

Internal hexagonal connection implants

ZINIC®HORTY





Internal hexagonal connection implants





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Important information

Read this carefully before using ZIACOM® products

General information

This document contains basic information about the use of ZIACOM® Dental Implant Systems, henceforth, ZIACOM® products. This document has been written as a guick reference guide for the professional in charge of the treatment, henceforth, "User". It does not provide sufficient indications and technical specifications for the use of ZIACOM® products. It is neither an alternative nor a substitute for specialised training and professional clinical experience.

ZIACOM® products must be used in accordance with proper treatment planning and in strict accordance with the surgical and prosthetic protocols established by the manufacturer. Before using a ZIACOM® product, please read the specific surgical and prosthetic protocols as well as the operating and maintenance instructions carefully. You can consult them on our website www.ziacom.es or request them from your nearest ZIACOM® authorised distributor.

Information about responsibility, safety and guarantee.

The indications for use and handling of ZIACOM® products are based on the published international literature, current clinical standards and our clinical experience with our products and should therefore be understood as general indicative information. The handling and use of ZIACOM® products, as they are beyond the control of Ziacom Medical SLU, are the sole responsibility of the user. Ziacom Medical SLU, its subsidiaries and/or its official distributors decline all responsibility, express or implicit, totally or partially, for any possible damage or loss caused by the improper handling of the product or by any other fact not contemplated in its protocols and manuals for the correct use of its products.

The user of the product must ensure that the ZIACOM® product used is suitable for the intended procedure and purpose. Neither these instructions for use nor the protocols for working with or handling the products relieve the user of this obligation. The use, handling and clinical application of ZIACOM® products must be carried out by qualified professional personnel with the necessary qualifications according to the current legislation of each country.

The use, handling and/or application, fully or in part, of ZIACOM® products in any of their manufacturing phases by unqualified personnel or without the necessary qualifications, automatically voids any type of guarantee and may cause serious damage to the patient's health.

ZIACOM® products are part of an own system, with its design features and working protocols, which include dental implants, abutments and prosthetic components and surgical or prosthetic instruments. The use of ZIACOM® products in combination with elements or components from other manufacturers can lead to treatment failure, serious damage to bone structures, tissue and patient health, as well as undesired cosmetic results. For this reason, only original ZIACOM® products should be used.

The clinician, who is responsible for the treatment, is solely responsible for ensuring that original ZIACOM® products are used and that they are used in accordance with the instructions for use and the corresponding handling protocols throughout the entire implant treatment process. The use of ZIACOM® components, instruments or any other non-original product used alone or in combination with any of the original ZIACOM® products will automatically void any guarantee on the original ZIACOM® products..

Please consult the ZIACOM® Guarantee Program on our website www.ziacom.es

Warning. Non entire ZIACOM® products are available in all countries. Please consult their availability.

ZIACOM®, Zinic®, Zinic®MT, Zinic®Shorty, OEX®, OEX®MT, OEX®ST, OIN®, OIN®MT, OIN®ST, OXP®, ZMK®, ZMR®, OST®, ZM1®, ZM1®MT, ZM4®, ZM4®MT, ZM8®, ZM8®N, ZM8°S, Galaxy°, ZV2°, Zinic°3D, TPlus°, XPlus°, ZPlus°, Z2Plus°, 3DPlus°, Kiran°, Kirator®, ZM-Equator®, Basic®, XDrive®, ZiaCam®, ZIACOR®, Tx30®, Zellplex®, ZellBone®, PlexGuide®, OsseosBCP®, OsseosTCP®, Osseolife®, Osseonova®, DSQ®, Zitium® and all logos are trademarks of Ziacom Medical SLU.

The brand ZIACOM® is a registered trademark as some of its products mentioned or not in this catalogue. Ziacom Medical SLU reserves the right to modify, change and remove any of the products, prices or technical specifications which are referenced in this document or in any of its catalogues without prior notice. All rights reserved. It is strictly forbidden the reproduction or publication of this document, in whole or in part, in any form or by any means, without prior written permission of Ziacom Medical SLU.



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ZIACOM® around the world

Our Company

Making future together

Founded as Osseolife®, our company started its activity in Madrid in 2004 with entirely Spanish capital. Since our beginnings we produce different models of implants and implant abutments for several companies in the European market. From 2005 in Italy and 2006 in Spain, we launched our own external and internal hexagonal implant systems such as Osseolife® Implants. On September 2015 we became Ziacom Medical SLU. Currently, we have diversified our business with different implant designs and new products for specialities such as maxillofacial.

This is a key moment in our international expansion with the opening of a headquarters in the USA. In addition, as a result of the company's internal work in exploring markets, we have closed agreements with distributors in different countries around the world. All this with the satisfaction of being a 100% Spanish brand.

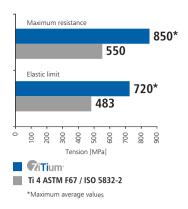
True to our entrepreneurial spirit, we continue to seek new solutions and products that meet the new demands of the sector. Thus, we plan to increase investment in R&D&i by 50% in order to optimise production processes towards greater efficiency.

To carry out this project, the company has moved to a new facility that operates as a technology centre with an area of more than 4,000m2.

Our expansion strategy requires the presence of ZIACOM® in fairs and congresses of the sector both nationally and internationally to implement the policy of communication and branding company to release products and news.

We recently incorporated dentists as Technical Product Managers and we are closing collaboration and training with different universities in Spain and the European Union, as well as initiating product studies with experts in dental implantology.

Thanks to the constant effort to provide our customers with the highest quality, we offer a lifetime guarantee on our implants.



Certified quality We strive for excellence

ZIACOM® implants are made of extra-high-tension grade 4 titanium, Zitium®, which gives it a substantial improvement in its elastic limit and mechanical properties, as well as keep the compliance with the requirements of ASTM F67 and ISO 5832-2 Standards and Certificates according to the requirements of the Medical Directive 93/42/EEC and its amendment 2007/47/EC by the 0051 notified body. The ZIACOM® implants are sterilised by Beta Rays irradiation at 25kGy, except DSQ® orthodontic implants which are marketed as Non-Sterile.

Ziacom Medical SLU has the manufacturer's licence for medical devices and the commercial authorisation by the AEMPS 6425-PS (Spanish Agency for Medicines and Medical Devices). Our quality management system is certified according to the requirements of the UNE-EN-ISO 9001:2015 and UNE-EN-ISO 13485:2016 standards, also complying with the requirements of GMP 21 CER 820

C E 8







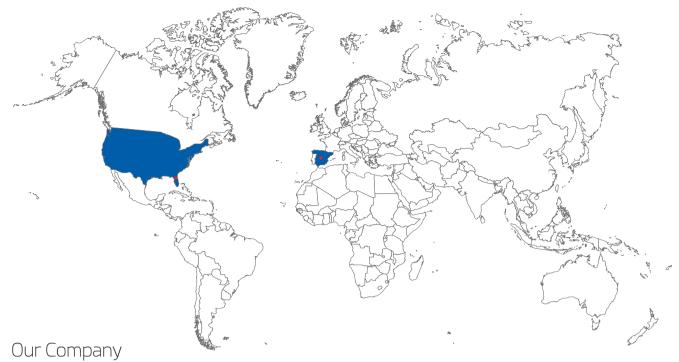


Refer to the General Conditions of Access to the Guarantee for ZIACOM® products



Important

All products (except dental implants) in this ZIACOM® catalogue are sold Non-Sterile and must be sterilised before use.



ZIACOM® around the world

Headquarters

According to our philosophy and entrepreneurial spirit, we are currently immersed in an important company internationalisation plan. ZIACOM® bets for a development in consolidated and new growth areas focusing on five different geographical areas: Europe, United States, Latin America, Middle East and North Africa. Soon, we will continue to expand our international presence with a single goal: to offer our customers global solutions in implantology and oral surgery. To achieve this global expansion, ZIACOM® strives to meet the quality, regulatory and legal requirements specific to each country for registration and distribution of its products. Furthermore, our growth strategy in the United States allows us to interact directly with large distributors and to have our own organisational structure that enhances sales together with local partners.





Ziacom Medical SLU Europe Headquarters, Madrid - Spain

Ziacom Medical USA LLC America Headquarters, Miami - USA

ZIACOM® official distributors

By certifying in the specific regulations of each territory and adjusting to their needs, ZIACOM® exports its model of success at a global level through different distribution networks with products tailored to each market. Consult the updated list of ZIACOM® distributors on our website www.ziacom.es or by sending an email to export@ziacom.es.



International expansion and research

Working together for future research with innovation as a sure way to global expansion

During the last years, our company has developed an intense project of international expansion. Our international expansion project is based on two main pillars, which promote innovative solutions development: research and training.

ZIACOM® maintains its commitment to research and carries it out in close cooperation with universities and technology centres. Our commitment to R&D&i increases every year in order to continue offering the best quality in our products.

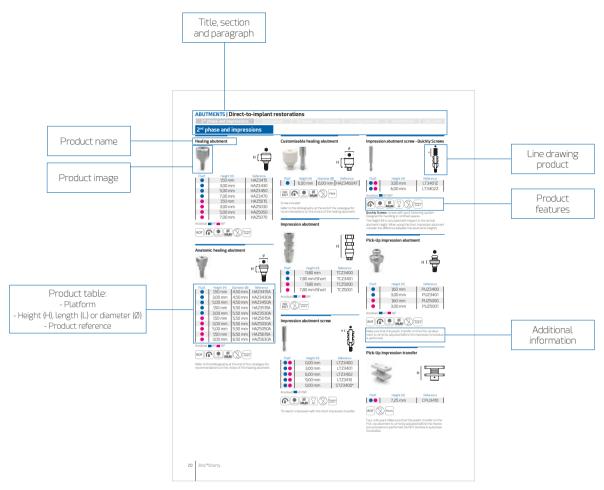
Through workshops and Master Classes given by our team and recognised professionals in the sector, we offer continuous training at a national and international level.

The digital workflow is a priority for ZIACOM®; in this way, training is given on intraoral scanning, guided surgery and CAD-CAM technology. In addition, our customers and partners can enjoy private training and tailored to their needs. The purpose of these trainings is to present new products with special emphasis on surgical and prosthodontic techniques resulting in functional, aesthetic and longevity treatments.

The sponsorship of scientific societies, participation in national and international congresses and research agreements are the scientific support of our comprehensive plan and support our contribution to the dental implant field.

A business plan that aims to strengthen the links with our customers and to offer new products and global services in the oral implantology field.

How to consult this catalogue



Symbology

Symbol	Meaning	Symbol	Meaning	Symbol	Meaning
ROT	Rotatory element	MX,XX	Screw metrics (mm)	Cobalt Chromium	Cobalt-chromium manufactured
NO ROT	Non-rotatory element	45°	45° support angle	PEEK	PEEK manufactured
	Use with manual torque (consult table page 31)	90°	90° support angle	Full	Castable manufactured
XX	Maximum torque usage		Rotation use with CA	Plastic	Plastic manufactured
Ncm 10 20 30 40 50 60 70	Ratchet torque	XX	Maximum turning speed	134° \$\$\$	Recommended sterilisation temperature
1,25mm	Screw connection	XX USES	Maximum usage number	Non sterile	Non-sterile product
Kirator®	Kirator® Connection		Single use product		Use with abundant irrigation
Basic®	Basic® Connection	Titanium Grade 5	Titanium Grade 5 manufactured	∑XX _○	Maximum angle
XDrive®	XDrive® Connection	Stainless Steel	Stainless Steel manufactured		
	Tx30® Connection	Co-Cr +castable	Cobalt-Chromium + castable manufactured		

ZINIC®HORTY

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ZINIC® HORTY

Features

CONNECTION

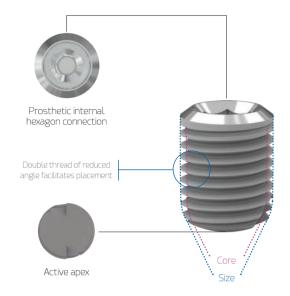
- » Internal hexagonal connection
- » 1,5mm prosthetic hexagon depth: improves longitudinal forces distribution
- » Conical bevel: reduces infiltration
- » Friction fit: reduces micro-movements
- » Platform switch: soft tissue formation and emergence profile shaping

CORTICAL AREA

- » Macro-design: excellent cortical compression
- » 0,4mm mechanised area on bevel

BODY

- » Reduced angle lead threads: provide stability during insertion and increase BIC (bone-implant contact)
- » Optimised morphology: high primary stability



Available diameters and lengths

Lengths in mm

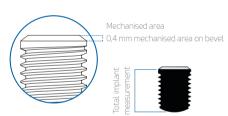








Implant coronal area measurements



Tubes usage:



STEP 1: place the implant in the *tube*



STEP 2: position the block key



STEP 3: remove the screw and the Mount



STEP 4: use the insertion key direct to implant

Note. Use the tubes of the surgical box to remove the Mount according to the clinical situation. For more information see surgical protocol on pages 42 and 43.

Usage recommendations

All implant planning must respect the natural biomechanical stability of the oral cavity and allow the natural emergence of the dental crown, through the soft tissue, by means of an implant with a prosthetic platform whose diameter is proportionally smaller than the emergence diameter of the tooth to be restored. The implantologist must assess the quantity and quality of bone in the recipient area of the implant and consider the need for prior or simultaneous bone regeneration as appropriate.

ZIACOM® has a broad range of implants to cover every restoration possibilities.

In the odontogram, the circles identified with letters, represent the diameters and platforms of the implants recommended for those dental positions. These recommendations apply to teeth replacement with single restoration, bridges and partial or total implant-retained tissue-supported prosthesis.

Remember to maintain minimum distances between adjacent implants and/or implants and teeth, to preserve papillae, bone vascularisation and natural emergence profiles.

The choice of the appropriate implant, in each case, is the exclusive responsibility of the clinician. Ziacom Medical recommends taking into account warnings based on scientific evidence contained in product catalogues and website.

CLARIFICATIONS ON MEASUREMENT AND DRILLING TECHNIQUES:

- **IMPLANT SIZE:** identifies implant diameter and length.
- IMPLANT BODY: implant core diameter.
- **DRILL MEASUREMENT:** corresponds to the drill diameter.
- UNDERSIZED DRILLING TECHNIQUE: surgical site preparation with final drill of lower diameter than the implant body. Technique associated with high insertion torque and increased primary stability.

Important: possible increased risk of bone necrosis due to pressure.

SIMPLIFIED DRILLING TECHNIQUE: technique proposed by Coelho and Cols in 2013 (1). It consists of the use of pilot drill and final drill corresponding to the size of the implant. It reduces drilling sequence but with risk of bone necrosis due to thermal increase.

(1) The effect of simplifying dental implant drilling sequence on osseo-integration: an experimental study in dogs.

Giro G1, Tovar N, Marin C, Bonfante EA, Jimbo R, Suzuki M, Janal MN, Coelho PG. Int J Biomater. 2013;2013:230310. doi: 10.1155/2013/230310. Epub 2013 Jan 30.

Odontogram

7iNiC[®]SHORTY

Implant diameter (1)

RP

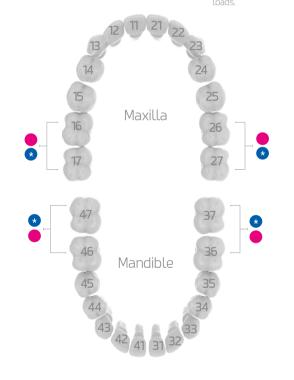
) WP Ø4,75mm Ø5,25mm

(1) Diameters are available for analog platforms.

Coronal implant diameter

WP. Ø3,50mm Ø4,50mm

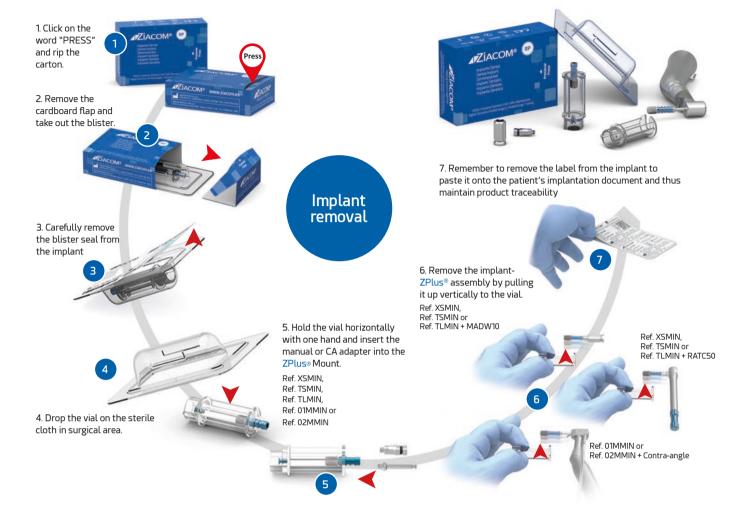
> - Implants marked with "*" are recommended to be splinted. In case restorations, relieve them from occlusal



Note. For more information about choosing the size of the implant, see the references at the end of this catalogue.

ZPlus® Mount

Packaging and product handling



ZIACOM® ZPlus® are packaged in a sealed carton box with a product label for immediate identification. It contains:

- · Instructions for Use (IFU).
- Implant blister: heat-sealed, with product identification labels for correct traceability. Its flap facilitates opening in clinic and prevents accidental opening. Contains: implant carrier vial.
- Implant carrier vial: contains suspended implant attached to the Mount + final screw + implant cover screw threaded on the back.
- Product identification label data: product reference, platform, implant diameter and length, product description, batch number, product manufacturer, expiration date and product identification symbols.

Note. Do not open the sterile container until the time of implant placement.



Description of the symbology used

C€ MDD CE certification and notified body

MD Name of the medical device

Number of product batch

LOT

Patient information website

UDI Unique device identification

Beta sterile product

Temperature restriction Caution, consult accompanying documents Do not resterilise

Do not use if the packaging is damaged

Non-reusable product

Consult the instructions for use Expiry date of the product

Date of manufacture

Product manufacturer

RxOnly Caution: federal law prohibite dispensing without prescription

Features and references

The **ZPlus®** is designed as an titanium grade 5 ELI (sanitary use) multifunction abutment. **ZPlus®** improves the handling of the implant during the surgery and incorporates new functions of use. In addition, the fundamental concept of the **ZPlus®** is the reduction of treatment costs, as it can be used as a Mount, impression transfer or provisional abutment for cement-screwed.

The **ZPlus**[®] Mount is available in all **ZIACOM**[®] implant ranges (except ZM8[®]N, ZM8[®]S, Galaxy[®], ZV2[®], ZMK[®] and ZMR[®]).

Attention

ZPlus® can be used as provisional abutment. **ZPlus®** should be prepared extraorally, by mounting in an analogue, preferably on a laboratory model or assembled on a clamping handle.

The structural integrity of the Mount and its screw, which have not been deformed or damaged by excessive insertion torque or forced removal handling, must be confirmed. Check that **ZPlus®** cover screw is properly seated and that the connection to the analogue is correctly adjusted.

Important

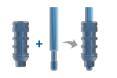
Always place the implant according to the specifications of the surgical protocol, to protect the Mount and its screw from possible damage that may prevent its later use as an impression abutment and/or provisional abutment. Each <code>ZPlus</code> should only be used in the same implant that the Mount belonged to. You should keep the <code>ZPlus</code> and its screw with patient identification, detailing the reference and lot of the implant to avoid confusion and exchange the Mounts. The <code>ZPlus</code> is supplied with 3 flat faces. At the end of the implant insertion, make sure that one of them matches the vestibular area.

ZPlus® Mount uses

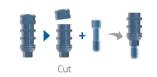
As a Mount

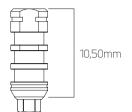


As impression transfer



As provisional abutment







Implant view + Mount

ZPlus® option. References

		IMPLANT PLATFORM									
	Ø (mm)	Ø Core (mm)	Length	REF.	Ту	pe	Ø (mm)	Internal metric			
RTY	4,75	4,00	6,0 mm	ZSS4756HT		RP	3,50		(3) 3,50 mm (2) 2,42 mm	_	
CSHORT	,,,,	4,00	7,0 mm	ZSS4757HT		IXI	0,50	M1,80	(1) 2,00 mm		
Zinic	5,25	4,50	6,0 mm	ZSS5256HT		RP	4,50	IVI 1,0U	(3) 4,50 mm (2) 2,42 mm		
	دعاد	4,20	7,0 mm	ZSS5257HT		RP	4,20		(1) 2,00 mm		

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



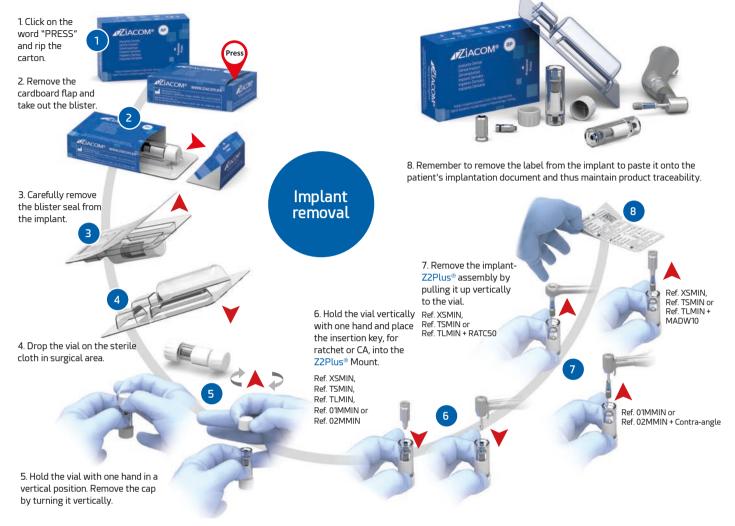
Cover screw*



^{*} Screw already included in each implant.

Z2Plus® Mount

Packaging and product handling



ZIACOM® Z2Plus® are packaged in a sealed carton box with a product label for immediate identification. It contains:

- Instructions for Use (IFU).
- Implant blister: heat-sealed, with product identification labels for correct traceability. Its flap facilitates opening in clinic and prevents accidental opening. Contains: implant carrier vial.
- Implant carrier vial: contains vertically suspended implant attached to the Mount + final screw + implant cover screw on the back.
- Product identification label data: product reference, platform, implant diameter and length, product description, batch number, product manufacturer, expiration date and product identification symbols.

Note. Do not open the sterile container until the time of implant placement.



Description of the symbology used

C € MDD CE certification and notified body

MD Name of the medical device

LOT Number of product batch

Patient information website

UDI Unique device identification

Beta sterile product

Temperature restriction

Caution, consult accompanying documents

Do not resterilise

Do not use if the packaging is damaged

Non-reusable product

(Consult the instructions for use

Expiry date of the product

Date of manufacture

Product manufacturer

Rx Only Caution: federal law prohibite dispensing without prescription

Features and references

The new **Z2Plus®** has been designed as an titanium grade 5 ELI (sanitary use) multifunction abutment. Its three functions include: Mount, sculptable straight abutment for easy preparation and transfer for Snap-On technique.

Z2Plus® in its application as a transfer for Snap-On, allows an easy and quick impression in the surgical act, allowing to advance the manufacture of the restoration with less time of dental office and fewer clinical appointments, with the consequent saving of costs in the treatment. **Z2Plus®** is supplied with one flat face. At the end of the implant insertion, make sure that the flat face matches the vestibular area.

The plastic transfer for Snap-On is included with the Z2Plus® although both products are supplied separately, has an internal plane, which is guided by the upper grooves and aligned with the plane of the Z2Plus® abutment, and after sliding by pressure, its inner groove fits into the lower ring of the abutment, ensuring secure retention for the dragging impression and subsequent replacement of the Z2Plus®.

The impression transfer has an oval top which must coincide with the vestibular area (Figures 1 and 2).



Fig. 1: Side view of the Snap-On transfer, alignment of the abutment plane

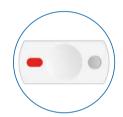


Fig. 2: Anti-rotational plane of the abutment signalling

Z2Plus® Mount uses

As a Mount



As a transfer for Snap-On



As straight abutment





Implant view + Mount



Implant view + Mount as a transfer for Snap-On

Z2Plus® option. References

	IMPLANT						PLATFORM			
	Ø (mm)	Ø Core (mm)	Length	REF.	Ту	ре	Ø (mm)	Internal metric		
RTY	4,75	4,00	6,0 mm	ZSS4756HTN		RP	3,50		(3) 3,50 mm (2) 2,42 mm	
SHORT	4,75	4,00	7,0 mm	ZSS4757HTN		KF	0,50		(1) 2,00 mm	
	5,25	4,50	6,0 mm	ZSS5256HTN		RP	4,50	M1,80	(3) 4,50 mm (2) 2,42 mm	
	7,20	4,50	7,0 mm	ZSS5257HTN		RP	4,30		(1) 2,00 mm	

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



for Snap-On

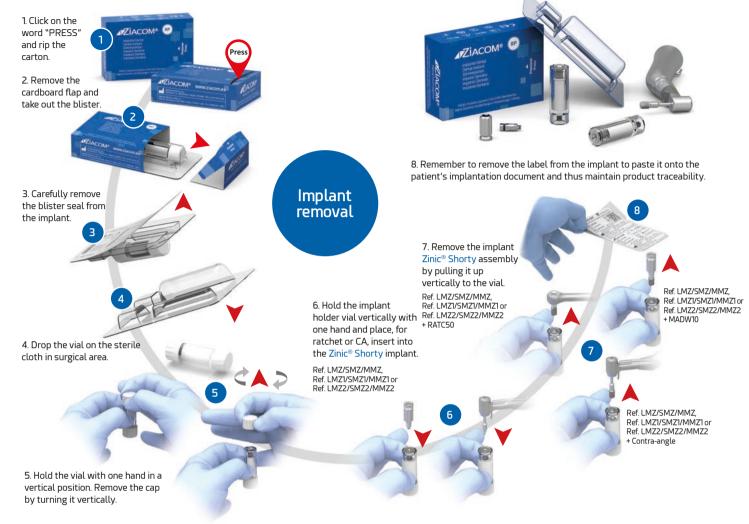
Cover screw*



^{*} Screw already included in each implant.

ZIACOM® No Mount

Packaging and product handling



ZIACOM® No Mount are packaged in a sealed carton box with a product label for immediate identification. It contains:

- Instructions for Use (IFU).
- Implant blister: heat-sealed, with product identification labels for correct traceability. Its flap facilitates opening in clinic and prevents accidental opening. Contains: implant carrier vial.
- Implant carrier vial: contains vertically suspended implant.
- Product identification label data: product reference, platform, implant diameter and length, product description, batch number, product manufacturer, expiration date and product identification symbols.

 $\textbf{Note}. \ \ \text{Do not open the sterile container until the time of implant placement.}$



Description of the symbology used

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MD Name of the medical device

LOT Number of product batch

Patient information website

UDI Unique device identification

Beta sterile product

Temperature restriction

Caution, consult accompanying documents

Do not resterilise

Do not use if the packaging is damaged

Non-reusable product

Consult the instructions for use

Expiry date of the product

Date of manufacture

Product manufacturer

RxOnly Caution: federal law prohibite dispensing without prescription

Zinic®Shorty

Features and references

ZIACOM® No Mount implant packaging option allows you to use an insertion key direct to implant, remove it from the implant carrier vial and bring it to your surgical site easily and safety.

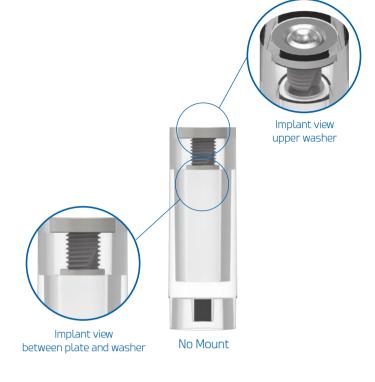
No Mount system instruments:

- » **Zinic**® insertion key for contra-angle.
- » Zinic® insertion key for ratchet

ZIACOM® No Mount implant has the advantage of avoiding its handling to disassemble the Mount, removing the occasional difficulty of access to the location with reduced mouth opening or suppressing the risk of primary stability reduction due to over-instrumentation. The plastic vial holds the implant vertically between a lower titanium plate and an upper washer also made of titanium, providing stability without movement, while avoiding contact.



Zinic® insertion key connection view



ZIACOM® No Mount option. References

		IMPLANT						PLATFORM		
	Ø (mm)	Ø Core (mm)	Length	REF.	Ту	pe	Ø (mm)	Internal metric		
RTY	4,75	4,00	6,0 mm	ZSS4756HTF		RP	3,50		(3) 3,50 mm (2) 2,42 mm	
CSHORT	C1,F	4,00	7,0 mm	ZSS4757HTF		1 (1	00,0	M1,80	(1) 2,00 mm	
Zinic	5,25	4,50	6,0 mm	ZSS5256HTF		RP	4,50	IVI I,60	(3) 4,50 mm (2) 2,42 mm	
	د ع,د	4,20	7,0 mm	ZSS5257HTF		RF	4,30		(1) 2,00 mm	•

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



★ Cover screw:

In ZIACOM® No Mount option, cover screws are supplied separately (see the references on page 13).

Osseomovo® Surface treatment

Osseonova® surface, textured by subtraction using sandblasting with white corundum and double etching of hydrofluoric acid and a combination of sulphuric and phosphoric acid, creates a macro and micro porosity with optimum average values whose key characteristics for achieving a correct and rapid osseointegration which gives it reliability and predictability.

Main features:

- Pure TIO, surface
- Macro/micro-porosity surface design
- Homogeneous porosity
- Excellent average values
- Osteoinductive surface
- High level of biological stability
- Surface structure similar to human bone
- High level of surface wettability
- Contaminant-free surface topography

Osseonova® has a thicker TIO₂ layer than most current surfaces.

	O (% At)	C (% At)	Ti (% At)	N (% At)	Si (% At)	Ca (% At)	Layer thickness TIO ₂ (Nm)
Osseonova®	43.9	34.9	18.0	0.6	0.5	0.5	16-25
Plasma Spray	45.5	38.9	14.2	1.4			5.5
Mechanised	39.7	36.9	20.1	1.1	1.7	0.2	5.7
Sandblasting and Etching A.	51.4	34.9	14.5	1.3	Traces	-	5.7
Double acid etching	36.2	53.7	6.8	5.4	3.3		Not available

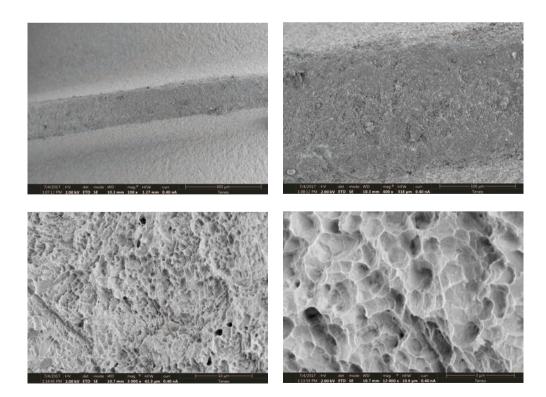
Note

- The elements are expressed in atomic %
- These are the elements present in the greatest quantity; other elements may be present in trace amounts or lesser proportions.

Shorter times

Several scientific studies have shown that mixed treatment surfaces with a rugged or porous surface considerable increase bone implant contact and accelerate the osseointegration process against implants with conventional surfaces. **Osseonova®** surface facilitates rapid cell adhesion, thus obtaining excellent biological stability that favours the osteogenesis process. At the same time, it significantly reduces the period of osseointegration and increases the percentage of clinical success.

IMAGES TAKEN USING AN ELECTRONIC MICROSCOPE S.E.M.



Note. For more information on surface treatment, see the bibliography at the end of this catalogue.

ZINIC[®] HORTY

Direct-to-implant restorations



2nd phase and impressions

Healing abutment





Platf.	Height (H)	Reference
	1,50 mm	HAZ3415
	3,00 mm	HAZ3430
	5,00 mm	HAZ3450
	7,00 mm	HAZ3470
	1,50 mm	HAZ5015
	3,00 mm	HAZ5030
	5,00 mm	HAZ5050
	7,00 mm	HAZ5070

Anodised RP WP











Anatomic healing abutment





Platf.	Height (H)	Diameter (Ø)	Reference
	1,50 mm	4,50 mm	HAZ3415A
	3,00 mm	4,50 mm	HAZ3430A
	5,00 mm	4,50 mm	HAZ3450A
	1,50 mm	5,50 mm	HAZ3515A
	3,00 mm	5,50 mm	HAZ3530A
	1,50 mm	5,50 mm	HAZ5015A
	3,00 mm	5,50 mm	HAZ5030A
	5,00 mm	5,50 mm	HAZ5050A
	1,50 mm	6,50 mm	HAZ5615A
	3,00 mm	6,50 mm	HAZ5630A

Anodised RP WP













Refer to the bibliography at the end of the catalogue for recommendations on the choice of the healing abutment.

Customisable healing abutment





Plati.				
	6,00 mm	6,00 mm	HAZ3460AT	
NO ROT	1,25mm M1,8	PEER		

Refer to the bibliography at the end of the catalogue for recommendations on the choice of the healing abutment.

Impression abutment



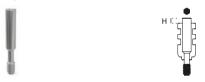


Platf.	Height (H)	Reference
	11,80 mm	TCZ3400
	7,80 mm/Short	TCZ3401
	11,80 mm	TCZ5000
	7.80 mm/Short	TCZ5001

Anndised RP WP



Impression abutment screw



Platf.	Height (H)	Reference
	0,00 mm	LTZ3400
	3,00 mm	LTZ3401
	6,00 mm	LTZ3402
	9,00 mm	LTZ3410
	0,00 mm	STZ3400*

Anodised RP/WP



^{*}Screw for impression with the short impression transfer.

Impression abutment screw - Quickly Screws





Platf.	Height (H)	Reference
	3,00 mm	LT3401Z
•	6,00 mm	LT3402Z

Anodised RP/WP











Quickly Screws: screws with quick fastening system. Designed for handling in confined spaces.

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 mm	PUZ3400
	3,00 mm	PUZ3401
	1,60 mm	PUZ5000
	3,00 mm	PUZ5001

Anodised RP WP







Make sure that the plastic transfer on the Pick-Up abutment is correctly adjusted before the impression procedure

Pick-Up impression transfer





Platf.	Height (H)	Reference
	7,25 mm	CPU3410



Four units pack. Make sure that the plastic transfer on the Pick-Up abutment is correctly adjusted before the impression procedure is performed. Do NOT sterilise in autoclave. Sculptable.

2nd phase and impressions

Provisional

Screwed

mented

Fixing elements

Overdenture

CAD-CAN

Z2Plus® Snap-On impression abutment





Platf.	Height (H)	Reference
	1,50 mm	Z2RPZC10
	1,50 mm	Z2WPZC10





Make sure that the plastic transfer on the Z2Plus® Snap-On impression abutment is correctly adjusted before the impression procedure is performed.

(1) Important: to fix this abutment, use the laboratory screw according to the appropriate platform.

Z2Plus® Snap-On impression transfer





Platf.	Height (H)	Reference
	8,00 mm	ZPU3400
	8,00 mm	ZPU5000



Four units pack. Make sure that the plastic transfer on the ZZPlus® Snap-On abutment is correctly adjusted before the impression procedure is performed. Do NOT sterilise in autoclave. Sculptable.

Implant analogue





Platf.	Length (L)	Reference
	12,00 mm	IAZ3400
	12,00 mm	IAZ5000



Implant analogue 3D

Platf.	Length (L)	Reference
	12,00 mm	IAZ3400D
	12,00 mm	IAZ5000D



Provisional

Provisional abutment





Rotatory

Platf.	Length (L)	Reference
	9,50 mm	RUZT3410
	9,50 mm	RUZT5010

Anodised RP WP



Non rotatory

Platf.	Length (L)	Reference
	9,50 mm	NUZT3410
	9,50 mm	NUZT5010

Anodised RP WP



For immediate loading, refer to the torque table on page 31

Provisional abutment

Abutments for aesthetic and immediate loading





Rotatory

Platf.	Length (L)	Reference
	9,50 mm	RUZP3410
	9,50 mm	RUZP5010



Non rotatory

Platf.	Length (L)	Reference
	9,50 mm	NUZP3410
	9,50 mm	NUZP5010



For immediate loading, refer to the torque table on page 31 $\,$

Screwed

UCLA





Rotatory

Platf.	Length (L)	Reference
	10,70 mm	RUZ3400
	10,70 mm	RUZ5000



Non rotatory

Platf.	Length (L)	Reference
	10,15 mm	NUZ3400
	10,15 mm	NUZ5000



Mechan. base abutment + Castable abutment



Rotatory

Platf.	Length (L)	Reference
	10,60 mm	BRUZ34
	10,60 mm	BRUZ50



Non rotatory

Platf.	Length (L)	Reference
	10,60 mm	BNUZ34
	10,60 mm	BNUZ50





2nd phase and impressions

Provisional

Screwed

emented

Fixing elements

Overdenture

CAD-CAM

Tx30[®] Variable Rotation Abutment

Tx30° mechanised base abutment + 2 castable abutments (15° and 20°)



Rotatory

	Platf.	15° Length (L)	20° Length (L)	Reference
		11,40 mm		
		11,40 mm	11,20 mm	BRUZ50TX
ROT Norm M1,80 To Co-Cr				

Non rotatory

Platf.	15° Length (L)		Reference
	11,40 mm	11,20 mm	BNUZ34TX
	11,40 mm	11,20 mm	BNUZ50TX
NO ROT MILES MILES AS' CO-Cr -cartable			
15° 20°			

Includes Kiran® Tx30® screw with surface treatment

$\text{Tx}30^{\text{o}}$ mechanised base abutment

+ 2 castable abutments (20° and 25°)



Rotatory

Platf.	20° Length (L)	25° Length (L)	Reference
	11,20 mm	11,00 mm	BRUZ34TX1 BRUZ50TX1
	11,20 mm	11,00 mm	BRUZ50TX1
ROT Ncm M1,80 To Co-Cr			
$\begin{bmatrix} 2^{0^{\circ}} \end{bmatrix} \begin{bmatrix} 2^{5^{\circ}} \end{bmatrix}$			

Non rotatory

Platf.	20° Length (L)	25° Length (L)	Reference
	11,20 mm	11,00 mm	BNUZ34TX1 BNUZ50TX1
	11,20 mm	11,00 mm	BNUZ50TX1
NO ROT	25°	1,80	Co-Cr +castable

Includes Kiran® Tx30® screw with surface treatment

Tx30® Variable Rotation Abutment

ZIACOM® offers a simple solution for restoration of implants with prostheses that require angulation correction for functional and/or aesthetic reasons.

The Tx30° Variable Rotation Abutment consists of a mechanised Cr-Co base on which castable abutments of different fixed angles are fitted. The mechanised base ensures a good fit and sealing with the implant, which in turn allows the castable angled abutment to rotate 360° in relation to the base. The adequate joint between the mechanised base and the castables limits the presence of microinterstices and facilitates the entry of the metal during casting. Additionally, due to its design, it avoids adhesion tensions between the two parts.

ZIACOM® has designed the castables in different angulations fixed at 15°, 20° and 25° that allow the prosthetic technician to position and modify the orientation on the working model.

The mechanised base is fixed to the implant by means of the Tx30° screw, whose hexalobular connection facilitates the application of the required tightening torque.



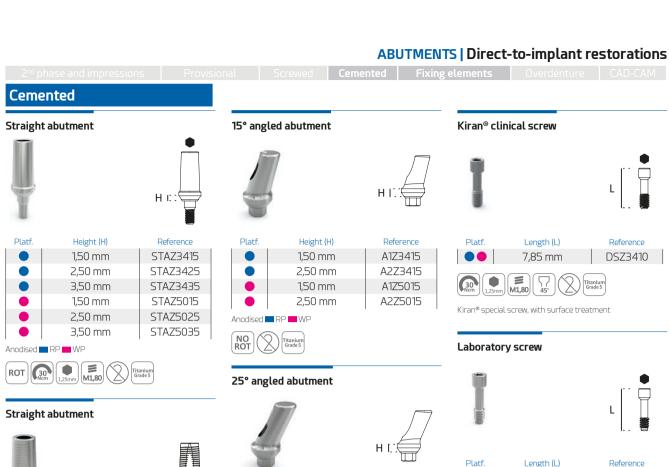
The castables are made of polyoxymethylene (POM-C), a thermoplastic, semicrystalline material of great hardness and resistance with excellent properties for machining.



Assembly and disassembly: the connection between the two mechanised parts allows them to fit together perfectly by pressure.



The cobalt chromium alloy used achieves a reliable and long-lasting casting compound. Its melting point, corrosion resistance, compatibility and mechanical properties give it necessary features for a foreseeable restoration.







ZLAB34

Platf.	Height (H)	Reference
	1,50 mm	STZ3415
	2,50 mm	STZ3425
	3,50 mm	STZ3435
	1,50 mm	STZ5015
	2,50 mm	STZ5025
	3.50 mm	STZ5035





Laboratory test kit





This product is not a substitute for clinical case planning

3,65 mm





A2Z5025

2,50 mm

Anodised RP WP

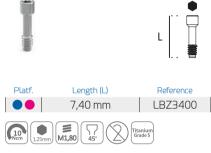


Fixing elements

Clinical screw







Laboratory screw NOT suitable for use as final clinical screw.

Kiran® Tx30® clinical screw



For abutments and ZiaCam® Tx30® Ti-Base



Kiran® special screw, with surface treatment Use only with Tx30® screwdrivers

2nd phase and impressions

Provisiona

Screwe

emented

Fixing elements

Overdentur

CAD-CAN

ZIACOR® CAD-CAM

ZiaCam® scanbody to implant



Platf.	Length (L)	Reference
	9,00 mm	FNSYZ341
	9,00 mm	FNSYZ501



Screw included

Recommended for laboratory

ZiaCam® scanbody to implant



Platf.	Length (L)	Reference
	8,00 mm	FNSYZ341T
	8,00 mm	FNSYZ501T



Anodised RP WP

Screw included

Recommended for clinic

ZiaCam® scanbody to ZiaCam® Ti-Base





Platf.	Length (L)	Reference
	7,00 mm/Mod. 2	FNSFEX341



ZiaCam® Ti-Base





Rotatory

Platf.	Height (Hg/Ht)	Reference
	0,50/5,00 mm	FRUZ341
	1,50/6,00 mm	FRUZ342
	0,50/5,00 mm	FRUZ501
	1,50/6,00 mm	FRUZ502



Non rotatory

Platf.	Height (Hg/Ht)	Reference
	0,50/5,00 mm	FNUZ341
	1,50/6,00 mm	FNUZ342
	0,50/5,00 mm	FNUZ501
	1,50/6,00 mm	FNUZ502



Includes Kiran® special screw with surface treatment

ZiaCam® Tx30® Ti-Base





Rotatory

Platf.	Height (Hg/Ht)	Reference
	0,50/6,00 mm	FRUZ34TX1
	1,50/7,00 mm	FRUZ34TX2
	0,50/6,00 mm	FRUZ50TX1
	1,50/7,00 mm	FRUZ50TX2





Non rotatory

Platf.	Height (Hg/Ht)	Reference
	0,50/6,00 mm	FNUZ34TX1
	1,50/7,00 mm	FNUZ34TX2
	0,50/6,00 mm	FNUZ50TX1
	1,50/7,00 mm	FNUZ50TX2





Includes Kiran® special screw with surface treatment (1) For gingival heights of 1,5 mm and angles up to 20° $\,$

Kiran® clinical screw





For ZiaCam® Ti-Base or metal framework

Platf.	Length (L)	Reference
	7,85 mm	DSZ3410
(30) (1,25mm) (M1,60) (M1,80) (Tritanium Grade 5) Kiran® special screw with surface treatment		

Kiran® Tx30® clinical screw





For ZiaCam $^{\circ}$ Tx30 $^{\circ}$ Ti-Base or angled metal framework

Platf.	Length (L)	Reference
	6,80 mm	DSZ3410TX



Use only with Tx30® screwdrivers

NOTE: for more information on the scientific evidence to recommend the use of interface in zirconium restorations, see the corresponding bibliography at the end of this catalogue.

ZINIC® HORTY

Restorations using transepithelials



ABUTMENTS | Restorations using transepithelials

Hybrid

Basic® abutment





Platf.	Height (H)	Reference
	1,00 mm	BASICZ401
	2,00 mm	BASICZ402
	3,00 mm	BASICZ403
	4,00 mm	BASICZ404
	5,00 mm	BASICZ405
	1,00 mm	BASICZ501
	2,00 mm	BASICZ502
	3,00 mm	BASICZ503
	4,00 mm	BASICZ504

Insertion key Ref. MABA100









Includes Basic® abutment with plastic applicator. 18° cone angle. 36° angle between abutments.

Basic® abutment





Platf.	Height (H)	Reference
	1,00 mm	BASICZ401N
	2,00 mm	BASICZ402N
	3,00 mm	BASICZ403N
	4,00 mm	BASICZ404N
	1,00 mm	BASICZ501N
	2,00 mm	BASICZ502N
	3,00 mm	BASICZ503N
	4,00 mm	BASICZ504N

Insertion key Ref. MABA100





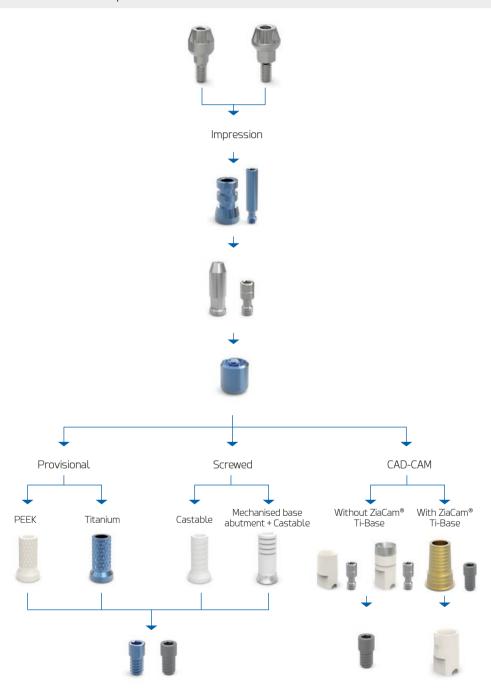




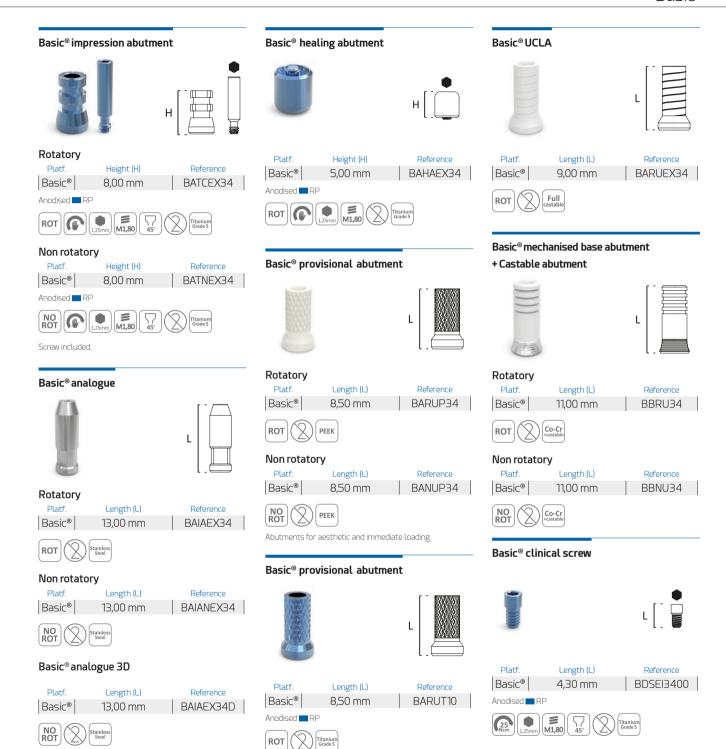


Includes Basic® abutment with plastic applicator. 18° cone angle. 36° angle between abutments.

Demonstrative sequence of use



Basic_®



Abutments for aesthetic and immediate loading

ABUTMENTS | Restorations using transepithelials

Hybrid

Basic®

Kiran® Basic® clinical screw





Platf.	Length (L)	Reference
Basic®	4,30 mm	BDSEI3410
25 Ncm (1,25mm)	M1,80 \(\bigcip_{45^\circ} \)	Titanium Grade 5

Kiran® special screw with surface treatment.

Basic® laboratory screw





Reference

Platf.	Length (L)	Reference
Basic®	5,50 mm	BDSEI3401
10 Ncm	M1,80 \\ \(\frac{1}{45^{\circ}} \)	Titanium Grade 5

Laboratory screw NOT suitable for use as final clinical

ZIACOR® CAD-CAM

ZiaCam® scanbody to Basic® abutment



Rotatory Platf.

Basic®	7,00 mm	FNSYB11
ROT	1,25mm M1,80 To 45°	PEEK

Length (L)

Non rotatory

Platf.	Length (L)	Reference
Basic®	7,00 mm	FNSYB11N

Screw included

Recommended for laboratory

ZiaCam® scanbody to Basic® abutment





Rotatory

Plati.	Length (L)	Reference
Basic®	8,70 mm	FNSYB11T
ROT	1,25mm M1,80 7 45°	PEEK Titanium Grade 5

Non rotatory



Screw included

Recommended for clinic

ZiaCam® scanbody to Basic® Ti-Base





Platf.	Length (L)	Reference
Basic®	7,00 mm	FNSFX11



ZiaCam® Ti-Base to Basic®



Rotatory

Platf.	Height (Hg/Ht)	Reference	
Basic®	0,30/6,70 mm	BFRU341	
ROT 25	1,25mm M1,80 45°	Titanium Grade 5	

Non rotatory

Platf.	Height (Hg/Ht)	Reference
Basic®	0,30/6,70 mm	BFNU341
NO ROT	(1,25mm) (1,80) (25°) (1,25mm) (1,80) (25°)	Titanium Grade 5

Includes Kiran® special screw with surface treatment

Kiran® Basic® clinical screw





For ZiaCam® Ti-Base and metal framework

Platf.	Length (L)	Reference
Basic®	4,30 mm	BDSEI3410
25 Ncm 1,25mm	M1,80 45°	Titanium Grade 5

Kiran® special screw with surface treatment.



Basic® transepithelial abutment:

Indications:

- Correct angulations and divergences to facilitate insertion axes of the prosthesis.
- Solve depthness of implants.
- Correct implant unevenness, by bone atrophies, in multiple prosthesis.

Advantages:

- It avoids direct handling of the implant connection.
- Simple and reliable impression.
- Minimise patient discomfort on impression and prosthetic tests.
- It preserves biological sealing thus reducing inflammation of the peri-implant tissue and the risk of suffering from peri-implantitis.
- It favours frameworks passive fit.
- It allows frameworks with ceramic materials.
- Hermetic interface on abutment-implant joint. It reduces bacterial infiltration.
- Easy and comfortable maintenance of multiple prostheses.
- Adjust the biological width and improve the crown-root ratio.
- Transocclusal screw functions as a fuse in case of overload.





XDrive® straight abutment

Platf.	Height (H)	Reference
	1,00 mm	XST10Z10
	2,00 mm	XST10Z20
	3,00 mm	XST10Z30
	4,00 mm	XST10Z40
	5,00 mm	XST10Z50
	1,00 mm	XST20Z10
	2,00 mm	XST20Z20
	3,00 mm	XST20Z30
	4,00 mm	XST20Z40
	5,00 mm	XST20Z50

Insertion key Ref. MABA200











Includes XDrive® abutment with plastic applicator. 21° cone angle. 42° angle between abutments.

XDrive® 17° angled abutment







Platf.	Height (H)	Reference
	2,00 mm	XA210Z17
	3,00 mm	XA310Z17
	4,00 mm	XA410Z17
	5,00 mm	XA510Z17
	2,00 mm	XA220Z17
	3,00 mm	XA320Z17
	4,00 mm	XA420Z17
	5,00 mm	XA520Z17













Abutment and screw positioner included

XDrive® 30° angled abutment





Platf.	Height (H)	Reference
	3,00 mm	XA310Z30
	4,00 mm	XA410Z30
	5,00 mm	XA510Z30
	3,00 mm	XA320Z30
	4,00 mm	XA420Z30
	5,00 mm	XA520Z30







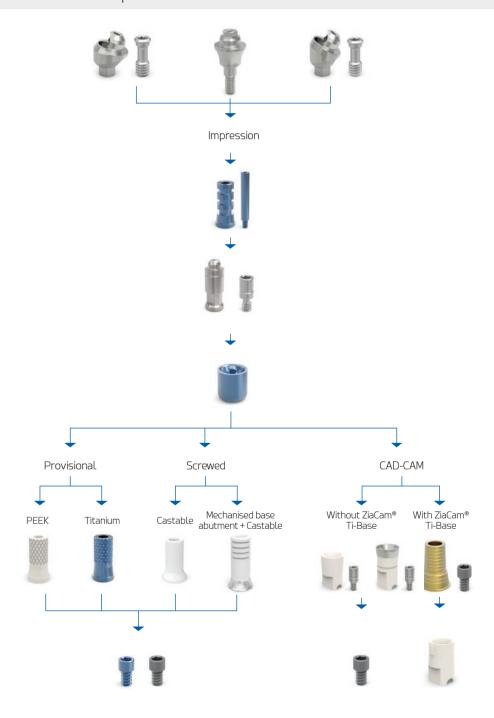






Abutment and screw positioner included

Demonstrative sequence of use



ABUTMENTS | Restorations using transepithelials

Hybrid

XDrive®





XDrive® analogue 3D



XDrive® healing abutment

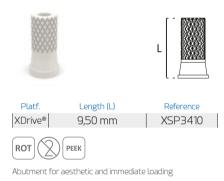




XDrive® provisional abutment



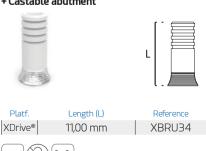
XDrive® provisional abutment



XDrive® UCLA



XDrive® mechanised base abutment + Castable abutment



XDrive® clinical screw



Kiran® XDrive® clinical screw



XDrive® laboratory screw



Screw NOT suitable for use as final clinical screw.

ABUTMENTS | Restorations using transepithelials

Hybrid

XDrive®

ZIACOR® CAD-CAM

ZiaCam® scanbody to XDrive® abutment



Platf.	Length (L)	Reference
XDrive®	7,00 mm	FNSYX11
ROT	125mm M1.40 90°	PEEK

Screw included

Recommended for laboratory

ZiaCam® scanbody to XDrive® Ti-Base



Platf.	Length (L)	Reference
XDrive®	7,00 mm	FNSFX11
NO ROT	PEEK	

Kiran® XDrive® clinical screw





For ZiaCam® Ti-Base or metal framework

Platf.	Length (L)	Reference
XDrive®	3,50 mm	XDS103411
20 (1,25mm)	M1,40 90°	anium rade 5

Kiran® special screw with surface treatment

ZiaCam® scanbody to XDrive® abutment



Platf.	Length (L)	Reference
XDrive®	8,70 mm	FNSYX11T
ROT	1 25mm M140 90°	PEEK Titanium Grade 5

Screw included

Recommended for clinic

Ht

XDrive® ZiaCam® Ti-Base



Includes Kiran® special screw with surface treatment

Attention: exceeding the recommended torque for screws and abutments endangers the prosthetic restoration and may result in damage to the implant structure. In

Torque table for abutments

Element/Abutment	Instrument/Tool	Torque
Cover screws/Healing abutments	Hex. screwdriver 1,25mm	Manual
Impression abutment screws	Hex. screwdriver 1,25mm	Manual
Laboratory screws	Hex. screwdriver 1,25mm	10 Ncm
Clinical screws direct to implant	Hex. screwdriver 1,25mm	30 Ncm
Kiran® clinical screws direct to implant	Hex. screwdriver 1,25mm	30 Ncm
Basic®/XDrive®abutments	Insertion key: MABA100/MABA200	30 Ncm
Clinical screws on Basic®	Hex. screwdriver 1,25mm	25 Ncm
Kiran® clinical screws on Basic®	Hex. screwdriver 1,25mm	25 Ncm
Clinical screws on XDrive®	Hex. screwdriver 1,25mm	20 Ncm
Kiran® clinical screws on XDrive®	Hex. screwdriver 1,25mm	20 Ncm
ZiaCam® scanbody + Screw	Hex. screwdriver 1,25mm	Manual
Kirator® abutments	Insertions keys LOSD01/LODS02	30 Ncm
ZM-Equator® abutments	Hex. screwdriver 1,25mm	30 Ncm
Tx30® abutment/Screw (Variable Rotation)	Hex. screwdriver 1,25mm	30 Ncm

 \bullet For immediate loading: D0 N0T torque manually, lock to final torque.

this case, the ZIACOM® product guarantee will be cancelled.

• When using a screwdriver or adapter for contra-angle (AC), DO NOT exceed a maximum speed of 25 rpm.

Bibliographic references

 Loosening the abutment screw is the second most common cause of implant supported restoration failure

Krishnan V1, Tony Thomas C1, Sabu I1. Management of abutment screw loosening: review of literature and report of a case. J Indian Prosthodont Soc. 2014 Sep;14(3):208-14. doi: 10.1007/s13191-013-0330-2.

 To minimize the loosening effect of the abutment screws, they should be retightened to 30 Ncm at least twice at a 10-minute interval for all laboratory and clinical procedures.

Variation in the total lengths of abutment/implant assemblies generated with a function of applied tightening torque in external and internal implantabutment connection. Clin Oral Implants Res. 2011 Aug;22(8):834-9. doi: 10.1111/j.1600-05012010.02063.x.

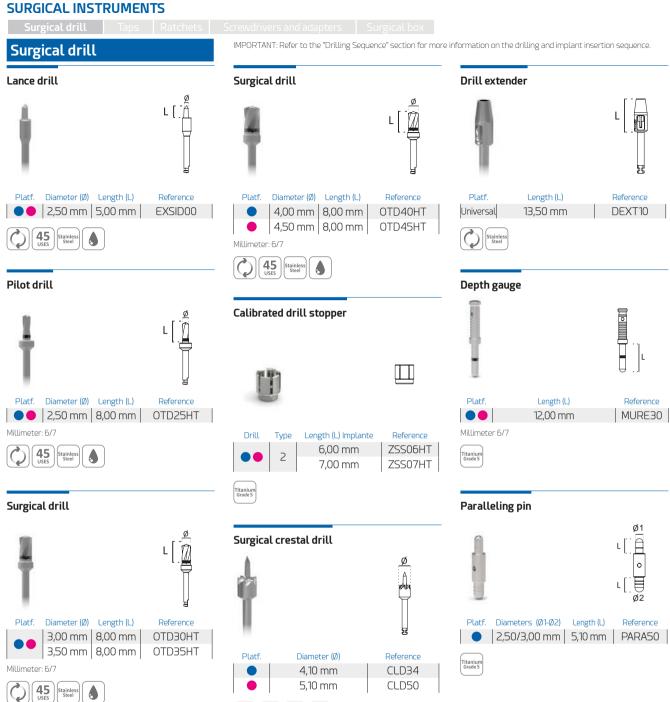
 Reliability was higher for both groups with the surface treated screw (ZIACOM® Kiran® recommended) than with the untreated screw. The failure modes differed between treated and untreated groups of screws.

Anchieta RB, Machado LS, Bonfante EA, Hirata R, Freitas AC Jr, Coelho PG. Effect of abutment screw surface treatment on reliability of implant-supported crowns. Int J Oral Maxillofac Implants. 2014 May-Jun;29(3):585-92. doi: 10.11607/jomi.3387.

Zinic shorty Instruments







Tane Batchete Scrowdrivers and adapters Surgio

Taps

Surgical tap. CA





Platf.	Diameter (Ø)	Reference
	4,75 mm	ZTAP475HTM
	5,25 mm	ZTAP525HTM

Millimeter: 6/7



This product must be used in surgeries with types I and II bone density. See detailed information on drilling and implant insertion sequences at the end of this catalogue.

ZPlus®/Z2Plus® Extractor screw

ZPlus®/Z2Plus® extractor screw



Platf.	Length (L)	Reference
	13,50 mm	EDSZ34





Ratchets

ZPlus®/Z2Plus® block key



90,00 mm

01MOHW

Z2Plus® 90,000

Hexagonal 2,4 mm



ZPlus®

Implants ratchet





		I. CLAS
Platf.	Length (L)	Reference
Universal	69,80 mm	RATC50
Square 4x4 mm		
Stainless Steel Grade 5		

Screwdrivers and adapters

ZPlus®/Z2Plus® insertion key. Ratchet/ Manual



Platf.	Length (L)	Reference
ZPlus® Z2Plus®	3,10 mm/Mini	XSMIN
	5,60 mm/Short	TSMIN
	10,60 mm/Long	TLMIN

♦ Hexagonal 2,4 mm / ■ Square 4x4 mm



ZPlus®/Z2Plus® insertion key. CA



Platf.	Length (L)	Reference
ZPlus®	15,90 mm	01MMIN
Z2Plus®	23,90 mm	02MMIN

Hexagonal 2,4 mm



Zinic® insertion key. Ratchet/Manual





Platf.	Length (L)	Reference
	5,00 mm/Short	SMZ1
	15,00 mm/Long	LMZ1
	5,00 mm/Short	SMZ2
	15,00 mm/Long	LMZ2

- Hexagonal RP 2,42 mm
- Hexagonal WP 2,42 mm
- Square 4x4 mm



Zinic® insertion key. CA





Platf.	Length (L)	Reference
	21,60 mm	MMZ1
	21,60 mm	MMZ2

- Hexagonal RP 2,42 mm
- Hexagonal WP 2,42 mm



Universal adapter. Ratchet/Manual





Platf.	Length (L)	Reference
Universal	7,20mm	LAEX

Square 4x4 mm



Surgical drill

Tans

Ratchets

Screwdrivers and adapters

Surgical box

Universal adapter. CA



Square 4x4 mm



Surgical screwdriver. Manual



Platf.	Length (L)	Reference
	2,80 mm/Mini	XSMSD
	9,50 mm/Short	SMSD
	14,50 mm/Long	LMSD
	27,00 mm/Extra-Long	XLMSD

Hexagonal 1,25 mm



Screwdriver tip. CA



Platf.	Length (L)	Reference
	20,00 mm/Short	MESD01
	25,00 mm/Long	MESD

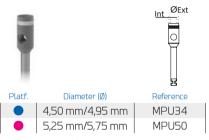
Hexagonal 1,25 mm



Screwdriver adapter handle



Tissue punch



Surface treatment with DLC



Zinic®Shorty radiographic template



Platf.	Model	Reference
	Zinic®Shorty	PRADIO130

Scale 1:1 and 1:1,25

Material: transparent acetate. Non-sterilisable element.

See bibliography on page 58**ZIACOM® surgical box**

Platf.	Contents	Reference
	Empty	B0X150
	CA basic	BOX150SM
	TK CA basic	BOX150SMK
	CA complete	BOX150CM
	TK CA complete	BOX150CMK



Material: radel

Make sure that the box does not touch the walls of the autoclave to prevent damage.



CINCONSTA

Surgical box

ZIACOM® surgical box



Available configurations of Zinic®Shorty surgical boxes

Platf.	Contents	Reference
	Empty	B0X150
	Manual basic. Implants ratchet	B0X150SS
	Manual basic. Regulable torque wrench	BOX150SSK
	CA basic. Implants ratchet	B0X151SM
	CA basic. Regulable torque wrench	BOX151SMK
	Complete. Implants ratchet	B0X151CM
	Complete. Regulable torque wrench	BOX151CMK



Material: radel

Make sure that the box does not touch the walls of the autoclave to prevent damage.

Contents of the surgical boxes*

*CONSULT WITH YOUR SALES REPRESENTATIVE THE AVAILABLE CONFIGURATIONS OF EACH MODEL

REF	Description
EXSID00	Lance drill. Zinic®Shorty. Ø2,50mm. CA. Stainless steel
OTD25HT	Pilot drill. Zinic®Shorty. Ø2,50mm. CA. Millimeter. Stainless steel
OTD30HT	Surgical drill. Zinic®Shorty Ø3,00mm. CA. Millimeter. Stainless steel
OTD35HT	Surgical drill. Zinic®Shorty. Ø3,50mm. CA. Millimeter. Stainless steel
OTD40HT	Surgical drill. Zinic®Shorty. Ø4,00mm. CA. Millimeter. Stainless steel
OTD45HT	Surgical drill. Zinic®Shorty. Ø4,50mm. CA. Millimeter. Stainless steel
ZSS06HT	Calibrated drill stop. Zinic®Shorty. H6,00mm. Titanium
ZSS07HT	Calibrated drill stop. Zinic®Shorty. H7,00mm. Titanium
ZTAP475HTM	Surgical tap. Zinic®Shorty. Ø4,75mm. CA. Stainless steel
ZTAP525HTM	Surgical tap. Zinic®Shorty. Ø5,25mm. CA. Stainless steel
DEXT10	Drill extender. Stainless steel
MURE30	Depth gauge. Millimeter Zinic®Shorty. Titanium
PARA50	Double paralleling pin. Zinic®Shorty. 2,50/3,00mm. Titanium
01MMIN	ZPlus®/Z2Plus® insertion key. Short. CA. Stainless steel
XSMIN	ZPlus®/Z2Plus® insertion key. Mini. Ratchet/Manual. Stainless steel
TSMIN	ZPlus®/Z2Plus® insertion key. Short. Ratchet/Manual. Stainless steel
MMZ1	Insertion key. Zinic®. RP. CA. Stainless Steel.
SMZ1	Insertion key. Zinic®. RP. Short. Ratchet/Manual. Stainless Steel.
MMZ2	Insertion key. Zinic®.WP. CA. Stainless Steel.
SMZ2	Insertion key. Zinic®. WP. Short. Ratchet/Manual. Stainless Steel.
01MOHW	ZPlus®/Z2Plus® block key.Stainless steel
RATC50	Implants ratchet. Stainless steel
MESD01	Screwdriver tip. Ø1,25mm. CA. Short. Stainless steel
SMSD	Surgical screwdriver. Ø1,25 mm. Short. Manual. Stainless steel
TORK50	Regulable torque wrench. 10/20/30/40/50/60/70 Ncm. Stainless steel



PROSTHETIC INSTRUMENTS

Screwdrivers and adapters

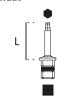
Ratchets

Prosthetic box

Screwdrivers and adapters

Screwdriver tip. Ratchet/Manual





	Platf.	Length (L)	Reference
ι	Universal	10,90 mm/Short	SMSD1
		15,90 mm/Long	LMSD1
		28,40 mm/Extra-Long	XLMSD1

Square 4x4 mm



Screwdriver tip. CA



Platf.	Length (L)	Reference
Universal	20,00 mm/Short	MESD01
Universal	25,00 mm/Long	MESD



Kirator® insertion key



	Platf.	Length (L)	Reference
Kirator®	13,60 mm/Ratchet/Manual	LOSD01	
	Kii atoi °	20,00 mm/CA	LOSD02

◆ Square 2,11 mm / ■ Square 4x4 mm



Tx30[®] screwdriver tip. CA





	Platf.	Length (L)	Reference
	Tx30®	26,00 mm/Short	MESD01TX
İ	IX3U°	32,00 mm/Long	MESDTX

Do not exceed 30 Ncm as this can cause severe damage to the screwdriver and screw.

Tx30° screwdriver tip. Ratchet/Manual

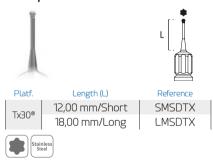


19,40 mm/Long | LMSD1TX



Do not exceed 30 Ncm as this can cause severe damage to the screwdriver and screw.

Tx30® prosthetic screwdriver. Manual



Basic® insertion key. Ratchet/Manual



XDrive® insertion key. Ratchet/Manual



Multi-function adapter. CA/Ratchet/Manual



Screwdriver adapter handle



Retentive joints instruments



Plataf.	Medida	Referencia
Universal	2x1mm	RREI0030

Ten units pack

REF

Prosthetic box

Extractor + Retainer inserter handle



Retainer inserter





Platf.		Length (L)	Reference
	Kirator®	32,00 mm	MBEI3602
	ZM-Equator®	32,00 mm	MBEI3603

Stainless Steel

Kirator® / ZM-Equator® plastic cap inserters

ZIACOM® prosthetic box



Contents	Reference
Empty	BOXPN
Basic	BOXPSN
Complete	BOXPCN



Material: rade

Make sure that the box does not touch the walls of the autoclave to prevent damage.

Contents of the prosthetic boxes*

Description

*CONSULT WITH YOUR SALES REPRESENTATIVE THE AVAILABLE CONFIGURATIONS OF EACH MODEL

TORK50	Regulable torque wrench. 10/20/30/40/50/60/70 Ncm. Stainless steel
MADW10	Screwdriver handle. 4x4. Manual. Stainless steel
LOSD01	Kirator® insert key Ratchet/Manual. Stainless steel
MABA100	Basic® insert key. Ratchet/Manual. Titanium/ Stainless steel
MABA200	XDrive® insert key. Ratchet/Manual. Titanium/ Stainless steel
MESD	Screwdriver tip. Ø1,25mm. Long. CA. Stainless steel
MESD01	Screwdriver tip. Ø1,25mm. Short. CA. Stainless steel
SMSD1	Screwdriver tip. Ø1,25 mm. Short. Ratchet/ Manual. Stainless steel
LMSD1	Screwdriver tip. Ø1,25 mm. Long. Ratchet/ Manual. Stainless steel
XLMSD1	Screwdriver tip. Ø1,25 mm. Extra-long. Ratchet/ Manual. Stainless steel
MESDTX	Screwdriver tip Tx30°. Long. CA. Stainless steel
LMSD1TX	Screwdriver tip Tx30°. Long. Ratchet/Manual. Stainless steel
EDSZ20	ZPlus® extractor screw. Zinic®. NP.Titanium
EDSZ34	ZPlus® extractor screw. Zinic®. RP/WP. Titanium
EDSG34	Abutment extractor screw. Galaxy®/ZV2®. RP. Titanium
EDSG50	Abutment extractor screw. Galaxy®/ZV2®. WP. Titanium
EDSG50	Abutment extractor screw. Galaxy®/ZV2®. WP

Ratchets

Regulable torque wrench





Platf.	Length (L)	Reference
Universal	86,80 mm	TORK50
_		

Square 4x4 mm



Regulable torque wrench



Square 4x4 mm





Zinic Shorty Surgical protocol

Important: Read carefully the recommendations of the surgical protocol and implant handling for predictable results.

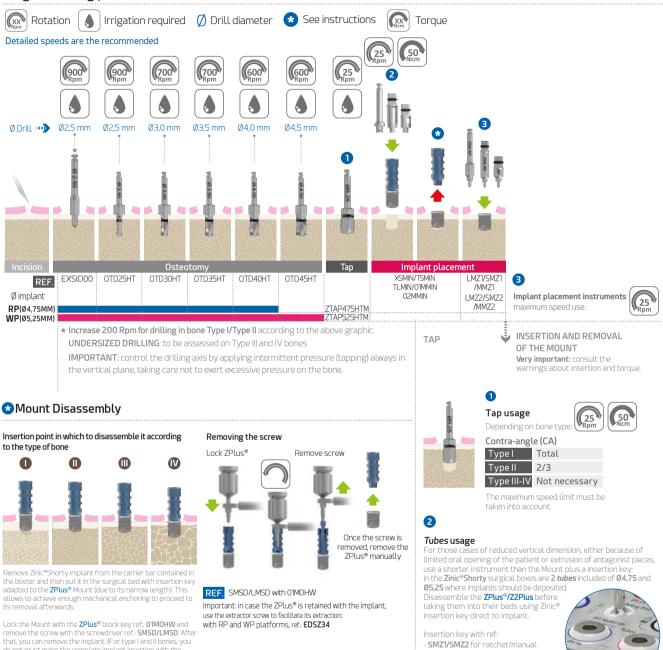
Risks of not respecting the recommendations of the drilling sequence:

- Difficulty in implant insertion.
- Over-compression in the implant site.
- Reduction of primary stability and impossibility of osseointegration.



ZINIC®HORTY





ZPlus®/Z2Plus® Mount recommendation

do not must make the complete implant insertion with the

Once the Mount has been removed, use the insertion keys for ratchet or contra-angle until the implant platform had been placed in the position indicated in the protocol

In case of cold seizure or cold sealing of ZPlus®/Z2Plus® after its insertion in the implant: avoid manipulating the Mount with instruments in a way that can reduce primary stability. Only use the ZIACOM® extractor screw Ref. EDSZ34 (RP/WP). When the extractor screw (with screwdriver 1.25 mm and manual torque) is inserted clockwise, an expected contact occurs from its apex with the implant, unlocking the Mount and releasing it for removal.





MMZ1/MMZ2 for contra-angle

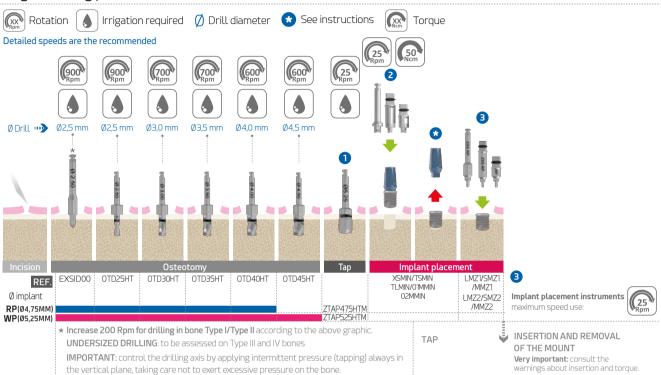
Implant placement at crestal level

ZIACOM® implant platforms should be placed at bone crest level.

ZPlus® Mount)

ZINICSHORTY

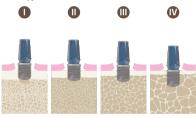
Surgical drilling protocol with Z2Plus® Mount



.....

Mount Disassembly

Insertion point in which to disassemble it according to the type of bone



Remove Zinic®Shorty implant from the carrier bar contained in the blister and then put it in the surgical bed with insertion key adapted to the Z2Plus® Mount (due to its narrow length). This allows to achieve enough mechanical anchoring to proceed to its romoval afterwards

Lock the Mount with the **Z2Plus®** block key ref: **01M0HW** and remove the screw with the screwdriver ref: **SMSD/LMSD**. After that, you can remove the implant. (For type I and II bones, you do not must make the complete implant insertion with the Z2Plus® Mount)

Once the Mount has been removed, use the insertion keys for ratchet or contra-angle until the implant platform had been placed in the position indicated in the protocol.

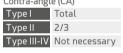
Removing the screw



REF. SMSD/LMSD with 01MOHW

Important: in case the Z2Plus® is retained with the implant, use the extractor screw to facilitate its extraction: with RP and WP platforms, ref.: EDSZ34

Tap usage Depending on bone typ Contra-angle (CA)



The maximum speed limit must be taken into account.

Tubes usage

For those cases of reduced vertical dimension, either because of limited oral opening of the patient or extrusion of antagonist pieces, use a shorter instrument than the Mount plus a insertion key in the **Zinic**°Shorty surgical boxes are 2 *tubes* included of *04*,75 and *05*,25 where implants should be deposited.

Disassemble the ZPlus®/Z2Plus before taking them into their beds using Zinic insertion key direct to implant.

Insertion key with ref:

- SMZ1/SMZ2 for ratchet/manual
- MMZ1/MMZ2 for contra-angle

ZPlus®/Z2Plus® Mount recommendation

In case of cold seizure or cold sealing of ZPlus®/Z2Plus® after its insertion in the implant: avoid manipulating the Mount with instruments in a way that can reduce primary stability. Only use the ZIACOM® extractor screw Ref. EDSZ34 (RP/WP). When the extractor screw (with screwdriver 1.25 mm and manual torque) is inserted clockwise, an expected contact occurs from its apex with the implant, unlocking the Mount and releasing it for removal.



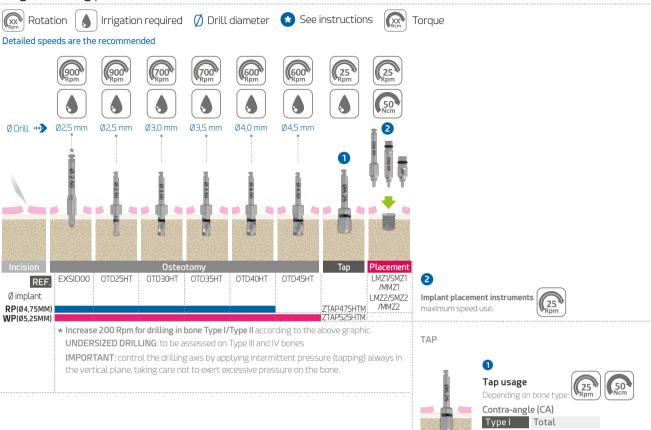


Implant placement at crestal level

ZIACOM® implant platforms should be placed at bone crest level.

ZINICSHORTY

Surgical drilling protocol with ZIACOM® No Mount

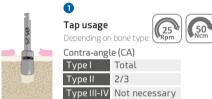


About ZIACOM® No Mount

ZIACOM® implants are available without Mount. This blister pack format allows dentists to comfortably remove the implant from the vial and place it in the surgical site with a direct instrument in a single step, saving time during the operation. The implantation without Mount facilitates instrumentation in reduced spaces and allows for better visibility of the surgical site. (See the steps on page 16 of this catalogue.)

The new Zinic® insertion keys direct to the implant, Ref. LMZ1/SMZ1/MMZ1 (RP) and LMZ2/SMZ2/MMZ2/MMZ2 (WP) have a centring device on their clamping part to avoid damaging the connection and a washer on the active end that provide a quick and safe function of transporting the implant to surgical site.





The maximum speed limit must be taken into account.



Implant placement at crestal level

ZIACOM® implant platforms should be placed at bone crest level.



Treatment Planning



IMPORTANT WARNINGS

Speed use for contra-angle

Rpm maximum recommended must be respected. Screwdrivers and insertion keys for contra-angle: maximum 25 Rpm.



Insertion torque:

The Implant placement should be performed with controlled torque and according to the density and bone quality of the receptor bed.



The recommended insertion torque is between 35 and 50 Ncm according to each case without being limited to a single torque.

You can consult the bibliography at the end of this catalogue.

To avoid the cortical stress and deformation of the key and implant connection:

In order to avoid cortical stress and deformation of the key and/or implant connection, as well as Mount seizure, during insertion :

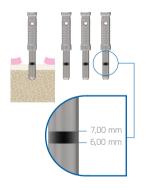
with contra-angle (CA) the recommended maximum speed (25 Rpm) and maximum torque (50 Ncm) must be respected.

For ratchet use, it is necessary to monitor the resistance that may cause an excessive compression in the bone. In case of perceiving this, it is recommended to remove the implant twice (to release the bone from the tension) and, after a few seconds, you may keep following with the insertion and make the process again as many times as necessary.

Failure to follow these warnings could result in:

- · Irreversible distortions with the Mount.
- Dissembling Mount difficulties
- Irreversible distortions in the internal and external connection of the implant.
- Dissembling in the implant/instrument difficulties.
- Implant insertion difficulties.
- · Lack of primary stability due to loss bone.
- No osseointegration necrosis of bone due to excessive compression of the receptor bone.

Suplementary instrument



Depth gauge

Check the surgical site depth, especially if stonners were not used



Paraleling pin

To check the surgical site axis, the paralleling pins have different diameters according to the drilling sequence.

Consider during intervention



Surgical drills should be inserted in the contra-angle with the surgical motor stopped, ensuring correct anchoring and rotation before starting drilling. Treat the drills with great care: the slightest damage to the tips can compromise their effectiveness



Each instrument must be used only

for the specific use recommended by the manufacturer



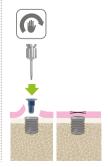
Damaged instruments must be disposed according to the regulations established by the manufacturer.



The clinician must keep

identification label supplied with the product, for proper traceability.

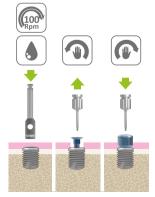
Cover screw handling



Remove the cover screw from its vial using the hexagonal screwdriver anti-clockwise. Approach the implant avoiding the fall and accidental ingestion of the screw. Insert it into the implant until it closes, with manual torque and clockwise

Second phase surgical procedure

Healing abutment placement



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.

Instructions for cleaning and disinfection of: instruments and boxes (surgical and prosthetic)

Protocol to be carried out by qualified personnel for the preparation of instruments and surgical/prosthetic boxes for use

ATTENTION: the instruments and surgical/prosthetic hoxes must be cleaned and disinfected after each use and sterilised before their next use. Pay attention to sharp elements, the use of gloves is recommended to avoid accidents during handling when following these instructions. Do not clean or disinfect instruments of different materials together

Cleaning and disinfection of instruments

1-Disassembly

- · Disassomble the instruments that require it such as manual ratchets (see diagram below), drills and drill stops...
- Disassemble the surgical/prosthetic boxes into their components for proper cleaning.
- Uncouple the micro-implants insertion key from the handle (see diagram below).

2 - Cleaning

- Immorso the instruments in a solution of a cleaning agent suitable for dental instruments to facilitate the removal of adhering biological dehris
- Remove biological residue manually with a soft brush and pH-neutral detergent
- Rinse with plenty of water
- Perform a final rinse with deionised water
- Always use pH-neutral detergents and non-abra-sive tools to clean surgical/prosthetic boxes so as not to damage the surfaces of the box.

3 - Disinfection

- · Immorso the instruments in a disinfectant explicitly indicated for dental instruments For disinfection with ultrasonic equipment
- immerse the material in the ultrasonic bath.
- Rinse with plenty of deionised water to remove any residues of the disinfectant.
- Dry the material with filtered compressed air. IMPORTANT:
- Follow the instructions of the disinfectant manufacturer to determine concentrations and times.
- Follow the instructions of the manufacturer of the ultrasound equipment to determine temperature, concentration and times.

4 - Inspection

- Chock that the instruments are perfectly clean otherwise repeat the above cleaning and disinfection steps.
- Discard instruments that show damage and replace them for the next surgery.
- Verify that the instruments and surgical/pros-thetic boxes are perfectly dry before assembly and storil isation

Disassembly of ZIACOM® ratchets



Assembly of ZIACOM® ratchets



Disassembly of DSQ® micro-implant insertion handle



Assembly of DSQ® micro-implant insertion handle



Sterilisation instructions for: orthodontic micro-implants, abutments, instruments and boxes (surgical and prosthetic)

Protocol to be carried out by qualified personnel for the sterilisation of micro-implants, abutments, instruments and surgical/prosthetic boxes for use

ATTENTION: all micro-implants, abutments, instruments and surgical/prosthetic boxes are supplied NON-STERILE. They should be sterilised as directed before the first clinical use.

They must be removed from their original packaging for sterilisation prior to first clinical use. Surgical/prosthetic instruments and boxes should be cleaned and disinfected after each use and sterilised prior to use. Do not sterilise instruments of different materials together, unless the corresponding surgical/prosthetic box is used correctly.

Steam autoclave sterilisation: sterilisation of micro-implants, abutments, instruments and boxes

- 1- Insert the material individually into sterilisation bags and seal the bags..
- For joint sterilisation: assemble the instruments in their corresponding surgical box, insert the box in a sterilisation bag and seal the bag.
- 2- Place the bags to be sterilised in the autoclave.
- 3- Sterilise in steam autoclave at 134°C/273°F (max. 137°C/276°F), for 4 min (minimum) and 2 atm of pressure..

 Only for USA: the validated and recommended sterilisation

cycle is in a steam and gravity autoclave at 132°C/270°F, minimum 15 minutes and drying time 15-30 minutes.

IMPORTANT:

- Make sure that the drying phase is completed to prevent the products from coming out wet..
- Check the sterilisation equipment if the sterilisation material or bags are wet at the end of the sterilisation.
- Carry out the maintenance of the autoclave with the established periodicity and the necessary actions, following the manufacturer's instructions.

Conservation of ZIACOM® products (micro-implants, abutments, instruments and boxes)

- Keep the products in the original ZIACOM® packaging in a dry and clean environment until use...
- abutments and surgical boxes) in their sealed sterilisation bags and in a dry and clean environment.
- Never exceed the expiration dates determined by the manufact

- Follow the instructions of the manufacturer of the sterilisation bags

After sterilisation, keep the products (micro-implants, instruments,

- turer of the sterilisation bags.

IMPORTANT:

General recommendations

- Never use damaged or dirty material. Never reuse products indicated for a single use, the user is responsible for the correct follow up of the instructions described in this document.
- Always wear gloves when cleaning the material.
- Follow the safety instructions given by the manufacturer of the disinfection agent
- Sterility cannot be guaranteed if the sterilisation bag is open, damaged or wet
- Respect all phases of the steriliser. If the sterilisation material or bags have water or moisture residues, check the autoclave and dry the bags.
- Carry out the maintenance of the autoclave according to its manufacturer, with the established periodicity.
- The sterilisation, cleaning and disinfection processes progressively deteriorate the instruments. Inspect the instruments carefully for signs of deterioration.
- Ziacom Medical SLU recommends following these instructions to avoid impairing the purpose and safety of its products. If alternative procedures are used, it is the responsibility of the user to ensure that the chosen cleaning, disinfection and sterilisation procedure achieves the desired results without affecting the products.

Note. For the most up-to-date version of the cleaning, disinfection and sterilisation instructions, please visit our website www.ziacom.es

Other products ZIACOM®



Biomaterials: regenerative solutions

Soft and hard tissue regeneration procedures to recover lost volume are increasingly necessary in implant aesthetics and functionality. The goals of treatment and the expectations of each patient change in each case, which is why ZIACOM® offers the professional a range of biomaterials that provide predictable and reliable regenerative solutions for implant success.





Bone substitutes

OsseosBCP®. Synthetic bone graft





Cell adhesion 5

Synthetic ceramic made of calcium phosphate and created to fill bone defects:

- Composition: 75% hydroxyapatite (HA). 25% tricalcium phosphate (ß-TCP).
- OsseosBCP® induces regeneration and bone growth by stimulating the proliferation and differentiation of osteoblasts.
- Highly interconnected porosity with an excellent mechanical resistance.
- OsseosBCP® is replaced by new vital bone, the resorption take place in two stages.
- Excellent flexibility, perfect osseointegration and osteoconduction and exceptional bioactivity.

Why choose OsseosBCP®?

High safety

100% synthetic and 100% resorbable.

Resorbable

OsseosBCP® is replaced by new vital bone within 6-24 months.

High cohesiveness

OsseosBCP® particles present high cohesiveness, conserving the initial cavity volume.

Radiopaque

Allows monitoring of osseointegration until its total absorption.

Vascularisation

OsseosBCP® induces a remarkable vascularisation.

Stable volume

OsseosBCP® hydroxyapatite portion prevents excessive resorption to keep tissue volume much longer.

Reference	Geometry	Size	Amount
0EB010505G	Granules	0,1 - 0,5 mm	0,5 g./1 unit
0EB010505P	Granules	0,1 - 0,5 mm	0,5 g./5 units
0EB050110G	Granules	0,5 - 1 mm	1,0 g./1 unit
0EB050110P	Granules	0,5 - 1 mm	1,0 g./5 units

OsseosTCP®. Synthetic bone graft





OsseosTCP® SEM micrograph

Synthetic ceramic made of calcium phosphate (ß-TCP) and created to fill bone defects:

- Composition: 99,9% tricalcium phosphate (ß-TCP).
- OsseosTCP® induces regeneration and bone growth, stimulates the proliferation and differentiation of osteoblasts.
- Highly interconnected porosity with an excellent mechanical resistance.
- OsseosTCP® is replaced by new bone during the healing process.
- Excellent flexibility, perfect osseointegration and osteoconduction and exceptional bioactivity.

Why choose OsseosTCP®?

High safety

100% synthetic and 100% resorbable.

Resorbable

OsseosTCP® is replaced by new vital bone within 1-6 months.

High cohesiveness

OsseosTCP® particles present high cohesiveness, conserving the initial cavity volume.

Radiopaque

Allows monitoring of osseointegration until its total absorption.

Vascularisation

OsseosTCP® induces a remarkable vascularisation.

Reference	Geometry	Size	Amount
OET010505G	Granules	0,1 - 0,5 mm	0,5 g./1 unit
0ET010505P	Granules	0,1 - 0,5 mm	0,5 g./5 units
OET050110G	Granules	0,5 - 1 mm	1,0 g./1 unit
0ET050110P	Granules	0,5 - 1 mm	1,0 g./5 units



Membranes

T-Gen®. Resorbable collagen membrane





T-Gen® cross

T-Gen® is a resorbable collagen membrane crafted with porcine origin, used as Guided Bone Regeneration (GBR) barrier as same as Guided Tissue Regeneration (GTR). It can be combined with bone grafts or adhere directly to the defect area.

- · Clinical indications:
 - Post-extraction sockets regeneration.
 - Implant placement preparation.
 - Alveolar ridge preservation.
 - Fenestration defects treatment.
 - Sinus lift.
 - Sinus membrane protection against rips.

T-Gen® collagen membrane offers:

Excellent handling

- It can be used on both sides.
- Fast hydration.
- Excellent tensile strength.
- Flexible adaptation on defective anatomy.

Better tissue integration

- It allows fast blood supply to the defect.
- Lower risk of a dehiscence.

Excellent stability

- Tear resistance.
- Prolonged barrier function.
- Slow resorption, more than 3 months.

Reference Size TG-1 15x20mm TG-2 20x30mm TG-3 30x40mm

Zellplex®. PLGA resorbable synthetic membrane





Zellplex® cross section SEM

Zellplex® is a synthetic membrane of polylactic acid - glycolic acid (PLGA), biocompatible and fully resorbable membrane for Guided Bone Regeneration (GBR) and Guided Tissue Regeneration (GTR) applications.

Zellplex® has a specially designed bilayer structure, which prevents on the one hand the internal growth of the epithelial tissue and on the other hand, promotes cell infiltration to induce bone regeneration.

Zellplex® membrane offers:

Exceptional tissue adhesion

- Flexible, strong and rip resistance for tacking and suturing.
 - Easy to handle and cut to size.
 - Exceptional tissue adhesion during surgery.

Complete resorption in 6 months

- The Zellplex® barrier function membrane remains intact for the first 4 weeks.
- Optimal bone and tissue regeneration are both guaranteed thanks to the slow and fully controlled resorption over 6 months.

Unique shape memory

 Unique shape memory properties offer optimal membrane shaping and placement to fit defect anatomies.

Synthetic alternative choice

- The intrinsic synthetic microfibres imitate the structure of human collagen and serve as a 3D matrix for early cell colonisation and vascularisation.
- Zellplex® is animal derivatives free, thus expanding the group of treatable patients: those who avoid animal byproducts for cultural or lifestyle reasons.

Reference	Size	
ZP1520	15x20mm	
ZP2030	20x30mm	

Guided surgery software and protocols



The digital implantology planning software for guided surgery opens a world of possibilities in diagnosis and pre-implant surgery planning, being an indispensable tool for professionals who wish to work safely, accurately and efficiently in their procedures.

It offers the possibility to represent the position of the implants in 3D and make an approximation to the final result of the treatment before doing it, preventing incidents that could occur during the procedure and shortening the duration of the surgery and the recovery periods by using a splint that will guide the surgical procedure, made based on the previous planning.

Total planning software

The surgery performed digitally, allows to detect prior difficulties that may arise during the procedure, and may provide solutions that fit most efficiently and effectively to the patient's clinical situation.

Security and reliability

The guided surgery splint facilitates the work of the professional and reduces the surgical time of the operation, allowing a procedure to be performed with total precision.

Shorter deadlines

Minimally invasive surgery in one or two surgical times. Depending on the patient's clinical condition and the clinician's prosthetic planning, restoration may be performed in a single session.

ZIACOM® Guide Plan

Implantology is constantly evolving. Technological advances make it possible to improve the predictability of the results of the surgical procedure. The development of computer-assisted surgery has marked a turning point in the world of implantology, achieving precise and exact results in a very short time.

ZIACOM®, always at the forefront of technology, has developed a planning software for guided surgery, **Zinic®3D**, in addition to a platform of services for planning, designing and making surgical guides for all those who want to make reliable implantology with reduced surgical time. **ZIACOM® Guide Plan** allows surgeons to delegate the planning process to our experts, a service that will guarantee maximum precision, minimising the risks related to the surgery and making it a process with predictable results, being this process approved by the professional.

The surgeon or implantologist obtains a surgical guide design, based on the planning carried out, and subsequently receives a physical surgical guide to perform a minimally invasive surgical intervention that respects the biology of the tissues, safe, fast and comfortable for the patient, using the surgical box for Zinic®3D, ref.: 3DBOX100C.

ZIACOM® Guide Plan has a fully online tool for sending patient files digitally, always complying with the protocols to ensure compliance with the Data Protection Law. You will also have the possibility of sending the physical requirements for the planning, design and preparation of surgical guides.



ZIACOM® digital workflow

Zinic®3D + Carestream CS 3600 + ZIACOR® CAD-CAM The perfect combination to work with full digital workflow

The digital workflow is already a reality. Digitalisation is displacing traditional impressions, for its reliability, reproduction of details, marginal adjustment, functionality, aesthetics and comfort for patients.

The Carestream CS 3600 is an intraoral scanner that combines the latest technology, versatile and easy to use; that allows obtaining high definition colour images, which reproduce with precision and accuracy even the smallest details. The quality of the digital impressions obtained with the Carestream CS 3600 surpasses the models of the impressions obtained with the conventional methods, which provides results with the highest quality standards and minimising the number of clinical sessions.

ZIACOM® authorised distributor of Carestream Dental for the intraoral digital scanners Carestream CS 3600, has a fully digital workflow for all those professionals interested in offering cutting-edge implantology to their patients, starting with the acquisition of digital impressions with the Carestream CS 3600.

ZIACOM® makes digital implantology available to professionals through a planning service platform with Zinic®3D software, including the design and manufacture of surgical guide with3D printing technology by ZIACOR® CAD-CAM; a subsidiary of the Ziacom Medical group.









Universal tip kits, trephines and ratchet tips

Universal tip kits

- Can be used with contra-angle or manual use with adapter handle.
- Suitable for most implant systems.
- Stainless steel.
 - » Screwdriver handle, CA, Manual, Stainless steel, Ref. MADW1
 - » Screwdriver tin Ø120 mm CA Stainless steel Hex Ref MESD1
 - » Screwdriver tip. Ø1,25 mm. CA. Stainless steel. Hex. Ref. MESD
 - » Screwdriver tip. Ø1,27 mm. CA. Stainless steel Hex. Ref. MESD2
 - » Screwdriver tip. Ø1,70 mm. CA. Stainless steel. Hex. Ref. MESD3
 - » Screwdriver tip. 2,25/0,5 mm. CA. Stainless steel. Cruciform. Ref. MESD4
 - » Screwdriver tip. 1,6 mm. CA. Stainless steel. Flat. Ref. MESD5
 - » Screwdriver tip. CA. Stainless steel. Unigrip. Ref. MESD6
 - » Screwdriver tip. CA. Stainless steel. Torx. Ref. MESD7

Millimeter trephines

- Clinical trephines with minimum gap for extraction of bone or implants.
- Cut-off angles designed to improve efficiency.
- Stainless steel with DLC coating, improving cutting and longevity.
- » Trephine. Diameters 4,10 Ext. x 3,45 Int. Millimeter 2/4/6/8/10 mm. Ref. **0FC35**
- » Trephine. Diameters 4,85 Ext. x 3,45 Int. Millimeter 2/4/6/8/10 mm. Ref. **0FC40**
- » Trephine. Diameters 4,95 Ext. x 4,40 Int. Millimeter 2/4/6/8/10 mm. Ref. **0FC45**
- » Trephine. Diameters 5,85 Ext. x 5,10 Int. Millimeter 2/4/6/8/10 mm. Ref. **0FC50**









Ratchet tips

- Can be used with ratchet or manual use with adapter handle.
- Suitable for most implant systems.
- Stainless steel.
- » Screwdriver adapter handle. 4x4mm. Manual. Stainless steel. Ref. **MADW10**
- » Screwdriver tip. Ø1,20 mm. Short. Ratchet/Manual. Stainless steel. Ref. SMSD20Z
- » Screwdriver tip. Ø1,20mm. Long. Ratchet/Manual. Stainless steel. Ref. LMSD20Z
- » Screwdriver tip. Ø1,25 mm. Short. Ratchet/Manual Stainless steel. Ref. SMSD1
- » Screwdriver tip. Ø1,25 mm. Long. Ratchet/Manual. Stainless steel Ref. LMSD1
- » Screwdriver tip. Ø1,25 mm. Extra-Long. Ratchet/Manual. Stainless steel. Ref. XLMSD1
- » Screwdriver tip. Ø1,27 mm. Short. Ratchet/Manual. Stainless steel. Ref. ${\tt SMSD27Z}$
- » Screwdriver tip. Ø1,27 mm. Long. Ratchet/Manual. Stainless steel. Ref. LMSD27Z
- » Screwdriver tip. Ø1,70 mm. Short. Ratchet/Manual Stainless steel. Ref. SMSD70Z
- » Screwdriver tip. Ø1,70 mm. Long. Ratchet/Manual. Stainless steel. Ref. **LMSD70Z**
- » Screwdriver tip. Unigrip®. Short. Ratchet/Manual Stainless steel Ref. SMSDT1Z
- » Screwdriver tip. Unigrip®. Long. Ratchet/Manual. Stainless steel. Ref. LMSDT1Z
- » Screwdriver tip. Torx6. Short. Ratchet/Manual. Stainless steel. Ref. **SMSDK6Z**
- » Screwdriver tip. Torx6. Long. Ratchet/Manual. Stainless steel. Ref. LMSDK6Z
- » Screwdriver tip. Tx30°. Short. Ratchet/Manual. Stainless steel. Ref. **SMSD1TX**
- » Screwdriver tip. Tx30°. Long. Ratchet/Manual. Stainless steel. Ref. LMSD1TX



Surgical drills

The ZIACOM® surgical drill length measuring system is simple and intuitive and allows you to guide you through the surgical site drilling process. It is recommended for use with irrigation and is made of stainless steel with a maximum use limit of 45. It is important to note the length of the end drill tip, because it is **NOT INCLUDED** in the length measurements of the end drill.

Millimeter drills:

Laser marking on the drills rod identifies their diameter, and the band horizontal laser marking in its active part represents the different lengths of the implants. They are used in straight or cylindrical body implants.







Tapered drills

Tapered drills:

Laser marking on the drills rod identifies its largest and smallest diameter and length. The drills have conical geometries adapted to the size of each implant, both in diameter and length. That it's means, every diameter and length of implant has a final drill. They are used in conical body implants.

Stepped drills:

The stepped geometry of the drills has been specially designed for the tapered core or reduced apical diameter implants. The laser marking on the drill rod identifies its diameter and the horizontal band of the laser marking. The active area represents the different lengths of the implants.



Stepped drills

Patient information media

A surgical procedure is always preceded by a consultation between dentist and patient. Having different informative visual media suitable for the patient, brochures and leaflets, is important and necessary, to show clear and easily the advantages of the treatment. All the contents of this material have a scientific basis and are presented clearly and easily to understand. The aim is to help the professionals to explain all medical and technical issues using images and texts.

It helps patient to better understand the information provided during the consultation in the clinic before the intervention and widen his knowledge through further readings.

Macro 7IACOM®

Includes:

- Large show-piece implant Zinic® MT or Galaxy®
- Milling abutment with crown
- Conventional bridge
- Removable prepared teeth
- · Detachable gingiva

Implantation document

This document guarantees your patients the use of a Brand with first quality products and the following maintenance.

Remember that ZIACOM® implants offers LIFE TIME GUARANTEE.

Patient information and table flipchart

This information is designed to add value for dental office, which offer patients a better explanation about the treatments with new and more visual format.



Macro ZIACOM®
Reference: FPM01 (Zinic MT®)
Reference: FPM02 (Galaxy®)

Implantation document 25 units pack
Reference: DIP

ZIACOM® table flipchart Reference: FP001

Bibliography

Short and extra-short implants

 The two-year survival rate of 6 mm implants was 94.3%; those of 8 mm of 99.3% and those of 10-16 mm of 97.4%. 630 implants in 264 patients.

Artin M. Short dental implants as a treatment option: results from an observational study in a single private practice. Int J Oral Maxillofac Implants 2006; 21: 769-76.

- Implants with rough surface can achieve the same success rate as conventional length implants in the rehabilitation of posterior edentulous patients with fixed partial dentures. Esposito M, Ardebili Y, Worthington H V. Interventions for replacing missing teeth: different types of dental implants. Cochrane database Syst Rev. 2014;7:CD003815.
 Mezzomo LA, Miller R, Triches D, Alonso F, Shinkai RS a. Meta-analysis of single crowns sup-ported by short (<10 mm) implants in the posterior region. J Clin Periodontol. 2014;41:191–213. Srinivasan M, Vazquez L, Rieder P, Moraguez O, Bernard J-P, Belser UC. Survival rates of short (6 mm) micro-rough surface implants: a review of literature and meta-analysis. Clin Oral Implants Res. 2014;25:539–45. Griffin TJ, Cheung WS. The use of short, wide implants in posterior areas with reduced bone height: a retrospective investigation. J Prosthet Dent. 2004;92:139–44. Renouard F, Nisand D. Short implants in the severely resorbed maxilla: a 2-year retros-pective clinical study. Clin Implant Dent Relat Res. 2005;7 Suppl. 1:5104–10. Nedir R, Bischof M, Briaux J-M, Beyer S, Szmukler-Moncler S, Bernard J-P. A 7-year life table analysis from a prospective study on ITI implants withspecial emphasis on the use of short implants. Clin Oral Implants Res. 2004;15:150–7.</p>
- Implants of 6 mm obtained a survival rate of 100% in posterior mandibular segments, decreasing to 87% in the posterior maxillary sector.

French D, Larjava H, Ofec R. Retrospective cohort study of 4591 Straumann implants in private practice setting, with up to 10-year follow-up. Part 1-multivariate survival analysis. Clin Oral Implants Res. 2015;26:1345–54.

There is no difference between survival rates of short implants (5-8 mm) and long implants (> 8 mm): complications in short implants are lower.

Seven randomized clinical trials that met the inclusion criteria with 554 implants (265 implants in the short implant group). Fan T1, Li Y1, Deng WW1, Wu T1, Zhang W1,2. Short Implants (5 to 8 mm) Versus Longer Implants (>8 mm) with Sinus Lifting in Atrophic Posterior Maxilla: A Meta-Analysis of RCTs. Clin Implant Dent Relat Res. 2016 Jun 13. doi: 10.1111/cid.12432. [Epub ahead of print]

Implants with 6 mm in length should be selected in cases with bone C quantity, where the availability of bone width allows to increase the implant Ø from 4 mm to 5 mm.

Moriwaki H, Yamaguchi S, Nakano T, Yamanishi Y, Imazato S, Yatani H. Influence of Implant Length and Diameter, Bicortical Anchorage, and Sinus Augmentation on Bone Stress Distribution: Three-Dimensional Finite Element Analysis. Int J Oral Maxillofac Implants. 2016 Jul-Aug;31(4):e84-91. doi: 10.11607/jomi.4217.

 Short implants in the posterior area of the mandible seem to be preferable to vertical augmentation procedures, which present similar rates of prosthesis failure but greater morbidity.

Of 527 articles, 14 randomized clinical trials were included. Four trials evaluated short implants (5 to 8 mm). Octavi CF1, Genís BB2, Rui F3, Jung RE4, Cosme GE5, Eduard VC6. Interventions for Dental Implant Placement in Atrophic Edentulous Mandibles: Vertical Bone Augmentation and Alternative Treatments. A Meta-Analysis of Randomized Clinical Trials. J Periodontol. 2016 Jul 29:1-23. PMID: 27468794 DOI: 10.1902/jop.2016.160226.

 An unfavorable crown / implant ratio is not a risk factor for implant failure, provided that the orientation of forces, load distribution, and parafunctions are controlled.

262 mechanized short implants during 53 months of follow-up. Tawil G, Aboujaoude N, Younan R. Influence of prosthetic parameters on the survival and complication rates of short implants. Int J Oral Maxillofac Implants 2006; 21:275-82...

- Lower survival of implants with less than 8 mm in length were found in bone type III (p = 0,02), but this difference disappeared when the implants were 8 mm in length (p = 0,25)..
 Demiralp KÖ, Akbulut N, Kursun S, Argun D, Bagis N, Orhan K. Survival Rate of Short, Locking Taper Implants with a Plateau Design: A 5-Year Retrospective Study. Biomed Res Int. 2015;2015;1—8.
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- There are better performance by splinting implants, especially if the mesial one implant is longer..

Pellizzer EP, de Mello CC, Santiago Junior JF, de Souza Batista VE, de Faria Almeida DA, Verri FR. Analysis of the biomechanical behavior of short implants: The photo-elasticity method. Mater Sci Eng C. 2015;55:187–92.

 Ferulizing the crowns reduces the peri-implant bone stress under horizontal loads recommending the bone splinting of low quality.

Wang T-M, Leu L-J, Wang J, Lin L-D. Effects of prosthesis materials and prosthesis splin-ting on peri-implant bone stress around implants in poorquality bone: a numeric analysis. Int J Oral Maxillofac Implants. 2001;17:231–7.

Surface treatment

Surface roughness alters osteoblast proliferation, differentiation and matrix production
in vitro. And participates in the determination of phenotypic expression of cells in vivo.
 Martin JYI, Schwartz Z, Hummert TW, Schraub DM, Simpson J, Lankford J et al. Effect
of titanium surface roughness on proliferation, differentiation, and protein synthesis of

humanosteoblast-like cells (MG63), J Biomed Mater Res. 1995;29(3):389-401.

 The response of bone cells to systemic hormones is modified by surface roughness and increases the responsiveness of MG63 cells to 1alpha, 25- (0H) 2 D3

Boyan BD, Batzer R, Kieswetter K, Liu Y, Cochran DL, Szmuckler-Moncler S, Dean DD, Schwartz Z. Titanium surface roughness alters responsiveness of MG63 osteoblast-like cells to 1alpha. 25-(OH)2D3. J Biomed Mater Res. 1998;39(1):77-85.

 Surface roughness can modulate the activity of cells that interact with an implant, and therefore affect tissue healing and implant success.

Kieswetter K1, Schwartz Z, Hummert TW, Cochran DL, Simpson J, Dean DD et al. Surface roughness modulates the local production of growth factors and cytokines by osteo-blast-like MG-63cells. J Biomed Mater Res. 1996;32(1):55-63.

When comparing different surface topographies, it should be noted that surface chemistry can be an influential variable

Morra M1, Cassinelli C, Bruzzone G, Carpi A, Di Santi G, Giardino R et al. Surface chemistry effects of topographic modification of titanium dental implant surfaces: 1. Surface analysis. Int J Oral Maxillofac Implants. 2003;18(1):40-45.

 Surface roughness produced by sand blasting and acid etching affects cell adhesion mechanisms, providing better osseointegration.

Orsini G, Assenza B, Scarano A, Piattelli M, Piattelli A Surface analysis of machined versus sandblasted and acid-etched titanium implants. Int J Oral Maxillofac Implants. 2000:15(6):779-84

 Highest degree of bone-implant bonding on a sandblasted surface and acid etching than others.

Buser D, Schenk RK, Steinemann S, Fiorellini JP, Fox CH, Stich H. Influence of surface characteristics on bone integration of titanium implants. A histomorphometric study in miniature pigs. J Biomed Mater Res. 1991;25(7):889-902.

 Among the most desirable characteristics of an implant are those that ensure that the implant-tissue interface will be established quickly and can be maintained.

Gupta A, Dhanraj M, Sivagami G. Status of surface treatment in endosseous implant: a literary overview. Indian J Dent Res. 2010;21(3):433-8.

 Review of the literature on the influence of micro-design of dental implants on their osseointegration.

Aljateeli M, Wang HL. Implant microdesigns and their impact on osseointegration. Implant Dent. 2013;22(2):127-132.

• The success of a dental implant depends on the chemical, physical, mechanical, and topographic characteristics of its surface. The structural and functional attachment of the live-bone implant is greatly influenced by the surface properties of the implant. The influence of the topography of the osseointegration surface has been translated into the shorter healing times of the placement of implants for the restoration. This article presents a discussion of the surface characteristics and the design of the implants, which should allow the clinician to better understand osseointegration and the information coming from implant manufacturers, which allows a better selection of the implant.

Ogle OE. Implant surface material, design, and osseointegration. Dent Clin North Am. 2015;59(2):505-20

 Implants with mixed surface treatment (SLA type) presented increased bone crest at 3 and 12 months under loading conditions.

Valderrama P, Bornstein MM, Jones AA, Wilson TG, Higginbottom FL, Cochran DL. Effects of implant design on marginal bone changes around early loaded, chemically modified, sandblasted Acid-etched-surfaced implants: a histologic analysis in dogs. J Periodontol. 2011;82(7):1025-1034.

Implant size selection

When it comes to severe atrophy of the jaws, short and wide implants can be placed successfully (28 included studies, between 1991 and 2011).

Karthikeyan I, Desai SR, Singh R. Short implants: a systematic review. J Indian Soc Periodontol. 2012;16(3):302-312.

Survival of the implants (short <10 mm) is improved with longer length, placement of
the mandible with respect to the maxilla, and in non-smokers (a systematic review of the
prognosis of short implants, [<10 mm], in the partially edentulous patient).

Telleman G, Raghoebar GM, Vissink A, den Hartog L, Huddleston Slater JJ, Meijer HJ. A systematic review of the prognosis of short (<10 mm) dental implants placed in the partially edentulous patient. J Clin Periodontol. 2011;38(7):667-676.

Among the risk factors examined, most failures of short implants can be attributed to
poor bone quality in the maxilla and surface treatment (35 studies in humans met the
criteria.) The studies included 14,722 Implants, failure rates of implants with lengths of
8.5 and 9, were 3.2%, and 0.6% respectively).

Sun HL, Huang C, Wu YR, Shi B. Failure rates of short (s 10 mm) dental implants and factors influencing their failure: a systematic review. Int J Oral Maxillofac Implants. 2011;26(4):816-825.

Short-surface rough implants should be considered a solution for restoration of posterior teeth in highly reabsorbed areas (short threaded implants with a rusted surface to restore posterior teeth: 1 to 3 years of results from a prospective study of 107 implants, 69.2% were 7 mm long, 30.8% were 8.5 mm long, survival rate 98.1%).

De Santis D, Cucchi A, Longhi C, Vincenzo B. Short threaded implants with an oxidized surface to restore posterior teeth: 1 to 3-year results of a prospective study. Int J Oral Maxillofac Implants. 2011;26(2):393-403.

The wide platform provides increased mechanical strength of the connection being important for mechanical stability (the results of a 3-year prospective multi-centered clinical trial and the results at 1 year from a multicenter 2 retrospective clinical study Wide diameter implants for molar replacement).

Polizzi G, Rangert B, Lekholm U, Gualini F, Lindstrom H. Brånemark System Wide Platform implants for single molar replacement: clinical evaluation of prospective and retrospective materials. Clin Implant Dent Relat Res. 2000;2(2):61-69.

Small diameter implants can be successfully included in implant treatment. Preferable in
cases where space is limited. Overall survival rate of 95.3% (192 small diameter implants
placed in 165 patients from 1992 to 1996. Of 2.9 mm or 3.25 mm in diameter, the overall
survival rate was 95.3%).

Vigolo P, Givani A, Majzoub Z, Cordioli G. Clinical evaluation of small-diameter implants in single-tooth and multiple-implant restorations: a 7-year retrospective study. Int J Oral Maxillofac Implants. 2004;19(5):703-709.

Associated narrow-diameter implants could be considered for use with fixed restorations and lower overdentures, as their success rate appears to be comparable to that of regular-diameter implants (42 studies from 1993 to 2011. 10,093 FDI approximately 2,762 The reported survival rates for SDI are similar to those reported for standard-width implants.

Sohrabi K, Mushantat A, Esfandiari S, Feine J. How successful are small-diameter implants? A literature review. Clin Oral Implants Res. 2012;23(5):515-525.

For complete superior best 6 implants, survival rates: 97.9% at 5 years and 95.9% at 10 years. For partial dentures fixed on 2 to 4 implants, survival rates: 98.9% at 5 years and 97.8% at 10 years. For complete upper set on 4 to 6 implants, survival rates were 97.9% at 5 years and 95.9% at 10 years (from 210 articles were selected 51).

Heydecke G, Zwahlen M, Nicol A, Nisand D, Payer M, Renouard et al. What is the optimal number of implants for fixed reconstructions: a systematic review. Clin Oral Implants Res. 2012;23(6):217-228.

Healing abutment selection

 The healing abutments should emerge on the gingiva between 1 and 2mm to prevent being covered by edematous tissue during the post-operative period [1]. The 1-1.5mm subgingival morphology of the healing abutments should be conical or concave, with no straight or convex parts [2].

[1] Developing a natural contour and anatomically dimensioned soft tissue margin is critical to achieve esthetic restoration of the implant. Lazzara RJ. Managing the soft tissue margin: the key to implant aesthetics. Pract Periodontics Aesthet Dent. 1993 Jun-Jul;5(5):81-8. PMID: 8219171.

[2] Two distinct areas within the implant and crown pillar are defined as critical contour and subcritical contour. Any alteration of the critical or subcritical contour can modify the soft tissue profile. Controlling the effect of modifications of the abutment contour in these peri-implant soft tissue areas, including gingival margin level, papilla height, gingival architecture, labial and lip color, and gingiva color is key to final score. Su H1, Gonzalez-Martin O, Weisgold A, Lee E. Considerations of implant abutment and crown contour: critical contour and subcritical contour. Int J Periodontics Restorative Dent. 2010 Aug;30(4):335-43. PMID: 20664835.

Insertion torque recommendation

The maximum torque at implant insertion depends on the implant geometry, thread shape, and implant surface morphology. The placement of tapered implants with treated surfaces requires that the insertion torque be higher. There was no correlation between RFA and insertion torque.

[1] Clin Implant Dent Relat Res. 2011Sep; 13(3):215-23. doi: 10.1111/j.1708-8208.2009.00202.x Epub 2009 Sep 9. The effects of superficial roughness and design on the primary stability of dental implants. Dos Santos MV1, Elias CN, Cavalcanti Lima JH. PMID: 19744197 DOI: 10.1111/j.1708-8208.2009.00202.x [2] J Dent. 2010 Aug; 38(8):612-20. doi: 10.1016/j. jdent.2010.05.013. Epub 2010 Jun 11. The role of primary stability for successful immediate loading of dental implants. A literature review. Javed F1, Romanos GE. PMID: 20546821 DOI: 10.1016/j.jdent.2010.05.013 Conclusions: There is sufficient evidence to suggest that the degree of primary stability achieved during IL (immediate loading) protocols depends on several factors, including bone density and quality, implant shape, design and surface characteristics, and the surgical technique.

• Insertion torque greater than 35 Ncm is considered high torque.

[3] Trisi, P., Perfetti, G., Baldoni, E., Berardi, D., Colagiovanni, M. & Scogna, G. Implant micromotion is related to peak insertion torque and bone density. Clinical Oral Implants Research 2009;20;467–471. [4] Trisi P., Carlesi T., Colagiovanni M., Perfetti G. Implant Stability Quotient (ISQ) vs direct in vitro measurement of primary stability (micromotion): effect of bone density and insertion torque. J Osteol Biomat 2010;1:141-151. [5] Trisi P., Benedittis S., Perfetti G., Berardi D. Primary stability, insertion torque and bone density of cylindric implant ad modum Branemark: Is there a relatioship?. An in vivo study. Clin Oral Impl. Res. 2011;22:567-570.

Torque greater than 50 ncm probable bone necrosis and early failure. Tests with implants at different torques of 30 to 70 ncm.

[6] Sotto-maior B.S, Rocha E.P, Almeida E.O, Freitas A.C, Anchieta R.B, Del Bel Cury A.A. Influence of High Insertion Torque on Implant Placement - An Anisotropic Bone Stress Analysis. Braz Dent J 2010;21(6)

[7] Bashutski J.D, D'Silva N.J, Wang H-L. Implant Compression Necrosis: Current Understanding and Case Report. J Periodontol 2009;80:700-704.

Increased marginal bone loss with insertion torque equal to or greater than 50 ncm. Influential factors: implant geometry and underdrilling.

[8] Duyck J, Corpas L, Vermeiren S, Ogawa T, Quirynen M, Vandamme K, Jacobs R, Naert I. Histological histomorphometrical, and radiological evaluation of an experimental implant design with a high insertion torque. Clin. Oral. Impl. Res. 2010;21:877–884.

Use of the interface in zirconium restorations

Scientific evidence to recommend the use of the interface in zirconium restorations:

The maximum load capacity of a crown or framework made with a titanium plus zirconium interface is significantly higher [1] than when the crown or framework is made entirely of zirconium directly connected to the implant. The use of an intermediate metal component has a beneficial influence on the stability of the zirconium oxide abutments. [2] The failure mode in zirconium restorations depends on the support material and its design. [3] In zirconium restorations with intermediate abutment, initially only partial deformation of the components occurs and cracks occur prior to some fractures of the zirconium abutment. [4] The dimension of the interface (connector) on which to cement the zirconium prosthesis is clinically relevant. [5] The Interface reduces wear on the implant connection in cases of zirconium restorations [6] [7].

- [1] Kim JS1, Raigrodski AJ, Flinn BD, Rubenstein JE, Chung KH, Mancl LA. In vitro assessment of three types of zirconia implant abutments under static load. J Prosthet Dent. 2013 Apr;109(4):255-63. doi: 10.1016/S0022-3913(13)60054-2
- [2] Truninger TC1, Stawarczyk B, Leutert CR, Sailer TR, Hämmerle CH, Sailer I. Bending moments of zirconia and titanium abutments with internal and external implant-abutment connections after aging and chewing simulation. Clin Oral Implants Res. 2012 Jan;23(1):12-8. doi: 10.1111/j.1600-05012010.02141x. Epub 2011 Mar 28.
- [3] Foong JK1, Judge RB, Palamara JE, Swain MV. Fracture resistance of titanium and zirconia abutments: an in vitro study. J Prosthet Dent. 2013 May;109(5):304-12. doi: 10.1016/S0022-3913(13)60306-6.
- [4] Mühlemann S1, Truninger TC, Stawarczyk B, Hämmerle CH, Sailer I. Bending moments of zirconia and titanium implant abutments supporting all-ceramic crowns after aging. Clin Oral Implants Res. 2014 Jan;25(1):74-81. doi: 10.1111/ctr.12192. Epub 2013 Jun 4.

- [5] Larsson C1. Zirconium dioxide based dental restorations. Studies on clinical performance and fracture behaviour. Swed Dent J Suppl. 2011;[213):9-84.
- [6] Stimmelmayr M1, Edelhoff D, Güth JF, Erdelt K, Happe A, Beuer F. Wear at the titanium-titanium and the titanium-zirconia implant-abutment e: a comparative in vitro study. Dent Mater. 2012 Dec;28(12):1215-20. doi: 10.1016/j.dental.2012.08.008. Epub 2012 Sep 27.
- [7] Klotz MW1, Taylor TD, Goldberg AJ. Wear at the titanium-zirconia implant-abutment interface: a pilot study. Int J Oral Maxillofac Implants. 2011 Sep-Oct; 26(5):970-5.

Radiographic templates

- In order to choose implant sizes during surgeries planning, in cases where only Orthopantomography (OPG) X-rays is available as diagnosis images, transparent acetate sheets are disposable, such as radiographic templates, which are different for each family morphology Of ZIACOM® implants, with the figures of the implants in the scales: 1:1,00 and 1: 1,25 ... Which overlap on the OPG for comparison and measurement, help in choosing the appropriate implant diameter and length. The extensions of the templates correspond to the magnifications of most of the OPGs, which are detailed in them. ZIACOM® Medical recommends the planning of treatment with dental implants based on CBCT images.
- The literature supports the use of CBCT in the planning of dental implant treatment, particularly with regard to linear measurements, three-dimensional evaluation of alveolar topography, proximity to vital anatomical structures and the manufacture of surgical guides
 Benavides E1, Rios HF, Ganz SD, An CH, Resnik R, Reardon GT, Feldman SJ, Mah JK, Hatcher D, Kim MJ, Sohn DS, Palti A, Perel ML, Judy KW, Misch CE, Wang HL. Use of cone beam computed tomography in implant dentistry: the International Congress of Oral Implantologists consensus report Implant Dent. 2012 Apr;21(2):78-86. doi: 10.1097/ID.0b013e31824885b5.
- Preoperative planning with CBCT implants allowed the planning of treatment with a higher degree of prediction and concordance compared to the surgical standard, based on panoramic radiography, with which the prediction of implant length was deficient.
 Guerrero ME1, Noriega J2, Jacobs R3. Preoperative implant planning considering alveolar
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