



VEGA® · VEGA®+



**Freedom
is not
fixed**



VEGA® · VEGA®+

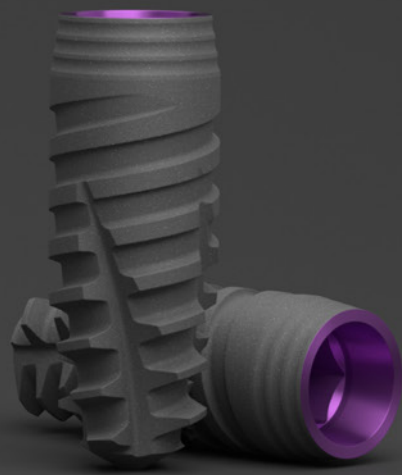
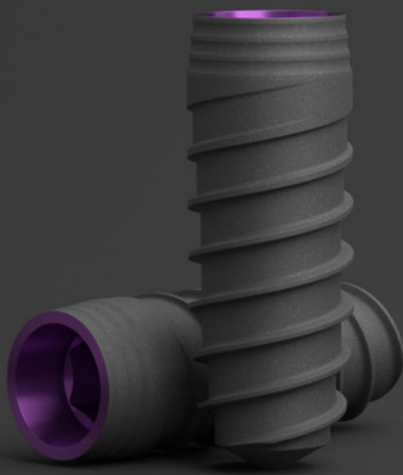
DIAMETERS OF VEGA® · VEGA®+ IMPLANTS	4-5
SURGICAL BODY	6-7
OPTIMUM®	8-9
INTERNAL HEXAGON	10-11
CONVERGENT COLLAR	12-13
INTERNAL CONE	14-15
PLATFORM SWITCHING	16-17
IMPLANT-PROSTHESIS SEAL	18
CONTACTi®	19-23
DIAMETERS OF VEGA® CONTACTi® · VEGA®+ CONTACTi® IMPLANTS	20-21
IMPLANT SURFACE ROUGHNESS	24-25
GENERAL CLINICAL OBSERVATIONS	26
LIST OF REFERENCES	27
REFERENCES	29
VEGA® · VEGA®+ CATALOGUES	30

INTUITIVE, USER-FRIENDLY SYSTEM

The VEGA® family is identified by colour codes. These colour codes are present in the surgical material, implant diameters and the prosthetic system.

Furthermore, KLOCKNER® IMPLANT SYSTEM helps the clinician choose the best prosthetic solution through its prosthetic sets.

VEGA® is the platform switching implant system from KLOCKNER® IMPLANT SYSTEM for crestal level placement. It individualises the treatment of hard and soft tissues.



VEGA®

AVAILABLE REFERENCES

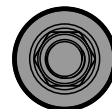
18 30 08 VEGA® MV IMPLANT Ø3.0 X 08MM
 18 30 10 VEGA® MV IMPLANT Ø3.0 X 10MM
 18 30 12 VEGA® MV IMPLANT Ø3.0 X 12MM
 18 30 14 VEGA® MV IMPLANT Ø3.0 X 14MM

18 35 08 VEGA® NV IMPLANT Ø3.5 X 08MM
 18 35 10 VEGA® NV IMPLANT Ø3.5 X 10MM
 18 35 12 VEGA® NV IMPLANT Ø3.5 X 12MM
 18 35 14 VEGA® NV IMPLANT Ø3.5 X 14MM
 18 35 16 VEGA® NV IMPLANT Ø3.5 X 16MM
 18 35 18 VEGA® NV IMPLANT Ø3.5 X 18MM

18 40 08 VEGA® RV IMPLANT Ø4.0 X 08MM
 18 40 10 VEGA® RV IMPLANT Ø4.0 X 10MM
 18 40 12 VEGA® RV IMPLANT Ø4.0 X 12MM
 18 40 14 VEGA® RV IMPLANT Ø4.0 X 14MM
 18 40 16 VEGA® RV IMPLANT Ø4.0 X 16MM
 18 40 18 VEGA® RV IMPLANT Ø4.0 X 18MM

18 45 08 VEGA® RV IMPLANT Ø4.5 X 08MM
 18 45 10 VEGA® RV IMPLANT Ø4.5 X 10MM
 18 45 12 VEGA® RV IMPLANT Ø4.5 X 12MM
 18 45 14 VEGA® RV IMPLANT Ø4.5 X 14MM

VEGA® IMPLANT



DIAMETERS

Ø 3.0 MM

Ø 3.5 MM

Ø 4.0 MM

Ø 4.5 MM

VEGA®+

AVAILABLE REFERENCES

19 31 08 VEGA®+ MV IMPLANT Ø3.1 X 08MM
 19 31 10 VEGA®+ MV IMPLANT Ø3.1 X 10MM
 19 31 12 VEGA®+ MV IMPLANT Ø3.1 X 12MM
 19 31 14 VEGA®+ MV IMPLANT Ø3.1 X 14MM

19 36 08 VEGA®+ NV IMPLANT Ø3.6 X 08MM
 19 36 10 VEGA®+ NV IMPLANT Ø3.6 X 10MM
 19 36 12 VEGA®+ NV IMPLANT Ø3.6 X 12MM
 19 36 14 VEGA®+ NV IMPLANT Ø3.6 X 14MM
 19 36 16 VEGA®+ NV IMPLANT Ø3.6 X 16MM
 19 36 18 VEGA®+ NV IMPLANT Ø3.6 X 18MM

19 41 08 VEGA®+ RV IMPLANT Ø4.1 X 08MM
 19 41 10 VEGA®+ RV IMPLANT Ø4.1 X 10MM
 19 41 12 VEGA®+ RV IMPLANT Ø4.1 X 12MM
 19 41 14 VEGA®+ RV IMPLANT Ø4.1 X 14MM
 19 41 16 VEGA®+ RV IMPLANT Ø4.1 X 16MM
 19 41 18 VEGA®+ RV IMPLANT Ø4.1 X 18MM

19 46 08 VEGA®+ RV IMPLANT Ø4.6 X 08MM
 19 46 10 VEGA®+ RV IMPLANT Ø4.6 X 10MM
 19 46 12 VEGA®+ RV IMPLANT Ø4.6 X 12MM
 19 46 14 VEGA®+ RV IMPLANT Ø4.6 X 14MM

VEGA®+ IMPLANT



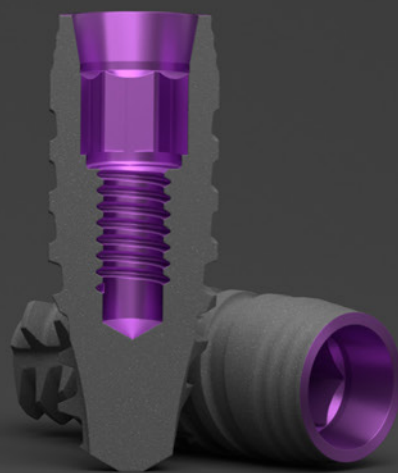
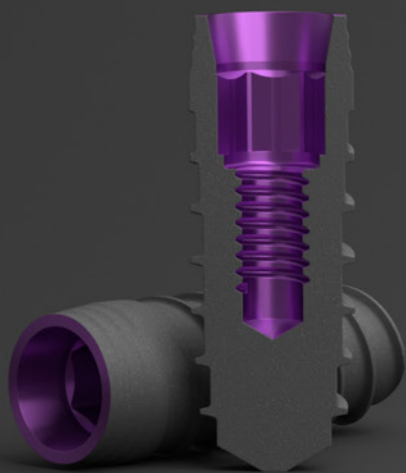
DIAMETERS

Ø 3.1 MM

Ø 3.6 MM

Ø 4.1 MM

Ø 4.6 MM



VEGA®

The VEGA® implant is an implant with dual threading and smooth insertion that makes it possible to tackle compromised anatomical areas thanks to the atraumatic design of the apical area. Its slightly conical apex and parallel body facilitate its guidance for the osteotomy.



VEGA®+

The VEGA®+ implant is a dual threading, self-tapping implant that is easy to insert and makes it possible to reach compromised anatomical areas where the bone density is low. Its design increases primary stability in post-extraction sockets and under-drilling osteotomy preparations. The design of the narrow and conical apex facilitates its insertion into the alveolar space, and enables the direction of the implant to be effectively managed. Its progressive core acts as a compactor, affording a great primary stability.

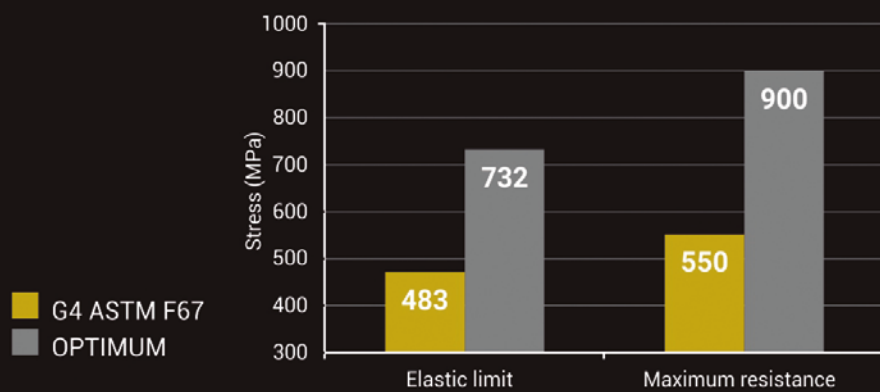
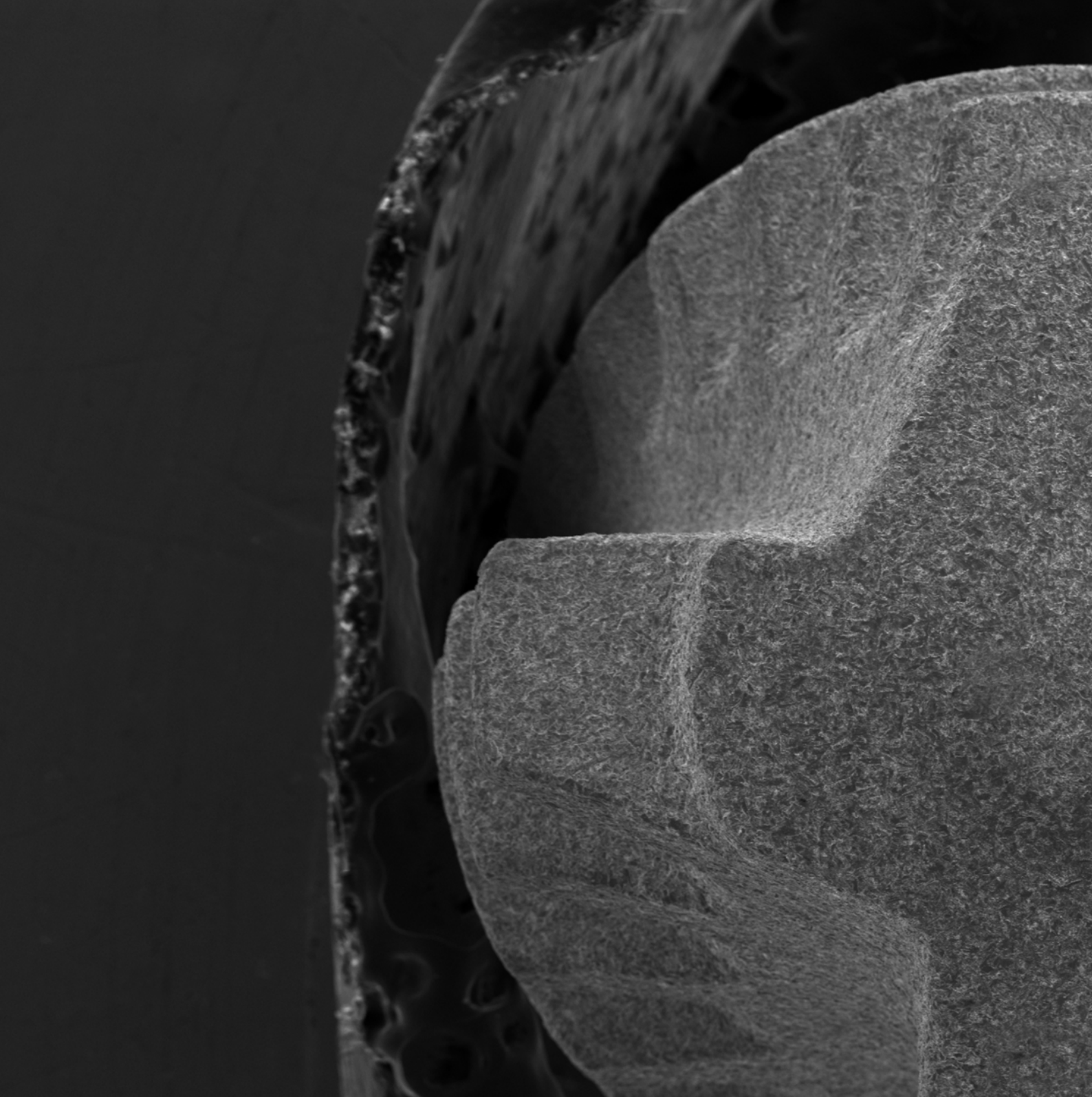


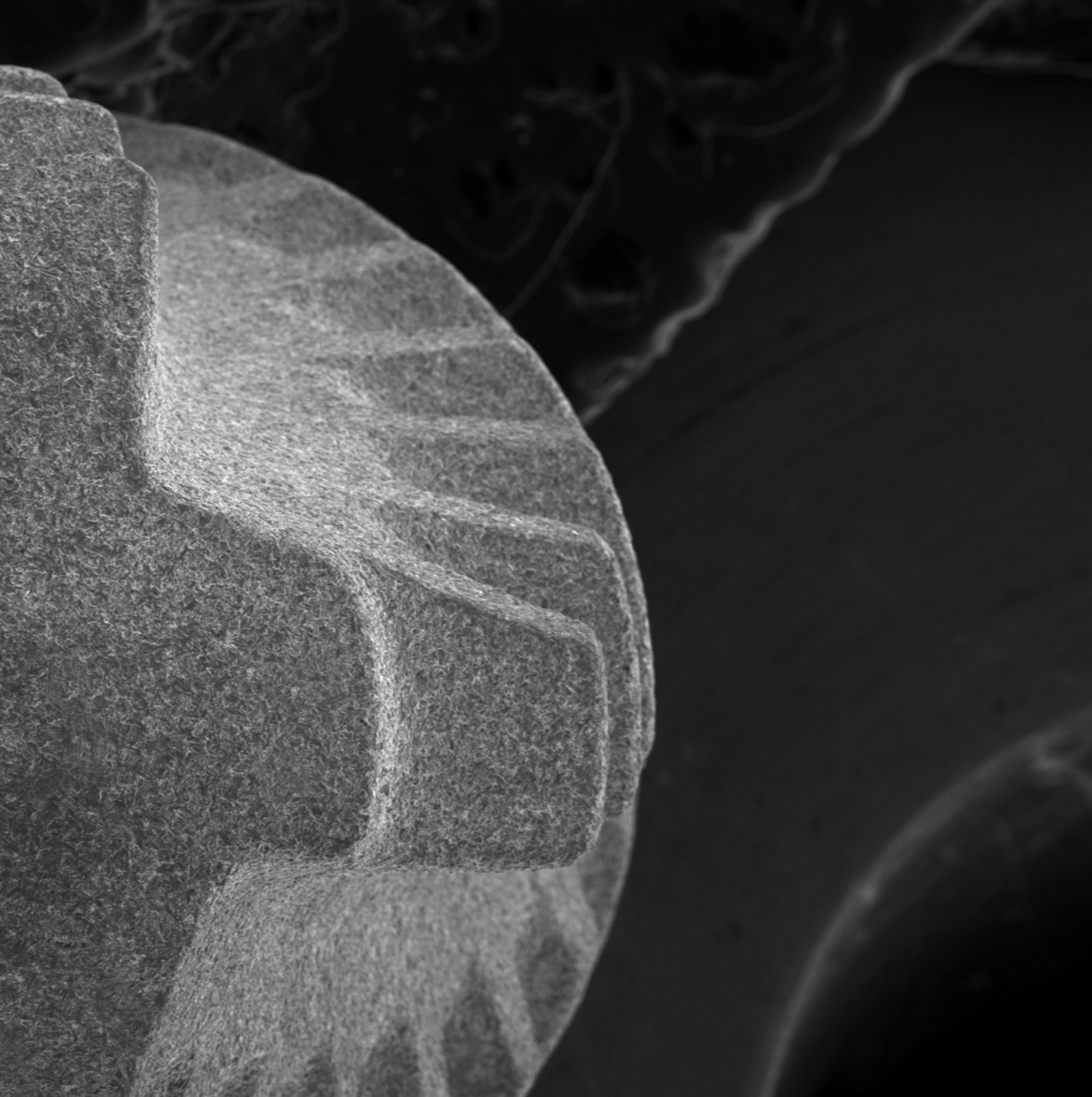
VEGA® · VEGA®+

Thanks to their designs and the consideration of the biological principles of the physiological tissues, it is possible to preserve the bone crest level, as well as facilitate a rapid osseointegration due to the behaviour of its surface.

VEGA® MV · VEGA®+ MV 3MM IMPLANT

With the development of VEGA® MV 3.0 mm and 3.1 mm implants, the professional has the possibility of restoring limited dental spaces in anterior areas, with all the mechanical guarantees.





OPTIMUM®

New generation titanium

Development of the new titanium has made it possible to increase the elastic limit, with a 64% improvement in mechanical properties across the entire VEGA® implant range. Thanks to OPTIMUM®, we have the Micro VEGA®, the 3 mm implant indicated for the restoration of crowns with extremely narrow interdental spaces, and the Narrow VEGA®, the 3.5 mm implant designed to be used in any clinical situation.

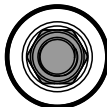


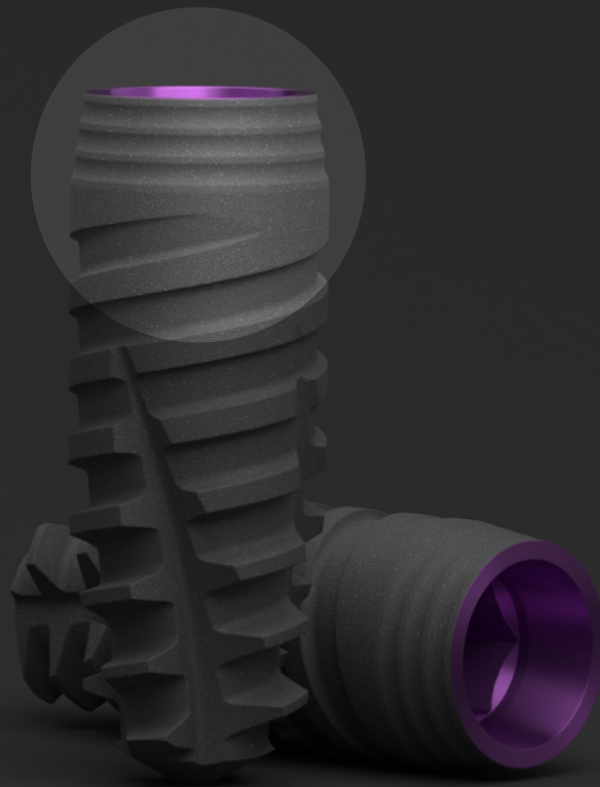
INTERNAL HEXAGON

VEGA® • VEGA®+

The hexagonal site, located in the lower part of the cone, was designed to bestow the following properties to the VEGA® system:

- Facilitates clinical handling and the correct positioning of the prosthetic components thanks to its good tactile sensation.
- Optimises the accuracy of the fit between the implant's internal connection hexagon and the hexagon of the abutments.
- Reduction of the rotational movements between the implant and the prosthetic components.

IMPLANT	Ø 3.0 / 3.1 MM	Ø 3.5 / 3.6 MM	Ø 4.0 / 4.1 MM	Ø 4.5 / 4.6 MM
				
BETWEEN FACES	1.85 MM	2.05 MM	2.35 MM	2.35 MM



CONVERGENT COLLAR

VEGA® • VEGA®+

The conical design of the implant in its most coronal portion enables the distribution of load to the adjacent bone tissue and helps maintain the cortical bone.

The three rings reduce stress in the crestal area and prevent bone loss when loads are produced by the implants.

IMPLANT	Ø 3.0 / 3.1 MM	Ø 3.5 / 3.6 MM	Ø 4.0 / 4.1 MM	Ø 4.5 / 4.6 MM
				
COLLAR HEIGHT	1.2 MM	1.3 MM	1.3 MM	1.3 MM

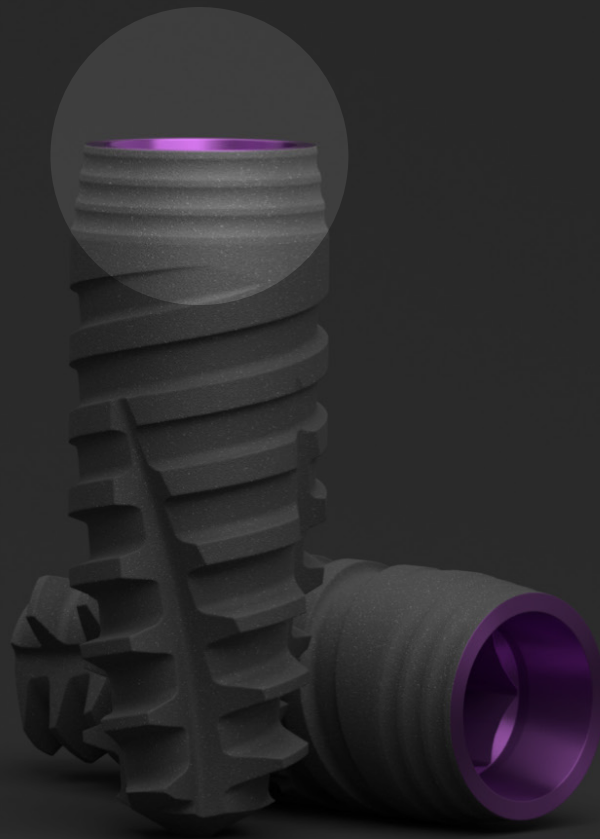


VEGA® • VEGA®+

The implant's internal cone is designed with an angulation of 10° and a 1.1 mm length that:

- Optimises the fit between the implant's cone and the cone of the prosthetic abutment.
- Increases mechanical stability and homogeneously distributes the loads.
- Provides the implant-abutment with a high resistance and stability compared to the micro-movements.
- Facilitates the insertion and guidance of the different abutments by the professional.
- The hermetic seal lower than one-micron prevents bacterial colonisation inside the implant.





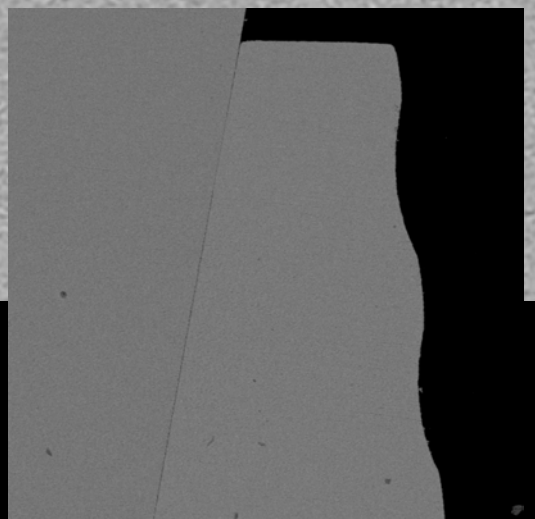
PLATFORM SWITCHING

VEGA® • VEGA®+

Its crest level design is intended to generate the biological seal according to the Platform Switching principles, preventing bone reabsorption caused by bacterial filtration through the connection gap.

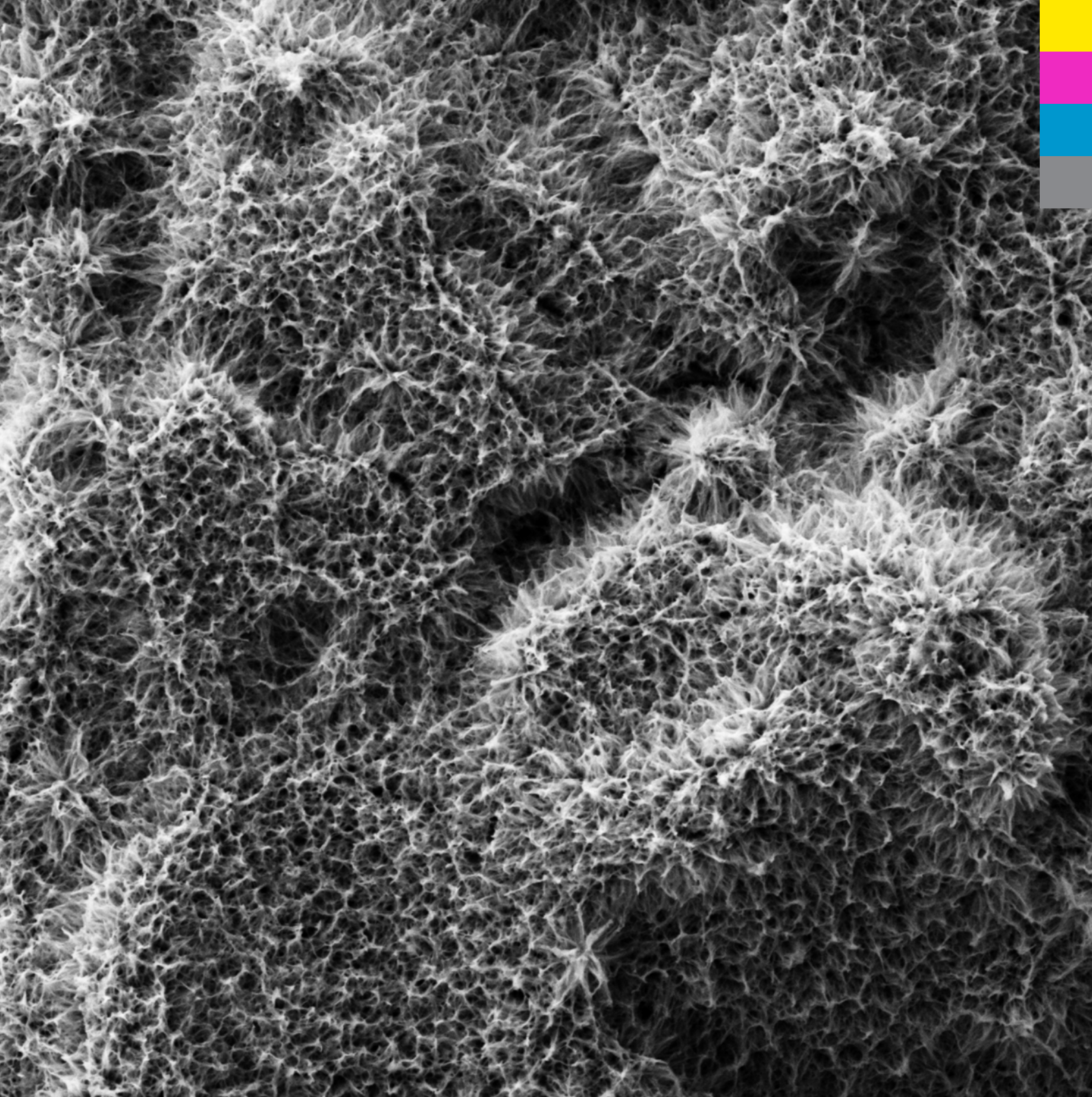
VEGA® IMPLANT	Ø 3.0 MM	Ø 3.5 MM	Ø 4.0 MM	Ø 4.5 MM
				
PLATFORM	0.25 MM	0.30 MM	0.35 MM	0.60 MM
VEGA®+ IMPLANT	Ø 3.1 MM	Ø 3.6 MM	Ø 4.1 MM	Ø 4.6 MM
				
PLATFORM	0.30 MM	0.30 MM	0.35 MM	0.60 MM

<1 µm —●



IMPLANT-PROSTHESIS COMPLETE SEAL

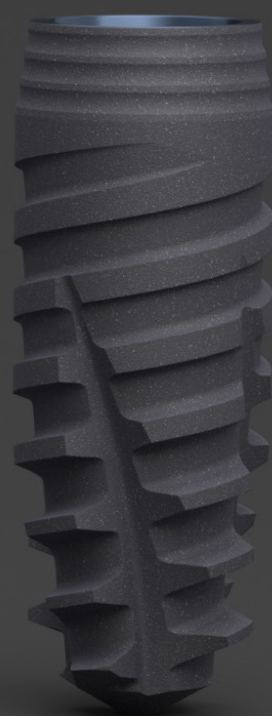
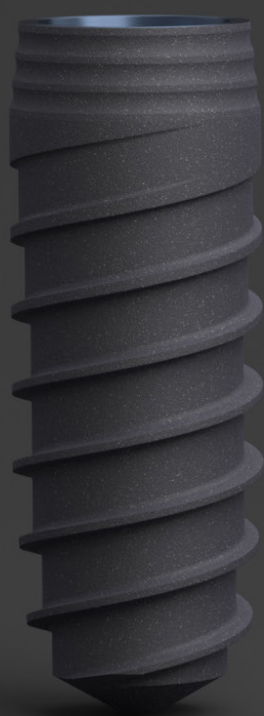
Once the abutment is tightened, the VEGA® implant connection achieves a hermetic seal with spaces smaller than 1 µm that prevent bacterial colonisation.



CONTACTi®

The surface the bone was waiting for

After more than 15 years of research, the KLOCKNER® IMPLANT SYSTEM revolutionary surface has arrived, accelerating biological stability and enabling the implant's final load after 4 weeks if an osseointegration assessment is performed. It is the ideal solution for immediate/early load treatments and at-risk patients.



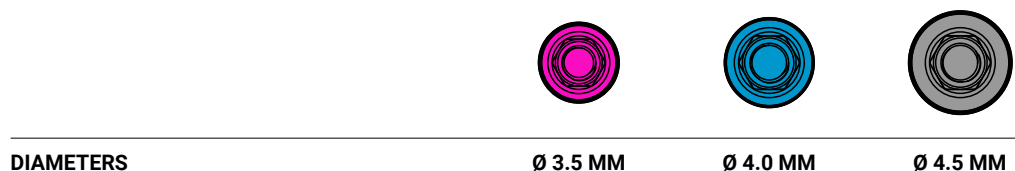
AVAILABLE REFERENCES

18 35 08 C-TI	VEGA® NV CONTACTI® IMPLANT Ø3.5 X 08MM
18 35 10 C-TI	VEGA® NV CONTACTI® IMPLANT Ø3.5 X 10MM
18 35 12 C-TI	VEGA® NV CONTACTI® IMPLANT Ø3.5 X 12MM
18 35 14 C-TI	VEGA® NV CONTACTI® IMPLANT Ø3.5 X 14MM
18 35 16 C-TI	VEGA® NV CONTACTI® IMPLANT Ø3.5 X 16MM
18 35 18 C-TI	VEGA® NV CONTACTI® IMPLANT Ø3.5 X 18MM

18 40 08 C-TI	VEGA® RV CONTACTI® IMPLANT Ø4.0 X 08MM
18 40 10 C-TI	VEGA® RV CONTACTI® IMPLANT Ø4.0 X 10MM
18 40 12 C-TI	VEGA® RV CONTACTI® IMPLANT Ø4.0 X 12MM
18 40 14 C-TI	VEGA® RV CONTACTI® IMPLANT Ø4.0 X 14MM
18 40 16 C-TI	VEGA® RV CONTACTI® IMPLANT Ø4.0 X 16MM
18 40 18 C-TI	VEGA® RV CONTACTI® IMPLANT Ø4.0 X 18MM

18 45 08 C-TI	VEGA® RV CONTACTI® IMPLANT Ø4.5 X 08MM
18 45 10 C-TI	VEGA® RV CONTACTI® IMPLANT Ø4.5 X 10MM
18 45 12 C-TI	VEGA® RV CONTACTI® IMPLANT Ø4.5 X 12MM
18 45 14 C-TI	VEGA® RV CONTACTI® IMPLANT Ø4.5 X 14MM

VEGA® IMPLANTS



VEGA®+

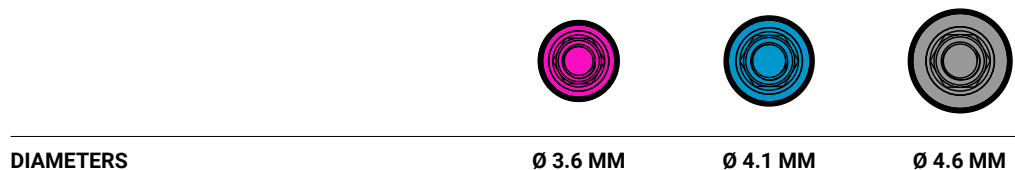
AVAILABLE REFERENCES

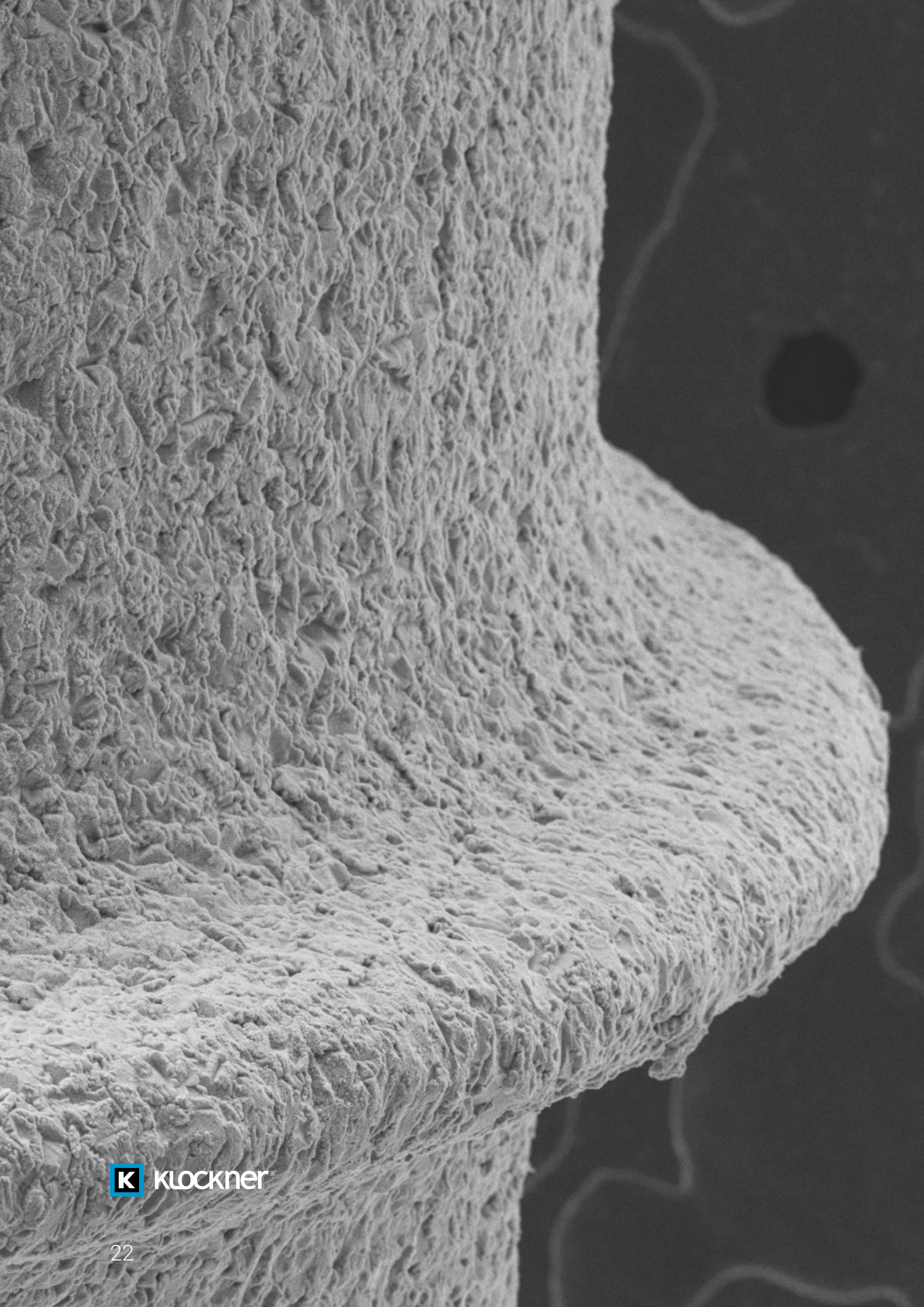
19 36 08 C-TI	VEGA®+ NV CONTACTI® IMPLANT Ø3.6 X 08MM
19 36 10 C-TI	VEGA®+ NV CONTACTI® IMPLANT Ø3.6 X 10MM
19 36 12 C-TI	VEGA®+ NV CONTACTI® IMPLANT Ø3.6 X 12MM
19 36 14 C-TI	VEGA®+ NV CONTACTI® IMPLANT Ø3.6 X 14MM
19 36 16 C-TI	VEGA®+ NV CONTACTI® IMPLANT Ø3.6 X 16MM
19 36 18 C-TI	VEGA®+ NV CONTACTI® IMPLANT Ø3.6 X 18MM

19 41 08 C-TI	VEGA®+ RV CONTACTI® IMPLANT Ø4.1 X 08MM
19 41 10 C-TI	VEGA®+ RV CONTACTI® IMPLANT Ø4.1 X 10MM
19 41 12 C-TI	VEGA®+ RV CONTACTI® IMPLANT Ø4.1 X 12MM
19 41 14 C-TI	VEGA®+ RV CONTACTI® IMPLANT Ø4.1 X 14MM
19 41 16 C-TI	VEGA®+ RV CONTACTI® IMPLANT Ø4.1 X 16MM
19 41 18 C-TI	VEGA®+ RV CONTACTI® IMPLANT Ø4.1 X 18MM

19 46 08 C-TI	VEGA®+ RV CONTACTI® IMPLANT Ø4.6 X 08MM
19 46 10 C-TI	VEGA®+ RV CONTACTI® IMPLANT Ø4.6 X 10MM
19 46 12 C-TI	VEGA®+ RV CONTACTI® IMPLANT Ø4.6 X 12MM
19 46 14 C-TI	VEGA®+ RV CONTACTI® IMPLANT Ø4.6 X 14MM

VEGA®+ IMPLANTS

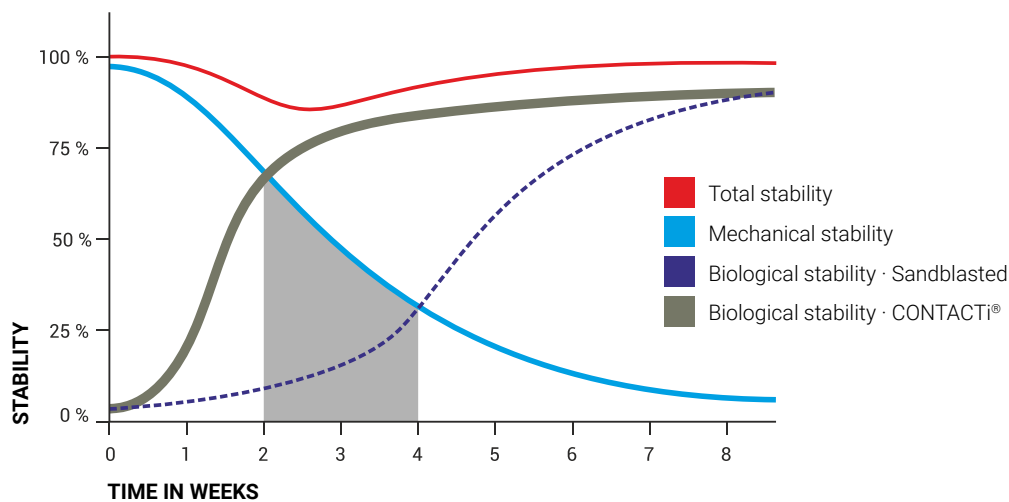




CONTACTi®

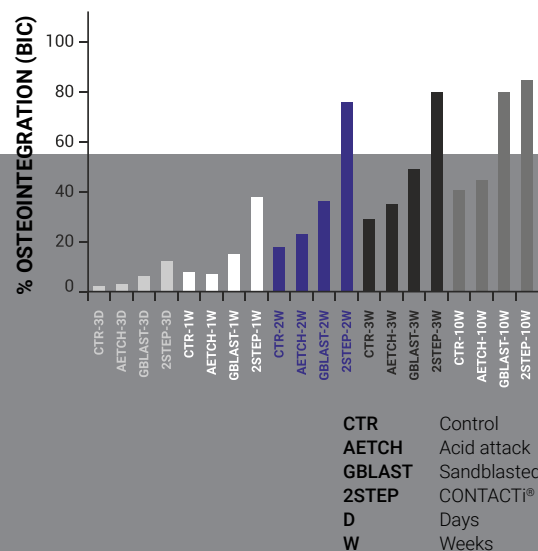
The new surface that accelerates biological stability

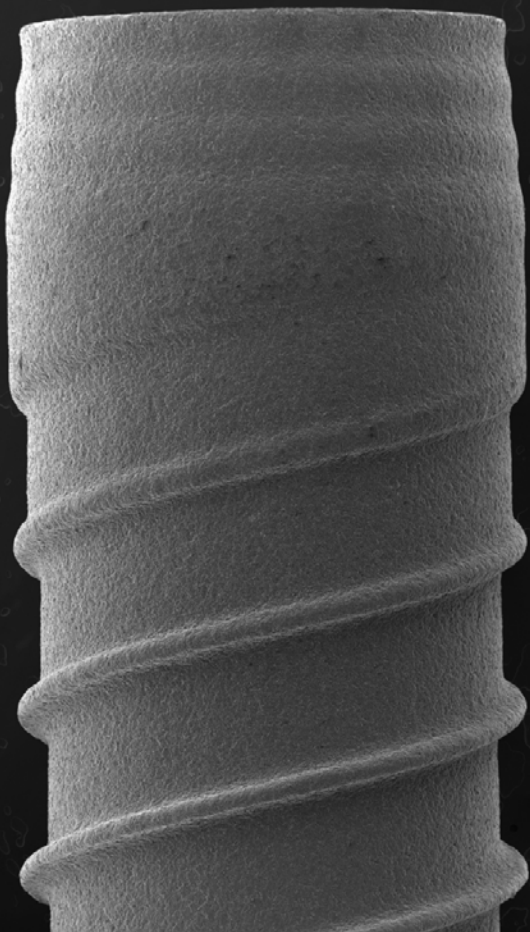
CONTACTi® has an excellent wettability and a highly negative load, which gives it a selective capacity for the adsorption of proteins, essentially pre-osteoblasts, which favour bone formation, inhibiting the adsorption of soft tissue precursor proteins.



The decreasing stability curve is removed once early healing is stimulated

**THE CHEMICAL BOND
GUARANTEES THE
MAXIMUM BONDING AND
INTEGRITY OF THE
APATITE LAYER, WHICH HAS
THE SAME MINERAL
CONTENT AS THE BONE.**





CONTACTi®

SANDBLASTED



IMPLANT SURFACE ROUGHNESS

Sa* 1,5 ±0.1 µm

The topography of the dental implant presents an Sa of 1.5 ±0.1 µm and is optimised to minimise any potential anchoring of bacteria.

The thermochemical treatment used to obtain CONTACTi® creates Sodium Titanate that spontaneously forms an apatite layer when it comes into contact with blood, without the need for osteoblastic activity. Bone formation is immediate after the implant placement. CONTACTi® induces bone formation.

CONTACTi® reaches levels of bone-implant contact above 75% during the first 2 weeks and above 80% by the third week, enabling the final implant load in the 4th week following placement of the implant if an osseointegration assessment is performed.

*Sa - Average value of the three-dimensional distance between the peaks and valleys of a surface.

CONTACTi® is designed to obtain the best success rates in all clinical cases

Faster new bone formation leads to a greater biological stability and more predictable osseointegration. Therefore, Contacti® is particularly indicated for cases of immediate and early loads, providing confidence during critical cases with at-risk patients and reducing the limitations of current implantology.

GENERAL CLINICAL OBSERVATIONS

All the clinical recommendations and warnings described are general guidelines. The professional must apply his or her knowledge and judge whether these general guidelines are appropriate for each case.

Physiological and anatomic conditions may have a negative effect on dental implant efficacy.

WARNINGS

All medical devices sold by Soadco S.L. are only for use by professionals who are trained, qualified and certified in the field of odontology. Depending on the medical interventions to be performed, the professional must have the specialisation(s) necessary to perform the diagnosis, planning, surgical procedure and prosthetic restoration.

Each sterile device has a label with its expiry date (5 years after performing the sterilization process). The service life of the dental implant depends on many factors, including the patient's oral hygiene and the preventive control carried out periodically by the dentist.

KLOCKNER® implants are part of a patented system that must only be used with original instruments and components. The use of any non-KLOCKNER® components will exempt Soadco, S.L. from any type of compensation and/or warranty obligation.

The device specifications alone do not guarantee the proper use of the device. It is advisable to first seek advice from professionals with experience in using the system, or to attend the demonstrations and courses that KLOCKNER® runs regularly, obliging professional users to keep up-to-date with the current state of the technology and its applications.

The handling and use of KLOCKNER® devices are out of the control of Soadco, S.L. and are the user's responsibility. Therefore, Soadco, S.L. is exempt from any civil liability related to any damage caused by the misuse of the device.

Devices that are deemed to be hazardous (contaminated, potentially piercing or sharp) must be disposed of according to the current requirements for handling said devices.

The packaging of the medical devices must be disposed of according to the current environmental and regulatory requirements in each country.

Details concerning the instructions for handling and using the devices are available to all users in the information leaflets and prosthetic and surgical specifications, which can be found at www.klocknerimplantsystem.com, or requested from the corresponding national representative.

In compliance with EC and FDA standards, nor will the company be responsible for the return of any of its device(s) that have previously been handled.

To ensure the correct traceability of the implant, the packaging is supplied with labels on which the reference, batch number and expiry date are indicated, and which must be saved in the appropriate patient record.

The safety and compatibility of the KLOCKNER® system in the MRI environment has not been evaluated. Neither its heating up, migration nor image artefacts have been tested in said environment. The safety of the KLOCKNER® system in the MRI environment is unknown. The examination of a patient fitted with this device may result in injury to the patient.

Depending on the type of intervention, the professional must have the specialisation(s) necessary to perform the diagnosis, planning, surgical procedure and prosthetic restoration. KLOCKNER® devices are part of an integrated system of endosseous dental implants for which complimentary devices exist for performing the dental treatment

Due to the diversity of implant lengths and diameters, and the fact that the chewing load capacity varies greatly, it is advisable when using multiple fixed prostheses to fit the maximum number of fixations, maintaining a distance of between 2 and 3 mm between implants. In general, it is considered that the total height of the prosthesis should not exceed the length of the implant.

In those cases in which a removable prosthetic is prepared, it is recommended to use 4 to 6 implants.

WARNING / PRECAUTIONS

Do not use implants with a length of 6 mm in single-unit restorations or as a support and/or retention for mucosa-supported prostheses with anchoring systems that use retentive buttons, balls, locators or ball joints.

Excess compression of the receiving bone can impede implant osseointegration.

It is recommended NOT to exceed the recommended insertion torque, to prevent plastic deformations in the implant connection.

LIST OF REFERENCES

VEGA®

IMPLANTS

18 30 08 VEGA® MV IMPLANT Ø3.0 X 08MM
18 30 10 VEGA® MV IMPLANT Ø3.0 X 10MM
18 30 12 VEGA® MV IMPLANT Ø3.0 X 12MM
18 30 14 VEGA® MV IMPLANT Ø3.0 X 14MM

18 35 08 VEGA® NV IMPLANT Ø3.5 X 08MM
18 35 10 VEGA® NV IMPLANT Ø3.5 X 10MM
18 35 12 VEGA® NV IMPLANT Ø3.5 X 12MM
18 35 14 VEGA® NV IMPLANT Ø3.5 X 14MM
18 35 16 VEGA® NV IMPLANT Ø3.5 X 16MM
18 35 18 VEGA® NV IMPLANT Ø3.5 X 18MM

18 40 08 VEGA® RV IMPLANT Ø4.0 X 08MM
18 40 10 VEGA® RV IMPLANT Ø4.0 X 10MM
18 40 12 VEGA® RV IMPLANT Ø4.0 X 12MM
18 40 14 VEGA® RV IMPLANT Ø4.0 X 14MM
18 40 16 VEGA® RV IMPLANT Ø4.0 X 16MM
18 40 18 VEGA® RV IMPLANT Ø4.0 X 18MM

18 45 08 VEGA® RV IMPLANT Ø4.5 X 08MM
18 45 10 VEGA® RV IMPLANT Ø4.5 X 10MM
18 45 12 VEGA® RV IMPLANT Ø4.5 X 12MM
18 45 14 VEGA® RV IMPLANT Ø4.5 X 14MM

VEGA®+

IMPLANTS

19 31 08 VEGA®+ MV IMPLANT Ø3.1 X 08MM
19 31 10 VEGA®+ MV IMPLANT Ø3.1 X 10MM
19 31 12 VEGA®+ MV IMPLANT Ø3.1 X 12MM
19 31 14 VEGA®+ MV IMPLANT Ø3.1 X 14MM

19 36 08 VEGA®+ NV IMPLANT Ø3.6 X 08MM
19 36 10 VEGA®+ NV IMPLANT Ø3.6 X 10MM
19 36 12 VEGA®+ NV IMPLANT Ø3.6 X 12MM
19 36 14 VEGA®+ NV IMPLANT Ø3.6 X 14MM
19 36 16 VEGA®+ NV IMPLANT Ø3.6 X 16MM
19 36 18 VEGA®+ NV IMPLANT Ø3.6 X 18MM

19 41 08 VEGA®+ RV IMPLANT Ø4.1 X 08MM
19 41 10 VEGA®+ RV IMPLANT Ø4.1 X 10MM
19 41 12 VEGA®+ RV IMPLANT Ø4.1 X 12MM
19 41 14 VEGA®+ RV IMPLANT Ø4.1 X 14MM
19 41 16 VEGA®+ RV IMPLANT Ø4.1 X 16MM
19 41 18 VEGA®+ RV IMPLANT Ø4.1 X 18MM

19 46 08 VEGA®+ RV IMPLANT Ø4.6 X 08MM
19 46 10 VEGA®+ RV IMPLANT Ø4.6 X 10MM
19 46 12 VEGA®+ RV IMPLANT Ø4.6 X 12MM
19 46 14 VEGA®+ RV IMPLANT Ø4.6 X 14MM

VEGA® CONTACTi®

IMPLANTS

18 35 08 C-Ti VEGA® NV CONTACTi® IMPLANT Ø3.5 X 08MM
18 35 10 C-Ti VEGA® NV CONTACTi® IMPLANT Ø3.5 X 10MM
18 35 12 C-Ti VEGA® NV CONTACTi® IMPLANT Ø3.5 X 12MM
18 35 14 C-Ti VEGA® NV CONTACTi® IMPLANT Ø3.5 X 14MM
18 35 16 C-Ti VEGA® NV CONTACTi® IMPLANT Ø3.5 X 16MM
18 35 18 C-Ti VEGA® NV CONTACTi® IMPLANT Ø3.5 X 18MM

18 40 08 C-Ti VEGA® RV CONTACTi® IMPLANT Ø4.0 X 08MM
18 40 10 C-Ti VEGA® RV CONTACTi® IMPLANT Ø4.0 X 10MM
18 40 12 C-Ti VEGA® RV CONTACTi® IMPLANT Ø4.0 X 12MM
18 40 14 C-Ti VEGA® RV CONTACTi® IMPLANT Ø4.0 X 14MM
18 40 16 C-Ti VEGA® RV CONTACTi® IMPLANT Ø4.0 X 16MM
18 40 18 C-Ti VEGA® RV CONTACTi® IMPLANT Ø4.0 X 18MM

18 45 08 C-Ti VEGA® RV CONTACTi® IMPLANT Ø4.5 X 08MM
18 45 10 C-Ti VEGA® RV CONTACTi® IMPLANT Ø4.5 X 10MM
18 45 12 C-Ti VEGA® RV CONTACTi® IMPLANT Ø4.5 X 12MM
18 45 14 C-Ti VEGA® RV CONTACTi® IMPLANT Ø4.5 X 14MM

VEGA®+ CONTACTi®

IMPLANTS

19 36 08 C-Ti VEGA®+ NV CONTACTi® IMPLANT Ø3.6 X 08MM
19 36 10 C-Ti VEGA®+ NV CONTACTi® IMPLANT Ø3.6 X 10MM
19 36 12 C-Ti VEGA®+ NV CONTACTi® IMPLANT Ø3.6 X 12MM
19 36 14 C-Ti VEGA®+ NV CONTACTi® IMPLANT Ø3.6 X 14MM
19 36 16 C-Ti VEGA®+ NV CONTACTi® IMPLANT Ø3.6 X 16MM
19 36 18 C-Ti VEGA®+ NV CONTACTi® IMPLANT Ø3.6 X 18MM

19 41 08 C-Ti VEGA®+ RV CONTACTi® IMPLANT Ø4.1 X 08MM
19 41 10 C-Ti VEGA®+ RV CONTACTi® IMPLANT Ø4.1 X 10MM
19 41 12 C-Ti VEGA®+ RV CONTACTi® IMPLANT Ø4.1 X 12MM
19 41 14 C-Ti VEGA®+ RV CONTACTi® IMPLANT Ø4.1 X 14MM
19 41 16 C-Ti VEGA®+ RV CONTACTi® IMPLANT Ø4.1 X 16MM
19 41 18 C-Ti VEGA®+ RV CONTACTi® IMPLANT Ø4.1 X 18MM

19 46 08 C-Ti VEGA®+ RV CONTACTi® IMPLANT Ø4.6 X 08MM
19 46 10 C-Ti VEGA®+ RV CONTACTi® IMPLANT Ø4.6 X 10MM
19 46 12 C-Ti VEGA®+ RV CONTACTi® IMPLANT Ø4.6 X 12MM
19 46 14 C-Ti VEGA®+ RV CONTACTi® IMPLANT Ø4.6 X 14MM

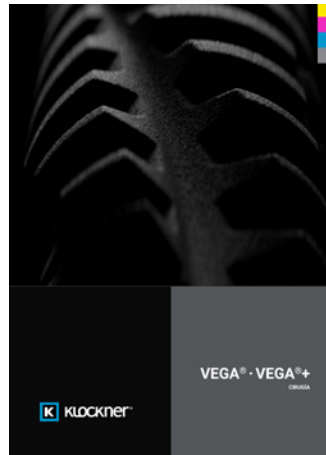


REFERENCES

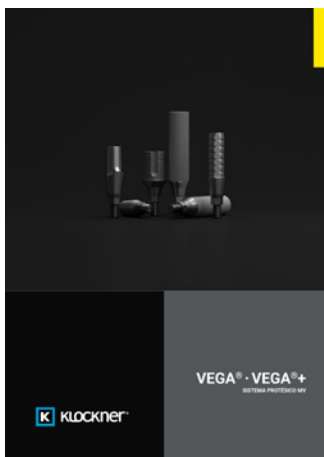
- 1.- Dávila E, Ortiz-Hernandez M, Perez R, Climent M, Cerrolaza M, Gil FJ. Crestal module design optimization of dental implants: finite element analysis and in vivo studies. *Journal of Materials Science: Materials in Medicine*. 2019; 30.
- 2.- Pérez RA, Gargallo J, Altuna P, Herrero-Climent M, Gil FJ. Fatigue of Narrow Dental Implants: Influence of the Hardening Method. *Materials* (Basel). 2020 Mar 20;13(6):1429.
- 3.- Mariano Herrero-Climent, Bernardo Ferreira Lemos, Federico Herrero-Climent, Carlos Falcao, Helder Oliveira, Manuela Herrera, Francisco Javier Gil, Blanca Ríos-Carrasco and José-Vicente Ríos-Santos, Influence of Implant Design and Under-Preparation of the Implant Site on Implant Primary Stability. *An In Vitro Study. Int J Environ Res Public Health*. 2020;17(12):4436. Published 2020 Jun 20. doi:10.3390/ijerph17124436.
- 4.- Chávarri-Prado D, Brizuela-Velasco A, Diéguez-Pereira M, Pérez-Pevida E, Jiménez-Garrudo A, Viteri-Agustín I, Estrada-Martínez A, Montalbán-Vadillo O. Influence of cortical bone and implant design in the primary stability of dental implants measured by two different devices of resonance frequency analysis: An in vitro study. *J Clin Exp Dent*. 2020 Mar 1;12(3):e242-e248.
- 5.- Albertini M, Fernandez-Yague M, Lázaro P, Herrero-Climent M, Ríos-Santos JV, Bullon P, Gil FJ. Advances in surfaces and osseointegration in implantology. Biomimetic surfaces. *Med Oral Patol Oral Cir Bucal*. 2015 May 1;20(3):e316-25.
- 6.- Gil FJ, Manzanares N, Badet A, Aparicio C, Ginebra MP. Biomimetic treatment on dental implants for short-term bone regeneration. *Clin Oral Investig*. 2014 Jan;18(1):59-66. doi: 10.1007/s00784-013-0953-z. Epub 2013 Mar 8. PMID: 23471738.
- 7.- Herrero-Climent M, Romero Ruiz MM, Calvo PL, Santos JVR, Perez RA, Gil Mur FJ. Effectiveness of a new dental implant bioactive surface: histological and histomorphometric comparative study in minipigs. *Clin Oral Investig*. 2018 Apr;22(3):1423-1432.
- 8.- Romero-Ruiz MM, Gil-Mur FJ, Ríos-Santos JV, Lázaro-Calvo P, Ríos-Carrasco B, Herrero-Climent M. Influence of a Novel Surface of Bioactive Implants on Osseointegration: A Comparative and Histomorphometric Correlation and Implant Stability Study in Minipigs. *Int J Mol Sci*. 2019 May 9;20(9):2307.
- 9.- Climent M, López-Jarana P, Lemos B, Gil FJ, Costa C, Ríos-Santos J, Ríos B. Relevant Design Aspects to Improve the Stability of Titanium Dental Implants. *Materials*. (2020). 13.
- 10.- Climent M, Costa C, Gil FJ, Albertini M, Nart J. A Biomimetic Surface for Immediate and Early Loading of Dental Implants Surface Characterization and Results from Histological Studies. *JSM Dental Surgery*. 2016.
- 11.- Climent M, López-Jarana P, Lemos B, Gil FJ, Costa C, Ríos-Santos J, Ríos B. Relevant Design Aspects to Improve the Stability of Titanium Dental Implants. *Materials*. (2020). 13.
- 12.- Javier Gil F, Planell JA, Padrós A, Aparicio C. The effect of shot blasting and heat treatment on the fatigue behavior of titanium for dental implant applications. *Dent Mater*. 2007 Apr;23(4):486-91.
- 13.- Aparicio C, Manero JM, Conde F, Pegueroles M, Planell JA, Vallet-Regí M, Gil FJ. Acceleration of apatite nucleation on microrough bioactive titanium for bone-replacing implants. *J Biomed Mater Res A*. 2007 Sep 1;82(3):521-9.
- 14.- A. Rodríguez-Hernández, E. Espinar, J.M. Llamas, J.M. Barrera, F.J. Gil. Alumina shot-blasted particles on commercially pure titanium surfaces prevent bacterial attachment. *Materials Letters*. 2013; 92:42-44.
- 15.- Oliveira H, Brizuela Velasco A, Ríos-Santos JV, Sánchez Lasheras F, Lemos BF, Gil FJ, Carvalho A, Herrero-Climent M. Effect of Different Implant Designs on Strain and Stress Distribution under Non-Axial Loading: A Three-Dimensional Finite Element Analysis. *Int J Environ Res Public Health*. 2020 Jul 1;17(13):4738.
- 16.- Albertini M, Herrero-Climent M, Díaz-Castro, C.M.; Nart, J.; Fernández-Palacin, A.; Ríos-Santos, J.V.; Herrero-Climent, M. A Radiographic and Clinical Comparison of Immediate vs. Early Loading (4 Weeks) of Implants with a New Thermo-Chemically Treated Surface: A Randomized Clinical Trial. *Int. J. Environ. Res. Public Health* 2021, 18, 1223. <https://doi.org/10.3390/ijerph18031223>.
- 17.- Chavarri-Prado D, Brizuela-Velasco A, Álvarez-Arenal Á, Dieguez-Pereira M, Pérez-Pevida E, Viteri-Agustín I, Estrada-Martínez A. The Bone Buttress Theory: The Effect of the Mechanical Loading of Bone on the Osseointegration of Dental Implants. *Biology* (Basel). 2020 Dec 28;10(1):E12. doi: 10.3390/biology10010012. PMID: 33379218.
- 18.- Ríos-Santos, J.V.; Tello-González, G.; Lázaro-Calvo, P.; Gil Mur, F.J.; Ríos-Carrasco, B.; Fernández-Palacin, A.; Herrero-Climent, M. One Abutment One Time: A Multicenter, Prospective, Controlled, Randomized Study. *Int. J. Environ. Res. Public Health* 2020, 17, 9453.
- 19.- Lemos, B.F.; Lopez-Jarana, P.; Falcao, C.; Ríos-Carrasco, B.; Gil, J.; Ríos-Santos, J.V.; Herrero-Climent, M. Effects of Different Undersizing Site Preparations on Implant Stability. *Int. J. Environ. Res. Public Health* 2020, 17, 8965.
- 11.- Dieguez-Pereira M, Brizuela-Velasco A, Chavarri-Prado D, Perez-Pevida E, deLlanos-Lanchares H, Alvarez-Arenal A. The Utility of Implant-Supported Fixed Dental Prosthesis Material for Implant Micromovement and Peri-implant Bone Microstrain: A Study in Rabbit Tibia. *Int J Oral Maxillofac Implants*. 2020 Nov/Dec;35(6):1132-1140. doi: 10.11607/jomi.8094. PMID: 33270053.
- 12.- Brizuela-Velasco A, Chávarri-Prado D. The functional loading of implants increases their stability: A retrospective clinical study. *Clin Implant Dent Relat Res*. 2019 Feb;21(1):122-129.
- 13.- Chávarri-Prado D, Brizuela-Velasco A, Diéguez-Pereira M, Pérez-Pevida E, Jiménez-Garrudo A, Viteri-Agustín I, Estrada-Martínez A, Montalbán-Vadillo O. Influence of cortical bone and implant design in the primary stability of dental implants measured by two different devices of resonance frequency analysis: An in vitro study. *J Clin Exp Dent*. 2020 Mar 1;12(3):e242-e248.
- 14.- Herrero-Climent M, Lázaro P, Vicente Ríos J, Lluch S, Marqués M, Guillem-Martí J, Gil FJ. Influence of acid-etching after grit-blasted on osseointegration of titanium dental implants: in vitro and in vivo studies. *J Mater Sci Mater Med*. 2013 Aug;24(8):2047-55.
- 15.- Aparicio C, Gil FJ, Fonseca C, Barbosa M, Planell JA. Corrosion behaviour of commercially pure titanium shot blasted with different materials and sizes of shot particles for dental implant applications. *Biomaterials*. 2003 Jan;24(2):263-73.
- 16.- F.J Gil, A Padrós, J.M Manero, C Aparicio, M Nilsson, J.A Planell, Growth of bioactive surfaces on titanium and its alloys for orthopaedic and dental implants. *Materials Science and Engineering: C*. 2002; 22(1):53-60.
- 17.- Gil FJ, Espinar E, Llamas JM, Sevilla P. Fatigue life of bioactive titanium dental implants treated by means of grit-blasting and thermo-chemical treatment. *Clin Implant Dent Relat Res*. 2014 Apr;16(2):273-81.
- 18.- Noguera-Bayona J, Gil FJ, Salsench J, Martínez-Gomis J. Roughness and bonding strength of bioactive apatite layer on dental implants. *Implant Dent*. 2004 Jun;13(2):185-9.
- 19.- E. Espinar, L.A. Bravo, M. Pegueroles, F.J. Gil. Roughness and wettability effect on histological and mechanical response of self-drilling orthodontic mini-implants. *Clinical Oral Investigations*. DOI: 10.1007/s00784-016-1770-y. CLOI-D-15-00254.2.
- 20.- E. Velasco-Ortega, C.A. Alfonso-Rodríguez, L. Monsalve-Guill, A. España-López, A. Jiménez-Guerra, I. Garzón, M. Alaminos, F.J. Gil. Relevant Aspects in The Surface Properties in Titanium Dental Implants For The Cellular Viability. *Materials Science And Engineering C*. doi:10.1016 / j.msec.2016.03.049.



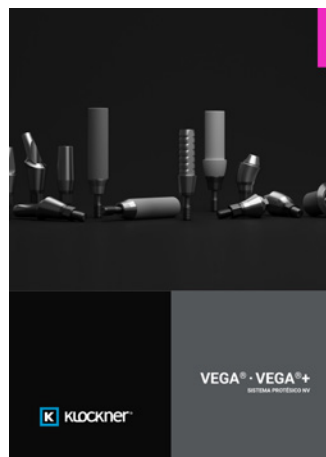
VEGA_IM_KLOCKNER_EN
VEGA® · VEGA®+ IMPLANTS



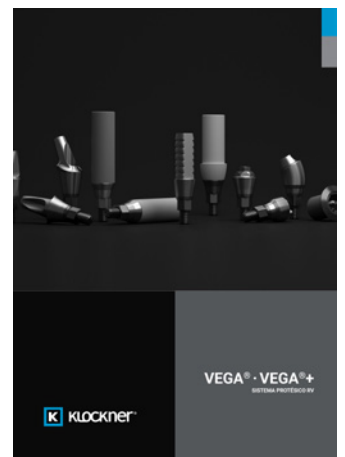
VEGA_SU_KLOCKNER_EN
VEGA® · VEGA®+ SURGERY



VEGA_MV_KLOCKNER_EN
**VEGA® · VEGA®+
 MV PROSTHETIC SYSTEM**



VEGA_NV_KLOCKNER_EN
**VEGA® · VEGA®+
 NV PROSTHETIC SYSTEM**



VEGA_RV_KLOCKNER_EN
**VEGA® · VEGA®+
 RV PROSTHETIC SYSTEM**

**Freedom
is not
fixed**



All KLOCKNER® IMPLANT SYSTEM products follow the laws and regulations applicable to medical devices, such as: European new regulation MDR 2017/745 · US FDA 21 CFR Part 820 Regulations · EN ISO 13485 Quality Standards and other applicable standards and regulations.



VEGA_IM_KLOCKNER_EN_V04

SOADCO S.L. is a manufacturer of medical and surgical materials, specifically dental implants, and of related medical and surgical products; KLOCKNER S.L. is the official distributor in Spain and authorised CE representative for these materials. The products described in this document are intended for purchase and use by properly trained and qualified medical professionals only, and are not to be resold. On the other hand, replacement, repair or reimbursement of this material will be carried as described on the reverse of the invoice ("Conditions of sale"). The devices described in this document are manufactured by: SOADCO, S.L. · Avgda. Del Pessebre, 76-82 Baixos · ESCALDES-ENGORDANY · ANDORRA [AD]. And distributed in Spain by: KLOCKNER S.L. · Paseo de la Castellana, 77 · Madrid · SPAIN [ES].

For USA only: SOADCO S.L. and KLOCKNER S.L. do not practice medicine and therefore do not recommend either surgical techniques or medical and surgical materials to patients. SOADCO S.L. and KLOCKNER S.L. do not guarantee specific results or benefits derived from the use of medical and surgical materials manufactured and/or marketed by them. Furthermore, they decline/disclaim any liability with respect to the use of such material in the interpretation of the information described in this document, as it cannot guarantee the achievement of a specific result. All testimonies, opinions or instructions described in this document and attributed to any medical professional, clinician, investigator or any qualified personnel constitute testimonies, opinions or instructions of those individuals, and are not testimonies, opinions or instructions issued by employees of SOADCO S.L. or KLOCKNER S.L. Therefore, neither SOADCO S.L. nor KLOCKNER S.L. are responsible for any statements or declarations made by these individuals. The use and/or choice of inappropriate treatment with any medical and/or surgical material described in this document is the sole responsibility of the user of the material. SOADCO S.L. and KLOCKNER S.L. reserve the right to modify the medical and surgical materials described in this document and to modify their specifications, as well as to suspend sales at any time. Neither SOADCO S.L. nor KLOCKNER S.L. are responsible for the consequences, damage or incidents derived from the improper use of these materials either alone or in combination with other products.

WARNING

NOT ALL OF THE PRODUCTS SHOWN IN THIS KLOCKNER® CATALOGUE ARE AVAILABLE IN ALL COUNTRIES.