# Z<sub>M</sub>1

Conical implants with external hex connection





# Z<sub>M</sub>1

Conical implants with external hex connection





# 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 quick guide for clinicians responsible for treatment, hereafter the "user", and, therefore, is neither an alternative nor a substitute for specialized training or professional clinical experience.

Ziacom® products must be used according to a suitable treatment plan and adhering strictly to the surgical and prosthetic protocols established by the manufacturer. Read the product-specific surgical and prosthetic protocols as well as the instructions for use and maintenance before using each 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 guarantee.

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 guiding information. 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, their affiliates and/or their 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 professionals 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, their affiliates or authorised distributors).

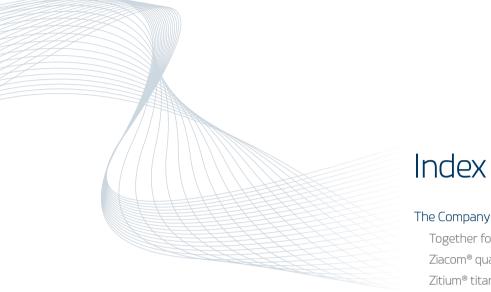
**Warning**. Not all Ziacom® products are available in all counties. Check availability in your country.

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# Together for health



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Together for health

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06

06

# The Company

# Together for health

Ziacom® has been working for more than 15 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 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 started up on an ambitious growth plan with new goals of international expansion, broadening and diversification of its portfolio of products and services and a Corporate Identity restyle.

# Ziacom® quality

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

The reason why we used 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 SL is a licensed manufacturer of medical devices and an AEMPS (Spanish Agency for 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.

MARANTEE **IARANTEE** LIFETIME 15 YEARS Dental implants

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

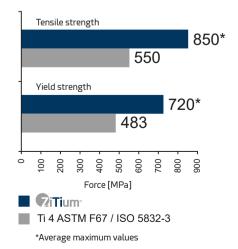
See the General Conditions for Accessing the Guarantee for Ziacom® products.

# Zitium® titanium

Ziacom® ZM1 implants are manufactured using extra-high-strength grade 4 Zitium® titanium which gives them considerably improved yield strength and mechanical properties.

Thanks to Zitium® titanium, our implants meet the requirements of ASTM F67 and ISO 5832-3 and are certified in accordance with Council Directive 93/42/EEC and its amendment Directive 2007/47/EC by notified body 0051.

# Properties of Zitium® titanium





\*See approved models

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

All the products (except dental implants) listed in this Ziacom® catalogue are supplied unsterilised and must be sterilised before use.



CEE



# 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 ensure the best **advances in 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® around the world

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 we our products are already available** and to add **new growth 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 headquarter

# Ziacom Medical SL

Madrid - ESPAÑA Calle Búhos, 2 - 28320 Pinto Tel: +34 91723 33 06 info@ziacom.com

# **Subsidiaries**

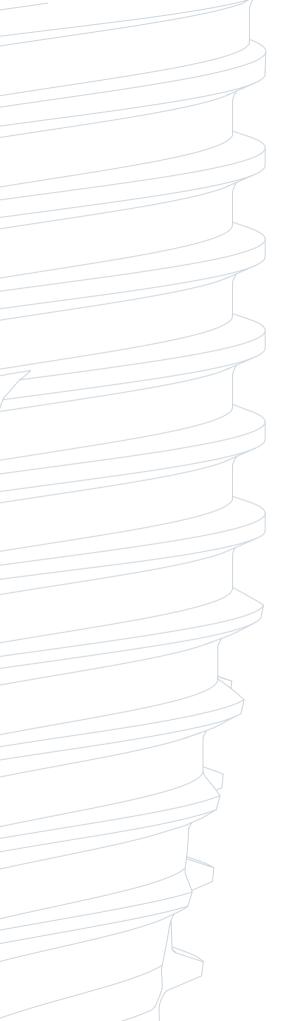
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# Ziacom Medical USA LLC

Miami - EEUU 333 S.E 2nd Avenue, Suite 2000 Miami, FL 33131 - USA Phone: +1(786) 224 - 0089 info.usa@ziacom.com

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



# ZM1

# ZM1 Conical implants with external hex connection



# **ZM1** implant

# Characteristics

## CONNECTION

- External hexagonal connection: simplicity and versatility.
- Upper screw canal: facilitates the insertion of the screws.

# **CORTICAL AREA**

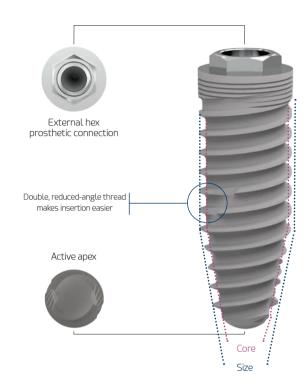
- · Micro-thread design: preserves marginal bone.
- Micro-thread extension: improves load distribution.
- Macro-design: excellent cortical compression.

### **BODY**

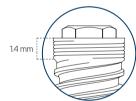
- Reduced angle lead threads: provide stability during insertion and increase BIC (bone-implant contact).
- Double lead thread: quick insertion and reduction of surgical time.
- Self-tapping active apex: facilitates insertion with undersized drilling technique.
- Transverse apical windows: collect remnants of bone during insertion.
- · Optimised morphology: high primary stability.
- · Atraumatic apex: no damage to anatomical structures.

# **CONICAL DESIGN**

- · Facilitates shaping in low density bone.
- · Indicated for immediate loading.
- Indicated for cases of apical convergence and/or collapse.



# Dimensions of the implant's neck/collar



**7** 10 Ziacom®



# Diameters and lengths

		LENGTH (L)						
Ø DIAMETER	Ø PLATFORM	6	7	8.5	10	11.5	13	14.5
NP 3.30	3.30							
RP 3.60								
RP 4.00	4.10							
RP 4.40								
WP 4.80	5.00							

ZM1

Dimensions in mm.

# **ZM1** 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.

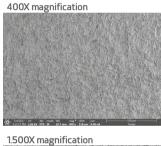
With our Titansure surface treatment, at Ziacom® we have obtained a contaminant-free surface topography and optimal average macroand microporosity values, which are key specifications for achieving prompt and proper osseointegration and, in turn, extremely reliable and predictable implants.

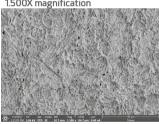
### ■ TITANSURE SURFACE ANALYSIS

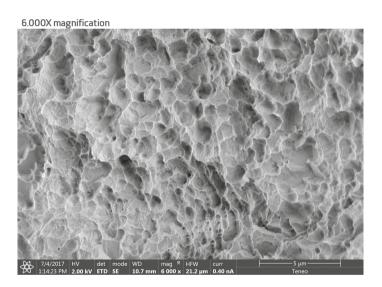
Tibansure is an SLA surface treatment created through a subtraction process involving sandblasting with white aluminium oxide and double acid etching with hydrofluoric acid and a sulphuric/phosphoric acid mix.

# 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.

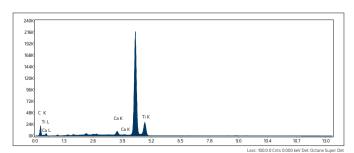






# Surface elemental analysis

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)
AI K	-
Ti K	89.53 (11.77)

No aluminum was detected

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



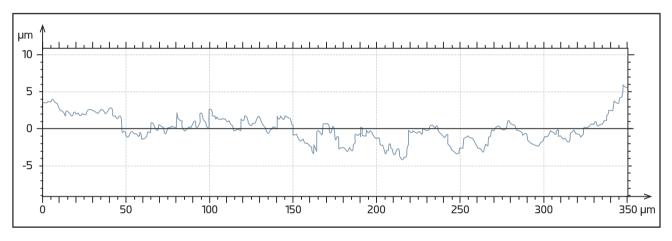
## Surface roughness analysis

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 **Titansure** 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 see the literature available at www.ziacom.com/biblioteca



ZM1 13 **Z** 

# **ZM1** implant

# Surface treatments

# ■ Titansure Active surface treatment

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

"BBL 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 steam 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

Compa	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

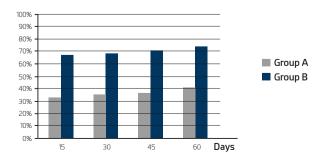
A study was conducted in the tibiae of 10 adult New Zealand rabbits after inserting four implants per rabbit (two in each tibia).

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  $\ensuremath{\mathrm{A}}\xspace.$ 

Histomorphometric analysis - Bone-to-implant contact (BIC)						
Time of measurement	Group A Untreated surface (Control) mean + SD	Group B Treated surface <b>Tibansure 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%				





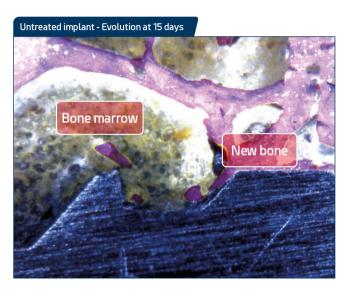
### Conclusions

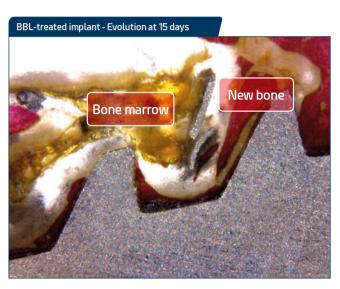
Within the scope of this study, the histomorphometric analysis demonstrated that the group B implants achieved quicker and more effective osseointegration than control group A. Nevertheless, an assessment of bone growth in the medullary portion of the subjects' tibiae revealed the new surface's potential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

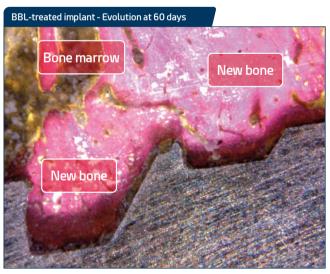
ZM1

## ■ EVOLUTION OF OSSEOINTEGRATION









### NOTE

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

# **ZM1** 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 **Titansure** surface treatment. The blisters are heat-sealed and include identification labels for product traceability and a flap for easy opening in the clinic but while preventing accidental opening.

# Bottle packaging

Available for implants with **Titansure Active** surface treatment. 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.

# **Titansure**



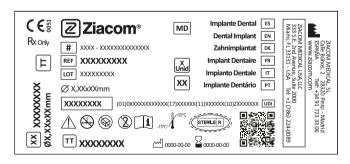
## **IMPORTANT**

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

**( €** § CE marking and notified body number.

MD Medical device indicator.

# Model code.

**REF** Product name.

**LOT** Product batch number

**UDI** Unique device identifier

protective outer packaging. Sterilised by radiation.

One single sterile barrier system with

One single sterile barrier system. Sterilised by radiation.

Temperature limit.

Caution, consult accompanying documents.

Do not resterilize.

Do not use if package is damaged.

Single-use product.

Ti

See instructions for use.

Product expiration date.

Date of manufacture.

Date of manufacture.

Product manufacturer.

TT Titansure surface treatment.

TTA Titansure Active surface treatment.

Rx Only Prescription only.

For full details on the product presentation and instructions for use (IFU) see www.ziacom.com/ifus or scan the QR code on the box.





# ■ ZPlus Mount

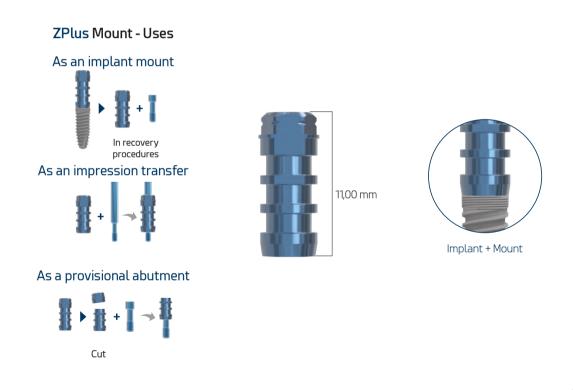
ZM1 implants are supplied with the **ZPlus** Mount, a multi-functional abutment made in grade 5 ELI titanium (sanitary grade), which allows easy handling of the implant during the procedure. Additionally, the **ZPlus** mount concept is based on reducing treatment costs, as it works equally well as an implant mount, impression abutment, or provisional abutment for cement-screwed.

The ZPlus mount is available for the following implant ranges Zinic®, Zinic® MT, ZM4. ZM4 MT and ZM1.

As we said, the ZPlus mount may be used as a provisional abutment, in which case it should be sculpted extra-orally and adjusted on an analogue, preferably a lab model or clamp. Check also the structural integrity of the mount and screw, to ensure that they have not suffered any deformation or damage due to excessive insertion torque or forced removal manoeuvre. Additionally, verify on an analogue that the ZPlus fixing screw is well fitted and that the connection is secure.

### **IMPORTANT**

Always follow the surgical protocol when inserting the implant. This will protect the mount and screw from possible damage which could prevent it being used later as an impression abutment and/or provisional abutment. Use each **ZPlus** only with the implant to which it belongs. To avoid mix-ups, keep the **ZPlus** and screw with the patient's ID, detailing the corresponding reference and batch number. The **ZPlus** has 3 flat sides. After finishing the implant procedure, ensure that one of the flat sides faces into the vestibular cavity.



ZM1 17 **Z** 

# **ZM1** implants

# ZM1 references

# ■ ZM1 with ZPlus - Titansure / Titansure Active references

## **IMPLANT**

	Ø (mm)	Ø Core (mm)	Length (mm)	Ref. Titansure	Ref. Titansure Active	
			8.5	ZM13385	ZM13385A	
4			10.0	ZM13310	ZM13310A	豐
;	3.30	2.80/1.70	11.5	ZM13311	ZM13311A	
<u>-</u>			13.0	ZM13313	ZM13313A	#
•			14.5	ZM13314	ZM13314A	
			8.5	ZM13685	ZM13685A	
			10.0	ZM13610	ZM13610A	
	3.60	3.10/1.80	11.5	ZM13611	ZM13611A	
			13.0	ZM13613	ZM13613A	量
			14.5	ZM13614	ZM13614A	
			6.0	ZM14006	ZM14006A	
			7.0	ZM14007	ZM14007A	
			8.5	ZM14085	ZM14085A	
	4.00	4.00 3.40/2.10	10.0	ZM14010	ZM14010A	
			11.5	ZM14011	ZM14011A	
			13.0	ZM14013	ZM14013A	
			14.5	ZM14014	ZM14014A	
			6.0	ZM14406	ZM14406A	
			7.0	ZM14407	ZM14407A	
			8.5	ZM14485	ZM14485A	
	4.40	3.80/2.30	10.0	ZM14410	ZM14410A	
			11.5	ZM14411	ZM14411A	靊
			13.0	ZM14413	ZM14413A	
			14.5	ZM14414	ZM14414A	
			6.0	ZM14806	ZM14806A	
			7.0	ZM14807	ZM14807A	100
	4.00	410/2.40	8.5	ZM14885	ZM14885A	
	4.80	4.10/2.40	10.0	ZM14810	ZM14810A	
			11.5	ZM14811	ZM14811A	푱
			13.0	ZM14813	ZM14813A	

# Metric



Metrics 1.80 (NP) and 2.00 (RP/WP).

# Cover screw\*

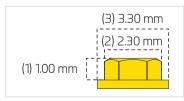


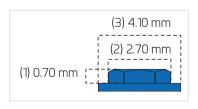
Anodised NP RP WP

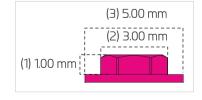


<sup>\*</sup> Screw included with each implant.

# Platform







(1) Height of external hexagon (2) Distance between internal hex faces. (3) Platform work diameter.

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 reconstruction possibility. The squares on the periodontal 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 warnings based on scientific evidence which can be found in the product catalogues and 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: diameter and length of the drill bit.
- **DRILLING TECHNIQUE**: we have developed various drilling protocols to enable you to deal with different situations that arise in a schematic way when performing implant surgery.

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



# Periodontal chart

Z<sub>M</sub>1

# Implant diameter (1)

NP /

A RP

B RP

C RF

WP

 $\emptyset 3.30 \; \text{mm} \; \emptyset 3.60 \; \text{mm} \; \emptyset 4.00 \; \text{mm} \; \emptyset 4.40 \; \text{mm} \; \emptyset 4.80 \; \text{mm}$ 

(1) Diameters available for analogue platforms.

# Implant crown diameter

NP RP

Ø3.30 mm Ø4.10 mm Ø5.00 mm

A\* B C Implants in positions marked with an "\*" should be splinted or, in single restorations, alleviated of any occlusal loads. A\* B C 11 21 Maxilla Mandible \* See our range of implants with NP platform for positions . 31-32 and 41-42.

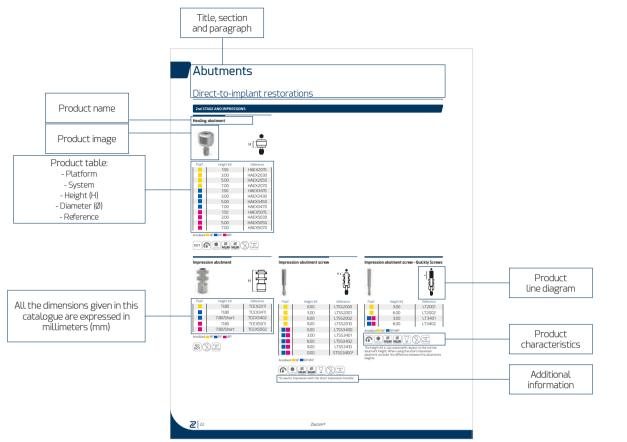
### **IMPORTANTE**

Short, 6.00 and 7.00 mm implants are ONLY recommended for splinted use in combination with normal length implants (≥ 10.00 mm) in a splinted way.

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# How to use this catalogue

# Product sheet



# Symbology

Symbol	Meaning	Symbol	Meaning	Symbol	Meaning
ROT	Rotatory element	MX,XX	Size in millimeters	Co-Cr +castable	Made from cobalt chromium + castable plastic
NO	Non-rotatory element	45°	45° screw support	Cobalt	Made from cobalt chromium
	Use with manual torque (see table on page 39)	90°	90° screw support	PEEK	Made from PEEK
XX	Maximum operating torque		Use in rotation with a CA	Full	Made from castable plastic
Ncm 10 20 30 40 50 60 70	Ratchet torque range	XX	Maximum rotation speed	Plastic	Made from plastic
Galaxy	Galaxy connection	XX USES	Maximum number of uses	\$\$\$	Recommended sterilisation temperature
1,25mm	Screw connection		Single-use product	Non	Unsterilised product
Kirator	Kirator 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	∑XX <sub>○</sub>	Use with abundant irrigation
XDrive	XDrive connection	Stainless Steel	Made from stainless steel		
	Tx30 connection	Steel	Made from steel		

# Abutments Direct-to-implant restorations



# Direct-to-implant restorations

# 2nd STAGE AND IMPRESSIONS

# Healing abutment





Platf.	Height (H)	Reference
	1.50	HAEX2015
	3.00	HAEX2030
	5.00	HAEX2050
	7.00	HAEX2070
	1.50	HAEX3415
	3.00	HAEX3430
	5.00	HAEX3450
	7.00	HAEX3470
	1.50	HAEX5015
	3.00	HAEX5030
	5.00	HAEX5050
	7.00	HAEX5070

Anodised NP RP WP













# Impression abutment





Platf.	Height (H)	Reference
	11.80	TCEX2011
	11.80	TCEX3411
	7.80/Short	TCEX3402
	11.80	TCEX5011
	7.80/Short	TCEX5002

Anodised NP RP WP



# Impression abutment screw





Platf.	Height (H)	Reference
	0.00	LTSS2000
	3.00	LTSS2001
	6.00	LTSS2002
	9.00	LTSS2010
	0.00	LTSS3400
	3.00	LTSS3401
	6.00	LTSS3402
	9.00	LTSS3410
	0.00	STSS3400*

Anodised NP RP/WP



<sup>\*</sup>Screw for impression with the short impression transfer.

# Impression abutment screw - Quickly Screws



Platt.	Height (H)	Reference
	3.00	LT2001
	6.00	LT2002
	3.00	LT3401
	6.00	LT3402

Anodised NP RP/WP



The height (H) is calculated with respect to the normal abutment height. When using the short impression abutment consider the difference between the abutments heights.



# Pick-Up impression abutment





Platf.	Height (H)	Reference
	1.60	PUEX2000
	1.60	PUEX3400
	1.60	PUEX5000

Anodised NP RP WP

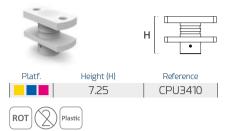








# Pick-Up impression transfer



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

# **Z2Plus Snap-On impression abutment**





Platf.	Height (H)	Reference
	1.50	Z2NPEX10
	1.50	Z2RPEX10
	1.50	Z2WPEX10

Anodised NP RP WP



# **IMPORTANT**

Use the laboratory screw to tighten this impression abutment...

# **Z2Plus Snap-On impression transfer**

8.00



Platf.



ZPU5000



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

# Implant analogue





Platf.	Length (L)	Reference
	12.00	IAEX2000
	12.30	IAEX3400
	12.00	IAEX5000



# 3D implant analogue

Platf.	Length (L)	Reference
	12.00	IAEX2000D
	12.30	IAEX3400D
	12.00	IAEX5000D



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# FIXING ELEMENTS

# Clinical screw







## Kiran clinical screw



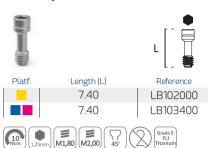
## For abutments and Ti-Base ZiaCam Tx30

rtati.	cengui (c)	Reference
	8.30	DSEI2010
	8.30	DSEI3410



Special Kiran screw with surface treatment.

# Laboratory screw



NOT apt for use as the final clinical screw.

# Kiran Tx30 clinical screw





## For abutments and Ti-Base ZiaCam Tx30

Platf.	Length (L)	Reference
	6.80	DSEI2010TX
	6.80	DSEI3410TX



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

# **PROVISIONAL**

## Provisional abutment





## Rotatory

Platf.	Length (L)	Reference
	9.50	RUEXT2010
	9.50	RUEXT3410
	9.50	RUEXT5010

Anodised NP RP WP



# Non-rotatory

Platf.	Length (L)	Reference
	9.50	NUEXT2010
	9.50	NUEXT3410
	950	NUFXT5010

Anodised NP RP WP



### Provisional abutment

Abutments for aesthetic and immediate loading





## Rotatory

Platf.	Length (L)	Reference
	9.50	RUEXP2010
	9.50	RUEXP3410
	9.50	RUEXP5010



# Non-rotatory

Platf.	Length (L)	Reference
	9.50	NUEXP2010
	9.50	NUEXP3410
	9.50	NUEXP5010





### SCREWED UCLA ■ MECHANISED BASE UCLA Mechanised base abutment UCLA + Castable abutment Rotatory Rotatory Platf. Length (L) Reference 11.00 RUEX2000 Platf. Length (L) Reference 11.00 RUEX3400 10.60 BRUEX20 11.00 RUEX5000 10.60 BRUEX34 10.60 BRUEX50 ROT ROT Non-rotatory Platf. Non-rotatory Length (L) Reference 11.00 NUEX2000 Platf. Length (L) Reference 11.00 NUEX3400 10.60 BNUEX20 11.00 NUEX5000 10.60 BNUEX34 10.60 BNUEX50

ZM1 25 **Z** 

# SCREWED

## ■ Tx30 VARIABLE ROTATION ABUTMENT

# Tx30 mechanised base abutment

+ 2 castable abutments (15° and 20°)



### Tx30 mechanised base abutment

+ 2 castable abutments (15° and 20°)





# Rotatory

Platf.	15° Length (L)	20° Length (L)	Reference
	11.40	11.20	BRUEX20TX
	11.40	11.20	BRUEX34TX
	11.40	11.20	BRUEX50TX





## Rotatory

Platf.	20° Length (L)	25° Length (L)	Reference
	11.20	11.00	BRUEX20TX1
	11.20	11.00	BRUEX34TX1
	11.20	11.00	BRUEX50TX1





# Non-rotatory

Platf.	15° Length (L)	20° Length (L)	Reference
	11.40	11.20	BNUEX20TX
	11.40	11.20	BNUEX34TX
	11.40	11.20	BNUEX50TX





# Non-rotatory

	Platf.	20° Length (L)	25° Length (L)	Reference
		11.20	11.00	BNUEX20TX1
		11.20	11.00	BNUEX34TX1
		11.20	11.00	BNUEX50TX1
NO ROT MI,80 M2,00 45° Co-Cr exastable				



All Tx30 variable rotation abutments come with a special Kiran Tx30 screw with surface treatment Ref. DSEI2010TX (NP)/DSEI3410TX (RP/WP).

# ■ TX30 VARIABLE ROTATION ABUTMENT

The Tx30 variable rotation abutment comprises a Cr-Co mechanised 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

# Straight abutment





# Straight abutment





Platf.	Height (H)	Reference
	1.50	STAEX2015
	2.50	STAEX2025
	3.50	STAEX2035
	1.50	STAEX3415
	2.50	STAEX3425
	3.50	STAEX3435
	1.50	STAEX5015
	2.50	STAEX5025
	3.50	STAEX5035

Platf.	Height (H)	Reference
	1.50	STEX2015
	2.50	STEX2025
	3.50	STEX2035
	1.50	STEX3415
	2.50	STEX3425
	3.50	STEX3435
	1.50	STEX5015
	2.50	STEX5025
	3.50	STEX5035











Anodised NP RP WP



# 15° angled abutment





# 25° angled abutment





Platf.	Height (H)	Reference
	1.50	A1EX2015
	2.50	A2EX2015
	1.50	A1EX3415
	2.50	A2EX3415
	1.50	A1EX5015
	2.50	A2EX5015

Platr.	Height (H)	Reference
	1.50	A1EX2025
	2.50	A2EX2025
	1.50	A1EX3425
	2.50	A2EX3425
	1.50	A1EX5025
	2.50	A2EX5025











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# Direct-to-implant restorations

# **OVERDENTURE**

# Kirator



# Kirator abutment

Platf.	Height (H)	Reference
	1.00	L0EX2001
	2.00	LOEX2002
	3.00	LOEX2003
	4.00	LOEX2004
	5.00	LOEX2005
	6.00	LOEX2006
	1.00	L0EX3401
	2.00	LOEX3402
	3.00	LOEX3403
	4.00	LOEX3404
	5.00	LOEX3405
	6.00	LOEX3406
	1.00	L0EX5001
	2.00	LOEX5002
	3.00	L0EX5003
	4.00	LOEX5004

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







Kirator analogue



Reference

System	Height (H)	Reference
Kirator	6.50	TCRK3400







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

# Kirator processing kit





Reference

TP8520

-	

	Transacting
System	Reference

Titanium housing

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

System

Kirator processing kit

Sterilise the metal coping using the autoclave. Plastic caps and spacers should be cold disinfected. See Cleaning and Disinfection Instructions on the Ziacom® website.

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

Pack of 4 plastic Kirator retainer caps.



DO NOT sterilise in an autoclave, perform cold disinfection. Maximum divergence of 22° between implants.

Kirator divergence processing kit

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

Kirator processing kit

Sterilise the metal coping using the autoclave. Plastic caps and spacers should be cold disinfected. See Cleaning and Disinfection Instructions on the Ziacom® website

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

Pack of 4 plastic Kirator retainer caps - divergent.



DO NOT sterilise in an autoclave, perform cold disinfection. Maximum divergence of 44° between implants.

## Example sequence











The references with \*(TPK110/TPK220/TPK330) of the Kirator divergent processing pack are subject to availability.



# ZM-Equator



# ZM-Equator abutment

with applicator

Platf.	Height (H)	Reference
	1.00	ZMEX2001
	2.00	ZMEX2002
	3.00	ZMEX2003
	4.00	ZMEX2004
	5.00	ZMEX2005
	6.00	ZMEX2006
	1.00	ZMEX3401
	2.00	ZMEX3402
	3.00	ZMEX3403
	4.00	ZMEX3404
	5.00	ZMEX3405
	6.00	ZMEX3406
	1.00	ZMEX5001
	2.00	ZMEX5002
	3.00	ZMEX5003
	4.00	ZMEX5004

Golden surface treatment.



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

# Related abutments

## ZM-Equator impression transfer









System	Height (H)	Reference
ZM-Equator	6.50	TCRK3410



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

System

ZM-Equator

Kirator analogue





# ZM-Equator processing kit





2.00	
Tita	nium housing

System	Reference
ZM-Equator processing kit	ZM8520

ZM-Equator processing kit consisting of: Titanium housing with black relined cap, spacer and purple, transparent and pink plastic caps.

Sterilise the metal coping using the autoclave. Plastic caps and spacers should be cold disinfected. See Cleaning and Disinfection Instructions on the Ziacom® website.

System	Retention (Kg)	Reference
	Soft/1.20 kg	TZM100
ZM-Equator	Standard/1.80 kg	TZM200
	Strong/2.70 kg	TZM300

Pack of 4 plastic ZM-Equator retainer caps.



DO NOT sterilise in an autoclave, perform cold disinfection. Maximum divergence of 22° between implants.

# ZM-Equator divergence processing kit

Length (L)

13.20





System	Reference
ZM-Equator processing kit	ZM8520D

ZM-Equator divergence processing kit comprising: Titanium housing with black relined cap, spacer and purple, transparent and pink plastic caps.

Sterilise the metal coping using the autoclave. Plastic caps and spacers should be cold disinfected. See Cleaning and Disinfection Instructions on the Ziacom® website.

System	Retention (Kg)	Reference
	Soft/1.20 kg	TZM100
ZM-Equator	Standard/1.80 kg	TZM200
	Strong/2.70 kg	TZM300

Pack of 4 plastic ZM-Equator retainer caps - divergent.



DO NOT sterilise in an autoclave, perform cold disinfection. Maximum divergence of 44° between implants.

# Example sequence













ZM1

# DIGITAL CAD-CAM

# ZiaCam scanbody to implant





Platf.	Length (L)	Reference
	8.00	FNSYEX201T
	8.00	FNSYEX341T
	8.00	FNSYEX501T

Anodised NP RP WP















Indicated for the clinic.

Ti-Base ZiaCam

All ZiaCam scanbody to implant abutments include a screw Ref. LB102000 (NP)/LB103400 (RP/WP).

# Tx30 ZiaCam Ti-Base

For more information on the recommendations for the use of interfaces in zirconia restorations see the literature available at www.ziacom.com/biblioteca or the

use of abutments see the "Prosthetic

procedure manual.









**Z** 

## Rotatory

	•			
Platf.	Height (Hg/Ht)	Reference		
	0.50/5.00	FRUEX201		
	1.50/6.00	FRUEX202		
	0.50/5.00	FRUEX341		
	1.50/6.00	FRUEX342		
	0.50/5.00	FRUEX501		
	1.50/6.00	FRUEX502		



## Rotatory

Platf.	Height (Hg/Ht)	Reference
	0.50/6.00	FRUEX20TX1
	1.50/7.00	FRUEX20TX2
	0.50/6.00	FRUEX34TX1
	1.50/7.00	FRUEX34TX2
	0.50/6.00	FRUEX50TX1
	1.50/7.00	FRUEX50TX2









## Non-rotatory

Platf.	Height (Hg/Ht)	Reference
	0.50/6.00	FNUEX20TX1
	1.50/7.00	FNUEX20TX2
	0.50/6.00	FNUEX34TX1
	1.50/7.00	FNUEX34TX2
	0.50/6.00	FNUEX50TX1
	1.50/7.00	FNUEX50TX2













All Ti-Base ZiaCam Tx30 abutments come with a special Kiran Tx30 screw with surface treatment Ref. DSEI2010TX (NP)/DSEI3410TX (RP/WP).

# Non-rotatory

Platf.	Height (Hg/Ht)	Reference
	0.50/5.00	FNUEX201
	1.50/6.00	FNUEX202
	0.50/5.00	FNUEX341
	1.50/6.00	FNUEX342
	0.50/5.00	FNUEX501
	1.50/6.00	FNUEX502

All Ti-Base ZiaCam abutments come with a special Kiran screw with surface treatment Ref. DSEI2010 (NP)/ DSEI3410 (RP/WP).

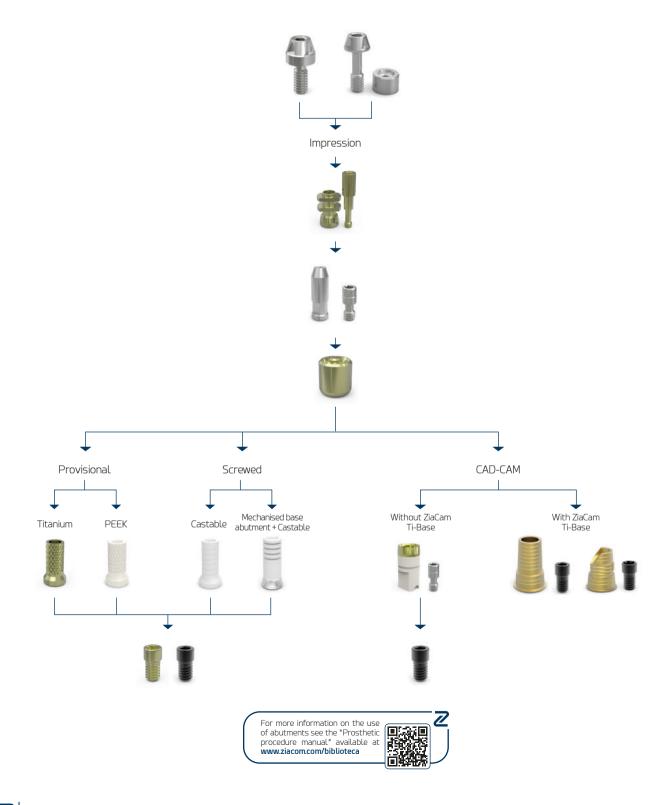
**2** 30

# Abutments Restorations using transepithelials



# Restorations using transepithelials

■ Basic | Secuencia demostrativa de uso





# **Basic abutment**

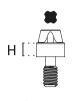


H
Reference

Platf.	Height (H)	Reference
	2.00	BASIC2002
	3.00	BASIC2003
	4.00	BASIC2004
	5.00	BASIC2005
	1.50	BASIC3401
	2.00	BASIC3402
	3.00	BASIC3403
	4.00	BASIC3404
	5.00	BASIC3405
	2.00	BASIC5002
	3.00	BASIC5003
	4.00	BASIC5004
	5.00	BASIC5005

# **Basic abutment**





Platf.	Height (H)	Reference
	3.00	BASIC2003N
	4.00	BASIC2004N
	3.00	BASIC3403N
	4.00	BASIC3404N
	3.00	BASIC5003N
	4.00	BASIC5004N

Insertion key Ref. MABA100/MABA110.





Basic abutment with applicator

Insertion key Ref. MABA100/MABA110.















Includes the Basic abutment with sterilisable polyoxymethylene applicator (Tecaform AH-POM-C).  $18^{\circ}$  cone angle.  $36^{\circ}$  angle between abutments.

# Basic healing abutment





System	Height (H)	Reference
Basic	5.00	BAHAEX34

Anodised -















# **Basic impression abutment**





# Rotatory

System	Height (H)	Reference
Basic	8.00	BATC134
Anodised		

# Non-rotatory

ROT

System	Height (H)	Reference
Basic	8.00	BATN134

# Anodised -







ZM1



All Basic impression abutments come with a screw.

# Basic analogue





# Rotatory

System	Length (L)	Reference
Basic	13.00	BAIAEX34
	Facialose	

# Non-rotatory

System	Length (L)	Reference	
Basic	13.00	BAIANEX34	

# Basic 3D analogue

System	Length (L)	Reference
Basic	13.00	BAIAEX34D





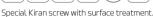


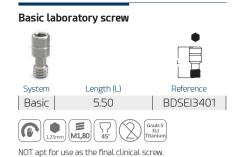
33 2





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







Special Kiran Tx30 screw with surface treatment...

Length (L)

8.50

Reference

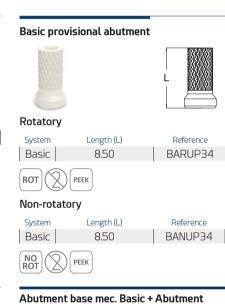
BARUT10

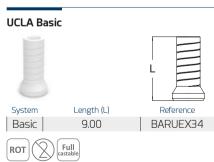
Basic provisional abutment

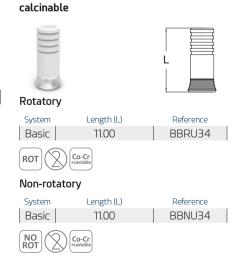
System

Basic

Anodised | ROT











#### DIGITAL CAD-CAM

#### ZiaCam scanbody to Basic abutment



#### Rotatory

System	Length (L)	Reference
Basic	8.70	FNSYB11T
ROT	1,25mm M1,80 7 45°	PEEK Grade 5 ELI Titanium

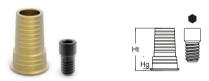
#### Non-rotatory

System	Length (L)	Reference
Basic	8.70	FNSYB11NT
NO ROT	1,25mm M1,80 745°	PEEK Grade 5 ELI Titanium

Indicated for clinical use.

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

#### ZiaCam to Basic Ti-Base



#### Rotatory

System	Height (Hg/Ht)	Reference
Basic	0.30/6.70	BFRU341



#### Non-rotatory

System

Basic	0.30/6.70	BFNU341
NO ROT	5 M1,80 7 45°	Grade 5 ELI Titanium

Height (Hg/Ht)

Reference

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

#### ZiaCam Tx30 to Basic Ti-Base



#### Rotatory

System	Height (Hg/Ht)	Reference
Basic	0.30/5.70	BFRU341TX
ROT 25	M1,80 \( \frac{1}{45^{\circ}} \)	Grade 5 ELI Titanium

#### Non-rotatory

System	Height (Hg/Ht)	Reference
Basic	0.30/5.70	BFNU341TX
NO ROT	M1,80 \( \frac{1}{45^{\circ}} \)	Grade 5 ELI Titanium

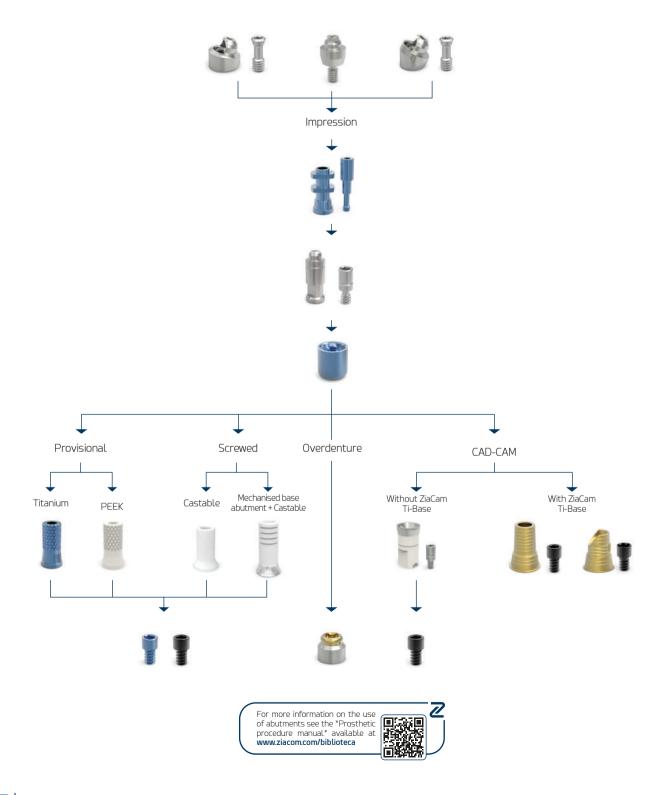
All ZiaCam Tx30 to Basic Ti-Bases come with a Kiran Tx30 special screw with surface treatment Ref. BDSEI34TX.

ZM1 35 **Z** 

# **Abutments**

# Restorations using transepithelials

■ XDrive | Demonstrative sequence of use





#### XDrive straight abutment





Platf.	Height (H)	Reference
	1.00	XST103410
	2.00	XST103420
	3.00	XST103430
	4.00	XST103440
	5.00	XST103450

Insertion key Ref. MABA200/MABA210.











Includes the 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









XDrive 30° angled abutment





Platf.	Height (H)	Reference
	2.00	XA2103417
	3.00	XA3103417
	4.00	XA4103417
	5.00	XA5103417
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		

Platf.	Height (H)	Reference
	3.00	XA3103430
	4.00	XA4103430
	5.00	XA5103430
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		

All angled XDrive abutments come with a stainless steel positioner and screw.

#### XDrive healing abutment





System	Height (H)	Reference
XDrive	5.00	XH103400

Anodised











#### XDrive impression abutment





III	Ĺ	
System	Height (H)	Reference
XDrive	10.50	XT103411
Anodised		

Includes screw

ROT

#### XDrive analogue





System	Length (L)	Reference
XDrive	13.00	XIA103400
ROT	Stainless Steel	

#### XDrive 3D analogue

System	Length (L)	Reference
XDrive	13.00	XIA103400D



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# **Abutments**





Anodised

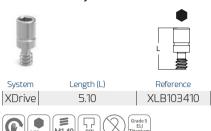


#### Kiran XDrive clinical screw



Special Kiran screw with surface treatment.

#### **XDrive laboratory screw**



NOT apt for use as the final clinical screw.

#### Kiran Tx30 XDrive clinical screw





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



Special Kiran Tx30 screw with surface treatment.

#### XDrive provisional abutment





System	Length (L)	Reference
XDrive	9.50	XSP3410

PEEK

#### XDrive provisional abutment





System	Length (L)	Reference
XDrive	9.50	XST3410

Anodised



#### XDrive mechanised base abutment

#### + Castable abutment





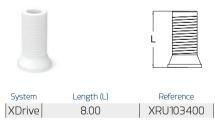
#### Kirator XDrive abutment



Kirator abutment with gold surface treatment.



#### **XDrive UCLA**



ROT



#### DIGITAL CAD-CAM

#### ZiaCam scanbody to XDrive abutment

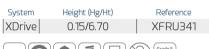


Indicated for clinical use.

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

#### ZiaCam XDrive Ti-Base







Includes Kiran special screw with surface treatment Ref. XDS103411.

#### ZiaCam Tx30 XDrive Ti-Base





Includes Kiran Tx30 special screw with surface treatmen-Ref. XDS3411TX.

#### ■ 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
Direct-to-implant Kiran clinical screws	Hex screwdriver 1.25 mm	30 Ncm
Basic/XDrive abutments	Insertion keys: MABA100/MABA110/MABA200/MABA210	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
ZM-Equator abutments	Hex screwdriver 1.25 mm	30 Ncm
Tx30 abutment/screw (Variable Rotation)	Tx30 Torx screwdriver	30 Ncm

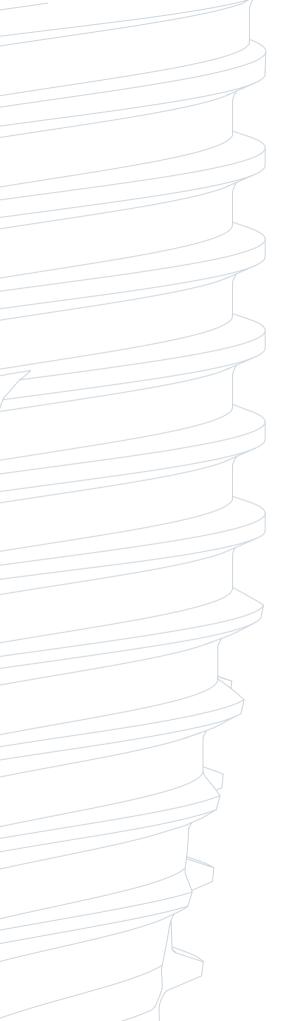
#### ATTENTION

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.

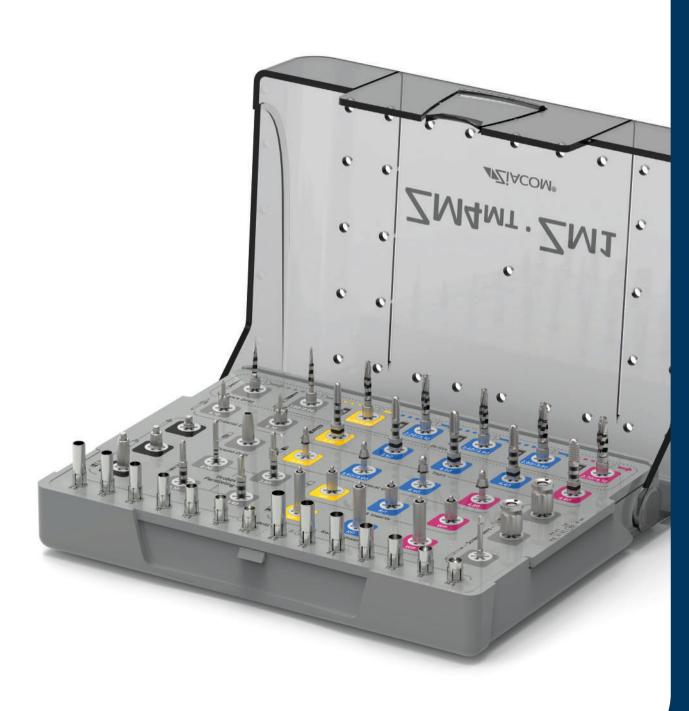
When using a screwdriver or adaptor for a contra-angle handpiece (CA), do not exceed a maximum speed of 25 rpm.

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# ZM1

# Surgical instruments



# Surgical instruments

# ZM4 MT · ZM1 surgical box



#### ■ Contents of ZM4 MT · ZM1 boxes available

Platf.	Contents	Reference
	Empty	B0X431
	Basic manual/CA. Surgical ratchet	BOX4104SM
	Basic manual/CA. Torque wrench	BOX4104SMK
	Complete. Surgical ratchet	B0X4104CM
	Complete. Torque wrench	BOX4104CMK



Material: radel

Ensure boxes do not touch the walls of the autoclave to avoid damage.  $\ensuremath{\mathsf{E}}$ 

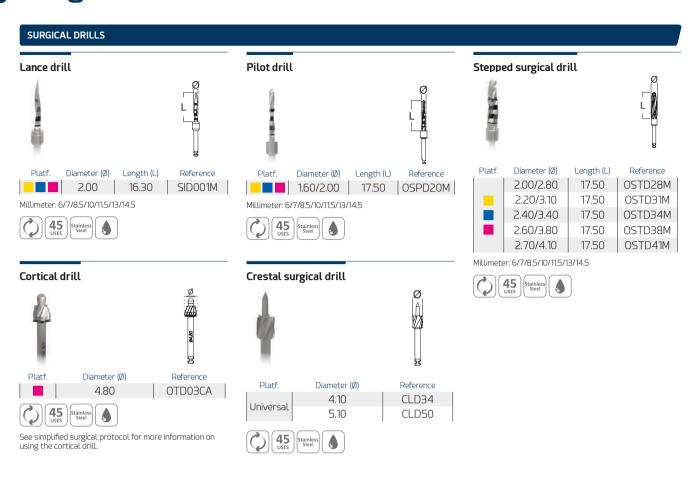




	of surgical boxes	BOX4104SM	BOX4104SMK	BOX4104CM	
EF	Description				
ID001M	Lance drill. Millimeter. CA.	•	•	•	+
SPD20M	Pilot drill. Ø1.60/2.00 mm. Millimeter. CA.	•	•	•	1
STD28M	Stepped surgical drill. Ø2.00/2.50/2.80 mm. Millimeter. CA.	•	•		1
STD31M	Stepped surgical drill. Ø2.20/2.70/3.10 mm. Millimeter. CA.	•	•	•	1
STD34M	Stepped surgical drill. Ø2.40/2.90/3.40 mm. Millimeter. CA.	•	•	•	1
STD38M	Stepped surgical drill. Ø2.60/3.30/3.80 mm. Millimeter. CA.	•	•		
STD41M	Stepped surgical drill. Ø2.70/3.50/4.10 mm. Millimeter. CA.	•	•		
ITD20	Cortical drill. Ø3.30 mm CA.	•	•	•	
TD01CA	Cortical drill. Ø3.60/Ø4.00 mm. CA.	•	•		
TD02CA	Cortical drill. Ø4.40 mm. CA.	•	•		
TD03CA	Cortical drill. Ø 4.80 mm CA.	•	•		
LD34	Crestal surgical drill. Ø 4.10 mm. CA.				
LD50	Crestal surgical drill. Ø5.10 mm. CA.				
MPD160	Calibrated drill stop. 1. H6 mm. Grade 5 ELI titanium				
MPD170	Calibrated drill stop. 1. H7 mm. Grade 5 ELI titanium				
MPD185	Calibrated drill stop. 1. H8.5 mm. Grade 5 ELI titanium				Ī
MPD110	Calibrated drill stop. 1. H10 mm. Grade 5 ELI titanium				Ī
MPD115	Calibrated drill stop. 1. H11.5 mm. Grade 5 ELI titanium				Ī
MPD113	Calibrated drill stop. 1. H13 mm. Grade 5 ELI titanium				-
MPD114	Calibrated drill stop. 1. H14.5 mm. Grade 5 ELI titanium				Ī
MPD260	Calibrated drill stop. 2. H6 mm. Grade 5 ELI titanium				-
MPD270	Calibrated drill stop. 2. H7 mm. Grade 5 ELI titanium			•	-
MPD285	Calibrated drill stop. 2. H8.5 mm. Grade 5 ELI titanium		$\vdash$	•	-
MPD210	Calibrated drill stop. 2. H10 mm. Grade 5 ELI titanium			•	-
MPD215	Calibrated drill stop. 2. H11.5 mm. Grade 5 ELI titanium		$\vdash$	•	-
MPD213	Calibrated drill stop. 2. H13 mm. Grade 5 ELI titanium		+	•	-
MPD214	Calibrated drill stop. 2. H14.5 mm. Grade 5 ELI titanium		_	•	-
	Surgical tap. Ø3.30 mm Millimeter. Ratchet	•	•	•	-
	Surgical tap. Ø3.60 mm. Millimeter. Ratchet	•	•	•	-
	Surgical tap. Ø4.00 mm. Millimeter. Ratchet	•	•	•	-
	Surgical tap. Ø4.40 mm. Millimeter. Ratchet	•	•	•	-
	Surgical tap. Ø4.80 mm Millimeter. Ratchet	•	•	•	-
			_		-
	Probe/Paralleling pin. Ø1.60/2.00 mm. Millimeter. Manual. Grade 5 ELI titanium		-	•	-
	Probe/Paralleling pin. Ø 1.80/2.50 mm. Millimeter. Manual. Grade 5 ELI titanium		-	•	_
	Probe/Paralleling pin. Ø2.15/3.30 mm. Millimeter. Manual. Grade 5 ELI titanium		-	•	-
	Probe/Paralleling pin. Ø2.50/3.70 mm. Millimeter. Manual. Grade 5 ELI titanium			•	-
SMIN	ZPlus insertion key. Short. Ratchet	•	•	•	_
LMIN	ZPlus insertion key. Long. Ratchet	•	•	•	_
1MMIN	ZPlus insertion key. Short. CA.	•	•	•	_
MEX20	ZM4 insertion key. Ratchet	•	•	•	_
MEX34	ZM4 insertion key. Ratchet	•	•	•	_
MEX50	ZM4 Insertion key. Ratchet	•	•	•	_
IMEX20	ZM4 insertion key. CA.	•	•	•	
IMEX34	ZM4 insertion key. CA.	•	•	•	
IMEX50	ZM4 insertion key. CA.	•	•	•	
EXT10	Drill extender	•	•	•	
IESD	Ø1.25 mm screwdriver tip. CA.	•	•	•	
MSD	Surgical screwdriver, Ø 1.25 mm, Long. Manual	•	•		
MSD	Surgical screwdriver, Ø 1.25 mm, Short. Manual	•			j
1MOHW	ZPlus block key. Manual	•	•	•	J
ATC50	Implant ratchet. Manual	•			ſ

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# Surgical instruments



#### **STOPS**

#### Calibrated drill stop





Platf.	Type	Length (L) Implant	Reference
		6.00	ZMPD160
		7.00	ZMPD170
		8.50	ZMPD185
	1	10.00	ZMPD110
		11.50	ZMPD115
		13.00	ZMPD113
		14.50	ZMPD114
		6.00	ZMPD260
		7.00	ZMPD270
		8.50	ZMPD285
	2	10.00	ZMPD210
		11.50	ZMPD215
		13.00	ZMPD213
		14.50	ZMPD214
Pack *			KZMPD100

\* Complete pack of 14 calibrated stops.

#### **TAPS**

#### Surgical tap. CA/Manual





Platf.	Diameter (Ø)	Reference
	3.30	MTAP33MC
	3.60	MTAP36MC
	4.00 *	MTAP40MC
	4.40 *	MTAP44MC
	4.80 *	MTAP48MC

Millimeter: 8.5/10/11.5/13/14.5

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



See surgical drilling protocol for more information on

#### **PROBES**

#### Probe/Paralleling pin





Platf.	Diameters (Ø1-Ø2)	Length (L)	Reference
	1.60/2.00	26.00	MUR10MT
	2.00/2.80	25.50	MUR20MT
	2.20/3.10	24.50	MUR30MT
	2.40/3.40	24.50	MUR40MT

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





#### KEYS

#### ZPlus insertion key. Ratchet



Platf.	Length (L)	Reference
ZPlus	3.10/Mini	XSMIN *
	5.60/Short	TSMIN
	10.60/Long	TLMIN

● Hexagonal 2.4 mm / ■ Square 4x4 mm



\* Ref. XSMIN, is NOT included in the surgical box. .

#### ZPlus insertion key. CA





Platf.	Length (L)	Reference
701	15.90	01MMIN
ZPlus	23.90	02MMIN *

Hexagonal 2.4 mm



\* Ref. 02MMIN, is NOT included in the surgical box.

#### ZM4 insertion key. Ratchet





Platf.	Length (L)	Reference
	15.00	SMEX20
	15.00	SMEX34
	15.00	SMEX50

- Hexagonal NP 2.30 mm
- Hexagonal RP 2.70 mm
- Hexagonal WP 3.00 mm
- Square 4x4 mm



#### ZM4 insertion key. CA





Platf.	Length (L)	Reference
	7.50	MMEX20
	7.50	MMEX34
	7.50	MMEX50

- Hexagonal NP 2.30 mm
- Hexagonal RP 2.70 mm
- Hexagonal WP 3.00 mm





#### Drill extender



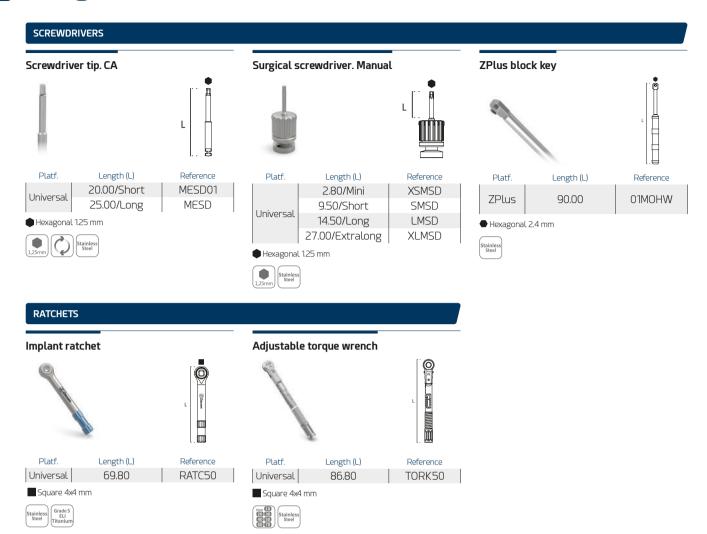


Platf.	Length (L)	Reference
Universal	12.00	DEXT10



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# Surgical instruments





# Complementary instruments



#### IMPLANTS MOUNT

#### Implants mount



Platf.	Length (L)	Reference
	10.10/Extralong	MOUNT20
	10.10/Extralong	MOUNT34

- Hexagonal NP 2.30 mm
- Hexagonal RP 2.70 mm
- Square 4x4 mm



NOT included in the surgical box..

#### LABORATORY TEST KIT

#### Laboratory test kit



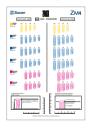
ROT Grade 5 ELI Titaniun

This product does not supersede the need for careful planning of each clinical case.

NOT included in the surgical box..

#### RADIOGRAPHIC TEMPLATE

#### ZM1 radiographic template



Platf.	Model	Reference
	ZM1	PRADIO60

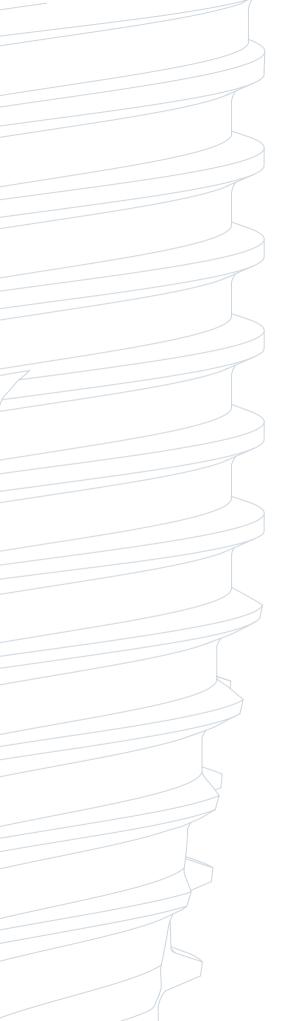
Scales 1:1 and 1:1.25

Material: transparent acetate. Non-sterilisable material.

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



ZM1 47 **Z** 



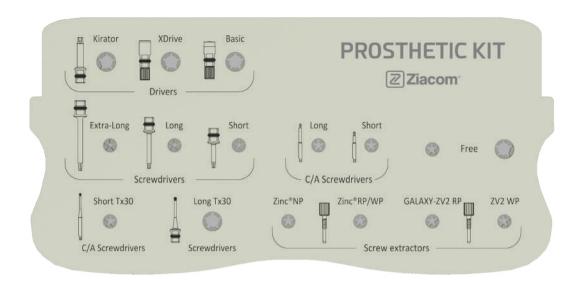
# ZM1

# 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.



■ Contents of prosthetic boxes		S	2
REF	Description	BOXPSN	BOXPCN
LOSD01	Kirator insert key. Ratchet	•	
MABA100	Basic insert key. Short. Ratchet. Grade 5 ELI titanium	•	
MABA200	XDrive insert key. Short. Ratchet. Grade 5 ELI titanium	•	
MADW10	Screwdriver adapter handle. 4x4. Manual	•	•
SMSD1	Screwdriver tip. Ø1.25 mm. Short. Ratchet	•	•
LMSD1	Screwdriver tip. Ø1.25 mm. Long. Ratchet	•	•
XLMSD1	Screwdriver tip. Ø1.25 mm. Extralong, Ratchet		•
MESD	Screwdriver tip. Ø1.25 mm. Long. CA.	•	•
MESD01	Screwdriver tip. Ø1.25 mm. Short. CA.	•	•
MESDTX	Tx30 screwdriver tip. Long. CA.	•	•
LMSD1TX	Tx30 screwdriver tip. Long. Ratchet	•	•
EDSZ20*	ZPlus extractor screw. Zinic®. NP. Grade 5 ELI titanium		•
EDSZ34*	ZPlus extractor screw. Zinic®. RP/WP. Grade 5 ELI titanium		•
EDSG34*	Abutment extractor screw. Galaxy/ZV2. RP. Grade 5 ELI titanium		•
EDSG50*	Abutment extractor screw. ZV2. WP. Grade 5 ELI titanium		
TORK50	Regulable torque wrench. 10/20/30/40/50/60/70 Ncm	•	

<sup>\*</sup> Product not included in the ZM1 system.



#### KEYS

#### Kirator insertion key







Square 2.11 mm / Square 4x4 mm





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

#### Basic insertion key. Ratchet







Basic / Square 4x4 mm



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

#### XDrive insertion key. Ratchet





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

OXDrive / Square 4x4 mm





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

#### **SCREWDRIVERS**

#### Screwdriver adapter handle





Length (L) Platf. Reference MADW10 Universal 12.90

Square 4x4 mm



#### Screwdriver tip. Ratchet





9.50/Short SMSD1 Universal 14.50/Long LMSD1 XLMSD1 27.00/Extralong



#### Screwdriver tip. CA





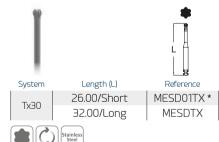
		25
Platf.	Length (L)	Reference
Jniversal	20.00/Short	MESD01
	25.00/Long	MESD







#### 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 prosthetic box.

#### Tx30 screwdriver tip. Ratchet

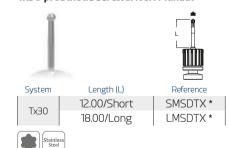




Do not exceed 30 Ncm, as it could cause severe damage to the screwdriver and screw.

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

#### Tx30 prosthetic screwdriver. Manual

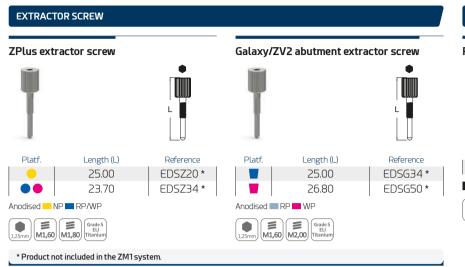


Do not exceed 30 Ncm, as it could cause severe damage to the screwdriver and screw.

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

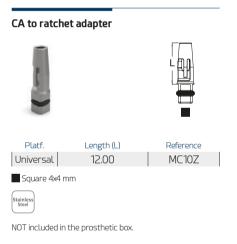
51 🗷 ZM1

# Prosthetic instruments





## Complementary instruments







#### Retentive joints instruments



Platf.	Measure	Reference
Universal	2x1	RREI0030

Pack of 10 units.

**Z** 52 Ziacom<sup>®</sup>

# Simplified | surgical | protocol

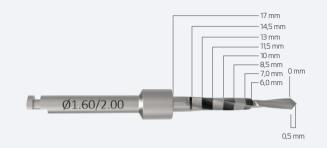


# Simplified surgical protocol

### Characteristics of the ZM1 drilling system

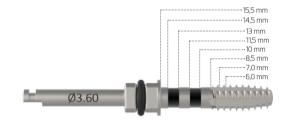
#### ■ Ziacom® drill system

Ziacom® implant system drills are made from stainless steel. 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 (drills graduated in mm). The bur tip is 0.5 mm long and is not included in the laser marked measurements.



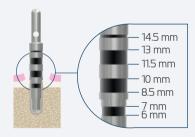
#### ■ Ziacom® taps

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.



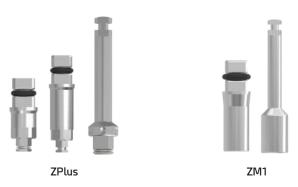
#### ■ Probe

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



#### ■ Short and long insertion tools for ratchets and contra-angle handpieces

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

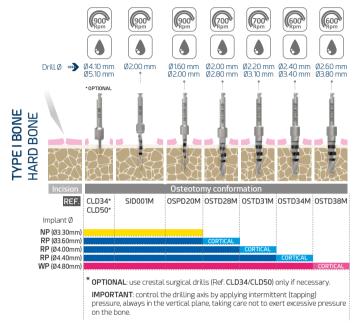


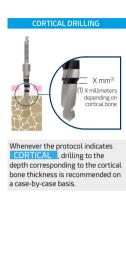


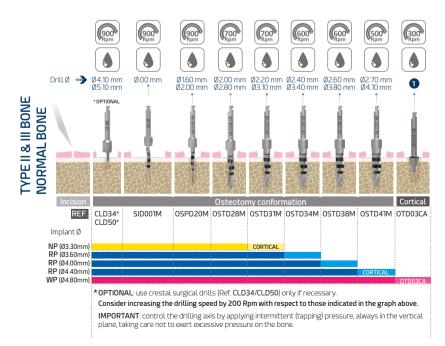
# Drilling protocol - ZPlus



The specified speeds are recommended









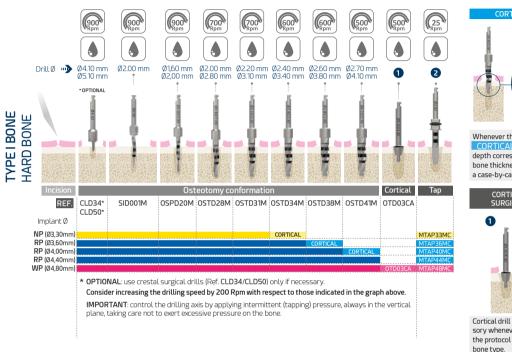
ZM1 55

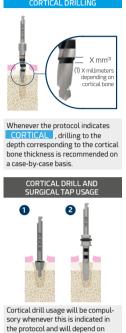
# Simplified surgical protocol

# Drilling protocol - ZPlus



The specified speeds are recommended

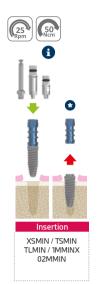




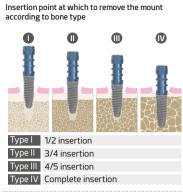


## Implant insertion - ZPlus

#### Insertion



#### ■ Removing the mount •





extractor screw to remove it: with NP platform, use Ref. EDSZ20 and with RP/WP platform, use Ref. EDSZ34



The maximum torque for insertion of the dental implants is 50 Ncm. Exceeding the maximum insertion torque indicated for the implants can cause serious damage to the dental implant, its connection, the Mount and the clinical screw included. Refer to the surgical protocol for specific Mount removal considerations, according to implant connection type and bone type.

#### Direct insertion











It has direct insertion keys to the implant ref.: SMEX20/SMEX34/SMEX50. for ratchet/manual and MMEX20/MMEX34/ MMEX50 for CA, to adjust the implant end-position.

#### ■ Crestal placement

The Ziacom® implant platform should be placed at bone crest level.

**IMPORTANT** 

#### RECOMMENDED crestal position



#### Bone types

Lekholm and Zarb classification (1985)



TYPE IV BONE - SOFT BONE

• Thin cortical layer surrounding a lowdensity trabecular bone.



TYPE II & III BONE - MEDIUM BONE

- · Type II: thick layer of compact bone surrounding a dense trabecular bone.
- Type III: thin cortical layer surrounding a dense trabecular bone.



TYPE I BONE - HARD BONE

 Composed almost entirely of homogeneous compact bone

ZM1

# Simplified surgical protocol

#### General recommendations

#### Consider during intervention



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.



**Each instrument** should only be used for the specific use recommended by the manufacturer



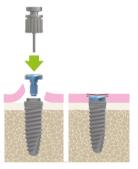
**Damaged instruments** must be disposed of according to local regulations.



Implantologists should keep one of the identification labels supplied with the product in the patient's file so that it may be traced correctly.

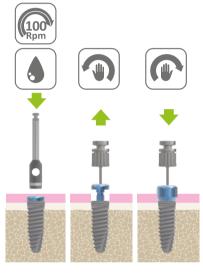
#### Handling of cover screw





Remove the cover screw from its vial using the hex screwdriver in a counter-clockwise direction. Move the cover screw towards the implant while taking care not to drop it and cause its accidental ingestion. Insert the cover screw into the implant and tighten it using manual torque in a clockwise direction.

#### Preparation for second surgical phase



#### Placement of healing abutment

The healing abutment should correspond to the implant platform, considering the option of applying the platform switch technique with anatomical abutments and be in accordance with the height of the gingival tissue to avoid abutment occlusion. Excessive height could expose the implant to premature loading, compromising the osseointegration process.

#### **IMPORTANT WARNINGS**

#### About implant insertion

Excessive compression of the bone can lead to failure of implant osseointegration.

**Failure to follow the steps described** in the surgical sequence may result in:

- Lack of primary stability due to loss of supporting bone.
- Difficulties during implant insertion.

- Irreversible deformation of the implant's internal/external connection.
- Irreversible deformation of the implant insertion instrument.
- Difficulty disassembling the instrument/ implant assembly.

#### Maximum insertion torque and speed

The recommended insertion torque ranges from **35** to **50 Ncm**, according to each case, and is not limited to a single torque.





The implant should be inserted with controlled torque based on the bone density and quality of the implant placement site:

Without partial or complete **disassembly of the implant Mount**, in **type III** and **IV bone, respectively**, with recommended torque of **35** to **50 Ncm** to avoid deformation of the Mount or cold welding between the Mount and the implant.

With partial or complete disassembly of the implant Mount and using a direct-to-implant key, in type I and II bone, respectively, with recommended torque of 35 to 50 Ncm to avoid deformation of the connection and excessive bone compression.

**Insertion instrument or CA screwdrivers**: use a maximum speed of:



#### ZM1 implants

The Ziacom® surgical protocol establishes the crestal position of the implant platform.

To avoid cortical stress and deformation of the key and/or implant connection, and also to avoid galling between the implant and the Mount, the recommended maximum speed (25 Rpm) and maximum torque (50 Ncm) must be respected when inserting with a contra-angle (CA) handpiece.

When using a ratchet, it is necessary to monitor resistance during insertion. If there is any resistance, the implant should be removed by turning it twice (to release the bone from the tension created and free the thread) and then, after a few seconds, the implant should be inserted again, repeating this process as many times as is necessary.

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 explained the procedures, protocols and instructions for use before using the ZM1 system by Ziacom®.





# 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 here in.

### Cleaning and disinfection instructions

Applicable for instruments, surgical and prosthetic boxes and plastic retainer caps.

#### Disassembly

- 1. Dismount\* the appropriate instruments, for example manual ratchets, drills or drill stops.
- 2. Remove the various components from the surgical or prosthetic box for correct cleaning.

#### Cleaning and disinfection

For disinfecting instruments and surgical 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 the surgical and prosthetic boxes, always use a pH-neutral detergent and non-abrasive utensils to avoid damaging the surface of the boxes.
- 5. Dry the materials with disposable cellulose, lint-free clothes or compressed air.

For disinfecting plastic caps and spacers:

- 1. Submerge in a neat benzalkonium chloride solution for 10 minutes.
- 2. Rinse with distilled water.
- 3. Dry the caps and spacer before 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 procedure.
- 3. Check that the instruments and the surgical and prosthetic boxes are perfectly dry before reassembling the parts and proceeding to their sterilisation.
  - \* See the assembly 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 autoclave

Applicable to orthodontic implants, abutments, and surgical and prosthetic instruments and boxes.

- 1. Introduce each material separately in individual sterilisation bags, then seal the bags. For joint sterilisation, place the instruments in their surgical box, introduce the box into a sterilisation bag and seal the bag.
- 2. Place the bags 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) and at 2 atm. Torque wrenches must be sterilised in 3 vacuum cycles at 132°C/270°F for a minimum of 1.5 minutes and vacuum-dried for a minimum of 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 min and with the drying time of at least 15 - 30 min.

#### 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 bags 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 and in a clean, dry location until they are used.
- After sterilisation, keep the products in the sealed sterilisation bags and in a clean, dry location.
- Never exceed the use by date indicated by the manufacturer of the sterilisation bags.
- Always follow the indications of the manufacturer of the sterilisation bags.

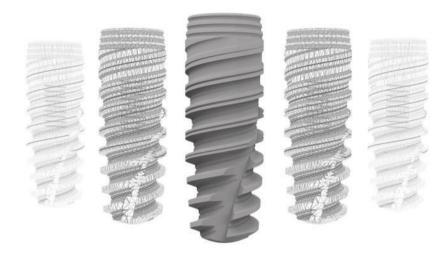
#### General recommendations

- Never use damaged or dirty material; never reuse single-use products. The user is responsible for following the instructions described in this document correctly.
- The 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 agent.
- The product's sterility cannot be guaranteed if the sterilisation bag is open, damaged or damp.
- Respect all stages of the sterilisation process. If the materials or sterilisation bags 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 boxes are supplied UNSTERILISED and must always be sterilised before use and cleaned and disinfected after use.
- The 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 www.ziacom.com/biblioteca for the latest version of the cleaning, disinfection and sterilisation instructions.



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See the latest version of the general conditions of sale on our website **www.ziacom.com**.

Check the availability of each product in your country.

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