

# XBODY - Conical Connection Implant

**AVAILABLE IMPLANT SYSTEMS** 





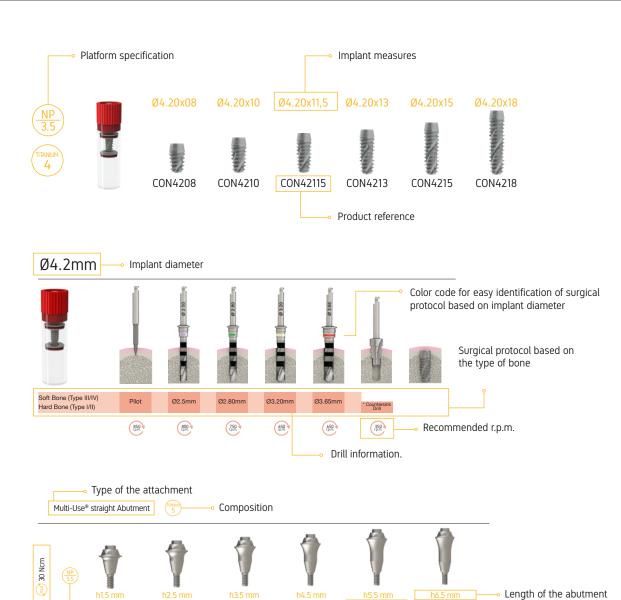


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# How to consult this catalog



#### Symbology

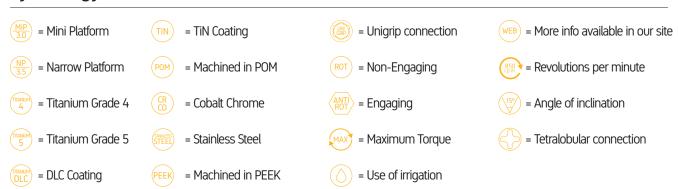
VCON10N1500

VCON10N2500

Prosthetic platform

Maximum torque applicable

VCON10N3500



VCON10N4500

VCON10N5500

Product reference



# About Us

#### Designed and made in Barcelona,

one of the most advanced cities in the world in biotechnology

Vulkan® is a modern, cutting-edge European dental implant brand, established in Barcelona (Spain) in 2013.

**Vulkan®** was born out of our long and recognized expertise in the field of dental implantology. Also, because of our links with highly regarded companies and professionals in the sector and our close ties with the strong and world-renowned local biotechnological network.

As a manufacturer of implants and dental prosthetic solutions, our added value is based on the **high quality and reliability** of our processes and products. As well as the innovative capacity of our team of scientists, engineers and dental professionals.

In **Vulkan**® we carefully monitor and control all our processes of R+D+i, design, production and quality to be able to guarantee 100% the success of our products.

Our mission is to improve and facilitate the experience of the patients and dental health professionals by designing, manufacturing and making more accessible the most up-to-date dental implant technology.

#### Innovation:

The constant improvement and the desire to find the best solutions for the patients place us as an innovative and reliable company..

#### **Ouality:**

Quality and seeking perfection are golden rules for everything we do.

#### Commitment:

Our commitment with the patients: solutions that improve their quality of life.

Our committeent with the industry professionals: innovations to improve their clinical experience.

#### Added value:

The engine that moves us forward is the motivation to always offer more and better solutions.

#### Sustainability:

For us sustainability is a core value in our decision making process, to enable our values and our brand to last over time.



# Vulkan® Conical Connection Innovation, Precision and Quality

#### R&D+i



Our Research, Development and Innovation team is made up of **engineers and doctors** with long, extensive and successful experience in the development of dental implants and prosthetic components.

Together, they investigate and design the Vulkan® Implants innovative products according to user needs under the most advanced protocols of Medical Engineering and in accordance with UNE 166002.

#### STATE-OF-THE-ART-TECHNOLOGY



Vulkan® products are known for their **high precision**, **quality and robustness**. This is possible, among other things, thanks to the **skillfulness of our specialists**, experts in dental technology, and the latest CNC machinery which allow us to guarantee **tolerances of only 5 \mu m**.

We can proudly say that our products are manufactured with the most accurate technological system in the world.

#### **BEST QUALITY GUARANTEED**



Our Quality Control Department applies the more rigorous control system and has been certified under the most strict European quality standards. Robotized computer machines with artificial vision analyze and ensure the precise measurement of each implant and prosthetic component. Also, through an innovative optical laser technology, we inspect up to the most micrometric detail of the implants or prosthetic components. Finally, to ensure the perfect functionality of our product, our team physically check the perfect fit of each item. 100% unitary control.

#### **European Quality Standards**

ISO 9001

**CSQ** 

ISO 13485

I Net

**IQNet** 

**CE Marking** 



**AEMPS Licence** 





# Vulkan® Conical Connection XBody

#### Ideal for post-extraction immediate implants

The conical Xbody design core increases soft bone compression. This design is especially beneficial in situations of low bone density.

#### Ideal for immediate loading

The conical core and the self-tapping thread shape provide greater primary stability with less milling.

#### Greater stability of the peri-implant bone tissue

The inverted cone of the coronal region promotes the creation of long-term stable bone tissue.

#### More prosthetic solutions

Introducing Vulkan Tissue Care, the transepithelial attachment for single or multiple restorations that transfers the prosthetic platform from the bone level to the tissue level, reducing risks and time in the treatment.



# TESTED BENEFITS

#### 1. Optimal sealing

The conical profile in 12° guarantees optimum sealing, minimizing micro filtrations. In addition, the Vulkan Conical Connection system simplifies prosthetic procedures with a single prosthetic connection for the main four implant diameters.

#### 2. Increase the bone tissue

The Xbody design is marked by the shape of an inverted cone in the coronal region of the implant along with the platform switching, maximizing the volume of bone and soft tissue and providing a natural-looking aesthetic for an optimal prosthetic result.

#### 3. Easy movement of fluids

The micro grooves in thread design promote the circulation of fluids for an optimal and faster osseointegration.

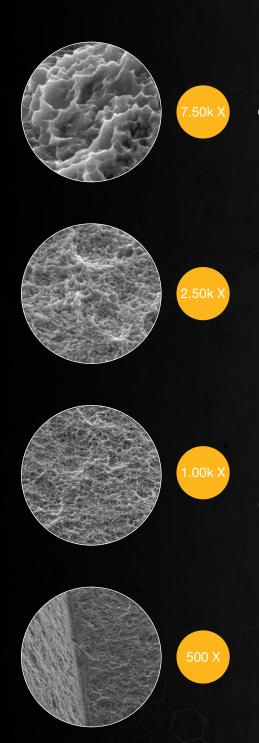
#### 4. Self-tapping

The morphological design of the implant along with the conical core provide a greater sense of control in the insertion and a greater primary stability with less milling.

## 5. Minimizes the risk of injury to anatomical structures

The blunt tip improves maneuverability in insertion and reduces the risk of injury.

### VLA® Surface treatment



#### Proven Guarantee of Success

The Vulkan® Conical Connection Implant has been subjected to a treatment consisting of **sandblasting + double acid etching** creating a surface with optimum roughness of 1.4 µm.

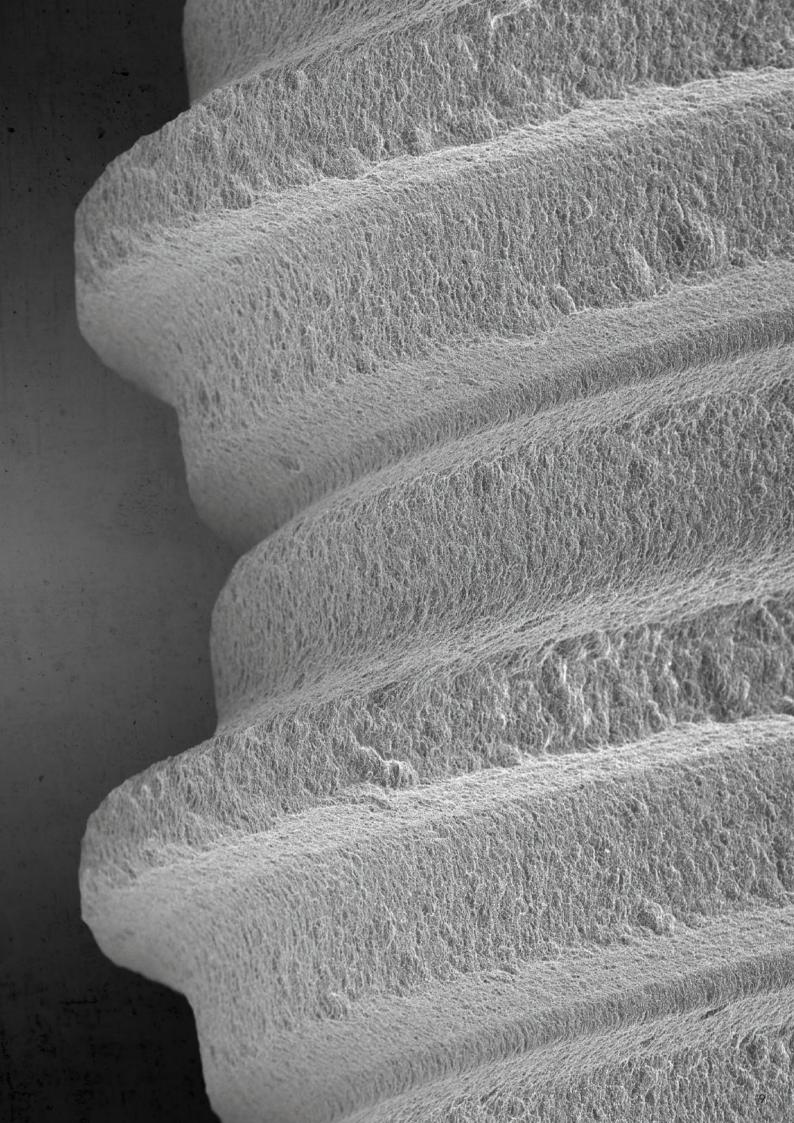
This is a widely studied surface that provides a microstructure that **stimulates the osseointegration** of the implant.

The VLA® surface treatment presents success rates of 98%-99%. This microstructure also ensures a large contact area between implant and bone, providing the maximum BIC (Bone Implant Contact).

#### The Cleanest Implant

In addition, an **innovative final cleaning technique** is applied using a **plasma** cleaning system that strikes the surface of the implant, subjecting it to an intensive blasting causing the detachment and **complete elimination** of any possible remaining contaminants.

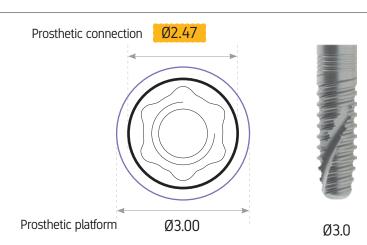
Finally, the implant is subjected to a strict **sterilization** by gamma rays.



## Technical specifications



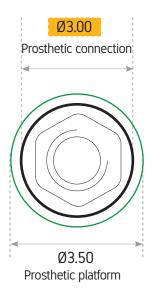
Platform: Ø3.0 Prosthetic connection: Ø2.47 Metrics: M-1.4



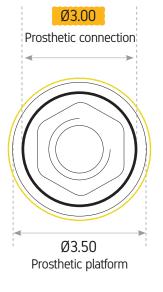


Platform: Ø3.5 - Ø3.8 Prosthetic connection Ø3.00 Metrics: M-1.6

4 diameters 1 single prosthetic connection



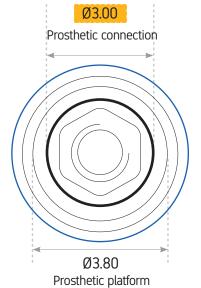






Ø3.00
Prosthetic connection







Ø3.50 Prosthetic platform

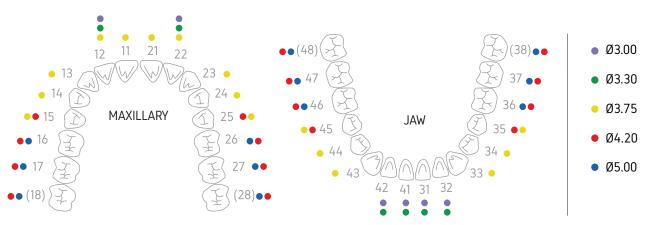


### Sizes Guide

The cutting-edge implant that meets all your needs



\*all Vulkan® Implants include the Cover Screw in the same pack.



## Technical specifications





Mip 3.0 platform offers to the dental professional the possibility of performing dental implant treatment in areas with limited spaces.

The conical connection implant with a 3.0 mm platform is indicated for the anterior sector, in lateral unitary incisors in the maxilla and lateral and central incisors in the jaw.

The conical connection guarantees a perfect seal, reducing micro filtrations and guaranteeing the success of the treatment.

The Xbody design of the implant guarantees high rates of primary stability and bone preservation. Furthermore, it facilitates the adjustment of the implant position during insertion for optimal restoration orientation.



#### Mip Platform allows

Treatment with dental implants in areas with limited spaces.



#### Indicated for

- Unitary lateral incisors in maxilla.
- Lateral and central incisors in the jaw.

#### Abutments available for Mip Platform: (MIP)



Find all references on pages 22-29









Impression Coping



Analog

Clousure screw



Healing Cap



Cobalt-Chrome Castable



Temporary Abutment





Castable





#### Vulkan Tissue Care

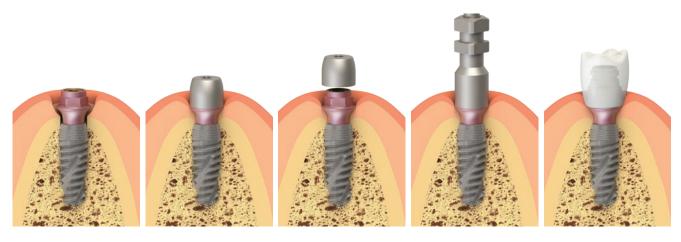
### Technical specifications



Vulkan Tissue Care is an abutment system designed to preserve connective tissue and ensure complete restorative and surgical flexibility.

Tissue Care abutments simplify the restorative procedure by moving the prosthetic platform of the Vulkan® Conical Connection implants from the bone level to the tissue level, remaining in position throughout the restorative procedure and during the lifetime of the restoration.

This new position of the restorative platform allows the **soft tissue** to remain **intact** and facilitate an **optimal healing process** 





#### Soft tissue preservation

**Tissue Care** abutments remain in position from implant placement to completion of the restorative procedure and the shelf life of the restoration.

#### Simplification

Tissue Care abutments move the prosthetic platform of the Vulkan® Conical Connection implant from the bone level to the tissue level, facilitating the union of prosthetic components and the impression taking.

## Technical specifications



#### The best titanium for the most advanced implant

In general, scientifically-proven dental implants are made of Titanium Grade 4. This material is known for providing better biocompatibility than Titanium Grade 5, because it has more pure titanium. However, although Titanium Grade 5 is less biocompatible, it has superior mechanical properties than Titanium Grade 4. This is the reason why Titanium Grade 5 is most commonly used in prosthetic components and Titanium Grade 4 in implants.

The determining factor in choosing between one material or another is their biocompatibility. However, it is also very important that the material contains mechanical properties that provide tensile/shear resistance, elasticity and enough strength/hardness to withstand the prosthetic process satisfactorily. That is why, in Vulkan we use an innovative material that provides the same biocompatibility than Titanium Grade 4 and the same mechanical properties than Titanium Grade 5.

#### How do we manage to obtain the best of both materials in one?

Technically, the composition of our Titanium is Grade 4. However, when forming it we use a "Cold Forming" technique. This process to form the material is what provides our implants their superior mechanical properties.

Using this innovative technique, we manage to produce our implants for maximum biocompatibility and the best possible mechanical properties.

## Vulkan® Grade 4 Titanium Phigher strength "Cold forming"

- **Greater Biocompatibility**
- **Advanced Mechanical Properties**

#### Comparison of the different compositions of titanium

TITANIUM	MECHANICAL CHARACTERISTICS		
Description State	Tensile strength N/mm²	0,2% Yield point N/mm² min.	Elongation %
Grade 2	345	230	20
Grade 3	450	300	18
Grade 4	550	440	15
Grade 4 Vulkan® Cold Forming	√ 850	√>700	√>10
Grade 5	900	> 795	> 10

# Vulkan® Conical Connection Information prior to the surgical protocol

Vulkan® recommends a submerged insertion of the Conical Connection implant. For an optimal control of the milling depth, it is recommended to use the stoppers during the surgical protocol.

To facilitate this process, Vulkan® Drill Stoppers have the nominal milling depth indicated, varying from 6mm to 15mm. There are two designs of stoppers depending on the Ø of the drill. Series 1 (Drills of Ø2.50, Ø2.80, Ø3.20) and Series 2 (Drills of Ø3.65 and Ø4.60).

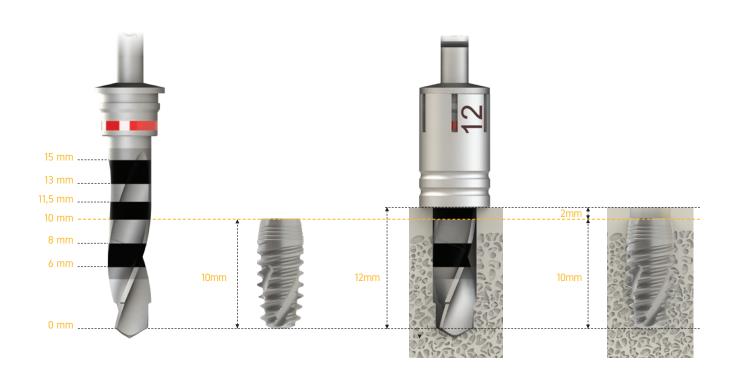
The depth of implant insertion is responsibility of the surgeon.

#### Informative drill stoppers table:



\*For 11.5mm implants, the stoppers allow a variation in the insertion depth of 0.5mm or 1.5mm

#### Illustrative example\* Implant insertion Ø4.20X10 leaving 2mm of submersion



# **Surgical Protocol**

#### These indications have been made for guidance (only).

Bone drilling must be done carefully and taking into account the different bone density characteristics (Type I-IV).

#### Important considerations (to be taken) during bone drilling:

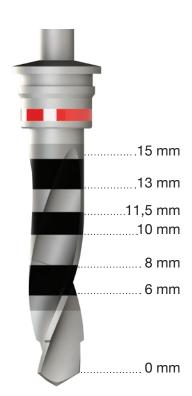
- · Use copious/profuse external irrigation of pre-refrigerated NaCl at 5°C solution.
- · Prepare the implant bed site with sequential drilling (straight up-and-down motion during osteotomy).
- · Drill the osteotomy using light pressure.

#### Ø3.0mm



#### Ø3.3mm





# **Surgical Protocol**

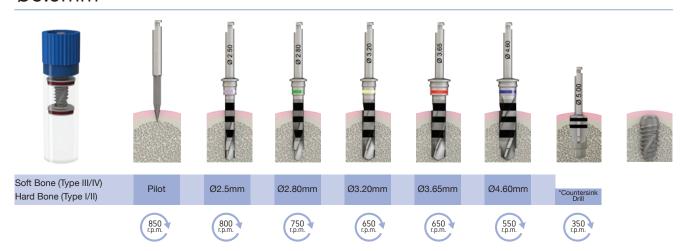
#### Ø3.75mm



#### Ø4.2mm

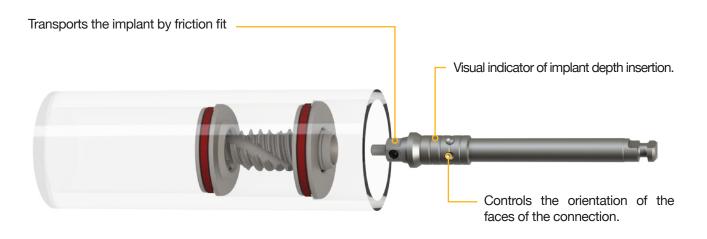


#### Ø5.0mm



# Smart Implant Driver

#### Multifunctionality



**Titanium holders** 





#### Short (21mm)

#### Long (27mm)



VCONDRS1



VCONDRS2



VCONDRN1



VCONDRN2



Ratchet Driver

#### Short (21mm) Long (27mm)



VCONDRS3-R



VCONDRS4-R



VCONDRN3-R



VCONDRN4-R

Squared Ratchet 4x4

Short (21mm)

#### Long (27mm)



VCONDRS3



VCONDRS4



VCONDRN3



VCONDRN4



# Step-by-Step Implant Placement



#### STEP 1

Lift off the coloured cap to open the vial containing the implant. Place the cap into a sterile field. The implant cover screw comes attached to the top of the cap.



STEP 2

Attach the implant driver to the contra angle.



#### STEP 3

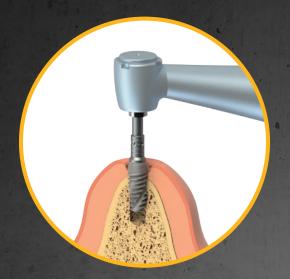
Connect the contra angle driver to the implant by exerting slight axial pressure. They will remain attached because the driver presents an elastic retention feature (rubber dots) in the area that connects to the implant. Remove the implant from the vial and carry it to the implant bed.



STEP 4

Start the implant insertion with the contra angle set at low speed (10-15rpm) and a torque of 30-35 Ncm.

# Step-by-Step Implant Placement



#### STEP 5

Insert it up to the 75% implant length maintaining a maximum torque of 30-35 Ncm.



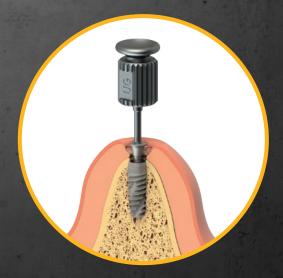
#### STEP 6

Finalise the implant insertion using manual devices, preferably with the torque ratchet at a maximum torque of 40-45 Ncm. 1mm submersion position is recommended.



#### STEP 7

Remove the cover screw from the vial cap using the Unigrip hand driver.



#### STEP 8

Hand-tight the Cover screw into the implant manually It is recommended not to exceed a torque of 10 Ncm.



# CONICAL CONNECTION ABUTMENTS



### **Prosthetic Solutions and Tools**

#### Introduction

Reliable and innovative prosthetic solutions that ensure the perfect fit and maximum robustness.

As a result of our advanced manufacturing process, we obtain tolerances of only  $5 \,\mu m$ , guaranteeing the absence of micro movements in the prosthetic components through an extremely sealed and precise connection.

#### Index

#### Prosthetic Solutions and Tools

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# Main Prosthetic Components





Clousure Screw







20 Ncm







Healing Cap - Emergency Ø3.2















Ø3.2 X 5.0mm VCON01S5032



Ø3.2 X 7.0mm VCON01S7032

Healing Cap - Emergency Ø3.6 (NP) (SP) (SP) (SP)















Ø3.6 X 3.0mm VCON01N3036



Ø3.6 X 5.0mm VCON01N5036



Ø3.6 X 7.0mm VCON01N7036



Ø5.0 X 3.0mm VCON01N3050



Ø5.0 X 5.0mm VCON01N5050



Ø5.0 X 7.0mm VCON01N7050

#### **Impression**

Impression Coping





Open Tray VCON02S0001



Open Tray VCON02N0001

Analog





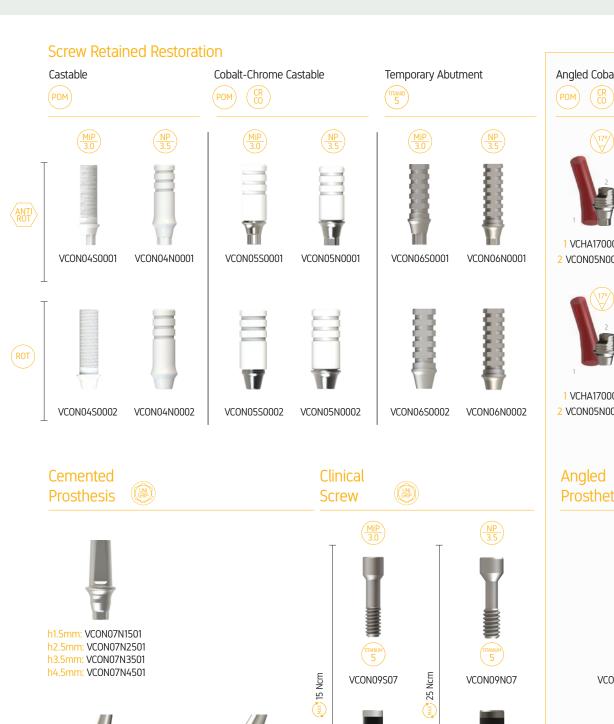




VCON03N0000

# Main Prosthetic Components







15° h1.50 mm: VCON07N1515

15° h2.50 mm: VCON07N2515

15° h3.50 mm: VCON07N3515

25° h1.50 mm: VCON07N1525

25º h2.50 mm: VCON07N2525

25° h3.50 mm: VCON07N3525

VCON09S07T

VCON09N07T

## Transepitelial Multi-Use®

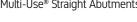


#### Multi-Use® Abutments

Multi-Use® Straight Abutments









VCON10N1500



VCON10N2500



VCON10N3500



VCON10N4500



VCON10N5500



VCON10N6500

Multi-Use® Angled Abutments







17º h2.5 mm VCON10N2517



17º h3.5 mm VCON10N3517



30° h3.5 mm VCON10N3530



30° h4.5 mm VCON10N4530

#### Healing

Healing Cap for Multi-Use® (Integrated screw)





MU0102

#### **Impression**

MU0211

Impression Coping for Multi-Use®



MU0202

Multi-Use® Analog







## Transepitelial Multi-Use®



#### **Screw Retained** Restoration

Cobalt-Chrome Castable Temporary Abutment for Castable for Multi-Use® for Multi-Use®

MU0502

Multi-Use®



MU0602 MU0602P

**Prosthetic Screw** Multi-Use®







MU0402

Angled Cobalt-Chrome Multi-Use®



1 VCHA170001 2 MU0504



1 VCHA300001 2 MU0504

#### **Prosthetic Screw** Multi-Use® Angled







#### Straight Multi-Use® Driver (STANLESS STEEL)



Contra-Angle VDMU-1



Ratchet VDMU-2

#### Multi-Use® Abutment VulkanLoc





MU11R00

### Vulkan Tissue Care

\*Only for single prostheses



Straight Tissue Care Abutment + Screw







VCON14N0025-X





Tissue Care Screw











**Impression** 





#### Healing

Healing Cap for Tissue Care

















#### Screwed prosthesis

**Angled Prosthesis** 

Castable Tissue Care

Cobalt-Chrome Castable Tissue Care











(POM) TCS0400

TCS0500

Angled Screw





1 VCHA170001 2 VCHA300001 3 TCS0500-A





# Overdenture VulkanLoc®



#### VulkanLoc® Abutment







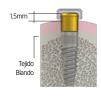




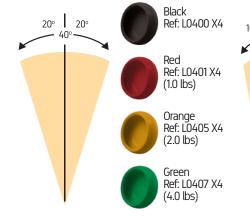


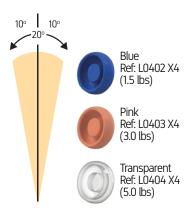






#### VulkanLoc® Retainers





#### VulkanLoc® Processing Package



L0100

Housing with Black Retainer



L0409 X4

#### VulkanLoc® Analog



#### Mounter for VulkanLoc®



#### **Spacer Ring**



L0406 X4

#### Impression Coping for VulkanLoc®



Contra-Angle: VDMU-1

VulkanLoc® Driver



Ratchet: VDMU-2

#### Smart Tool VulkanLoc®



VDVL-3 Multi Functional Tool for VulkanLoc® System

# CAD-CAM Components

\* Libraries Available: www.vulkanimplants.com



#### Ti-Base









h1.50 mm: VCON08S1501

h1.50 mm: VCON08S1502

ScanBody













Intraoral VCON13S0002

VCON03S0010

Ti-Base NP 3.5







h1.50 mm: VCON08N1501 h2.50 mm: VCON08N2501 h3.50 mm: VCON08N3501



h1.50 mm: VCON08N1502 h2.50 mm: VCON08N2502 h3.50 mm: VCON08N3502

#### ScanBody







Analog (STANLESS STEEL)







Intraoral VCON13N0002



VCON03N0010

#### Ti-Base for transepithelial Multi-Use®





h0.5mm: MU080502

#### ScanBody Multi-Use®













MU0310

#### Ti-Base for transepithelial Tissue Care





TCS080501

#### ScanBody Tissue Care

Intraoral

MU13R02



Intraoral TCS1301

#### **Analog** Tissue Care



TCS0310

### Vulkan® Implants

## Surgical and Prosthetic Tools



#### **Drill Stoppers** Surgical Drills Ø2.50 / Ø2.80 / Ø3.20 Ø3.65 / Ø4.60 6mm VTF06-2 6mm VTF06-1 7mm VTF07-2 7mm VTF07-1 Ø 2.50 Ø 2.8 VFT25 VFT28 8mm VTF08-2 8mm VTF08-1 9mm VTF09-2 9mm VTF09-1 10mm VTF10-2 10mm VTF10-1 11mm VTF11-1 11mm VTF11-2 Ø 3.2 Ø 3.65 Ø 4.60 VFT32 VFT365 VFT460 11,5mm VTF115-1 11,5mm VTF115-2 12mm VTF12-1 12mm VTF12-2 13 13mm VTF13-1 13mm VTF13-2 14mm VTF14-1 14mm VTF14-2 Ø4.20 Ø5.00 VFAV420 VFAV500 VFAV375 15mm VTF15-1 15mm VTF15-2

#### Vulkan® Implants

### Advanced Surgical Kit





VSK- CON
Dynamometric ratchet VDIN2
Drivers Ø7 connection
Drill Stoppers not included

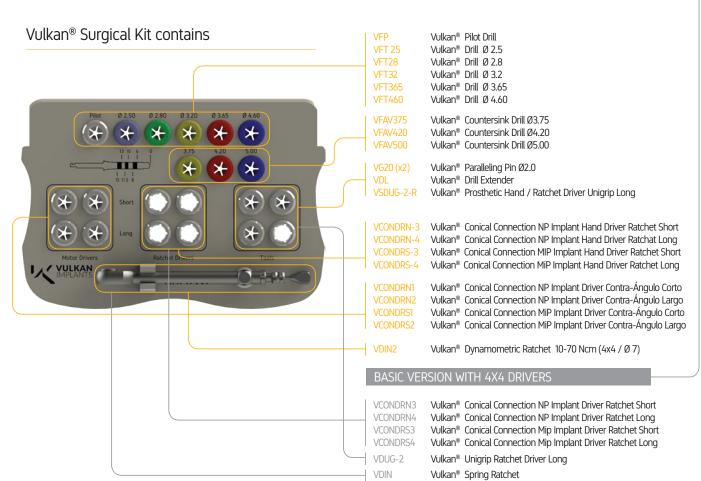
VSK- CON-T
Dynamometric ratchet VDIN2
Drivers Ø7 connection
Drill Stoppers included

VSK2- CON Dynamometric ratchet VDIN Drivers 4X4 connection Drill Stoppers not included

VSK2- CON-T Dynamometric ratchet VDIN Drivers 4X4 connection Drill Stoppers included













www.vulkanimplants.com

Vulkan® Conical Connection Implant















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