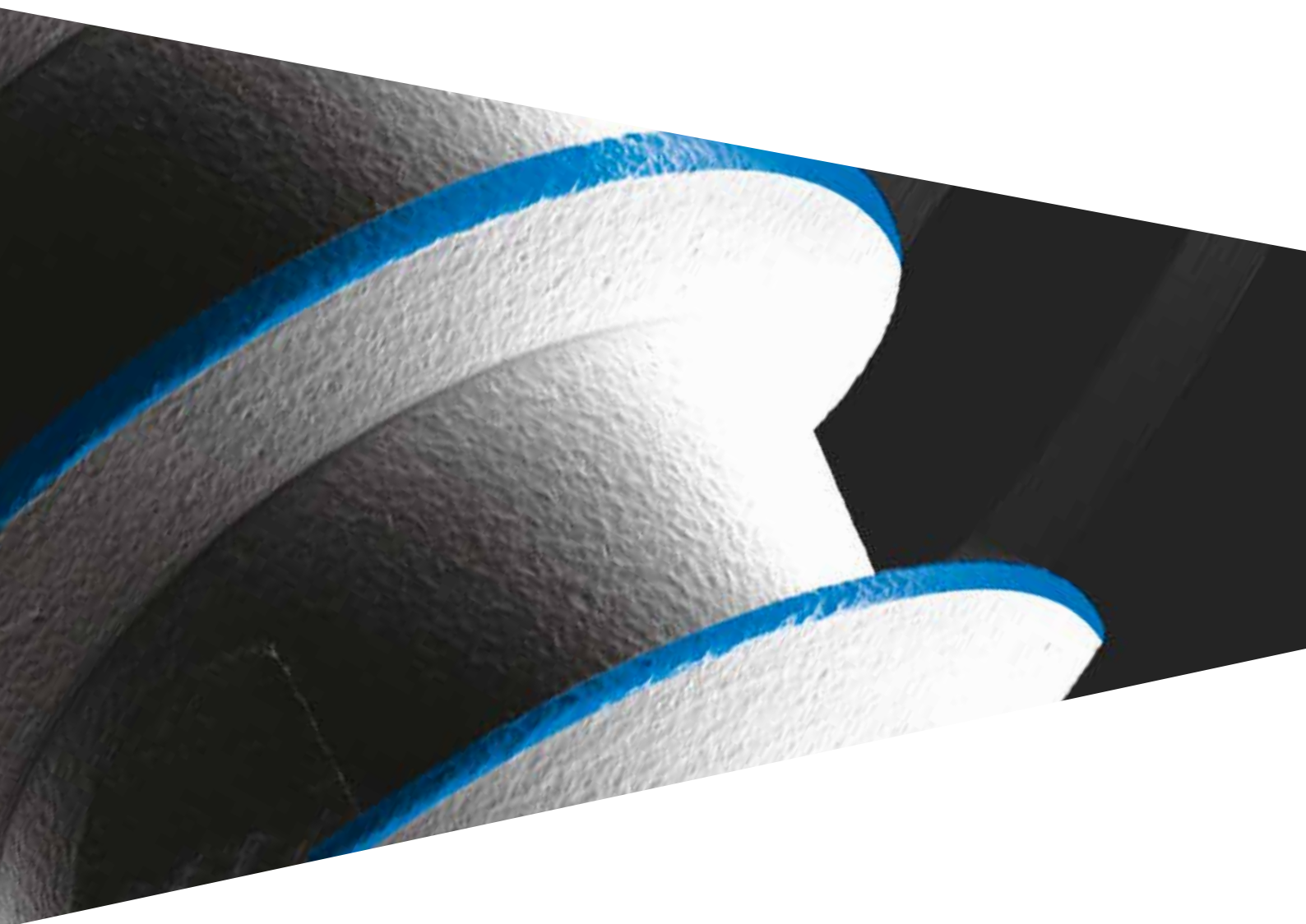
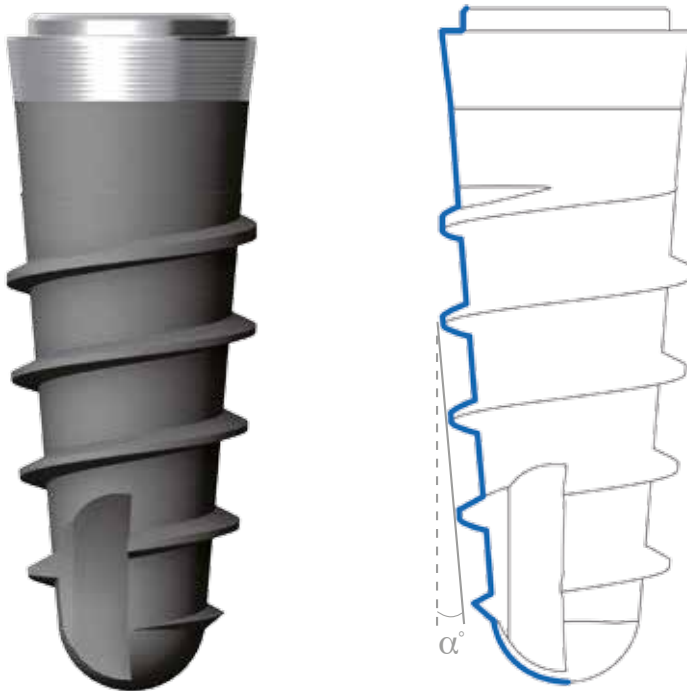


# SHELTA



# Choosing the spire

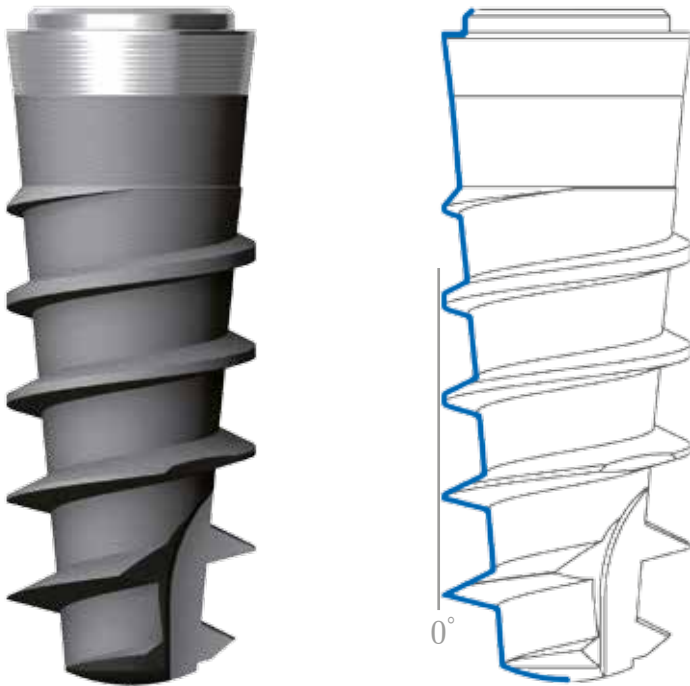
**Shelta and Shelta SL implants differ in the morphology of the apical part.** These differences allow the ideal morphology always to be available for achieving optimum primary stability, depending on the surgical practice and on the clinical conditions of the individual case.



## SHELTA

In Shelta implants both the core of the implant and the threading have a **conical morphology**. **The crest of the spire of Shelta implants, is constant along the whole body of the fixture.** Furthermore, unlike Shelta SL implants, **the apex is a complete hemisphere** and the presence of a less aggressive thread makes them preferable in the case of sinus lift surgery.

**Shelta SL** implants have a core with a **conical geometric shape**, though they maintain **a constant cylindrical external diameter along the whole length of the implant**. This characteristic means that the threading at the apex is much more accentuated. The resulting morphology is indicated in post-extraction surgery and in the case of low-density bone.

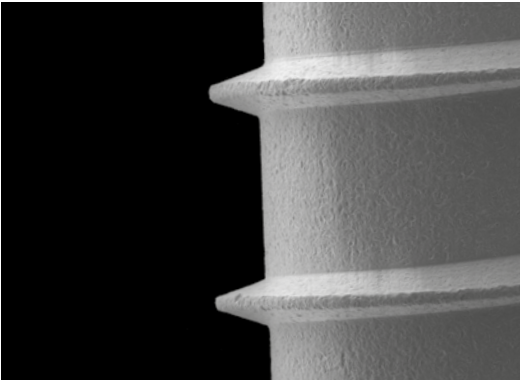


SHELTASL

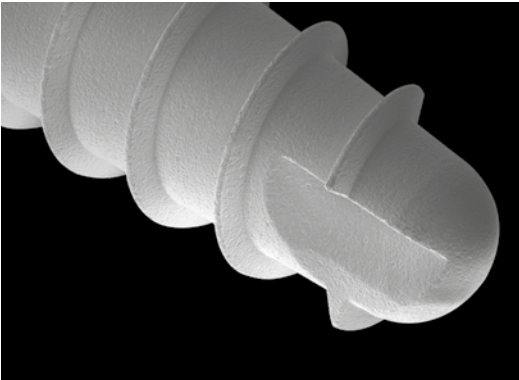
The **crest of the thread** of Shelta SL implants **increases gradually in the coronal direction**. This increases the high cutting capacity of the most apical spires.

# Shelta Implants

In Shelta implants both the core of the implant and the threading have a **conical morphology**. This type of implant is **indicated where the bone volumes between the roots of the adjacent teeth do not allow the use of larger morphologies**. Shelta implants are characterized by a **machined neck 1.00 mm high**.



**The thread** of Shelta implants is **characterised by a triangular profile**, a pitch of 1.50 mm and a depth of 0.40 mm. The thread develops with the same geometry along the whole body of the implant.



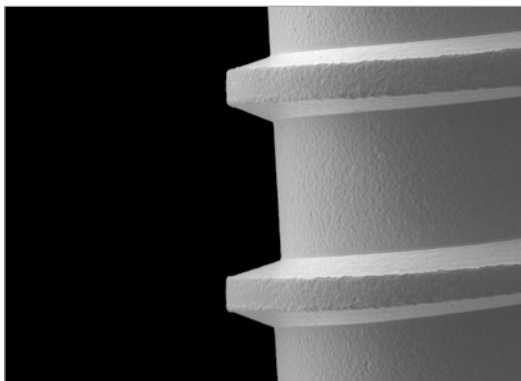
**The apex** of Shelta implants has two cut-outs that increase its **penetration capacity and non-rotational property**. The hemispherical apex makes Shelta implants **ideal in sinus lift procedures**.

Shelta lengths range	
diameter	length
Ø 3.80 mm	8.50, 10.00, 11.50, 13.00, 15.00 mm
Ø 4.25 mm	8.50, 10.00, 11.50, 13.00, 15.00 mm
Ø 5.00 mm	8.50, 10.00, 11.50, 13.00, 15.00 mm

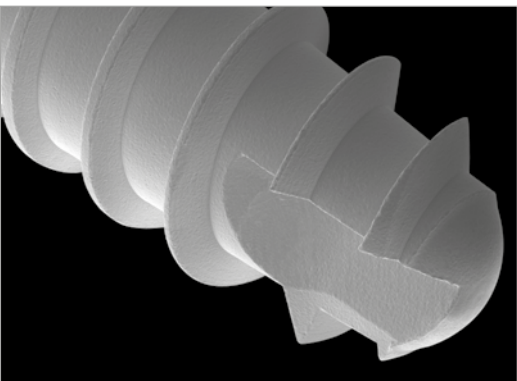
# Shelta SL implants



Shelta SL implants, as the Shelta implants, are characterised by a **machined neck 1.00 mm high**. The thread of Shelta SL implants develops keeping the maximum external profile constant. The result is a **very pronounced and sharp apex**.



The **thread** of Shelta SL implants maintains a **constant pitch** of 1.50 mm, **but the depth varies along the implant body**. Moreover, the thread develops keeping the maximum external profile constant.



Shelta SL implants have a **rounded apex**, but the dimensions is reduced due to the **more pronounced threading**.

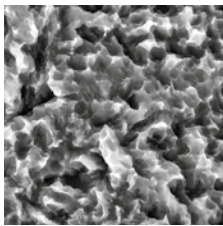
Shelta SL lengths range	
diameter	length
Ø 3.80 mm	8.50, 10.00, 11.50, 13.00, 15.00 mm
Ø 4.25 mm	8.50, 10.00, 11.50, 13.00, 15.00 mm
Ø 5.00 mm	8.50, 10.00, 11.50, 13.00, 15.00 mm

# ZirTi Surface

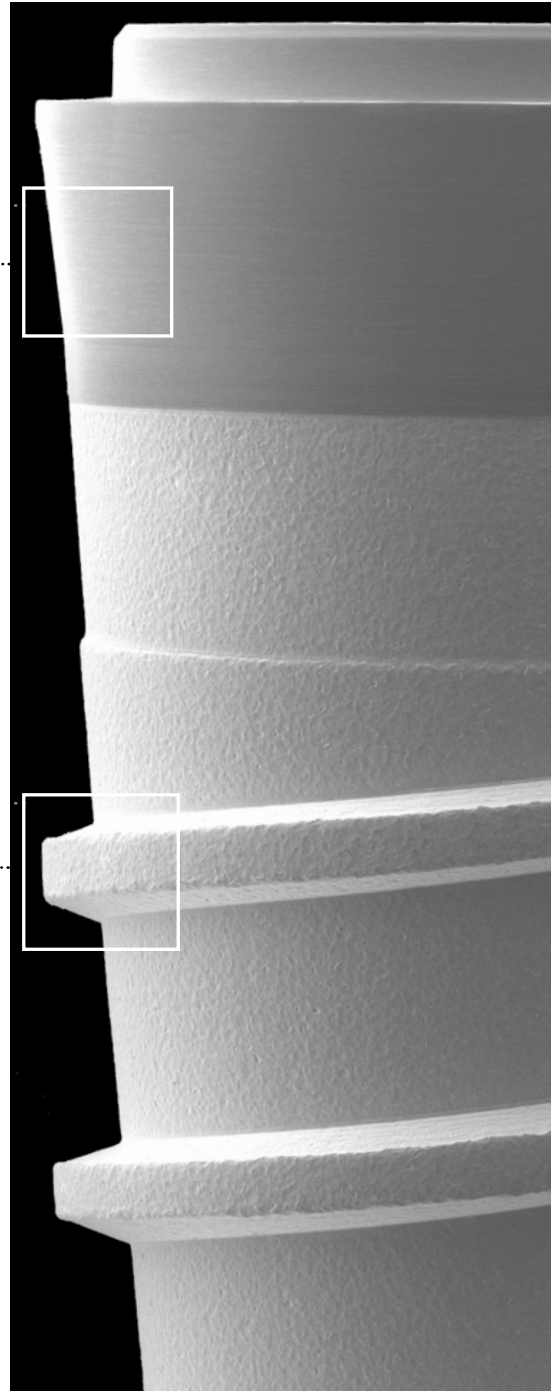
Shelta and Shelta SL implants are available with the ZirTi surface: they are **characterised by a machined neck and a body treated with sand-blasting and mineral acid-etching**.



The **machined collar** allows the perfect control of the connection diameter in the production phase and prevents the accumulation of plaque in the area where it joins the post.

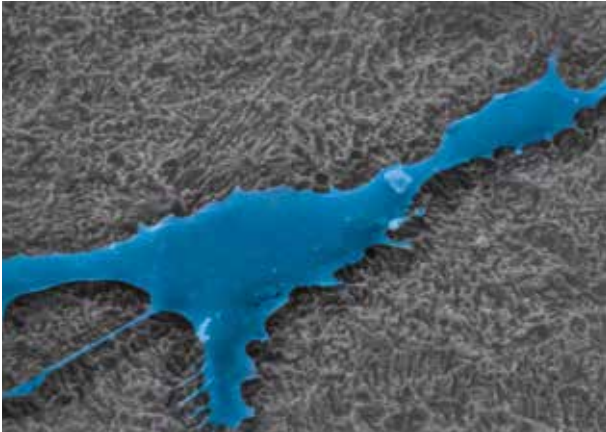


The **ZirTi implant body** is sandblasted and acid etched by zirconium oxide, both techniques that give the surface the characteristic ZirTi micromorphology, able to **significantly increase the bone to implant contact surface and ensure excellent primary stability**.



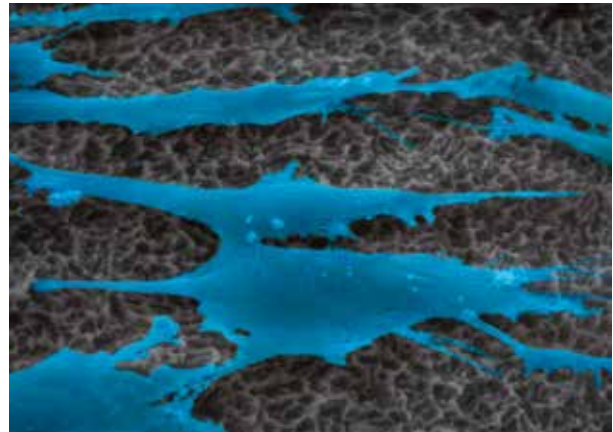


#### 6 hours



The cells have a rather swollen body and some filopodia and lamellipodia are in close contact with the surface.

#### 24 hours



The cells mainly have a polygonal shape, with a propensity to elongate and assume a spindle-shaped morphology and establish contacts with the substrate via numerous short filopodia.

*Photos and captions by courtesy of Prof. G. M. Macaluso, graphic processing Sweden & Martina*

The validity of the ZrTi surface is documented by **numerous experimental studies**.

Rossi F., Botticelli D., Pantani F., Priscila Pereira F., Salata L.A., Lang N.P.  
**Bone healing pattern in surgically created circumferential defects around submerged implants: an experimental study in dog**  
Clin. Oral Impl. Res. 23, 2012; 41–48. doi: 10.1111/j.1600-0501.2011.02170.x

Sivolella S., Bressan E., Salata L.A., Urrutia Z.A., Lang N.P., Botticelli D.  
**Osteogenesis at implants without primary bone contact – An experimental study in dogs**  
Clin. Oral Impl. Res. 23, 2012, 542–549 doi: 10.1111/j.1600-0501.2012.02423.x

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**  
Clin. Oral Impl. Res. 00, 2013, 1–8 doi: 10.1111/clr.12097

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**  
Clin. Oral Impl. Res. 00, 2013, 1–6 doi: 10.1111/clr.12306

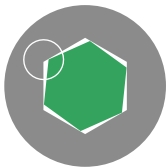
# Mountless surgical procedure

The surgical procedure of insertion is extremely simple. The Shelta and Shelta SL implants do not require a mounter because they can be engaged directly inside the connection by practical Easy Insert drivers designed to guarantee a safe grip, **to prevent deformations to connections** and at the same time to allow easy removal from the implant wells. Easy Insert drivers are available with long or short right angle shank, and with hexagonal connector for dynamometric ratchet or hand knob.

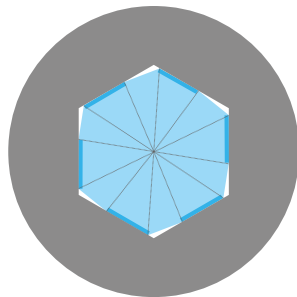


Easy Insert drivers are included within the surgical kit, with long or short right angle shank, and with hexagonal connector for dynamometric ratchet or hand knob.

The **special design** of the Easy Insert drivers prevent any deformations of the implant connection, since the driver's faces are the ones in contact with the implant well, instead of the driver's edges, guaranteeing in this way stability and very high prosthetic precision.



Traditional driver section



Easy Insert driver section

The special dodecagonal design of the Easy Insert drivers prevent any deformations of the implant connection, guaranteeing in this way stability and very high prosthetic precision.

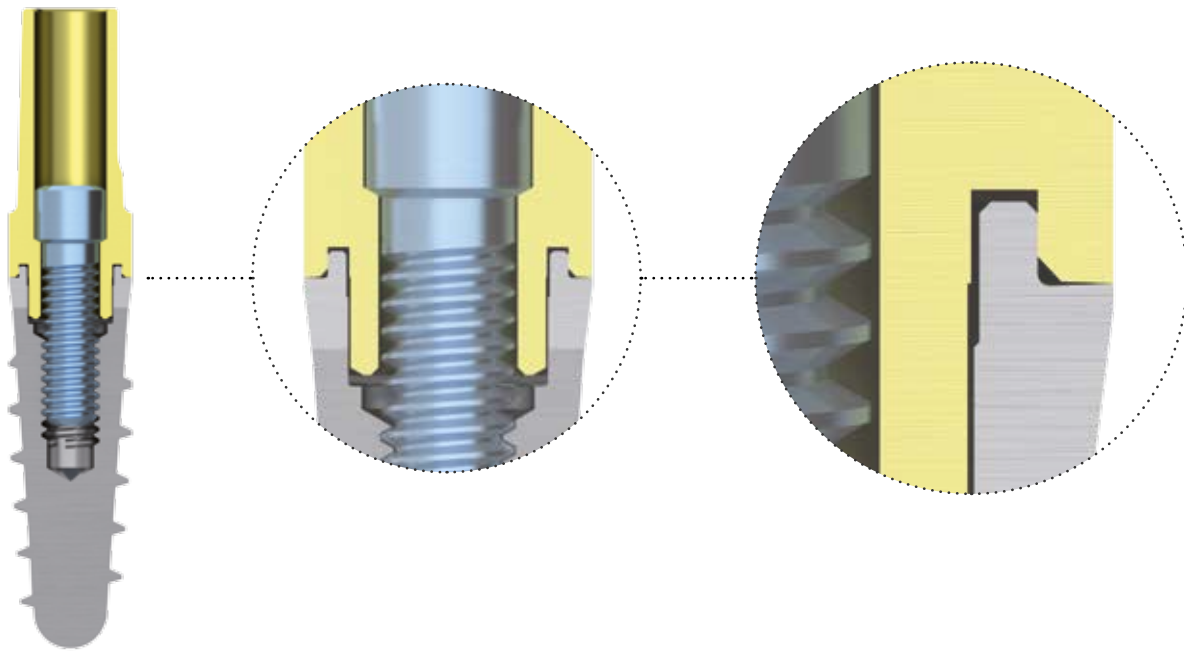




# CONTRACONE Seal

One of the key factors in determining the success of an implant rehabilitation is the **absence of bacterial infiltrate**. The bacteria, penetrating until the implant-abutment joint level, proliferate and they can start an inflammatory process affecting the tissues around the implant.

**Sweden & Martina special micro mechanical production process** creates a conical edge on both the implant coronal edge and the post edge which connects to this implant, granting a **peripheral “seal” able to hinder the bacteria infiltrate** at the implant-abutment joint.



Thanks to the **tapering of both the coronal part of the implant and the abutment edge**, a mechanical barrier is created that ensures a peripheral seal able to limit the bacteria infiltrate and preserves the peri-implant tissues against possible inflammations.

Canullo L., Peñarrocha-Oltra D., Soldini C., Mazzocco F., Peñarrocha M.A., Covani U.

**Microbiological assessment of the implant-abutment interface in different connections: cross-sectional study after 5 years of functional loading**

Clin. Oral Impl. Res. 00, 2014, 1–9 doi: 10.1111/clr.12383.

# COLLEX Connection

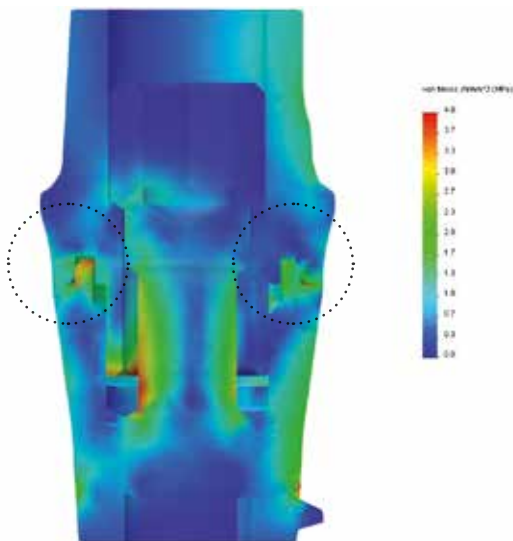
The Collex connection, supported by **17 years of clinical studies**, is characterised by a **wide internal hexagon**, synonym of high prosthetic stability, guaranteed also by the **collar** that penetrates the posts, giving to the prosthetic structure **excellent and unique strength**, respecting the correct and fundamental distribution of the masticatory loadings.



The **strength properties** of the Collex connection are also documented by a study carried out by the group of Prof. Covani, in which this connection was compared with another internal hexagon connection, but without the external prosthetic collar; the results highlighted **values 25% higher in terms of robustness and prosthetic stability of Collex compared to the connection without collar**.

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



*FEM analysis of a Ø 3.80 mm Shelta implant in connection with a Ø 3.80 mm post: The results show how the collar of the COLLEX works correctly. The collar results therefore extremely important of a correct distribution of the prosthetic load.*

# Switching Platform

Shelta and Shelta SL implants have the same **COLLEX connection for all the diameters** available in the range. This allows an **optimized prosthetic and surgical management**, since the same prosthetic components and the same surgical instruments can be used for all the implants of the Shelta and Shelta SL range.



Thanks to the unique connection of the Shelta implants the **Switching Platform technique can be applied**: Ø 3.80 mm posts can be used with the Switching Platform technique on Ø 4.25 mm and Ø 5.00 mm implants.



The standard Ø 3.30 mm posts perform prosthetic Switching Platform on Ø 3.80 implants resting on the external collar of the implants, and thus **increasing the mismatching measurement**.

*(Considering the reduced diameter of Ø 3.30 mm prosthetic components, it is recommended to use them exclusively on Ø 3.80 mm implants for single crowns in front sectors, and only as a support for multiple prostheses in distal sectors.)*

The validity of the application of the Switching Platform technique is **documented by numerous experimental studies**.

Cardelli P., Montani M., Gallio M., Biancolini M., Brutti C., Barlattani A.  
**Abutments angolati e tensioni perimplantari: analisi F.E.M.**  
Oral Implantology, 1, 2009: 7-14

Ricci M., Tonelli P., Barone A., Covani U.  
**Ruolo del platform switching nel mantenimento dell'osso perimplantare**  
Dental Cadmos 77(9), 2009: 31-39

Canullo L., Goglia G., Iurlaro G., Iannello G.  
**Short-term bone level observations associated with platform switching in immediately placed and restored single maxillary implants: a preliminary report**  
Int J Prosthodont 2009;22:277-282

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 Implants Research, 2010 21(1):115-21; DOI 10.1111/j.1600-0501.2009.01906.x

Canullo L., Quaranta A., Teles R.P.  
**The microbiota associated with implants restored with platform switching, a preliminary report**  
Journal of Periodontology, 2010; 81:403-411

# Surgical Kit

The Shelta surgical kit, designed and made to offer ease of use and ergonomics, **contains all the instruments needed for the surgical and prosthetic phase**. The instruments categories are screen-printed on the tray to allow the dental assistants to identify each instrument more easily and to reposition it after the cleansing and cleaning phases.



1

## Precision drill and initial drills with depth stops

- Precision drill **to slice the cortical**, therefore sharp and cutting.
- Initial drills provided with **laser notches to indicate the depth** of work and supplied with the relative **depth stops**.



2

## Final drills and related depth stops

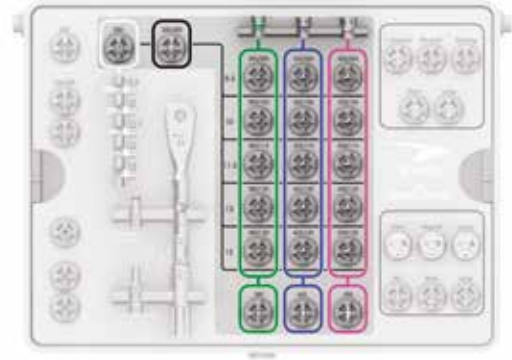
- The geometry of the drill **allows much of the bone removed** during the preparation of the site.
- The depth stops guarantee a **preparation in complete safety**.



3

### Intuitive layout of the tray

- Instruments use sequence indicated by **colored marks following the color code** of the Shelta implants.
- **Rapid and intuitive management** of each instrument.



4

### Torque-control ratchet

- Ratchet that performs **both the dynamometric function and of fixed key**.
- **Possibility of controlling the torque** from 10 to 70 Ncm, therefore ensuring absolute precision from the implant site preparation phase to the screwing of the prosthetic components.



\*

### REPLY replies

- Made of Gr. 5 titanium, **they reply the morphology if the final drills** of the related Shelta implants.
- Useful to **verify the adequacy and depth of the preparation performer** with the final drills, as well as to **verify the transmucous height** thanks to the practical millimeter notches at the base of each reply.
- They can serve as parallelism pin to **verify the preparation axis** made with the drill.



\* The Reply replies are not contained in the surgical kit, they must be ordered separately.

# Wide range of prosthetic solutions

The prosthetic solutions are extremely versatile for all the Sweden & Martina implant systems. Please refer to each catalogue for further details.

## Impression and model phase

- Pick-up transfer
- Pull-up transfer
- Close tray transfer
- Analogs



## SIMPLE temporary posts

- Straight
- Angled at 15°
- Angled at 25°



## Pre-made posts

- Straight
- Angled at 15°
- Angled at 25°



## Millable posts

- Straight
- Pre-angled
- Anatomical emergence



## Fully castable posts, or castable posts with base in alloy

- Repositionable
- Non-repositionable
- Straight emergence
- Anatomical emergence



## P.A.D. Disparallel Screwed Prosthesis

- Direct screw-retained abutments straight and angled at a 17° and 30°



### **B.O.P.T. Prosthesis**

- B.O.P.T. Transgingival healing screws in titanium
- B.O.P.T. Temporary posts made of REEF resin
- B.O.P.T. millable posts in titanium



### **Individualised prosthesis ECHO2**

- Individual posts in: titanium, zirconium, cobalt chrome
- Screw-retained bar structures in milled cobalt chrome and milled biotitanium
- Screw-retained bridge structures and Direct Bridges in zirconium, milled cobalt chrome, milled biotitanium PMMA and fiberglass



### **Prosthesis on intermediate abutments**

- Transfers
- Analogs
- Abutments
- Sleeves



### **Locator Abutments for overdentures\***

- Abutments and caps for attaching overdentures to the implants



*\* Locator Abutments are Medical devices manufactured and patented by Zest Anchors, Inc., 2061 Wineridge Place, Escondido, CA 92029, USA. 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.*





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**Sweden & Martina S.p.A.**

Via Veneto, 10  
35020 Due Carrare (PD), Italy  
Tel. +39.049.9124300  
Fax +39.049.9124290  
info@sweden-martina.com  
www.sweden-martina.com

**Sweden & Martina Mediterranea S.L.**

Sorolla Center, Oficina 801  
Avda. Cortes Valencianas 58, 8pl  
46015 Valencia, España  
Tel. +34.96.3525895  
info.es@sweden-martina.com  
Número gratuito 900993963

**Sweden & Martina Inc.**

1155 S. Washington St. Suite 202  
Naperville, IL 60540  
U.S.A.  
info.us@sweden-martina.com



The implants, standard prosthetic components and surgical instruments contained in this brochure are Medical devices and are manufactured by Sweden & Martina S.p.A. They conform to the UNI EN ISO 9001:2008 / UNI EN 13485:2012 standards and are certified with the CE Mark (Class I) and CE 0476 mark (Class IIA and class IIB) in compliance with European Medical Device Directive No. 93/42 and European Directive No. 2007/47/CE.

The contents are updated at the time of publication. Check with the company for any subsequent updates.