# GNLAXY

# Conical implant connections











# Important information

Please read carefully before using Ziacom® products

#### General information

This document contains basic information on the use of original Ziacom® dental implant systems, hereafter referred to as "Ziacom® dental implants" or simply "Ziacom® products". This document has been created as a quick guide for clinicians responsible for treatment, hereafter the "user", and therefore, is neither an alternative nor a substitute for specialised training or professional clinical experience.

Ziacom® products must be used according to a suitable treatment plan and in strict compliance with the manufacturer's surgical and prosthetic protocols. Carefully read the product-specific surgical and prosthetic protocols and the instructions for use and maintenance before using any Ziacom® product. You can find this information on our website, www.ziacom.com, or request it from your nearest authorised Ziacom® distributor.

#### Liability, safety and warranty

The instructions for the use and handling of Ziacom® products are based on internationally published literature, current clinical standards and our clinical experience so they should be understood as general guidance. The handling and use of Ziacom® products is the sole responsibility of the user as it is outside the control of Ziacom Medical SL. Ziacom Medical SL, its subsidiaries and/or its authorised distributors disclaim all responsibility, whether explicit or implicit, total or partial, for possible damage or injury caused by poor handling of the product or any other situation not considered in their protocols and manuals for the correct use of their products.

The user must ensure that the Ziacom® product is appropriate for the intended procedure and end purpose. Neither these instructions for use nor the work or handling protocols for the products release the user from this obligation. Ziacom® products must be used, handled and applied by clinicians with the appropriate training and qualifications required according to current legislation in each country.

The total or partial use, handling and/or application of Ziacom® products at any stage of their implementation by personnel who are unqualified or lack the necessary training will automatically void any type of warranty and may cause severe damage to the patient's health.

Ziacom® products are part of their own system, with their own design characteristics and work protocols, including dental implants, abutments or prosthetic components and surgical or prosthetic instruments. The use of Ziacom® products in combination with elements or components from other manufacturers could result in treatment failure, damage to tissues or bone structures, inadequate aesthetic outcomes and severe damage to the patient's health. Therefore, only original Ziacom® products should be used.

The clinician in charge of the treatment is solely responsible for ensuring the use of original Ziacom® products and that they are used according to the corresponding instructions for use and handling protocols throughout the implant procedure. The use of any other non-original Ziacom® components, instruments or products, whether alone or in combination with any original Ziacom® products, will immediately void the warranty of the original Ziacom® products.

See the Ziacom Medical SL. Warranty Programme (available on the website or by contacting Ziacom Medical SL, its subsidiaries or authorised distributors).

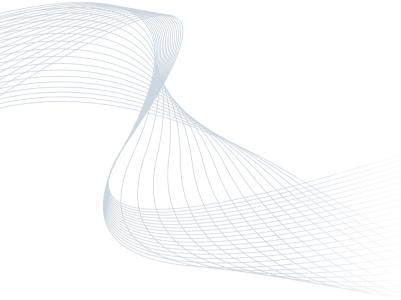
**Warning**. Not all Ziacom® products are available in all counties. Check availability in your country.

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# Together for health



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The Company

Together for health

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# The Company

# Together for health

Ziacom® has been working for more than 20 years to improve the oral health and well-being of patients around the world by designing and manufacturing innovative, high-quality dental implant, prosthetic component, surgical instrument and biomaterial solutions.

The company was founded in 2004 with 100% Spanish capital and began its activity as a manufacturer of dental implants and attachments for several European companies before later launching its own **brand of implant systems** in 2006.

In 2015. Ziacom® introduced its diversification strategy with the development of **new business lines** and new product lines and the launch of a **new portfolio**, which helped the company achieve a **15%** share of the Spanish market in 2016 with the sale of more than 230.000 implants.

In 2022, the company began an ambitious growth plan with new goals of international expansion, broadening and diversification of its portfolio of products and services and a change in corporate identity.

## Ziacom® quality

Commitment to quality and innovation has been part of the values and the essence of Ziacom® since the beginning.

That is why we use state-of-the-art technology in every stage of our products' production cycle, from design and manufacture to quality assurance, cleaning and packaging. All of our products are also manufactured using only high-quality raw materials after applying strict controls to select our main suppliers.

Ziacom Medical S.L. is a licensed manufacturer of medical devices and an AEMPS (Spanish Agency of Medicines and Medical Devices) 6425-PS marketing authorisation holder. Our quality management system is certified in accordance with the requirements of ISO standards 9001:2015 and 13485:2018. and is also GMP 21 CFR 820 compliant.





Thanks to our ceaseless endeavours to offer our clients unsurpassable quality, all our implants have a lifetime guarantee.

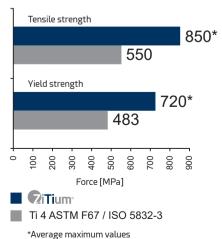
See the General Conditions for Accessing the Warranty for Ziacom® products.

### 7itium® titanium

Ziacom® Galaxy implants are made from extra-high-strength grade 4 Zitium® titanium, which bestows them with substantially improved elastic limit and mechanical properties

With **Zitium**® our implants meet the requirements of standards ASTM F67 and ISO 5832-3. and are certified in accordance with EU Regulation 2017/745. attaining the corresponding CE marking from notified body 0051.

#### Properties of Zitium® titanium















Ziacom® dental implants are all sterilised using beta-ray radiation at 25 kGy, apart from the DSQ orthodontic implants, which are supplied non-sterile.

All the products (except dental implants) listed in this Ziacom® catalogue are supplied non-sterile and must be sterilised



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# Investment in innovation and training

In order to always offer the very best solutions for the **well-being of every patient**, and thanks to the experience and dedication of our **highly-qualified professionals** and **innovative Technological Centre**, our R&D&I team works incessantly in the field of **research and innovation** to **improve** our products and develop **new solutions** to meet the demands and needs of both patients and dentists.

We also invest in **research** and **ongoing training** as a way of providing **scientific support to the sector** and we firmly believe in training **young professionals** to best ensure **advances in the dentistry field**.

We therefore work closely with **training centres**, **universities and** scientific bodies to create a practical and specialised teaching

environment to promote and strengthen their knowledge, abilities and professional growth.

In order to enhance our investment in the training and **development of dental professionals**, we have **specific areas at our facilities for hands-on training** and **practicals**, **state-of-the-art** training equipment and also a **physical and virtual showroom** where professionals can see all our dental solutions first hand.

# Ziacom® across the globe

We are committed to making oral health available to patients all over the world and have a solid **internal growth and expansion plan** to increase the company's **international presence** in those **areas where our products are already well-established** and to **expand into new areas** 

In order to achieve this, we offer our **international associates** a **trusting and collaborative** partnership by adapting to their **local needs** and providing solutions that are specific to each market.

As part of our commitment to meet the specific **quality, regulatory and legal requirements of each country**, for both the registration and distribution of our products, we have **specific certifications** from each of the countries in which we trade.

#### Regional headquarters

#### Ziacom Medical

Madrid - SPAIN Calle Búhos, 2 - 28320 Pinto ♣34 91723 33 06

#### **Subsidiaries**

#### Ziacom Lusobionic

Av. Miguel Bombarda, 36 - 5° B 1050 -165 - Lisbon - PORTUGAL \$\tilde{\text{\$\chi}}\ +351 215 850 209

#### Ziacom Medical USA LLC

Miami - USA 333 S.E 2nd Avenue, Suite 2000 Miami, FL 33131 - USA

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#### Ziacom ITS

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#### Ziacom Safe implant

Av. Iñaquito, Edificio Metropolitan, Oficina 304 170507, Quito - ECUADOR \$\infty\$ +593 96 368 0879

Please see the up-to-date list of Ziacom® distributors at www.ziacom.com or email us at export@ziacom.com



# 

# Conical implant connections



# **GALAXY** implant

#### Characteristics

#### CONNECTION

- 11° conical connection with double internal hex.
- · Single platform for all diameters.
- · Platform switch.

#### **CORTICAL ZONE**

- · Microrings.
- · Inverted cone cortical macro-design.

#### **CONICAL BODY**

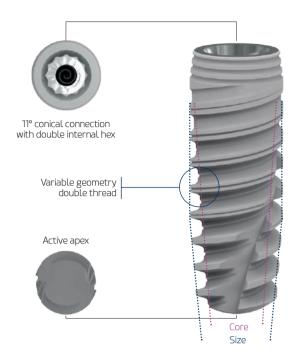
- Double threaded.
- · Variable geometry:
  - » Coronal thick trapezoidal thread.
  - » Middle thinner trapezoidal thread.
  - » Apex V-shaped thread.

#### **APEX**

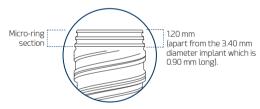
- · Oblique apical windows.
- · Self-tapping active apex.
- Atraumatic rounded apex.

#### **INDICATIONS**

- · Bones of very poor quality.
- · Immediate loading.
- Post-exodontic immediate placement.
- · Aesthetic anterior segment.



#### Dimensions of the implant collar



### Advantages

- · Better sealing against leakage, which means less bacterial load.
- · Better distribution of forces directed towards the implant and not towards the connection.
- If the recommended torques are exceeded, the screw suffers the fracture, and not the implant.
- · Increased crestal bone preservation.
- · Lower incidence of peri-implantitis.
- · Better survival rate of tapered connection implants.
- · The conical connection prevents micro-movement and micro-leakage at the implant-abutment interface.
- The single platform provides a significant simplification of prosthetic procedures.
- The reverse taper neck mitigates cortical stress during surgery.
- The thread design confers a very high primary stability even in poor quality bone.
- The active apex facilitates insertion axis correction in post-extraction alveoli.

Ziacom®



# Diameters and lengths

					LENGTH (L)				
Ø DIAMETER	Ø PLATFORM	6	7	8.5	10	11.5	13	14.5	16
RP 3.40									
RP 3.70								William States	West of the second
RP 4.00	2.85								
RP 4.30									
RP 4.80									

Dimensions in mm.

Galaxy 11 Z

# **GALAXY** implant

## Surface treatments

#### ■ Titansure surface

Implants inserted following surface treatment are known to benefit from improved osseointegration by increasing the bone-to-implant contact area. This is partly due to the implant's chemical composition and topographical characteristics.

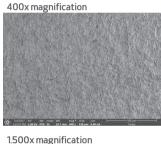
With its **Titansure** surface treatment, Ziacom® achieves contaminant-free surface topography and optimal average macro and microporosity values, which are key specifications for achieving prompt and proper osseointegration and, in turn, extremely reliable and predictable implants.

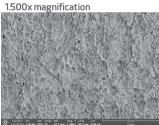
#### ■ ANALYSIS OF THE TITANSURE SURFACE TREATMENT

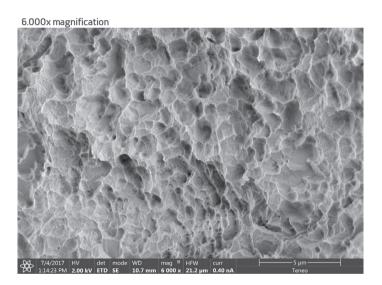
**Titansure** is an SLA surface treatment created through a subtraction process involving sandblasting with white aluminium oxide and double acid-etching with hydrofluoric acid and a sulphuric/phosphoric acid mix.

#### Surface morphology analysis

With the aid of a scanning electron microscope (FEI TENEO, Thermo Fisher Scientific Inc., Waltham, MA, USA), we can see the rough, porous surface creating numerous cavities with thin, sharp edges.

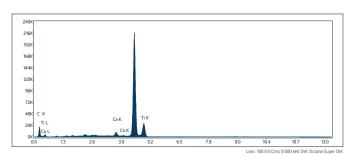






#### Surface elemental analysis

We used an energy-dispersive X-ray spectrometer (Octane Super, Edax-Ametek, Mahwah, NJ, USA) to analyse the chemical composition at the surface.



Compositional analysis of implant surface

ELEMENT	WEIGHT (%)
CK	9.32 (10.23)
AL K	-
Ti K	89.53 (11.77)

No aluminium was detected

Results are expressed as the mean and standard deviation of the mass percentage (WEIGHT (%)).



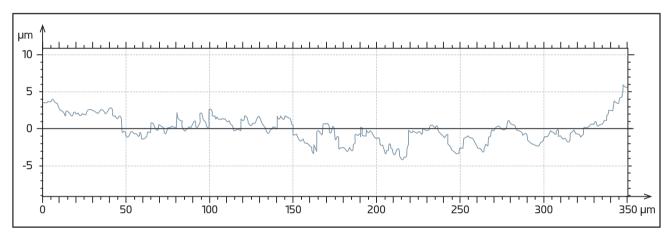
#### Surface roughness analysis

The roughness study was conducted with a Sensofar S NEOX interferometric-confocal microscope (Sensofar Medical, Terrasa, Spain) and SensoMAP Premium 7.4 software. The quantitative roughness profile parameters applied were: average roughness (Ra), root-mean-square roughness (Rq), maximum profile peak height roughness (Rp) and maximum profile valley depth roughness (Rv).

Ra (µm) (SD)	Rq (µm) (SD)	Rp (µm) (SD)	Rv (μm) (SD)
0.82 (0.10)	0.97 (0.08)	1.84 (0.04)	2.21 (0.01)

The 3D surface roughness (Sa), 3D root mean square height (Sq), maximum 3D peak height (Sp) and maximum 3D pit depth of the selected area (Sv) were also recorded.

Sa (µm) (SD)	Sq (µm) (SD)	Sp (µm) (SD)	Sv (µm) (SD)
0.76 (0.01)	0.97 (0.01)	4.20 (0.12)	4.62 (0.20)



#### The data were extracted from:

Rizo-Gorrita, M.; Fernandez-Asian, I.; Garcia-de-Frenza, A.; Vazquez-Pachon, C.; Serrera-Figallo, M.; Torres-Lagares, D.; Gutierrez-Perez, J. Influence of Three Dental Implant Surfaces on Cell Viability and Bone Behavior. An In Vitro and a Histometric Study in a Rabbit Model. Appl. Sci. 2020, 10(14), 4790

#### OPTIMAL OSSEOINTEGRATION

The **Tibansure** surface has a three-dimensional surface structure with high peaks and broad troughs, which is known to be highly effective at promoting the coagulation cascade and the release of growth factors through platelet activation [Kim, H.; Choi, S.H.; Ryu, J.J.; Koh, S.Y.; Park, J.H.; Lee, I.S. The biocompatibility of SLA-treated titanium implants. Biomed. Mater. 2008. 3. 025011.].

This type of surface may have an osteogenic effect thanks to its different topographical features at a micrometer and nanometer level, which has a very similar morphology to the osteoclastic bone resorption cavities [Le Guehennec, L.; Goyenvalle, E.; Lopez-Heredia, M.A.; Weiss, P.; Amouriq, Y.; Layrolle, P. Histomorphometric analysis of the osseointegration of four different implant surfaces in the femoral epiphyses of rabbits. Clin. Oral Implants Res. 2008. 19. 1103-1110].

For more information on the surface treatment, please see the literature available at www.ziacom.es/biblioteca



Galaxy 13 Z

# **GALAXY** implant

#### Surface treatments

#### ■ Titansure Active surface treatment

Ziacom® presents the **Titansure Active** surface treatment with bone bioactive liquid (BBL) as the latest innovation for the presentation of our dental implants. The **Titansure Active** surface treatment is a combination of Titansure with BBL (Bone Bioactive Liquid) technology, a patent acquired by Ziacom® and developed by the Biointelligent Technology Systems S.L research group led by Professor Maher Al-Atari Abou-Asi.

"BBL (Bone Bioactive Liquid) technology consists of a saline solution containing calcium chloride (CaCl2) and magnesium chloride (MgCl2-6H2O) with a net negative charge and creates the ideal conditions for post-implant cell adhesion in the region with bone damage. What is more, surface treatment with BBL provides a significant increase in the density of hydroxyl groups on the surface of implants, thus improving their hydration considerably compared with other surfaces. This hydrophilic implant surface is precisely what enables active ion interaction with blood plasma and bone-forming cells long before the first mature osteogenic cells can attach to the surface. Finally, this yields improved intercellular communication and a greater final bone-to-implant contact area in a significantly shorter time, thereby markedly reducing the postoperative inflammatory process."

Dr. Prof. Maher Al Atari

#### ■ SURFACE STUDIES OF BBL-TREATED IMPLANTS

#### In vitro research

Dental pulp pluripotent-like stem cell (DPPSC) and dental pulp mesenchymal stem cell (DPMSC) cultures were prepared on titanium discs sandblasted with aluminium oxide and acid etched in an osteoblast differentiation medium.

The samples were divided into two treatment groups:

- Group A. Titanium discs Traditional, untreated surface.
- Group B. Titanium discs BBL-treated surface.

The surfaces were examined using energy-dispersive X-ray microanalysis (EDXMA) to determine the composition of surface elements

Comparison of different elements in the two groups					
	Untreated surface	Treated surface <b>Titansure Active</b>			
Carbon	32.22 ± 5.89	32.89 ± 1.76			
Oxygen	14.34 ± 1.23	13.97 ± 1.45			
Phosphorus	3.96 ± 2.8	3.89 ± 1.87			
Calcium	5.86 ± 3.8	9.53 ± 4.04			
Titanium	39.76 ± 1.65	41.34 ± 1.89			
Ca/P	1.678	2.347			

#### In vivo research

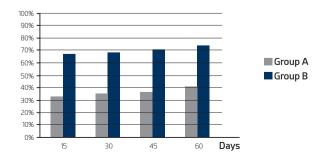
A study was conducted in the tibiae of 10 adult New Zealand rabbits after inserting four implants per rabbit (two in each tibia).

The subjects were assigned to two treatment groups with implants:

- Group A. Implants with a traditional, untreated surface.
- Group B. Implants with a traditional, BBL-treated surface.

In general, group B had higher BIC (bone-to-implant contact) values than group  $\ensuremath{\mathrm{A}}$ 

Histomorphometric analysis - Bone-to-implant contact (BIC)						
Time of measurement	Group A Untreated surface (control) mean + SD	Group B Treated surface <b>Titansure Active</b> mean + SD				
15 days	33.7 ± 2.3%	68.92 ± 0.3%				
30 days	35.8 ± 1.8%	69.35 ± 2.2%				
45 days	37.9 ± 1.2%	70.34 ± 1.1%				
60 days	41.2 ± 0.8%	73.89 ± 1.9%				



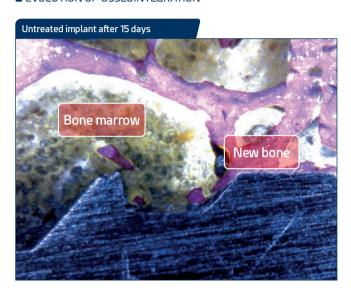


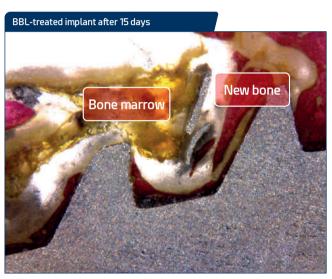
#### Conclusions

Within the scope of this study, the histomorphometric analysis demonstrated that the group B implants achieved quicker and more effective osseointegration than control group A. Nevertheless, an assessment of bone growth in the medullary portion of the subjects' tibiae revealed the new surface's potential for osteoinduction.

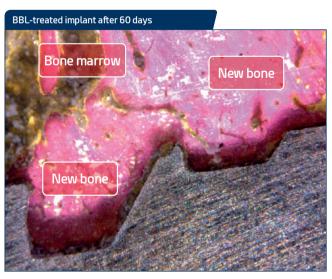
As explained by Dr. Sérgio Alexandre Gehrke, the histologist in charge of the study: "Within the study's limits, data from the histomorphometric analysis of the implants with a treated surface (78.92 + 0.3%) highlighted a much quicker and more effective osseointegration compared to the control group (53.8 + 2.3% of BIC). Assessment of bone growth in the medullary portion of the rabbit tibiae showed the new test surface's potential for osteoinduction."

#### ■ EVOLUTION OF OSSEOINTEGRATION









#### NOTE

The images are of Ziacom® implants manufactured specifically for use in the study of BBL-treated implants.

# **GALAXY** implant

# Product presentation

#### ■ Packaging tailored to the type of surface

Ziacom® offers two different types of product packaging depending on the type of implant surface:

#### Blister packaging

Available for implants with **Tibansure** surface. The blisters are heat-sealed and include identification labels for product traceability. There is a flap for easy opening in the surgery while preventing accidental opening.

#### Bottle packaging

Available for implants with **Tibansure Active** surface. The sealed bottle contains bone bioactive liquid (BBL) to ensure the perfect preservation of the implant's properties. The bottles include identification labels for product traceability.



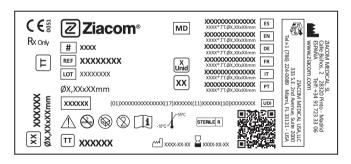
#### **IMPORTANT**

Do not open the sterile container until just before inserting the implant.



#### Outer identification label

Ziacom® implants are supplied in a sealed cardboard box that includes a product identification label with a description of their main characteristics.



#### Description of the symbology used

C ∈ § CE marking (MDR) and notified body number. Do not use if package is damaged. MD Medical device symbol. Single-use product. # Model code. Consult instructions for use. REF Product name. Product use-by date. Date of manufacture. LOT Product batch number Unique device identifier STERLE R Sterilised by radiation Titansure surface treatment X Temperature limit. Titansure Active surface treatment. Caution, consult attached documentation. Rx Only Prescription only. Do not resterilise. Product distributor.

For full details on the product presentation and instructions for use (IFU), go to **www.ziacom.es/ifus** or scan the QR code on the box.



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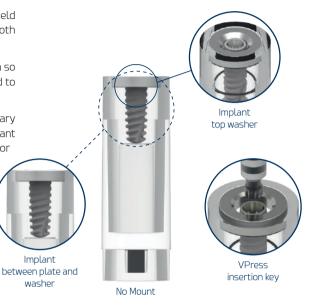


#### ■ Ziacom® No Mount

GALAXY implants are supplied in Ziacom® No-Mount vials; the implants are held vertically inside a plastic vial between a plate below and a washer above (both made from titanium), thus preventing any movements or unwanted contacts.

This packaging means that the pressure is applied directly to the connection so the implant can be safely and easily withdrawn from the vial and transferred to the surgical site.

Therefore, Ziacom® No-Mount implants eliminate the risk of reducing the primary stability caused by over-instrumentation, avoid the need to handle the implant when removing it from the mount, and simplify implant insertion in posterior areas with limited access.



**Implant** 

washer



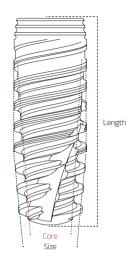
17 🗷 Galaxy

# **GALAXY** implant

# Galaxy references

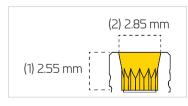
#### **IMPLANT**

	Ø Size (mm)	Ø Core (mm)	Length (mm)	Ref. <b>Titansure</b>	Ref. Titansure Active	
			8.5	GLY3485	GLY3485A	
			10.0	GLY3410	GLY3410A	
۱	3.40	2.00/3.15	11.5	GLY3411	GLY3411A	
	J.40	2.00/3.13	13.0	GLY3413	GLY3413A	-
4			14.5	GLY3414	GLY3414A	3
			16.0	GLY3416	GLY3416A	
4			8.5	GLY3785	GLY3785A	
			10.0	GLY3710	GLY3710A	
	3.70	2.20/3.70	11.5	GLY3711	GLY3711A	
	3.70	2.20/3.70	13.0	GLY3713	GLY3713A	=
			14.5	GLY3714	GLY3714A	28
			16.0	GLY3716	GLY3716A	
			6.0	GLY4006	GLY4006A	
			7.0	GLY4007	GLY4007A	
			8.5	GLY4085	GLY4085A	CONTROL OF THE PROPERTY OF THE
	4.00		10.0	GLY4010	GLY4010A	
	4.00		11.5	GLY4011	GLY4011A	
			13.0	GLY4013	GLY4013A	
			14.5	GLY4014	GLY4014A	
			16.0	GLY4016	GLY4016A	
			6.0	GLY4306	GLY4306A	
			7.0	GLY4307	GLY4307A	
			8.5	GLY4385	GLY4385A	
	4.30		10.0	GLY4310	GLY4310A	
	4.30	2.60/4.05	11.5	GLY4311	GLY4311A	臺
			13.0	GLY4313	GLY4313A	38
			14.5	GLY4314	GLY4314A	
			16.0	GLY4316	GLY4316A	
Ì			6.0	GLY4806	GLY4806A	
			7.0	GLY4807	GLY4807A	
	4.80	2.90/4.40	8.5	GLY4885	GLY4885A	
	4.00	2.90/4.40	10.0	GLY4810	GLY4810A	
			11.5	GLY4811	GLY4811A	-
			13.0	GLY4813	GLY4813A	





#### Platform



Single platform for all implants: (1) Height of inner cone (2) Diameter of the working platform

#### Metric



Unique metric of 1.60

**Z** 18 Ziacom®

### Recommendations for use

All implant treatments must respect the natural biomechanical stability of the oral cavity and allow the natural emergence of the dental crown through the soft tissue. The implantologist must assess the quantity and quality of bone currently in the implant area and consider the need for prior or simultaneous bone regeneration, as appropriate.

Ziacom® has a wide range of implants available to cover every restoration possibility. The inverted trapeziums on the dental chart represent the implant diameters and platforms recommended for each tooth position.

These recommendations are valid for the replacement of teeth with single restorations, bridges, hybrid work or overdentures.

Remember to maintain minimum distances between adjacent implants and between implants and teeth in order to preserve interdental papilla, bone vascularisation and natural emergence profiles.

Selection of the appropriate implant for each case is the sole responsibility of the implantologist. Ziacom® advises all clinicians to take into account the precautions based on scientific evidence, which can be found in the product catalogues and on our website.

#### ■ CLARIFICATIONS ON DRILLING MEASUREMENTS AND TECHNIQUES

- IMPLANT SIZE: identifies the diameter and length of the implant.
- IMPLANT BODY: diameter of the implant core.
- DRILL SIZE: drill bit diameter.
- **DRILLING TECHNIQUE**: We have developed various drilling protocols as a blueprint for dealing with different situations that arise when performing implant surgery.

For more information on implant size selection, see the literature available at www.ziacom.com/biblioteca

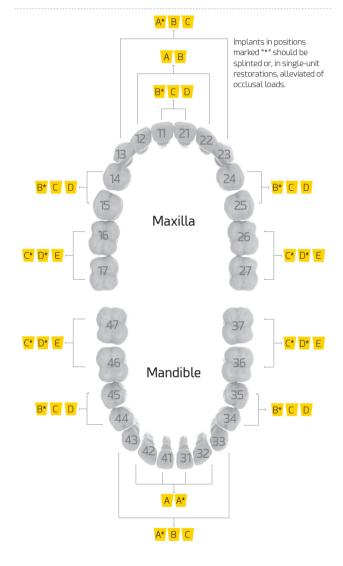


#### Dental chart



#### Implant diameter





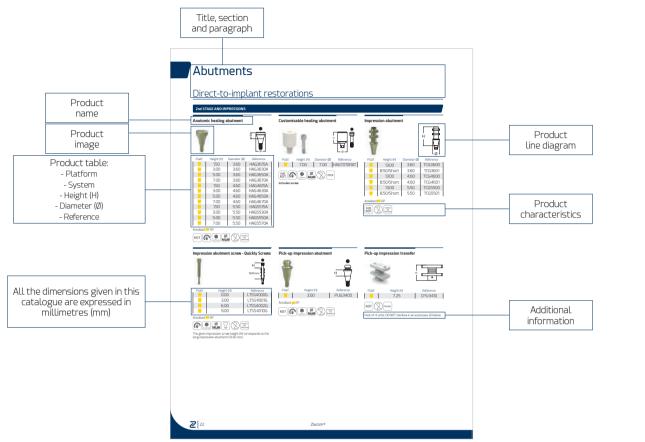
#### **IMPORTANT**

Short, 6.00 mm and 7.00 mm implants are ONLY recommended for use in combination with normal length splinted implants ( $\geq$  10.00 mm).

Galaxy 19

# How to use this catalogue

## Product sheet



# Symbology

	3 3 3 3 3				
Symbol	Meaning	Symbol	Meaning	Symbol	Meaning
ROT	Rotatory element		Tx30 connection	Steel	Made from steel
NO	Non-rotatory element	MX,XX	Size in millimetres	Co-Cr +castable	Made from cobalt-chromium + castable plastic
	Use with manual torque (see table on p. 42)	45°	45° screw support	Cobalt	Made from cobalt-chromium
XX	Maximum operating torque	90°	90° screw support	PEEK	Made from PEEK
Ncm 10 20 30 40 50 60 70	Ratchet torque range		Use in rotation with a CA	Full castable	Made from castable plastic
Galaxy	Galaxy connection	XX Rpm	Maximum rotation speed	Plastic	Made from plastic
1,25mm	Screw connection	XX USES	Maximum number of uses	SSS XX°	Recommended sterilisation temperature
Kirator	Kirator connection		Single-use product	Non sterile	Unsterilised product
Nature	Nature connection	Grade 5 ELI Titanium	Made from grade 5 ELI (extra-low interstitial) titanium		Use with abundant irrigation
Basic	Basic connection	Grade 2 Titanium	Made from grade 2 titanium	$\bigcap_{\mathbf{XX}_{\circ}}$	Maximum angle
XDrive	XDrive connection	Stainless Steel	Made from stainless steel		

# Abutments Direct-to-implant reconstructions



# **Abutments**

# Direct-to-implant restorations

#### 2nd STAGE AND IMPRESSIONS

#### Anatomic healing abutment

Height (H)

1.50

3.00

5.00

7.00

1.50

3.00

5.00

7.00

1.50

3.00

5.00

7.00



Platf.



	•
Ť.	
	_ Ø

Reference

HAG3615A

HAG3630A

HAG3650A

HAG3670A

HAG4615A

HAG4630A

HAG4650A

HAG4670A

HAG5515A

HAG5530A

HAG5550A

HAG5570A

100			H
Platf.	Height (H)	Diameter (Ø)	Reference
	7.00	7.00	HAG7070RAT
NO ROT	1,25mm M1,	PEE PEE	к

Customisable healing abutment

#### Impression abutment





Platf.	Height (H)	Diameter (Ø)	Reference
	13.00	3.60	TCG3600
	8.50/Short	3.60	TCG3601
	13.00	4.60	TCG4600
	8.50/Short	4.60	TCG4601
	13.00	5.50	TCG5500
	8.50/Short	5.50	TCG5501















Diameter (Ø)

3.60

3.60

3.60

3.60

4.60

4.60

4.60

4.60

5.50

5.50

5.50

5.50

#### Impression abutment screw - Quickly Screws





Platf.	Height (H)	Reference
	0.00	LTSS4000G
	3.00	LTSS4001G
	6.00	LTSS4002G
	9.00	LTSS4010G







The given impression screw height (H) corresponds to the long impression abutment (13.00 mm).

#### Pick-up impression abutment

Includes screw.

ROT



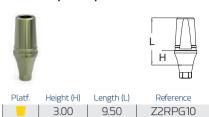
#### Pick-up impression transfer



Pack of 4 units. DO NOT sterilise in an autoclave. Drillable.



#### **Z2Plus Snap-On impression abutment**



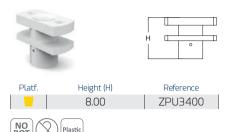
Anodised RP



#### IMPORTANT

Use the laboratory screw to tighten this impression

#### **Z2Plus Snap-On impression transfer**



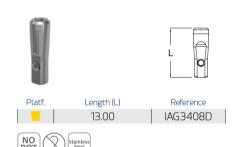
Pack of 4 units. DO NOT sterilise in an autoclave. Drillable.

#### Implant analogue

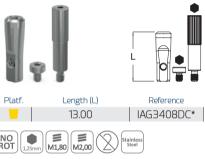




#### 3D implant analogue - Individual

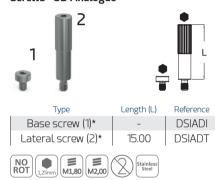






\*Includes base screw Ref. DSIADI and lateral screw Ref. DSIADT for analogue connection.

#### Screws - 3D Analogue



\*Pack of 4 units.

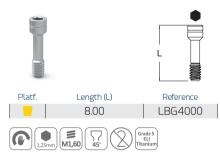
#### **FIXING ELEMENTS**

#### Kiran clinical screw



Special Kiran screw with surface treatment.

#### Laboratory screw



NOT suitable for use as the final clinical screw.

#### Kiran Tx30 clinical screw









Special Kiran Tx30 screw with surface treatment. Use only with Tx30 screwdrivers.

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# **Abutments**

#### **PROVISIONAL**

#### Provisional abutment





#### Provisional abutment

Aesthetic and immediate loading abutments





#### Rotatory

Platf.	Height (H)	Length (L)	Reference
	1.50	10.50	RUGT3615
	3.00	12.00	RUGT3630



#### Rotatory

Platf.	Height (H)	Length (L)	Reference	
	1.50	10.50	RUGP3615	
	3.00	12.00	RUGP3630	
ROT 30				

#### Non-rotatory

Anodised RP

ROT

Platf.	Height (H)	Length (L)	Reference
	1.50	10.50	NUGT3615
	3.00	12.00	NUGT3630

#### Anodised RP









#### Non-rotatory

Plati.	neight (n)	cengui (c)	Reference	
	1.50	10.50	NUGP3615	
	3.00	12.00	NUGP3630	

All provisional abutments come with an anodised screw.

#### SCREWED

#### ■ MACHINED BASE UCLA

#### Machined base abutment

+ Castable abutment



Rotatory

Platf.

ROT

Non-rotatory



Reference

BRUG36

#### ■ Tx30 VARIABLE ROTATION ABUTMENT

Tx30 mechanised base abutment

+ 2 castable abutments (15° and 20°)



Platf.	15° Length (L)	20° Length (L)	Reference
	11.40	11.20	BRUG36TX
ROT (3	Som M	1,60 \(\frac{1}{45^\circ}\)	Co-Cr +castable

#### Platf. Length (L) Reference

	10.60	BNUG36
NO ROT	(a) (a) (b) (b) (c) (c) (c) (d) (d) (d) (d) (d) (d) (d) (d) (d) (d	Co-Cr +castable

Length (L)

10.60

M1,60

All machined base UCLA abutments come with a special Kiran screw with surface treatment Ref. DSG4010.

#### Rotatory

Platf.	15° Length (L)	20° Length (L)	Reference
	11.40	11.20	BRUG36TX
ROT (3)	Signal Miles	1,60	Co-Cr teastable

#### Non-rotatory

Platf.	15° Length (L)	20° Length (L)	Reference
	11.40	11.20	BNUG36TX
NO ROT	BO M	1,60 \(\frac{1}{45^\circ}\)	Co-Cr +castable

#### Tx30 mechanised base abutment

+ 2 castable abutments (20° and 25°)



#### Rotatory

Platf.	20° Length (L)	25° Length (L)	Reference
	11.20	11.00	BRUG36TX1
ROT (N	BO M	1,60	Co-Cr +castable

#### Non-rotatory

Platf.	20° Length (L)	25° Length (L)	Reference
	11.20	11.00	BNUG36TX1
NO ROT	BO M	1,60 \(\frac{1}{45^\circ}\)	Co-Cr +castable

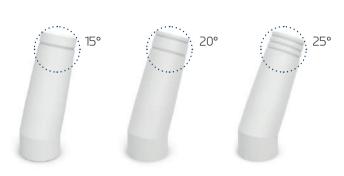
All Tx30 Variable Rotation abutments come with a special Kiran Tx30 screw with surface treatment Ref. DSG4010TX.



#### ■ TX30 VARIABLE ROTATION ABUTMENT

The Tx30 variable rotation abutment comprises a Cr-Co machined base that accepts 15°, 20° or 25° angled castable abutments and a Kiran clinical screw with a special Tx30 connection.

The Cr-Co base ensures a perfect fit and seal with the implant connection and the different angles of the castable abutments can be used to choose the best position for the correct emergence of the restoration screw access channel.



Identifying grooves for the castable angles



#### CEMENTED

#### Anatomic straight abutment







Platf.	Height (Hg/Ht)	Length (L)	Diameter Ø)	Reference
	1.50/2.50	9.00	3.60	STG3615
	3.00/4.00	10.50	3.60	STG3630
	1.50/2.50	9.00	4.60	STG4615
	3.00/4.00	10.50	4.60	STG4630
	1.50/2.00	8.50	5.50	STG5515
	3.00/3.50	10.00	5.50	STG5530

Anodised RP



#### Anatomic 15° angled abutment





Anodised RP

3.00/4.00



10.50

4.60

A2G4615

#### Anatomic 25° angled abutment





Platf.	Height (Hg/Ht)	Length (L)	Diameter Ø)	Reference
	1.50/2.50	9.00	3.60	A1G3625
	3.00/4.00	10.50	3.60	A2G3625
	1.50/2.50	9.00	4.60	A1G4625
	3.00/4.00	10.50	4.60	A2G4625

Anodised RP



All cemented abutments come with a special Kiran screw with surface treatment Ref. DSG4010.

25 2 Galaxy

# **Abutments**

# Direct-to-implant restorations

#### **OVERDENTURE**

# Kirator



#### Kirator abutment

Platf.	Height (H)	Reference
	1.00	LOG4010
	2.00	L0G4020
	3.00	LOG4030
	4.00	LOG4040
	5.00	LOG4050
	6.00	LOG4060

Golden surface treatment.

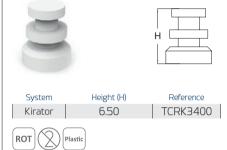
Insertion key Ref. LOSD01/LOSD02.



Includes the Kirator abutment with sterilisable polyoxymethylene applicator (Tecaform AH-POM-C).

#### Related abutments

#### Kirator impression transfer



Pack of 4 units. DO NOT sterilise in an autoclave. Drillable.

#### Kirator analogue





#### Kirator processing kit



Kirator processing kit TP8520

Kirator processing kit consisting of: Titanium housing with black relined cap, spacer and purple, transparent and pink

System

Reference

Sterilise the metal coping in an autoclave. Plastic caps and the disc should be cold sterilised. See Instructions for Cleaning and Sterilising on the Ziacom® website.

	System	Retention (kg)	Reference
		Light/1.20 kg	TPK100
	Kirator	Standard/1.80 kg	TPK200
		Strong/2.70 kg	TPK300

Pack of 4 plastic Kirator retainer caps.



plastic caps.

NOT autoclavable - use cold steriliser. Maximum divergence of 22° between implants.

#### Kirator divergence processing kit



System	Reference
Kirator processing kit	TP8520D

Kirator divergence processing kit comprising: Titanium housing with black relined cap, spacer and purple, clear and pink plastic caps.

Sterilise the metal coping in an autoclave. Plastic caps and the disc should be cold sterilised. See Instructions for Cleaning and Sterilising on the Ziacom® website.

	System	Retention (kg)	Reference
		Light/1.20 kg	TPK110
	Kirator	Standard/1.80 kg	TPK220
		Strong/2.70 kg	TPK330

Pack of 4 plastic Kirator retainers caps - Divergent.



NOT autoclavable - use cold steriliser. Maximum divergence of  $44^{\rm o}$  between implants.

#### Example sequence



**7** ≥ 26 Ziacom®



#### DIGITAL CAD-CAM

#### ZiaCam scanbody to implant



= M1,60

Indicated for clinical and laboratory use.

All ZiaCam scanbody-to-implant abutments include a screw Ref. LBG4000.

literature available www.ziacom.com/biblioteca for more information on the use of zirconium restoration interfaces or the use of abutments in the "Prosthetic procedure" manual.



2

#### ZiaCam Ti-Base





Rotatory

Platf.	Height (Hg/Ht)	Diameter (Ø)	Reference
	1.00/5.50	3.80	FRUG305
	2.00/6.50	3.80	FRUG315
	3.00/7.50	3.80	FRUG330
	1.00/5.50	4.40	FRUG405
	2.00/6.50	4.40	FRUG415
	3.00/7.50	4.40	FRUG430



#### Non-rotatory

Platf.	Height (Hg/Ht)	Diameter (Ø)	Reference	
	1.00/5.50	3.80	FNUG305	
	2.00/6.50	3.80	FNUG315	
	3.00/7.50	3.80	FNUG330	
	1.00/5.50	4.40	FNUG405	
	2.00/6.50	4.40	FNUG415	
	3.00/7.50	4.40	FNUG430	
NO ROT J.25mm M1,60 45° CI Grade S ELI Titanium				

All ZiaCam Ti-Base abutments come with a special Kiran screw with surface treatment Ref. DSG4010.

#### ZiaCam Tx30 Ti-Base





Platf.	Height (Hg/Ht)	Diameter (Ø)	Reference
	1.00/6.50	3.80	FRUG305TX
	2.00/7.50	3.80	FRUG315TX
	3.00/8.50	3.80	FRUG330TX (1
	1.00/6.50	4.40	FRUG405TX
	2.00/7.50	4.40	FRUG415TX
	3.00/8.50	4.40	FRUG430TX (1

 $\leq$ 

M1,60





#### Non-rotatory

Platf.	Height (Hg/Ht)	Diameter (Ø)	Reference
	1.00/6.50	3.80	FNUG305TX
	2.00/7.50	3.80	FNUG315TX
	3.00/8.50	3.80	FNUG330TX (1)
	1.00/6.50	4.40	FNUG405TX
	2.00/7.50	4.40	FNUG415TX
	3.00/8.50	4.40	FNUG430TX (1)







All ZiaCam Ti-Base Tx30 abutments come with a special Kiran Tx30 screw with surface treatment Ref. DSG4010TX.

(1) Gingival heights of 3.00 mm have a maximum angle of 20° (all other heights have a maximum of 30°).

Galaxy

#### Kirator abutment. Toolbar





Platf.	Height (H)	Reference
Universal	1.80	LOTB100

Golden surface treatment.









# 

# Abutments Restorations using transepithelials



# **Abutments**

# Restorations using transepithelials

#### ■ Transepithelial abutments

- Allows the peri-implant tissue to form from the initial 8 weeks.
- · One abutment-one time, allows gingival adhesion to its surface as repeated detachments are not necessary.
- Avoids bone and soft tissue loss as there is no mechanical rupture of the peri-implant interface.
- The prosthetic working area is above the gingival level, making the soft tissue adhesive behaviour more predictable, maintaining a good seal.
- · Less formation of micro-gaps at the implant-prosthesis junction.
- · Increased crestal bone preservation.
- Prosthetic try-ins and definitive placement without anaesthesia.
- If the recommended torques are exceeded, the screw suffers the fracture at transepithelial level and not inside the implant.

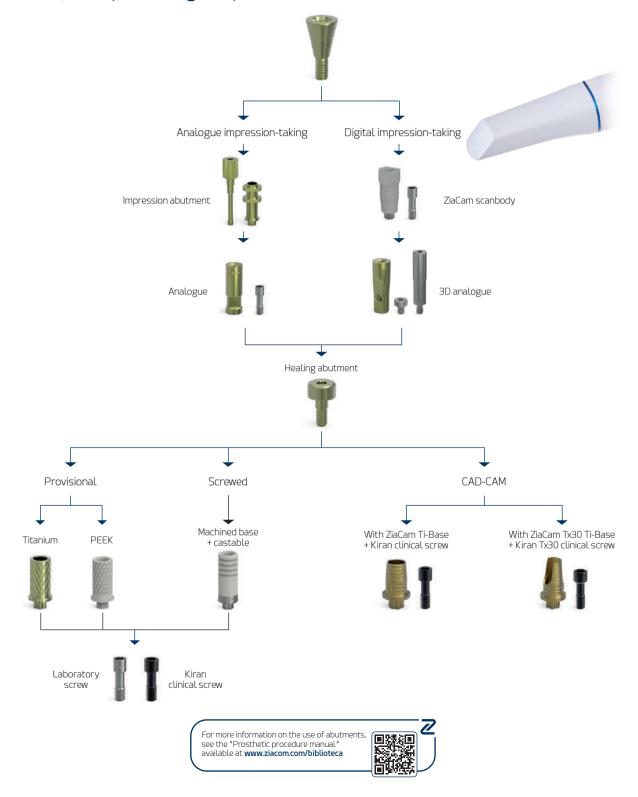
#### Abutment heights

- · Greater abutment height means more marginal bone is preserved in cemented prostheses.
- Higher abutments (≥2mm) provide better soft tissue adaptation.
- Short abutments (< 2 mm) can compromise the soft tissues, resulting in more crestal bone loss.
- Marginal bone loss will differ depending on the clinical decision on the abutment height. Generally, prosthetic abutments ≥2mm will lead to better preservation of crestal bone.





## ■ Nature | Example of usage sequence



Galaxy 31 Z

# **Abutments**

#### Nature abutment





Plati	f. Colour	Height (H)	Diameter (Ø)	Reference	
		2.00	3.40	NTGR3420	
		2.50	3.40	NTGR3425	
		3.50	3.40	NTGR3435	
		4.50	3.40	NTGR3445	
		5.50	3.40	NTGR3455	
		2.00	3.90	NTGR3920	
		2.50	3.90	NTGR3925	
		3.50	3.90	NTGR3935	
		4.50	3.90	NTGR3945	
		5.50	3.90	NTGR3955	
		2.00	4.40	NTGR4420	
		2.50	4.40	NTGR4425	
		3.50	4.40	NTGR4435	
		4.50	4.40	NTGR4445	
		5.50	4.40	NTGR4455	
Incorti	Insertion key Pof MANA100/MANA110				

Nature abutment with applicator

The Nature abutment is designed to adapt to the gingival emergence profile with the desired diameter, regardless of the diameter of the implant placed. The Nature abutment is anodised in 2 sections, for the gingival area in yellow and the threaded area in different colours, which tell us the final opening diameter of the emergence profile selected. These are pink for Ø3.40, yellow for Ø3.90 and blue for Ø4.40.



Insertion key Ref. MANA100/MANA110

Anodised Ø3.40 / Ø3.90 / Ø4.40











Includes the Nature abutment with sterilisable polyethylene terephthalate (PET) applicator

#### Nature healing abutment





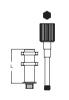
Colour	Height (H)	Diameter (Ø)	Reference
	0.00	3.40	ZNHA340
	1.00	3.40	ZNHA341
	2.00	3.40	ZNHA342
	3.00	3.40	ZNHA343
	4.00	3.40	ZNHA344
	0.00	3.90	ZNHA390
	1.00	3.90	ZNHA391
	2.00	3.90	ZNHA392
	3.00	3.90	ZNHA393
	4.00	3.90	ZNHA394
	0.00	4.40	ZNHA440
	1.00	4.40	ZNHA441
	2.00	4.40	ZNHA442
	3.00	4.40	ZNHA443
	4.00	4.40	ZNHA444

Anodised Ø3.40 **■** / Ø3.90 / Ø4.40 **■** 



#### Nature impression abutment





Colour	Length (L)	Diameter (Ø)	Reference
	10.00	3.40	ZNN340
	10.00	3.90	ZNN390
	10.00	4.40	ZNN440

Anodised Ø3.40 **1** / Ø3.90 **7** / Ø4.40









All Nature impression abutments come with a screw.

#### Nature analogue





Colour	Length (L)	Diameter (Ø)	Reference
	12.00	3.40	ZNIA34
	12.00	3.90	ZNIA39
	12.00	4.40	ZNIA44

Anodised Ø3.40 \_ / Ø3.90 \_ / Ø4.40 \_









#### 3D Nature analogue - Individual





Colour	Length (L)	Diameter (Ø)	Reference
	13.00	3.40	ZNIA343D
	13.00	3.90	ZNIA393D
	13.00	4.40	ZNIA443D

Anodised Ø3.40 **II** / Ø3.90 **I** / Ø4.40 **II** 



#### Nature 3D analogue - Pack





Colour	Length (L)	Diameter (Ø)	Reference
	13.00	3.40	ZNIA343DC
	13.00	3.90	ZNIA393DC
	13.00	4.40	ZNIA443DC

Anodised Ø3.40 **■** / Ø3.90 **-** / Ø4.40 **■** 



<sup>\*</sup>Includes base screw Ref. DSIADI and lateral screw Ref. DSIADT for analogue connection.

#### Screws - 3D analogue





Туре	Length (L)	Reference
Base screw (1)*	-	DSIADI
Lateral screw (2)*	15.00	DSIADT



<sup>\*</sup>Pack of 4 units.

#### Nature laboratory screw





	System	Length (L)	Reference
1	Nature	6.00	ZNDS3410L



NOT suitable for use as the final clinical screw.

#### Kiran Nature clinical screw





System	Length (L)	Reference
Nature	6.40	ZNDS3410



Special Kiran screw with surface treatment.

#### Kiran Tx30 Nature clinical screw





System	Length (L)	Reference
Nature	6.00	ZNDS3410TX



Special Kiran Tx30 screw with surface treatment.

#### Nature provisional abutment





#### Rotatory

Colour	Length (L)	Diameter (Ø)	Reference
	9.50	3.40	ZNRT34
	9.50	3.90	ZNRT39
	9.50	4.40	ZNRT44

Anodised Ø3.40 ■ / Ø3.90 ■ / Ø4.40 ■



#### Non-rotatory

Colour	Length (L)	Diameter (Ø)	Reference
	9.50	3.40	ZNNT34
	9.50	3.90	ZNNT39
	9.50	4.40	ZNNT44

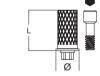
Anodised Ø3.40 \_\_\_ / Ø3.90 \_\_\_ / Ø4.40 \_\_\_



Includes screw.

#### Nature provisional abutment





#### Rotatory

System	Length (L)	Diameter (Ø)	Reference
	9.50	3.40	ZNRP34
Nature	9.50	3.90	ZNRP39
	9.50	4.40	ZNRP44



#### Non-rotatory

System	Length (L)	Diameter (Ø)	Reference
Nature	9.50	3.40	ZNNP34
	9.50	3.90	ZNNP39
	9.50	4.40	ZNNP44



#### Machined base abutment Nature

#### + Castable abutment





#### Rotatory

34
ا ' ر
39
44



#### Non-rotatory

System	Length (L)	Diameter (Ø)	Reference
	9.60	3.40	ZNBNU34
Nature	9.60	3.90	ZNBNU39
	9.60	4.40	ZNBNU44



Includes screw Ref. ZNDS3410) for all Nature + Castable machined base abutments.

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# **Abutments**

#### DIGITAL CAD-CAM

#### ZiaCam scanbody to Nature abutment



Indicated for clinical and laboratory use.

All ZiaCam scanbodies to Nature abutments include a screw Ref. ZNDS3410L.

#### ZiaCam Ti-Base scanbody to Nature abutment





#### Rotatory

System	Height (Hg/Ht)	Diameter (Ø)	Reference
Nature	0.50/5.00	3.40/3.80	ZNFRU381
	0.50/5.00	3.90	ZNFRU391
	0.50/5.00	4.40	ZNFRU441



#### Non-rotatory

	System	Height (Hg/Ht)	Diameter (Ø)	Reference
	Nature	0.50/5.00	3.40/3.80	ZNFNU381
		0.50/5.00	3.90	ZNFNU391
		0.50/5.00	4.40	ZNFNU441



All ZiaCam Ti-Base to Nature abutments come with a special Kiran screw with surface treatment Ref. ZNDS3410.

#### ZiaCam Ti-Base Tx30 to Nature abutment





#### Rotatory

System	Height (Hg/Ht)		
	0.50/6.00	3.40/3.80	ZNFRU381TX
Nature	0.50/6.00	3.90	ZNFRU391TX
	0.50/6.00	4.40	ZNFRU441TX



#### Non-rotatory

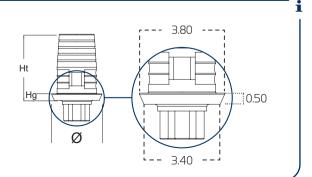
System	Height (Hg/Ht)		
	0.50/6.00	3.40/3.80	ZNFNU381TX
	0.50/6.00	3.90	ZNFNU391TX
	0.50/6.00	4.40	ZNFNU441TX



All ZiaCam Ti-Base Tx30 to Nature abutments come with a special Kiran Tx30 screw with surface treatment Ref. ZNDS3410TX.

#### ■ ZIACAM TI-BASE TO NATURE ABUTMENT

Bear in mind that Ti-Base Nature abutments, references ZNFRU381. ZNFNU381. ZNFRU381TX and ZNFNU381TX, have been designed with a platform that goes from 3.40 mm extending coronally to 3.80 mm, considered to meet the minimum thickness recommended for the material that will be used in manufacturing the restoration on the Ti-Base.

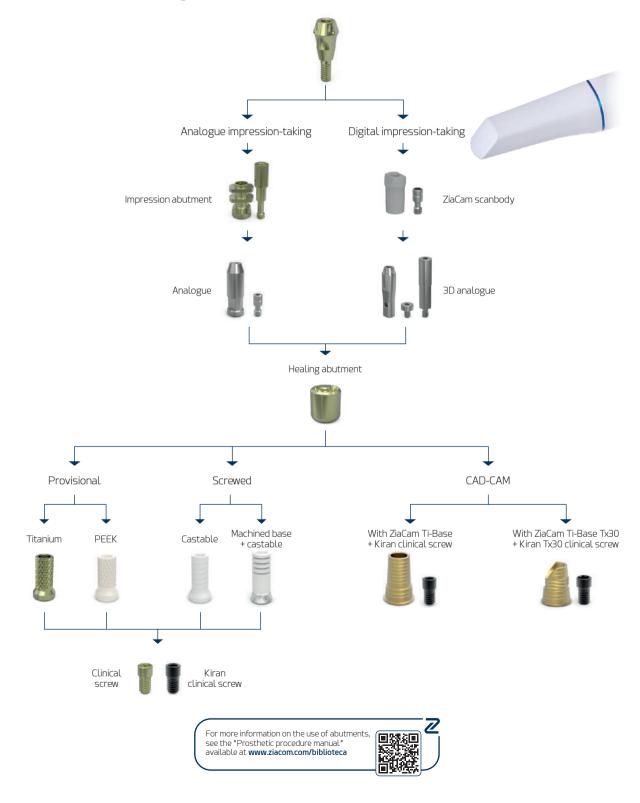


**2** 34



# Restorations using transepithelials

#### ■ Basic | Example of usage sequence

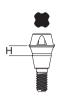


Galaxy 35 Z

# **Abutments**

#### **Basic abutment**





Platf.	Height (H)	Reference
	1.50	BASICG415
	2.50	BASICG425
	3.50	BASICG435
	4.50	BASICG445
	5.50	BASICG455

Insertion key Ref. MABA100/MABA110.

Anodised -





**Basic healing abutment** 





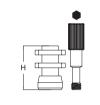


Includes the Basic abutment with sterilisable polyoxymethylene applicator (Tecaform AH-POM-C). 18° cone angle. 36° angle between abutments.

# Basic abutment with applicator

#### **Basic impression abutment**







System Basic Anodised \_\_\_













Height (H)

5.00





BAHAEX34

#### Rotatory

System	Height (H)	Reference	
Basic	8.00	BATC134	

Anodised \_\_\_



#### Non-rotatory

System	Height (H)	Reference
Basic	8.00	BATN134

Anodised ==









All Basic impression abutments come with a screw.

#### Basic analogue





Rotatory

System	Length (L)	Reference
Basic	13.00	BAIAEX34

#### Non-rotatory

System	Length (L)	Reference
Basic	13.00	BAIANEX34



#### Basic 3D analogue - Individual





System	Length (L)	Reference
Basic	13.00	BAIA348D



#### Basic 3D analogue - Pack



UT	T	
System	Length (L)	Reference
Basic	13.00	BAIA348DC*
NO ROT 1,25mm	M1,80 M2,00	Stainless Steel

\*Includes base screw Ref. DSIADI and lateral screw Ref. DSIADT for analogue connection.

#### Screws - 3D analogue





Type	Length (L)	Reference
Base screw (1)*	-	DSIADI
Lateral screw (2)*	15.00	DSIADT

\*Pack of 4 units.







#### Kiran Basic clinical screw System Length (L) Reference Basic 4.30 BDSEI3410 M1,80





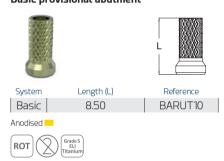
NOT suitable for use as the final clinical screw.

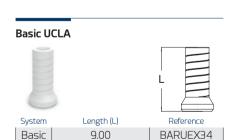




Special Kiran Tx30 screw with surface treatment.

#### Basic provisional abutment





ROT

#### Basic provisional abutment



#### Rotatory

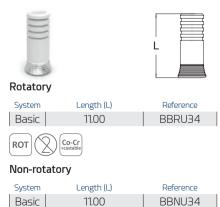
System	Length (L)	Reference
Basic	8.50	BARUP34

#### Non-rotatory

System	Length (L)	Reference	
Basic	8.50	BANUP34	
NO ROT	PEEK		

#### Machined base abutment Basic

#### + Castable abutment





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# **Abutments**

#### DIGITAL CAD-CAM

#### ZiaCam scanbody to Basic abutment





#### Rotatory

System	Length (L)	Reference
Basic	8.70	FNSYB18T











Indicated for clinical and laboratory use.

#### Non-rotatory

System	Length (L)	Reference
Basic	8.70	FNSYB18NT
NO ROT	, S (M1,80) (1,25mm)	Grade 5 ELI Titanium

Indicated for clinical and laboratory use.

All ZiaCam scanbodies to Basic abutments include a screw Ref. BDSEI3401.

#### ZiaCam Ti-Base to Basic



#### Rotatory

System	Height (Hg/Ht)	Reference
Basic	0.30/6.70	BFRU341
ROT 2	1,25mm M1.80 45°	Grade 5 ELI Titanium

#### Non-rotatory

System	Height (Hg/Ht)	Reference
Basic	0.30/6.70	BFNU341
NO ROT	1,25mm M1,80 \\ \begin{picture}	Grade 5 ELI Titanium

All Ti-Base ZiaCam to Basic abutments come with a special Kiran screw with surface treatment Ref. BDSEI3410.

#### ZiaCam Ti-Base Tx30 to Basic



#### Rotatory

System	Height (Hg/Ht)	Reference
Basic	0.30/5.70	BFRU341TX
ROT 25	M1,80 \( \bigcip_{45^{\circ}} \)	Grade 5 ELI Titanium

#### Non-rotatory

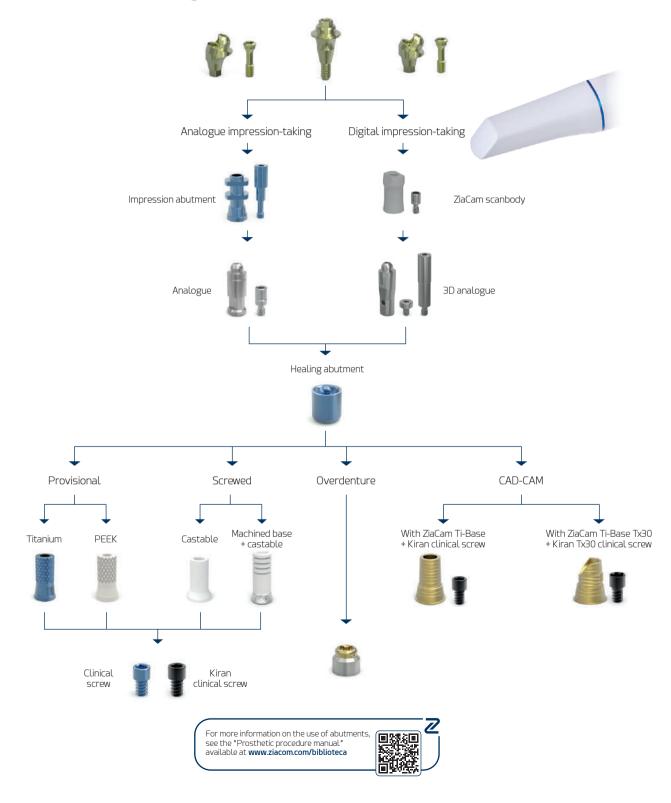
System	Height (Hg/Ht)	Reference
Basic	0.30/5.70	BFNU341TX
NO ROT 25	M1,80) \( \bigcip_{45^\circ} \)	Grade 5 ELI Titanium

All ZiaCam Ti-Base Tx30 to Basic abutments come with a special Kiran Tx30 screw with surface treatment Ref. BDSEI34TX.



# Restorations using transepithelials

### ■ XDrive | Example of usage sequence



Galaxy 39 Z

# **Abutments**

#### XDrive straight abutment





Platf.	Height (H)	Reference
	1.50	XST10G15
	2.50	XST10G25
	3.50	XST10G35
	4.50	XST10G45
	5.50	XST10G55

Insertion key Ref. MABA200/MABA210.

Anodised \_\_\_









Includes XDrive abutment with sterilisable polyoxymethylene applicator (Tecaform AH-POM-C), 21° cone angle. 42° angle between abutments.



XDrive abutment with applicator

#### XDrive 17° angled abutment



Platf.

Anodised -



Height (H) 2.50

3.50

4.50

5.50

M1,60





H	179	

	17°/		
H C		Ħ	
	Ħ		

H	
Reference	
XA210G17	

XA310G17

XA410G17

XA510G17

7°/		
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	w	U		

XDrive 30° angled abutment



Platf.	Height (H)	Reference
	3.50	XA310G30
	4.50	XA410G30
	5.50	XA510G30

Anodised





XDrive impression abutment







All XDrive angled abutments come with a titanium positioner and screw.

#### XDrive healing abutment





System	Height (H)	Reference
XDrive	5.00	XH103400













System





Height (H)

10.50



Reference

XT103411

Includes screw.

#### XDrive analogue





System	Length (L)	Reference
XDrive	13.00	XIA103400

### ROT Stainless Steel

#### XDrive 3D analogue - Individual





System	Length (L)	Reference	
XDrive	13.00	XIA3408D	



#### XDrive 3D analogue - Pack





System	Length (L)	Reference
XDrive	13.00	XIA3408DC*
NO ROT MI,80 M2,00 Stainless Steel		

\*Includes base screw Ref. DSIADI and lateral screw Ref. DSIADT for analogue connection.

#### Screws - 3D analogue





Type	Length (L)	Reference
Base screw (1)*	-	DSIADI
Lateral screw (2)*	15.00	DSIADT

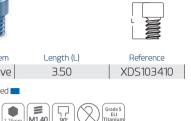


<sup>\*</sup>Pack of 4 units.







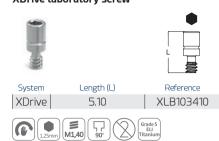


#### Kiran XDrive clinical screw



Special Kiran screw with surface treatment.

#### XDrive laboratory screw



NOT suitable for use as the final clinical screw.

#### Kiran Tx30 XDrive clinical screw





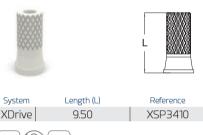
#### For ZiaCam Ti-Base or metal structures

System	Length (L)	Reference
XDrive	3.50	XDS3411TX
20 <b>*</b>	M1,40 90°	Grade 5 ELI Titanium

Kiran Tx30 special screw with surface treatment.

XDrive provisional abutment

#### XDrive provisional abutment





Reference





Machined base abutment XDrive

Length (L)

11.00

Reference

XBRU34





+ Castable abutment

System

XDrive

#### Kirator XDrive abutment

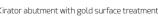




System	Height (Hg/Ht)	Reference
XDrive	3.00/4.30	XL03400

Kirator abutment with gold surface treatment.







#### **XDrive UCLA**







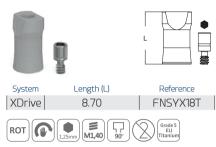


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# **Abutments**

#### DIGITAL CAD-CAM

#### ZiaCam scanbody to XDrive abutment



Indicated for clinical and laboratory use.

All ZiaCam scanbodies to XDrive abutments include a screw Ref. XLB103410.

#### ZiaCam XDrive Ti-Base



Includes special Kiran screw with surface treatment Ref.

#### ZiaCam Ti-Base Tx30 XDrive



Includes special Kiran Tx30 screw with surface treatment

#### ■ Table of abutment torques

Element/Abutment	Instrument/Tool	Torque
Cover screws/Healing abutments	Hex screwdriver 1.25 mm	Manual
Impression abutment screws	Hex screwdriver 1.25 mm	Manual
Laboratory screws	Hex screwdriver 1.25 mm	Manual
Direct-to-implant clinical screws	Hex screwdriver 1.25 mm	30 Ncm
Kiran direct-to-implant clinical screws	Hex screwdriver 1.25 mm	30 Ncm
Nature abutments	Insertion keys: MANA100/MANA110/MANA120	30 Ncm
Clinical screws on Nature	Hex screwdriver 1.25 mm	30 Ncm
Kiran clinical screws on Nature	Hex screwdriver 1.25 mm	30 Ncm
Basic abutments	Insertion keys: MABA100/MABA110/MABA120	30 Ncm
XDrive abutments	Insertion keys: MABA200/MABA210/MABA220	30 Ncm
Clinical screws on Basic	Hex screwdriver 1.25 mm	25 Ncm
Kiran clinical screws on Basic	Hex screwdriver 1.25 mm	25 Ncm
Clinical screws on XDrive	Hex screwdriver 1.25 mm	20 Ncm
Kiran clinical screws on XDrive	Hex screwdriver 1.25 mm	20 Ncm
ZiaCam scanbody + screw	Hex screwdriver 1.25 mm	Manual
Kirator abutments	Insertion keys: LOSD01/LOSD02	30 Ncm
Tx30 abutment/screw (variable rotation)	Tx30 Torx screwdriver	30 Ncm

Exceeding the recommended tightening torque for screws and abutments compromises the prosthetic restoration and could damage the implant structure.

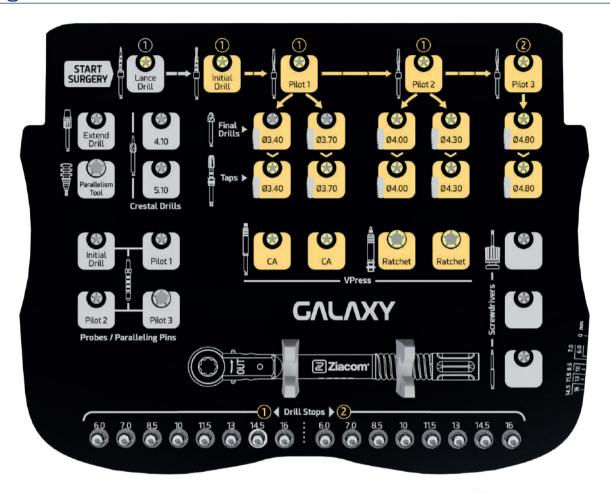
For immediate loading: DO NOT tighten manually, attach with the final torque. When using a screwdriver or adaptor for a contra-angle handpiece (CA), do not exceed a maximum speed of 25 rpm.

# Surgical instruments



# Surgical instruments

# Surgical boxes



#### ■ Contents of Galaxy boxes available

Platf.	Contents	Reference	
_	Empty	B0X930	
	Complete	BOX902GLY	



Material: Radel.

Ensure boxes do not touch the walls of the autoclave to avoid damage.



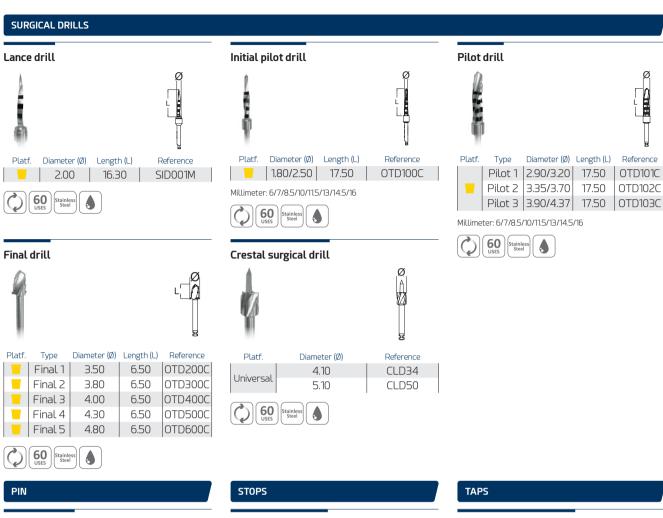


Surgical k	cit contents	
REF	Description	i i
SID001M	Lance drill Ø2.00 mm. Millimeter.	(
OTD100C	Initial Pilot Drill Millimeter.	(
OTD101C	Pilot Drill P1. Millimeter.	(
OTD102C	Pilot Drill P2. Millimeter.	
OTD103C	Pilot Drill P3. Millimeter.	-
OTD200C	Final surgical drill. F1	
OTD300C	Final surgical drill F2	
OTD400C	Final surgical drill. F3	- (
OTD500C	Final surgical drill. F4	- 0
OTD600C	Final surgical drill. F5	- (
CLD34	Crestal surgical drill. Ø 4.10 mm.	- (
CLD50	Crestal surgical drill. Ø5.10 mm.	- (
PMT1G	Paralleling Pin. RP.	
GTPD160	Calibrated drill stop. 1. H6 mm.	-
GTPD170	Calibrated drill stop. 1. H7 mm.	
GTPD185	Calibrated drill stop. 1. H8.50 mm.	
GTPD110	Calibrated drill stop. 1. H10 mm.	
GTPD115	Calibrated drill stop. 1. H11.50 mm.	
GTPD113	Calibrated drill stop. 1. H13 mm.	
GTPD114	Calibrated drill stop. 1. H14.5 mm.	
GTPD116	Calibrated drill stop. 1. H16 mm.	
GTPD260	Calibrated drill stop. 2. H6 mm.	
GTPD270	Calibrated drill stop. 2. H7 mm.	
GTPD285	Calibrated drill stop. 2. H8.50 mm.	
GTPD210	Calibrated drill stop. 2. H10 mm.	
GTPD215	Calibrated drill stop. 2. H11.50 mm.	-
GTPD213	Calibrated drill stop. 2. H13 mm.	
GTPD214	Calibrated drill stop. 2. H14.5 mm.	
GTPD216	Calibrated drill stop. 2. H16 mm.	
GTAP34MC		
GTAP37MC	Surgical tap. Ø3.40 mm Millimeter.	
GTAP40MC	Surgical tap. Ø3.70 mm Millimeter.	
GTAP43MC	Surgical tap. Ø4.00 mm. Millimeter.	
	Surgical tap. Ø4.0 mm. Millimeter.	
GTAP48MC	Surgical tap. Ø4.80 mm Millimeter.	
MUR100G3	Probe/Paralleling pin Initial. Millimeter.	
MUR200G3	Probe/Paralleling pin P1. Millimeter.	
MUR300G3	Probe/Paralleling pin P2 Millimeter.	-
MUR400G3	Probe/Paralleling pin P3. Millimeter.	- '
SMRGV	VPress insertion key. RP. Short. Millimeter.	- '
LMRGV	VPress insertion key. RP. Long. Millimeter.	- 1
SMRGV1	VPress insertion key. RP. Short. Millimeter.	(
LMRGV1	VPress insertion key. RP. Long. Millimeter.	-
DEXT10	Drill extender	
MESD	Screwdriver tip. 1.25 mm. Long.	- 1
LMSD	Surgical screwdriver. 1.25 mm. Long.	- 1
SMSD	Surgical screwdriver. 1.25 mm. Short.	
TORK50	Regulable torque wrench	



Galaxy 45 Z

# Surgical instruments



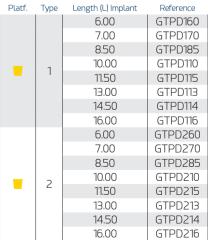
#### Paralleling pin



Grade 5 ELI Titanium

#### Calibrated drill stop

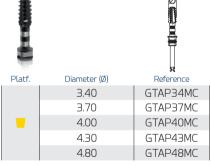




\* Complete pack of 16 calibrated stops.



#### Surgical tap. CA/Manual.



Millimeter: 6/7/8.5/10/11.5/13/14.5

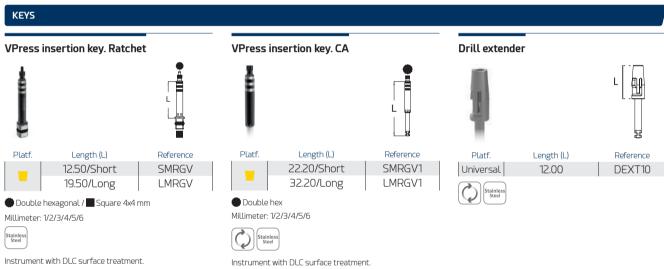


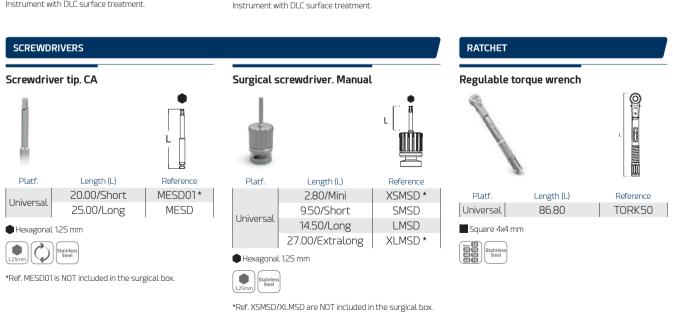
Instrument with DLC surface treatment.

KSTPG120



#### **PROBES** Probe/Paralleling pin **≣**Ø2 ₽ø1 Diameters Platf. Length (L) Reference Type (Ø1-Ø2) Initial | 1.80/2.50 | 27.00 | MUR100G3 Pilot 1 2.70/3.00 27.00 MUR200G3 Pilot 2 | 3.05/3.55 | 27.00 | MUR300G3 | Pilot 3 | 3.65/4.35 | 27.00 | MUR400G3 Millimeter: 6/7/8.5/10/11.5/13/14.5/16

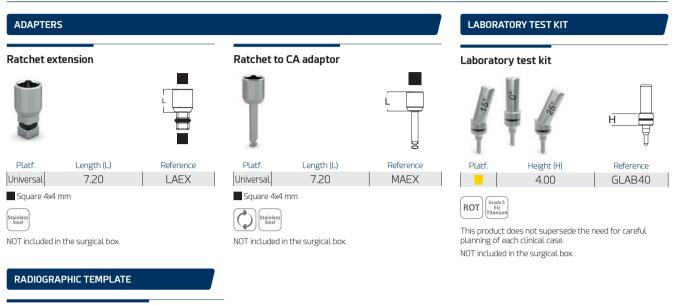




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# Surgical instruments

# Complementary instruments









Scales 1:1 and 1:1.25

Material: transparent acetate. Non-sterilisable material

See the literature available at www.ziacom.com/biblioteca

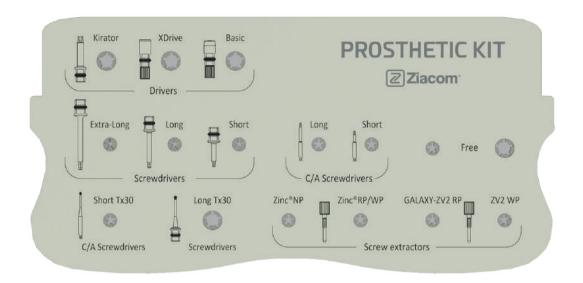


# Prosthetic instruments



# Prosthetic instruments

# Prosthetic box



#### ■ Contents of prosthetic boxes available

Contents	Reference
Empty	BOXPN
Basic	BOXPSN
Complete	BOXPCN



Material: Radel.

Ensure boxes do not touch the walls of the autoclave to avoid damage.



# REF Description LOSD01 Kirator insertion key. MABA100 Basic insertion key. Short. MABA200 XDrive insertion key. Short. MADW10 Screwdriver handle. 4x4. SMSD1 Screwdriver tip. 125 mm. Short. LMSD1 Screwdriver tip. 125 mm. Long.

MADW10	Screwdriver handle. 4x4.		
SMSD1	Screwdriver tip. 1.25 mm. Short.	•	
LMSD1	Screwdriver tip. 1.25 mm. Long.	•	
XLMSD1	Screwdriver tip. 1.25 mm. Extra long.		
MESD	Screwdriver tip. 1.25 mm. Long.	•	
MESD01	Screwdriver tip. 1.25 mm. Short.	•	
MESDTX	Tx30 screwdriver tip. Long.	•	
LMSD1TX	Tx30 screwdriver tip. Long.	•	
EDSZ20*	ZPlus extractor screw. NP		
EDSZ34*	ZPlus extractor screw. RP/WP.		
EDSG34	Abutment extractor screw. RP		
EDSG50*	Abutment extractor screw. WP		
TORK50	Regulable torque wrench	•	

<sup>\*</sup> Product not included in the Galaxy system.

■ Contents of prosthetic boxes

**Z** 50 Ziacom®



#### KEYS

#### Kirator insertion key





System	Length (L)	Reference
Kirator	13.60/Ratchet/Manual	LOSD01
	20.00/CA	LOSD02*

◆ Square 2.11 mm / ■ Square 4x4 mm



\*Ref. LOSD02 is NOT included in the prosthetic box.

#### Basic insertion key. Ratchet





System	Length (L)	Reference
Basic	5.00/Short	MABA100
	13.00/Long	MABA110 *

Basic / Square 4x4 mm



\*Ref. MABA110 is NOT included in the prosthetic box.

#### XDrive insertion key Ratchet





System	Length (L)	Reference
XDrive	6.00/Short	MABA200
	13.00/Long	MABA210*

OXDrive / Square 4x4 mm

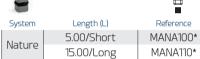


\*Ref. MABA210 is NOT included in the prosthetic box.

#### Nature insertion key. Ratchet







**⋒** Nature / ■ Square 4x4 mm



\*Ref. MANA100/MANA110 are NOT included in the prosthetic

#### Nature insertion key. CA



Nature



\*Ref. MABA210 is NOT included in the prosthetic box.

#### Basic insertion key. CA







**B**Basic



\*Ref. MABA210 is NOT included in the prosthetic box.

#### XDrive insertion key CA





XDrive OXDrive

System



\*Ref. MABA220 is NOT included in the prosthetics box.

Galaxy 51 Z

# Prosthetic instruments

#### **SCREWDRIVERS**

#### Screwdriver adapter handle



Square 4x4 mm



#### Screwdriver tip. Ratchet



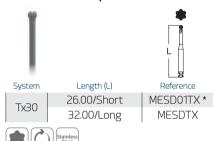
Square 4x4 mm



#### Screwdriver tip. CA Length (L) Platf. Reference 20.00/Short MESD01 Universal **MESD** 25.00/Long



#### Tx30 screwdriver tip. CA



Do not exceed 30 Ncm as it could cause severe damage to the screwdriver and screw

\* Ref. MESD01TX is NOT included in the prosthetics box.

#### Tx30 screwdriver tip. Ratchet





Do not exceed 30 Ncm as it could cause severe damage to

\*Ref. SMSD1TX is NOT included in the prosthetic box.

#### Tx30 prosthetic screwdriver. Manual





Do not exceed 30 Ncm as it could cause severe damage to the screwdriver and screw

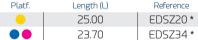
\*Ref. SMSDTX/LMSDTX/XLMSDTX are NOT included in the prosthetics box.

#### **EXTRACTOR SCREW**

#### **ZPlus extractor screw**





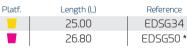


Anodised NP RP/WP M1,60 Grade 5 M1,80 Titaniun

\*Product not included in the Galaxy system.

#### Galaxy/ZV2 abutment extractor screw





Anodised RP WP



#### RATCHET

#### Regulable torque wrench



Square 4x4 mm

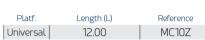




# Complementary instruments

#### CA to ratchet adaptor



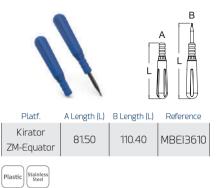


Square 4x4 mm



NOT included in the prosthetic box

#### Extractor + Retainer inserter handle



NOT included in the prosthetic box

#### Retainer inserter





Platf.	Length (L)	Reference
Kirator	32.00	MBEI3602
ZM-Equator	32.00	MBEI3603



Kirator / ZM-Equator plastic cap insertion tool NOT included in the prosthetic box

#### Retentive joints instruments



Platf.	Dimensions	Reference
Universal	2x1	RREI0030

Pack of 10 units.

Galaxy 53 Z



# 

# Surgical protocols

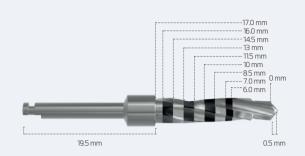


# Surgical protocol

# Features of the Galaxy drilling system

#### ■ Ziacom® drill system

Ziacom® implant system drills are made from stainless steel. Furthermore, they have a matte finish and therefore anti-reflective properties. A laser marking on the bur's shank identifies its inner and outer diameters and its length, while the horizontal laser marked bands on the active section corresponds to the different lengths of the implants (millimeter drills). The drill tip is 0.5 mm long and this is not included in the different laser-marked lengths.



#### ■ Ziacom® final drills

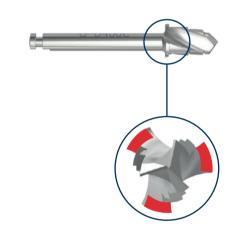
Its use is essential and mandatory in order to achieve an ideal finish of the prepared implant bed for smooth, safe and precision insertion. In this way, overtorquing of the implant can be avoided while it is placed into its final position.

#### ■ FINAL DRILL STOP

A stop, consisting of three blades (see red areas marked on image) has been incorporated into the design of the final drills, between the active area and the shank, to limit the penetration of the drill.

#### **IMPORTANT**

Take care not to drill beyond the stop, as this modifies the coronal anatomy of the surgical site.



#### ■ ZIACOM® DRILLS EFFICIENCY GUARANTEE

Surgical drills for Galaxy implants from Ziacom® (cortical drills, lance drill, initial drill, pilot drills and final drills), have a lifetime of up to 60 uses. It is advisable to monitor the cutting status at all times, especially when reaching around 41 to 50 uses, since after 50 uses it is necessary to consider changing the drills before reaching 60 uses.

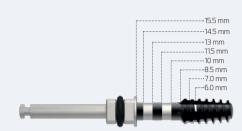
Bear in mind that, depending on the size of the implant, bone density and your surgical protocol, not all of the various drills will be used equally - it is recommended that you monitor the number of uses for each instrument.

**Z** 56 Ziacom<sup>®</sup>



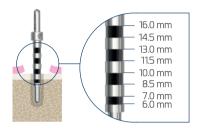
#### ■ Ziacom® taps - DLC surface

Thread taps are available for contra-angle handpieces. The laser marking on the tap's shank identifies its diameter, while the horizontal laser marked bands on the active section corresponds to the different lengths.



#### ■ Probe

Check the depth of the surgical site, especially when not using drill stops. To check the surgical bed axis, the direction indicator pins are available in different diameters according to the drilling sequence.



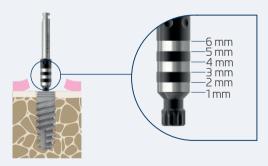
#### ■ VPress insertion keys - DLC surface

The VPress Insertion key for contra-angle handpieces or ratchets has been especially designed for transporting Galaxy implants from their No-Mount vial to the surgical site ready for insertion.

Short and long insertion keys for torque wrench and contra-angle handpieces.



#### Depth within the implant platform marked on the insertion keys



### ■ Drill stops

These are a surgical accessory that attach to drills and facilitate the work as they determine the depth of the osteotomy, providing extra assurance when preparing the surgical site.



Galaxy 57

# Surgical protocol

# Features of the Galaxy drilling system

#### ■ Internal view of the Galaxy surgical box



# Recommendations on the maximum implant insertion torque



The recommended insertion torque ranges between 35 and 50 Ncm on a case-by-case basis.

To avoid deforming the key and/or implant connection, insertions performed with a contra-angle handpiece (CA) must respect the recommended maximum rpm (25 rpm) and maximum torque (50 Ncm).

If the implant cannot be fully inserted using the recommended maximum torque, withdraw the implant, repeat the drilling and then re-insert it.

Check the final insertion torque with the adjustable dynamometric ratchet Ref. TORK50 or a contra-angle handpiece.

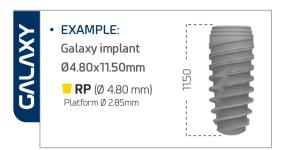
Exceeding the maximum torque (50 Ncm) when inserting the implant may result in:

- Irreversible deformations in the implant's internal connection.
- Irreversible deformations in the implant insertion instruments.
- Difficulty or impossibility in dismounting the instrument/implant assembly.



#### ■ Galaxy implant

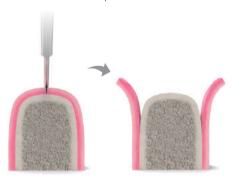
It is important to note that the drilling protocol for Galaxy implants varies significantly based on the implant diameter and the type of bone at the surgical site, and therefore it is important to pay special attention to these two aspects.



# High-density drilling protocol steps (D1-D2\*)

#### PRELIMINARY STEP | Opening the gum

Make an incision and raise the flap.



#### STEP 1 | Lance drill



Start the implant site drilling sequence using the Lance Drill Ref. SID001M. Be aware of the laser marking on the drill to indicate the length, or use drill stop, Ref. GTPD115. Control the direction and angle of drilling by applying intermittent pressure vertically, taking care not to exert too much pressure on the bone. If necessary, use drill extender Ref. DEXT10.





#### STEP 2 | Initial drill



Continue the drilling sequence using Initial Drill Ref. OTD100C, until the total length of the chosen implant is reached. Be aware of the laser marking on the drill that indicates the length, or use the drill stop Ref. GTPD11. Monitor the direction and inclination of the drilling, exerting pressure intermittently, always in a vertical direction, taking care not to generate excessive pressure on the bone. If necessary, use drill extender Ref. DEXT10.





#### STEP 3 | Initial Drill Probe/Paralleling pin



Check the depth of the surgical site and the insertion axis by inserting the Probe/Paralleling pin Initial Ref. MUR100G3. Repeat this step as many times as necessary during the surgery.

Galaxy 59 Z

# Surgical protocol

#### STEP 4 | Pilot drill 1



Continue the drilling sequence using Pilot drill 1 Ref. OTD101C until the length of the chosen implant is reached. Be aware of the laser marking on the drill to indicate the length, or use drill stop, Ref. GTPD115. Control the direction and angle of drilling by applying intermittent pressure vertically, taking care not to exert too much pressure on the bone. If necessary, use drill extender Ref. DEXT10.





#### NOTE

Once this step has been completed, to fit an implant with diameter:

- Ø3.40 mm > Final Drill 1Ref. OTD200C + Tap GTAP34MC
- Ø3.70 mm > Final Drill 2 Ref. OTD300C + Tap GTAP37MC

#### STEP 6 | Pilot drill 2



Continue the drilling sequence using Pilot Drill 2 Ref. OTD102C until the length of the chosen implant is reached. Be aware of the laser marking on the drill to indicate the length, or use drill stop, Ref. GTPD115. Control the direction and angle of drilling by applying intermittent pressure vertically, taking care not to exert too much pressure on the bone. If necessary, use drill extender Ref. DEXT10.





#### NOTE

Once this step has been completed, to fit an implant with diameter:

- Ø4.00 mm > Final Drill 3 Ref. OTD400C + Tap GTAP40MC
- Ø4.30 mm > Final Drill 4 Ref. OTD500C + Tap GTAP43MC

#### STEP 8 | Pilot drill 3



Continue the drilling sequence using Pilot Drill 3 Ref. OTD103C until the length of the chosen implant is reached. Be aware of the laser marking on the drill to indicate the length, or use drill stop, Ref. GTPD115. Control the direction and angle of drilling by applying intermittent pressure vertically, taking care not to exert too much pressure on the bone. If necessary, use drill extender Ref. DEXT10.





#### STEP 5 | Pilot Probe/Paralleling pin



Check the depth of the surgical site and the insertion axis by inserting the Probe/ Paralleling pin Pilot 1 Ref. MUR200G3. Repeat this step as many times as necessary during the surgery.

#### STEP 7 | Probe/Paralleling pin Pilot 2



Check the depth of the surgical site and the insertion axis by inserting the Probe/ Paralleling pin Pilot 2 Ref. MUR300G3. Repeat this step as many times as necessary during the surgery.

#### STEP 9 | Final Drill 5



Continue the drilling sequence using Final Drill 5 Ref. OTD600C up to the length corresponding to the cortical bone thickness, according to individual clinical case. Control the direction and angle of drilling by applying intermittent pressure vertically, taking care not to exert too much pressure on the bone. If necessary, use drill extender Ref. DEXT10.





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#### STEP 10 | Surgical tap Ø4.80



Place the Ø4.80mm surgical tap, Ref. GTAP48MC in the surgical site. Apply firm pressure and start to turn slowly. Once threads engage, continue to screw the tap in without pressure to the planned depth. If excessive resistance is met, turn 90° anti-clockwise after each complete turn. To remove the tap, turn it anti-clockwise. While using the tap, it is recommended that you pass it along the entire length of the implant.



#### ■ Important notes: Type D2\* Bone Density

In the case of type D2 bone density, the surgical drilling protocol indicated for type D1 bone density should be followed, leaving out the use of the Surgical Tap on any of the implant diameters. Nevertheless, it is up to the discretion of the professional to decide on full or partial use the Surgical Tap, based on their clinical experience and the identification of the density of the existing bone at the site. This is particularly relevant in cases where the bone density varies significantly along the length of the osteotomy for the implant.

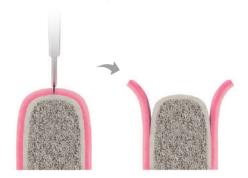
Galaxy 61 **Z** 

# Surgical protocol

# Low-density drilling protocol steps (D3 - D4\*\*)

#### PRELIMINARY STEP | Opening the gum

Make an incision and raise the flap.



#### STEP 1 | Lance Drill



Start the implant site drilling sequence using the Lance Drill Ref. SID001M. Be aware of the laser marking on the drill to indicate the length, or use drill stop, Ref. GTPD115. Control the direction and angle of drilling by applying intermittent pressure vertically, taking care not to exert too much pressure on the bone. If necessary, use drill extender Ref. DEXT10.





#### STEP 2 | Initial drill



Continue the drilling sequence using Initial Drill Ref. OTD100C, until the total length of the chosen implant is reached. Be aware of the laser marking on the drill that indicates the length, or use the drill stop Ref. GTPD11. Monitor the direction and inclination of the drilling, exerting pressure intermittently, always in a vertical direction, taking care not to generate excessive pressure on the bone. If necessary, use drill extender Ref. DEXT10.





Once this step has been completed, to fit an implant with diameter:

- Ø3.40 mm > Final Drill 1 Ref. OTD200C
   Ø3.70 mm > Final Drill 2 Ref. OTD300C

#### STEP 3 | Initial Probe/Paralleling pin



Check the depth of the surgical site and the insertion axis by inserting the Initial Probe/Paralleling pin indicator pin Ref. MUR100G3. Repeat this step as many times as necessary during the surgery.

#### STEP 4 | Pilot drill 1



Continue the drilling sequence using Pilot drill 1 Ref. OTD101C until the length of the chosen implant is reached. Be aware of the laser marking on the drill to indicate the length, or use drill stop, Ref. GTPD115. Control the direction and angle of drilling by applying intermittent pressure vertically, taking care not to exert too much pressure on the bone. If necessary, use drill extender Ref. DEXT10.





Once this step has been completed, to fit an implant with diameter:

- Ø4.00 mm > Final Drill 3 Ref. OTD403C • Ø4.30 mm > Final Drill 4 Ref. OTD500C

#### STEP 5 | Probe/Paralleling pin Pilot 1



Check the depth of the surgical site and the insertion axis by inserting the Probe/ Paralleling pin Pilot 1 Ref. MUR200G3. Repeat this step as many times as necessary during the surgery.



#### STEP 6 | Pilot drill 2



Continue the drilling sequence using Pilot drill 2 Ref. OTD102C until the length of the chosen implant is reached. Be aware of the laser marking on the drill to indicate the length, or use drill stop, Ref. GTPD11S. Control the direction and angle of drilling by applying intermittent pressure vertically, taking care not to exert too much pressure on the bone. If necessary, use drill extender Ref. DEXT10.





#### STEP 7 | Probe/Paralleling pin Pilot 2



Check the depth of the surgical site and the insertion axis by inserting the Probe/ Paralleling pin Pilot 2 Ref. MUR300G3. Repeat this step as many times as necessary during the surgery.

#### STEP 8 | Final Drill 5



Continue the drilling sequence using Final Drill 5 Ref. OTD600C up to the length corresponding to the cortical bone thickness, according to individual clinical case. Control the direction and angle of drilling by applying intermittent pressure vertically, taking care not to exert too much pressure on the bone. If necessary, use drill extender Ref. DEXT10.





#### ■ Important notes: Type D4\*\* Bone Density

In the case of type D4 bone density, the surgical drilling protocol indicated for type D3 bone density should be followed, leaving out the use of the last Final Drill for each of the implant diameters. Nevertheless, it is up to the discretion of the professional to decide to use the last Final Drill fully or partially, based on their clinical experience and the identification of the density of the existing bone at the site. This is particularly relevant in cases where the bone density varies significantly along the length of the osteotomy for the implant.

Galaxy 63 Z

# Surgical protocol

# Implant insertion with Ziacom® No Mount | Titansure

#### Ziacom® No Mount

Surface treatment

#### **Titansure**



#### STEP 1 | Unpacking the implant

- 11) Press the word "PRESS" and open the carton
- Remove the top of the carton and take out the blister pack.
- (13) Carefully remove the seal from the blister pack.
- 14 Turn the vial containing the implant onto a sterile cloth in the operating area
- 15 Hold the vial upright with one hand. Remove the cap by turning and lifting it.
- Remember to remove the label from the implant and to adhere it to the patient's implant card and medical record to ensure that the product is traceable.



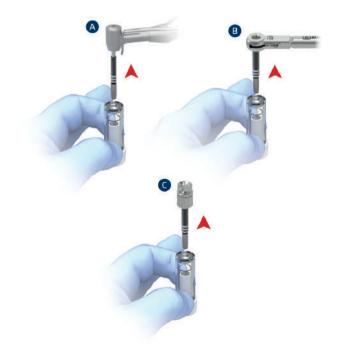
#### STEP 2 | Choosing the right insertion instrument

Based on the specific clinical situation and access to the surgical site, one of three different instruments can be selected to insert the implant:

- A Contra-angle. Use the VPress insertion key. CA of the preferred length Ref. SMRGV1 or LMRGV1. and insert it into the contra-angle.
- **B** Torque wrench Ref. TORK50. Use the VPress insertion key. Torque wrench/ Manual of the preferred length Ref. SMRGV or LMRGV. and insert it into the torque wrench set to function "IN".
- © 4X4 screwdriver handle Ref. MADW10. Use the VPress insertion key. Torque Wrench/Manual of the desired length Ref. SMRGV or LMRGV. and insert it into the screwdriver handle.

#### STEP 3 | Removing the implant from its vial

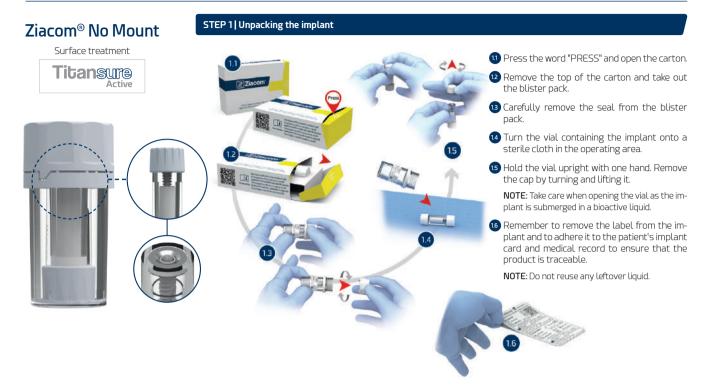
Hold the vial containing the implant upright in one hand and insert the selected insertion key into the implant with the other hand. Remove the implant by lifting it vertically out of the vial.



**Z** 64 Ziacom®



# Implant insertion with Ziacom® No Mount | Titansure Active



#### STEP 2 | Choosing the right insertion instrument

Based on the specific clinical situation and access to the surgical site, one of three different instruments can be selected to insert the implant:

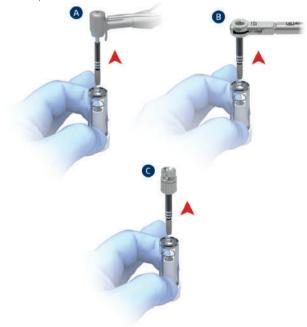
- A Contra-angle. Use the VPress insertion key. CA of the preferred length Ref. SMRGV1 or LMRGV1 and insert it into the contra-angle.
- **B** Torque wrench Ref. TORK50. Use the VPress insertion key. Torque wrench/Manual of the preferred length Ref. SMRGV or LMRGV and insert it into the torque wrench set to function "IN".
- 4X4 screwdriver handle Ref. MADW10. Use the VPress insertion key. Torque Wrench/Manual of the desired length Ref. SMRGV or LMRGV and insert it into the screwdriver handle.

#### STEP 3 | Removing the implant from its vial

Hold the vial containing the implant upright in one hand and insert the selected insertion key into the implant with the other hand. Remove the implant by lifting it vertically out of the vial.

#### NOTE:

Take care when opening the vial so as not to spill the Bioactive Liquid. Leftover Bioactive Liquid cannot be reused.



Galaxy 65

# Surgical protocol

# Galaxy implant insertion

#### STEP 4 | Inserting the implant



When inserting the implant with a contra-angle, use a maximum speed of 25 rpm.

The recommended insertion torque ranges from 35 to 50 Ncm.

If resistance is met during insertion, turn the implant anti-clockwise and then continue to insert after waiting a few seconds. Repeat this process as many times as necessary.





#### **IMPORTANT**

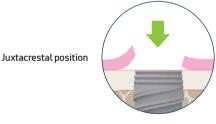
SMRGV / LMRGV SMRGV1 / LMRGV1

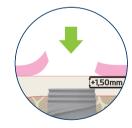


The maximum insertion torque for the dental implants is **50 Ncm**. Exceeding the maximum insertion torque indicated for the implants may cause severe damage to the dental implant and its connection. Check the specifications in the surgical protocol according to the type of implant connection and the bone type.

#### STEP 5 | Crestal placement of the implant

The drilling protocols are described so that the platform for the Galaxy implants is juxtacrestal. However, it is advisable to leave the platform at +1.5mm subcrestally.





RECOMMENDED subcrestal position

#### ■ Subcrestal position

- Improves mucosal preservation.
- Improves the thickness of the keratinised tissue.
- Suggests improved bone preservation when combined with tapered connection.
- · Helps obtain an ideal emergence profile in aesthetic areas.
- · Prevents the implant surface from being exposed, which can facilitate bacterial growth, preservation of the crestal bone.
- Prevents fibrous connective tissue formation at the implant interface.
- Better preservation of the crestal bone.
- Allows abutments with a greater height to be used. Recommended to preserve slim-biotype bone tissue (<1.0 mm) at the gingiva.
- · Reduces the risk of suffering peri-implant pathologies.



# Galaxy implant insertion

#### ■ Soft tissue conditioning

#### STEP 1 | Placing the cover screw



Bring the cover screw towards the implant with the manual surgical screwdriver, Ref. SMSD or LMSD, preventing it from falling and accidentally being swallowed. Insert the screw into the implant until it locks, applying manual torque in a clockwise direction.

The placement of a cover screw requires a second surgical procedure to uncover the implant and place the desired abutment.

Based on each individual case, you can choose not to place a cover screw but instead to directly attach a healing abutment.



#### STEP 2 | Closing the soft tissue

Close and suture the soft tissue, carefully lining up the flaps.



#### STEP 3 | Exposing and extracting the cover screw



Locate the implant and make an incision to expose the cover screw or use tissue punch Ref. MPU34 on the soft tissue. Remove the screw using manual surgical screwdriver Ref. SMSD or LMSD.



#### STEP 4 | Placing the healing abutment



Insert the chosen healing abutment using manual surgical screwdriver Ref. SMSD or LMSD.

The choice of healing abutment will depend on each individual case. It should match the implant platform and also the height of the gingival tissue in order to prevent occlusion of the abutment. If the abutment is too tall, it may subject the implant to premature loading, compromising the osseointegration process



Galaxy 67 **Z** 

# Surgical protocol

#### Bone types

Misch classification (1988)



TYPE **D1**BONE

- Dense cortical and dense trabecular
- > 1250 HU



TYPE **D2** BONE

- · Porous cortical and dense trabecular bone
- 850 1250 HU



TYPE **D3** BONE

- Porous cortical and fine trabecular bone
- 350 850 HU



TYPE **D4** RONE

- Thin crestal cortical and fine trabecular bone.
- 150 350 HU

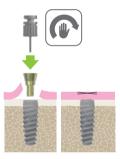
HU = Hounsfield Units

#### **IMPORTANT**

In order to simplify the surgical drilling protocols, we have created quick drilling guides, in which the criteria for bone types are amalgamated, with D1-D2 treated as "High-Density" bone, and D3-D4 bone types as "Low-Density" bone.

#### ■ Handling of cover screw

Place the cover screw in the screwdriver. Move the cover screw towards the implant while taking care not to drop it and cause its accidental ingestion. Insert it into the implant applying manual torque in a clockwise direction.



#### Considerations for temporisation and immediate loading

Immediate temporisation and immediate loading are procedures that involve the placement of the prosthesis within 72 hours after implant surgery. The fundamental difference between these procedures is whether or not the prosthesis will have a functional load.

Adequate primary stability of the implant at the time of insertion is crucial to consider placing a provisional or immediately loaded prosthesis. This stability can be objectively measured by the insertion torque, which must be equal to or greater than 40-45 Ncm or by analysing the resonance frequency (ISQ value), which should be greater than or equal to 70.

#### ■ IMMEDIATE TEMPORISATION

Immediate temporisation involves thorough monitoring of occlusion, both in central (closed) position, and during lateral or dynamic movements that occur during mastication. By freeing the provisional from any contact in these situations, the transfer of forces to the implant is prevented.

The main objectives of immediate temporisation are:

- Immediate closure of edentulous spaces in aesthetic areas.
- · Guided regeneration of the gingival emergence profile due to the presence of the provisional crown or bridge.

#### ■ IMMEDIATE LOADING

The principle of immediate loading involves the controlled transfer of contact from the moment of placement of the restoration while the restoration is in occlusion; therefore we distinguish between:

· Progressive immediate loading, using an acrylic provisional restoration as the initial restoration (released in dynamic occlusion).

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• Definitive immediate loading, with rigid material and active occlusion from day one.

Both processes involve risks to the success of the osseointegration of the implant, so it is up to the practitioner, based on clinical experience and the case in question, whether or not to place an immediate provisional restoration and/or immediate loading.



# Restorations using transepithelials

#### ■ Transepithelial abutments

- Allows the peri-implant tissue to form from the initial 8 weeks.
- · One abutment-one time, allows gingival adhesion to its surface as repeated detachments are not necessary.
- Avoids bone and soft tissue loss as there is no mechanical rupture of the peri-implant interface.
- The prosthetic working area is above the gingival level, making the soft tissue adhesive behaviour more predictable, maintaining a good seal.
- · Less formation of micro-gaps at the implant-prosthesis junction.
- · Increased crestal bone preservation.
- Prosthetic try-ins and definitive placement without anaesthesia.
- If the recommended torques are exceeded, the screw suffers the fracture at transepithelial level and not inside the implant.

#### Abutment heights

- · Greater abutment height means more marginal bone is preserved in cemented prostheses.
- Higher abutments (≥2mm) provide better soft tissue adaptation.
- Short abutments (< 2 mm) can compromise the soft tissues, resulting in more crestal bone loss.
- Marginal bone loss will differ depending on the clinical decision on the abutment height. Generally, prosthetic abutments ≥2mm will lead to better preservation of crestal bone.



Galaxy 69

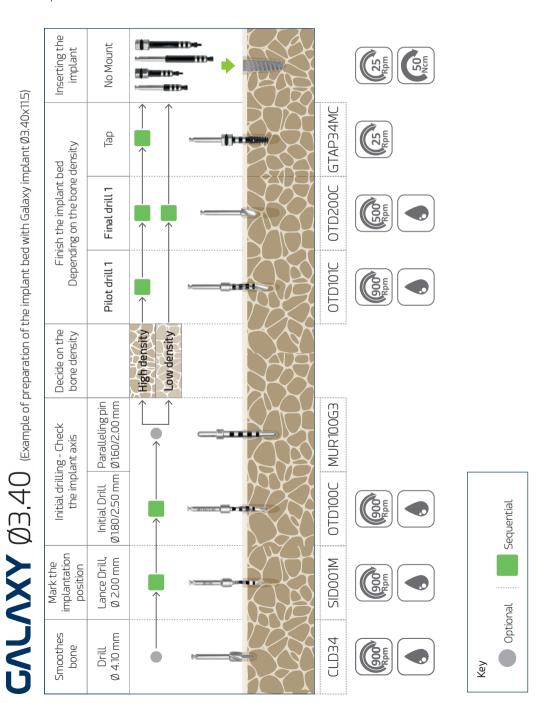
# Simplified surgical protocol

These surgical guides have been designed with a simplified surgical protocol to perform simple and efficient drilling of the surgical site. Nevertheless, for more details about the drilling options according to the different bone densities, you can view the (complete) surgical protocol pages 59-63 for a Ø4.80 x 11.50 mm implant in the four bone densities: high density (D1 - D2) and low density (D3 - D4).

# Drilling protocol - Ziacom® No-Mount

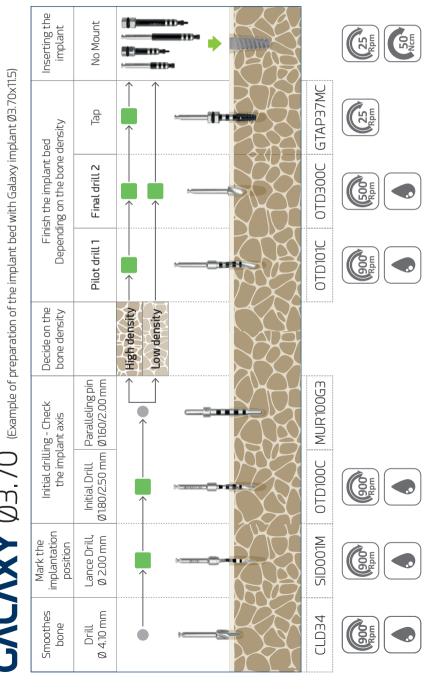


Detailed speeds are recommended





**GALLAXY** Ø3,70 (Example of preparation of the implant bed with Galaxy implant Ø3,70x11.5)





71 2 Galaxy

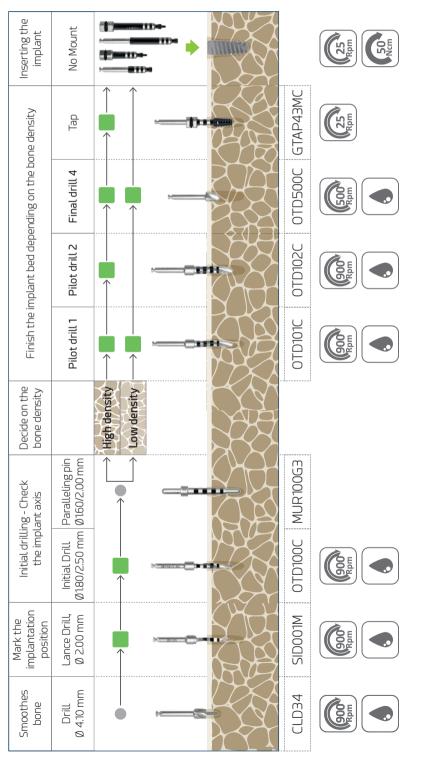
# Simplified surgical protocol

Inserting the implant No Mount 25 Rpm Ncm Ncm GTAP40MC 25 Rpm Finish the implant bed depending on the bone density Тар **GALAXX**  $\emptyset 4.00$  (Example of preparation of the implant bed with Galaxy implant  $\emptyset 4.00$ x11.5) OTD400C Final drill 3 1500 Rpm Pilot drill 2 **OTD102C** 900 mgR Pilot drill 1 OTD101C 900 Rpm mgR Decide on the bone density High density Low density Initial Drill Paralleling pin Ø1.80/2.50 mm MUR100G3 Initial drilling - Check the implant axis OTD100C 900 Rpm implantation Lance Drill, Ø 2.00 mm SID0001M position 900g mg Smoothes bone Drill Ø 4.10 mm CLD34 Rpm Rpm

Key Optional Sequential



**GALAXX** Ø4.30 (Example of preparation of the implant bed with Galaxy implant Ø4.30x11.5)





Galaxy 73 Z

# Simplified surgical protocol

Inserting the implant No Mount 25 Rpm 50 Ncm OTD600C GTAP48MC 25 Rpm Тар Finish the implant bed depending on the bone density Final drill 5 5000 Rpm **OTD103C** Pilot drill 3 900 mgr Pilot drill 2 OTD102C Pilot drill 1 OTD101C 9000 Rpm Decide on the bone density High density Low density Initial Drill Paralleling pin Ø1.80/2.50 mm Ø1.60/2.00 mm MUR100G3 Initial drilling - Check the implant axis OTD100C 900 Rpm implantation Lance Drill, Ø 2.00 mm SID001M position 900g mga Smoothes bone Ø5.10 mm drill CLD50 OOF THE PERSON

**GALAXX** Ø4,80 (Example of preparation of the implant bed with Galaxy implant Ø4.80x11.5)

Sequential

Key



### General recommendations

#### ■ Points to consider during the procedure

- Surgical drills must be inserted into the contra-angle handpiece with the motor stopped, ensuring that they are seated and rotate properly before starting drilling. Treat drills with the utmost care; the slightest damage to the tips could compromise their effective operation.
- Damaged instruments must be disposed of according to local regulations.
- Implantologists should keep one of the identification labels supplied with the product in the patient's records so that the product can be traced correctly.
- Each instrument must only be used for the specific use recommended by the manufacturer.

Always consult the surgical and prosthetic protocols published in this catalogue, as well as the other documents available in the "Reference literature" section of our website **www.ziacom.com/biblioteca** which explain the procedures, protocols and instructions for use before using the Ziacom® Galaxy system.



**Z** 

Galaxy 75 **Z** 



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# Cleaning, disinfection and sterilisation



# Cleaning, disinfection and sterilisation

The protocols described in this section must only be carried out by personnel qualified to clean, disinfect and sterilise the dental materials specified herein.

# Cleaning and disinfection instructions

Applicable for surgical and prosthetic instruments and boxes.

#### Disassembly

- 1. Disassemble\* the instruments that need to be cleaned and disinfected, such as manual ratchets, drills or drill stops.
- 2. Remove all the different components from the surgical or prosthetic kit box for correct cleaning.

#### Cleaning and disinfection

For disinfection of instruments and surgical kit boxes:

- 1. Submerge the instruments in a detergent/disinfectant solution\*\* suitable for dental instruments to help eliminate any adhered biological residues. If an ultrasound bath is available\*\*\*, confirm that the detergent/disinfectant solution is indicated for use with this type of equipment.
- 2. Manually remove any biological residues with a non-metallic brush and pH-neutral detergent.
- 3. Rinse with copious water.
- 4. When cleaning surgical and prosthetic kit boxes, always use a pH-neutral detergent and non-abrasive tools to avoid damaging the surface of the boxes.
- 5. Dry the materials with disposable, lint-free, cellulose cloths or compressed air.

For disinfection of plastic caps and the protective disk:

- 1. Submerge for 10 minutes in a neat benzalkonium chloride solution.
- 2. Rinse with distilled water.
- 3. Dry the caps and disk prior to use.

#### Inspection

- 1. Check that the instruments are perfectly clean; if not, repeat the cleaning and disinfection steps.
- 2. Discard any instruments with imperfections and replace them before the next surgery.
- 3. Check that the instruments and surgical and prosthetic kit boxes are perfectly dry before reassembling the parts and proceeding with sterilisation.
  - \* See the assembly and disassembly manuals at www.ziacom.com/biblioteca
  - \*\* Follow the instructions from the disinfectant's manufacturer to determine the correct concentrations and times.
  - \*\* Follow the instructions from the ultrasound bath's manufacturer to determine the correct temperature, concentration and times.

### Sterilisation instructions for steam autoclaves

Applicable to orthodontic implants, abutments, kit, surgical and prosthetic boxes, pins, fixing screws and mesh membranes.

- 1. Place the material in individual sterilisation pouches and seal the pouches. For joint sterilisation, place the instruments in their surgical kit box, place the box in a sterilisation pouch and seal the pouch.
- 2. Place the pouches to be sterilised in the autoclave.
- 3. Sterilise in a steam autoclave at 134°C/273°F (max. 137°C/276°F) for 4 min (minimum) at 2 atm. Dynamometric torque wrenches must be sterilised in 3 vacuum cycles at 132°C/270°F for at least ≥ 4 minutes and vacuum dried for at least 20 minutes.

For the United States only: The validated and recommended sterilisation cycle for the US must be performed in a steam autoclave at 132°C/270°F for at least 15 minutes with a drying time of at least 15-30 minutes.

#### IMPORTANT

Make sure the drying stage is allowed to run to completion, otherwise the products may be damp.

Check the sterilisation equipment if the materials or sterilisation pouches are damp at the end of the sterilisation cycle.

Perform the necessary maintenance actions on the autoclave according to the established periodicity and following the manufacturer's instructions.

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# Storage of Ziacom® products

- Store the products in their original packaging in a clean, dry place until they are to be used.
- · After sterilisation, keep the products in the sealed sterilisation pouches in a clean, dry location.
- Never exceed the use by date indicated by the manufacturer of the sterilisation pouches.
- Always follow the instructions of the manufacturer of the sterilisation pouches.

#### General recommendations

- Never use damaged or dirty material; never reuse single-use products. The user is responsible for following the instructions described in this document correctly.
- · Pay attention to piercing or sharp elements. Gloves should be worn when cleaning the materials to avoid accidents during handling.
- Follow the safety instructions indicated by the manufacturer of the disinfectant.
- The product's sterility cannot be guaranteed if the sterilisation pouch is open, damaged or damp.
- Respect all stages of the sterilisation process. If the materials or sterilisation pouches contain traces of water or moisture, check the autoclave and repeat the sterilisation.
- Orthodontic abutments and implants are supplied UNSTERILISED and must always be sterilised before use.
- Instruments and surgical and prosthetic kit boxes are supplied UNSTERILISED and must always be sterilised before use and cleaned and disinfected after use.
- Sterilisation, cleaning and disinfection processes gradually deteriorate the instruments. Inspect the instruments thoroughly to detect any signs of deterioration.
- Avoid contact between products made from different materials (steel, titanium, etc.) during the cleaning, disinfection and sterilisation processes.
- Ziacom Medical SL recommends these instructions are implemented for the correct maintenance and safety of their products; accordingly, the company refuses any liability for any damage to the products that could arise if the user applies alternative cleaning, disinfection and sterilisation procedures.

See the latest version of the cleaning, disfection and sterilisation instructions at www.ziacom.com/biblioteca



Galaxy 79 **Z** 





See the updated general conditions of sale at www.ziacom.com.

Check the availability of each product in your country.

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