *Clinical Oral Implant Research*, 25 (suppl. 10), 440; 2014
- Lumetti S, Di Blasio A, Manfredi E, Ghiacci G, Toffoli A, Bonanini M, Macaluso G, Galli C.; Implant surface microtopography affects the pattern of cell growth, cell-to-cell contacts and the expression of Connexin 43; Poster, EAO Congress, Rome 25-27 September 2014, *Clinical Oral Implant Research*, 25 (suppl. 10), 222; 2014
- Caneva M, Lang NP, Calvo Guirado JL, Spriano AM, Iezzi G, Botticelli D.; Bone healing at bicortically installed implants with different surface configurations. An experimental study in rabbits; *Clinical Oral Implant Research*, 00, 2014: 1-7, Early view in ahead of printing, accepted 29 July 2014, doi:10.1111/clr.12475
- D'Ercole S, Tripodi D, Marzo G, Bernardi S, Continenza MA, Piattelli A, Iaculli F, Mummolo S.; Microleakage of bacteria in different implant-abutment assemblies: an in vitro study; *Journal of Applied Biomaterial and Functional Materials*, 2014, accepted June 12, 2014, doi: 105301/jabfm.5000214
- Peñarrocha-Oltra D, Peñarrocha-Diogo M, Aloy-Prosper A, Covani U, Peñarrocha M.; Immediate versus conventional loading of complete-arch implant-supported prostheses in mandibles with failing dentition: a patient centered controlled prospective study; *Journal of oral and Maxillofacial Implants*, submitted; 2014
- Bowen Antolin A, Ariño B, Arlandi Garrido M.; Regeneración ósea periimplantaria con fosfato de calcio bifásico y ácido poliláctico; *Gaceta Dental*, 260(7), 2014: 174-186;
- Morelli F, Lang NP, Bengazi F, Baffone D, Vila Morales CD, Botticelli D.; Influence of bone marrow on osseointegration in long bones: an experimental study in sheep; *Clinical Oral Implant Research*, 00, 1-7, 2014, Early view in ahead of printing, accepted 29 August 2014, doi:10.1111/clr.12487
- Marchetti E, Ratta S, Mummolo S, Tecco S, Pecci R, Bedini R, Marzo G.; Evaluation of an endosseous oral implant system according to UNI EN ISO 14801 Fatigue Test Protocol; *Implant Dentistry*, 2014, Early View in ahead of print, doi: 10.1097/id.151
- Negri M, Galli C, Smerieri A, Macaluso GM, Manfredi E, Ghiacci G, Toffoli A, Bonanini M, Lumetti S; The effect of age, gender and insertion site on marginal bone loss around endosseous implants: results from a 3-year trial with Premium Implant System; *BioMed research International*, Volume 2014, Article ID 369051, 7 pages, doi.org/10.1155/2014/369051
- Esposito M, Ardebili Y, Worthington HV; Interventions for replacing missing teeth: different types of dental implants (Review); *The Cochrane Collaboration*, John Wiley and Sons, Ltd; 2014
- Mainetti T, Lang NP, Bengazi F, Favero V, Soto Cantero L, Botticelli D; Sequential healing at implants installed immediately into extraction sockets. An experimental study in dogs; *Clinical Oral Implant Research*, 00, 1-9, 2014, doi: 10.1111/clr.12533
- Crespi R, Capparè P, Gastaldi G, Gherlone EF; Immediate Occlusal loading of full-arch rehabilitations: screw retained versus cement-retained prosthesis. An 8 year clinical evaluation; *International Journal of Oral & Maxillofacial Implants* 29, 2014:1406-1411; doi: 10.11607/jomi.3746
- Pradies Ramiro G., Abad Coronel C., García Martínez I., Ferreira Na-varro A.; Impresiones fiables: dos propuestas para un mismo objetivo; *Numeri Uno*, 01, 2014, 6-9
- Machín Muñoz A.; Regeneración ósea y gingival en implantes inmediatos post-extracción; *Numeri Uno* 01 , 2014: 20-21
- Loi I.; Riabilitazione impianto-protetica di elemento incisivo frontale con impianto Prama; *Numeri Uno* 20, 2014: 12-13
- Loi I.; Riabilitazione impianto-protetica di ponte distale con impianti Prama; *Numeri Uno* 20, 2014: 14-15
- Gorni F.; Riabilitazione di elemento singolo in zona estetica con impianto Prama RF; *Numeri Uno* 20, 2014: 16-17
- Vedove F.; Riabilitazione di elemento singolo in zona estetica con impianto Prama; *Numeri Uno* 20, 2014: 18-19
- Andreoni D.; Riabilitazione di elemento singolo in posizione 4.6 con impianto Prama; *Numeri Uno* 20, 2014: 20-21
- Sandri L.P.; Utilizzo clinico dei nuovi impianti Prama: inserimento e riabilitazione con un singolo impianto; *Numeri Uno* 20, 2014: 22-24
- Csonka M.; Trattamento implantologico delle creste sottili: Split Crest o GBR?; *Numeri Uno* 19, 2014: 12-14
- Vischia F., Roncoroni F.; Ortodonzia protesica mediante tecnica B.O.P.T.; *Numeri Uno* 19, 2014: 19-21
- Schirripa G., Schirripa F.; Carico immediato; *Numeri Uno* 19, 2014: 22-24
- Baldi D., Colombo J., Pera P., Hauschild U.; Una tecnica minimamente invasiva: implantologia con utilizzo di impianti a diametro ridotto e tecniche CAD CAM per una provvisorizzazione a lungo termine; *Numeri Uno* 18, 2014: 6-9
- Gaspari L.; Implantoprotesi conometrica elettrosaldato chairside a carico immediato - caso clinico; *Numeri Uno*, 18, 2014:12-14
- Loi I.; Técnica B.O.P.T. su denti e impianti per la riabilitazione di un'arcata completa; *Numeri Uno* 18 , 2014:21-22
- Morandini E. ; La precisione nel Cr.Co. laser sinterizzato rivestito in ceramica; *NumeriUno* 17, 2013: 9-11 - *NumeriUno* 18, 2014: 16-19
- Loi I.; Técnica B.O.P.T. sobre dientes naturales; *Numeri Uno* 02, 2014: 8-9
- Loi I.; Técnica B.O.P.T. sobre dientes e implantes para la rehabilitación de los dos arcos completos; *Numeri Uno* 02, 2014 : 14
- Canullo L, Cassinelli C, Goetz W, Tarnow D; Il plasma di argon accelera l'adesione dei fibroblasti murini nelle fasi precoci della colonizzazione di dischetti in titanio; *International Journal of Oral and Maxillofacial Implants* 2013; 28: 957-962. DOI: 10.11607/jomi.2664
- Bengazi F, Botticelli D, Favero V, Perini A, Urbizo Velez J, Lang NP ; Influence of presence or absence of keratinized mucosa on the alveolar bony crest level as it relates to different buccal margin bone thicknesses. An experimental study in dogs; *Clinical Oral Implant Research*, 00, 2013, 1-7, Accepted 26 June 2013, first published on line on 29/07/2013, DOI 10.1111/clr.12233
- Peñarrocha-Oltra D, Covani U, Aparicio A, Ata-Ali J, Peñarrocha-Diogo Miguel, Peñarrocha-Diogo María; Immediate versus conventional loading for the maxilla with implants placed into fresh and healed extraction sites to support a full-arch fixed prosthesis: nonrandomized controlled clinical study; *International Journal of Oral and Maxillofacial Implants* 2013; 28: 1116-1124 DOI: 10.11607/jomi.3119
- Covani U, Ricci M, Tonelli P, Barone A; An evaluation of new designs in implant-abutment connections: a finite element method assessment; *Implant Dentistry*, 2013, Jun22(3): 263-267, DOI 10.1097/ID.0b013e318292625f
- Crespi R, Capparè P, Gherlone EF ; Electrical mallet in implants placed in fresh extraction sockets with simultaneous osteotome sinus floor elevation; *International Journal of Oral and Maxillofacial Implants*, 2013; 28(3): 869-874, doi: 10.11607/jomi.2679
- Panadero RA, Fons Font A, Granell Ruiz M, Román Rodríguez JL, Solá Ruiz MF, Rubio Cebriá J; Sobredentadura implantosoportada de inserción horizontal; *Gaceta Dental*, 249: 100-112, 2013
- Beolchini M, Lang NL, Viganò P, Bengazi F, Triana BG, Botticelli D; The edentulous ridge expansion (ERE) technique - an experimental study in dogs; *Clinical Oral Implant research*, 2013: 1-7, published on line early view in ahead of print in September 2013, doi: 10.1111/clr.12262
- Bressan E., Lang NP, Corazza B, Rizzi S, Almagro Urrutia Z, Botticelli D; The Platform Switching concept revisited. An experimental study in dogs; *Clinical Oral Implant research*, 2013: 1-5, published on line early view in ahead of print in September 2013, doi: 10.1111/clr.12263
- Crespi R, Capparè P, Gherlone EF ; Electrical mallet provides essential advantages in split-crest and immediate implant placement ; *Oral and Maxillofacial Surgery*, 2013, (18): published on line early view in ahead of print in January 2013, doi: 10.1007/s10006-013-0389-2
- Canullo L, Peñarrocha-Oltra D, Marchionni S, Bagán L, Peñarrocha-Diogo MA, Micarelli C.; Soft tissue cell adhesion to titanium abutments after different cleaning procedures: Preliminary results of a randomized clinical trial.; *Medicina Oral y Patología Oral Cirugía Bucal*, published on line 2013 Oct 13, 2014 Mar 1;19(2): el 77-83, doi: 10.4317/medoral.19329
- Canullo L, Peñarrocha D, Peñarrocha M, Rocío A-G, Peñarrocha-Diogo M.; Piezoelectric vs. conventional drilling in implant site preparation: pilot controlled randomized clinical trial with crossover design.; *Clinical Oral Implant Research* 00, 2013, 1-8, published on line early view in ahead of print in October 2013, doi: 10.1111/clr.12278
- Micarelli C, Canullo L, Grusovin MG, Peñarrocha Oltra D, ;Cell adhesion to titanium abutments after different cleaning procedures; *Clinical Oral Implant Research*, 24(Suppl.9), 2013 : 79-102
- Canullo L, Peñarrocha D, Covani U, Micarelli C, Massidda O. ; Hard

- Tissue response to plasma of argon cleaning treatment on titanium abutments - 2 year follow-up RCT; *Clinical Oral Implant Research*, 24(Suppl.9), 27-47, 2013
- De Risi V, Clementini M, Vittorini G, Mannocci A, De Sanctis M; Alveolar ridge preservation techniques: a systematic review and meta-analysis of histological and histomorphometrical data; *Clinical Oral Implant Research*, 00, 2013: 000-000, Early view in ahead of print, accepted September 2013, doi 10.1111/clr.12288
- Canullo L, Peñarrocha D, Clementini M, Iannello G, Micarelli C; Impact of plasma of argon cleaning treatment on implant abutments in patients with a history of periodontal disease and thin biotype - radiographic results at 24 months follow-up of a RCT; *Clinical Oral Implant Research*, 00, 2013: 000-000, Early view in ahead of print, accepted 18 September 2013, doi 10.1111/clr.12290
- Canullo L, Peñarrocha D, Micarelli C, Massidda O, Bazzoli M; Hard tissue response to argon plasma cleaning / sterilization of customised titanium abutments versus 5-second steam cleaning: results of a 2-year post-loading follow-up from an explanatory randomized controlled trial in periodontally healthy patients; *European Journal of Oral Implantology*. Autumn ; 6(3) ,2013:251-60
- Petrillo N.; Carico immediato full arch mascellare e mandibolare: un nuovo approccio chirurgico e protesico; *Il Dentista Moderno*, 2013 Novembre 2013: 82-96
- Baffone G, Lang NP, Pantani F, Favero G, Ferri M, Botticelli D; Hard and soft tissue changes around implants installed in regular-sized and reduced alveolar bony ridges. An experimental study in dogs; *Clinical Oral Implant Research*, 00, Early view in ahead of print, accepted 28 October 2013: 1-6, doi 10.1111/clr.12306
- Beolchini M, Lang NL, Ricci E, Bengazi F, Garcia Triana B, Botticelli D; Influence on alveolar resorption of the buccal bony plate width in the edentulous ridge expansion (E.R.E.) - an experimental study in the dog; *Clinical Oral Implant Research*, 00, 2013: 1-6, Early view in ahead of print, accepted 28 October 2013doi 10.1111/clr.12308
- Strietzel FP, Neumann K, Hertel M ; Impact of platform switching on marginal peri-implant bone-level changes. A systematic review and meta-analysis; *Clinical Oral Implant Research*, 00, 2014: 1-16, Early view in ahead of print, accepted 11 December 2013, doi 10.1111/clr.123339
- Morandini E. ; La precisione nel Cr.Co. laser sinterizzato rivestito in ceramica; *NumeriUno* 17, 2013: 9-11 - *NumeriUno* 18, 2014: 16-19
- Sandri L.P. ; Preparazione protesica mediante tecnica B.O.P.T.: caso clinico; *Numeri Uno* 17, 2013 :6-8
- Corrente G., Abundo R., Greppi M., Perelli M., Villa A.; Posizionamento implantare e ricostruzione dei tessuti duri e molli: un protocollo semplificato; *Numeri Uno* 17, 2013:14-17
- Avellino W., De Maria A., Milan U., Tamagnone L., Delle Rose D.; Direct Prosthetic Framework (D.P.F.); *Numeri Uno*, 17, 2013: 18-20
- Figliuzzi M. M., De Fazio R., Tiano R., Scordamaglia F., Fortunato L.; Riabilitazione con impianto post-estrattivo immediato in zona estetica: Case Report; *Numeri Uno* 17, 2013:21-22
- Fadda M.; Caso clinico con M.F. Extrusion; *Numeri Uno*, 17, 2013:26
- Cardarelli F.; Effetti dentofacciali della terapia ortodontica in dentizione mista per la correzione delle II Classi; *Numeri Uno* 17, 2013: 28-31
- Calesini G., Scipioni A.; Approccio rigenerativo sistematico finalizzato all'integrazione morfo-funzionale in implantopotesi; *Numeri Uno* 16, 2013: 6-9
- Ponzi A.; Echo Plan: accuracy dell'implantologia guidata; *Numeri Uno* 16, 2013: 12-13
- Canullo L., Cicchese P., Marinotti F.; Riabilitazione implanto-supportata di entrambi i mascellari edentuli con carico immediato; *Numeri Uno* 16, 2013: 14-15
- Sisti A., Mottola M.P., Mottola P.; Riabilitazione bilaterale con chirurgia guidata; *Numeri Uno* 16, 2013: 16-18
- Csonka M.; Split crest di una cresta molto sottile con il Magnetic Mallet; *Numeri Uno* 16, 2013: 22-23
- Guidi R, Viscioni A, Dattola F, Carinci F; Dental implants inserted in native bone: cases series analyses; *Dental Research Journal*, 12(9), Issue 8 (Suppl Issue 2), 175-180; 2012
- Canullo L, Cicchese P, Marinotti F. ; Valutazione di una procedura clinica e tecnica per la riabilitazione dei mascellari edentuli; *Il Dentista Moderno*, Marzo: 86-102, 2012
- Canullo L, Cicchese P, Marinotti F, Sisti A; Strategia protesica minimamente invasiva negli impianti post-estrattivi: posizionamento e avvistamento immediato del moncone definitivo per protesi su impianti secondo il concetto del platform switching; *Il Dentista Moderno*, Dicembre: 46-54, 2011
- Segura Andrés G., Martínez Lage J. F., Ferreiroa A., Faus López J., Agustín Panadero R.; Rehabilitación protésica en un maxilar atrófico a consecuencia de un trauma facial; *Gaceta Dental*, 2013; 244:112-118
- Canullo L., Micarelli C., Clementini M.; Hard tissue response to argon plasma cleaning treatment on titanium abutments: 2-year follow-up RCT; *European Journal of Oral Implantology*, 6 (Suppl. Spring), 2013: S21-S22
- Rossi F., Lang N. P., De Santis E., Morelli F., Favero G., Botticelli D.; Bone-healing pattern at the surface of titanium implants: an experimental study in the dog; *Clinical Oral Implant Research*, Early View, First Published online on 2013, January 4th; DOI: 10.1902/jop.2010.100428
- Clementini M., Canullo L., Micarelli C.; Fibroblast growth on titanium disks treated by argon plasma: an in vitro triple-blinded study; *European Journal of Oral Implantology*, 6 (Suppl. Spring), 2013: S29-S30
- Canullo L., Micarelli C., Iannello G.; Microscopical and chemical surface characterization of the gingival portion and connection of an internal hexagon abutment before and after different technical stages of preparation; *Clinical Oral Implant Research*, 2013, 24: 606-611; DOI: 10.1111/j.1600-0501.2012.02499.x
- Canullo L., Heinemann F., Gedrange T., Biffar R., Kunert-Keil C.; Histological evaluation at different times after augmentation of extraction sites grafted with a magnesium-enriched hydroxyapatite: double-blinded randomized controlled trial; *Clinical Oral Implant Research*, Early View, First Published online on 2013, January 4th; DOI: 10.1111/clr.12035





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