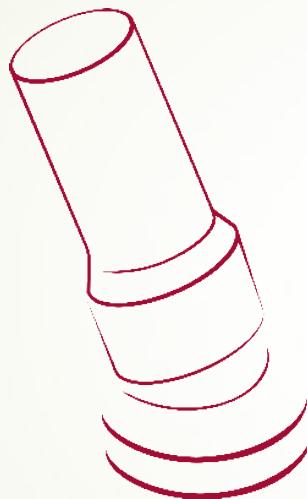
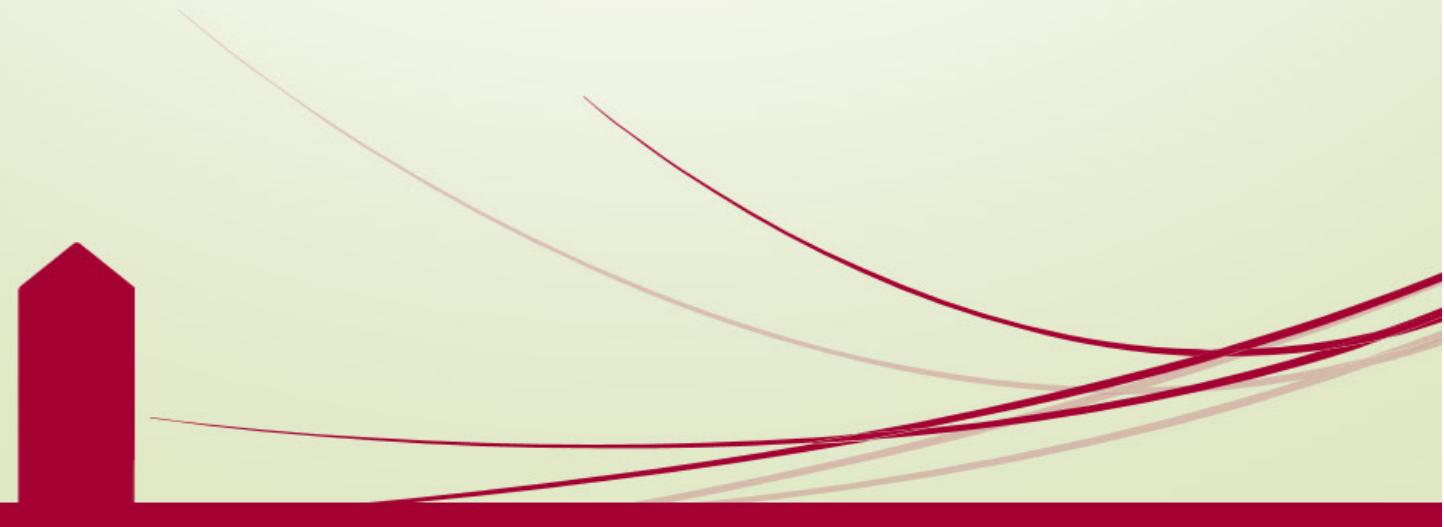


CAD/CAM DENTAL TECHNOLOGY



DYNAMIC
ABUTMENT®
SOLUTIONS



What is CAD-CAM?

Acronym for computer-aided design/computer-aided manufacturing, computer systems used to design and manufacture products.

Used for decades in the manufacturing industry to produce precision tools, parts and automobiles. CAD/CAM technology has been increasingly incorporated into dentistry over the past 20 years.

PATIENT

RESULTS

Excellent precision fit
Fast
Clean
Excellent aesthetics



SCANNER

Traditional Impression
Digital Impression
External Impression
Intraoral Impression

GENERAL OVERVIEW

Cycle

MILLING CENTRE

To manufacture the final restoration



WILLEMIN-MACODEL



Talladium.com



Innovative Produktionstechnologien



CAM

To design the milling strategy



CAD

To draw and design the final restoration



dentalwings



egs



dent Progress

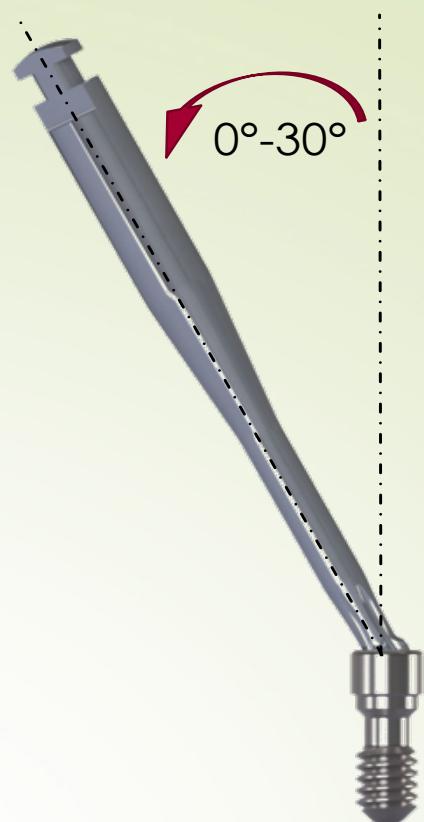
PRODUCTS FOR CAD-CAM

1 3.0 Dynamic Screw-Screwdriver Set

It is used in those cases which are necessary to rectify the entry of the screw due to an unfavorable position of the implants, improving the functionality and aesthetics of the milled prosthesis.

Specifications and advantages

- Correction of screw entry from 0° to 30°.
- Improved system increasing the useful life of the screw, and avoiding screw head damage and breakage.
- Screws are supplied well-identified with batch number and product code to allow the correct traceability and the registration of each screw in the patient record.
- Different lengths of each metrics to facilitate the adaptation to your milled structures.

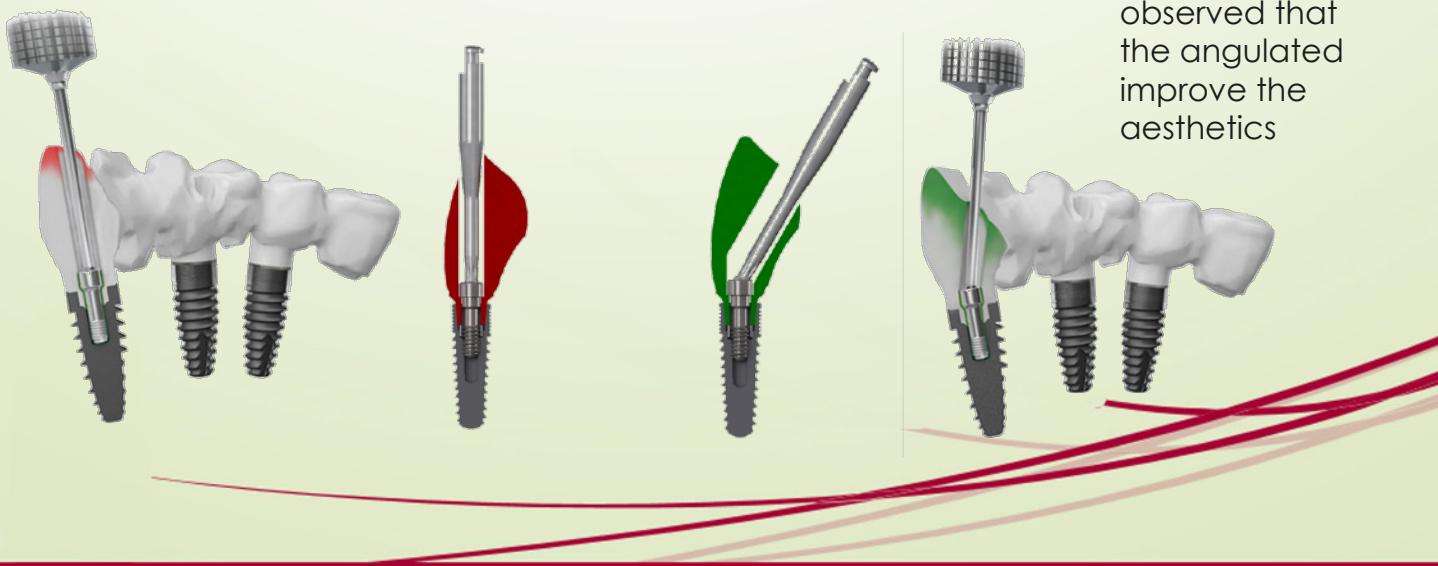


DYNAMIC CAD-CAM SCREWS DESCRIPTION	METRIC	LENGTH (mm)	TORQUE (N·cm)
TPDH14L	1,4	3,9/4/4,5/5,2/6,7/7,4	15
TPDH16L	1,6	4,4/5,9/7,2/7,3/7,6/7,8/8,4/9,4	20
TPDH17L	N1-72	7,1	25
TPDH18L	1,8	4,4/4,5/4,8/5,2/6,5/6,6/7,4/7,5/8	25
TPDH2L	2	4,7/4,9/5/5,1/6/6,5/6,6/6,7/7,4/7,5/7,9/8,2/9/9,4	25
TPDH25L	2,5	5,4/6,7	25

* See CAD-CAM screws compatibility table



Comparative between straight and angulated channel



It can be observed that the angulated improve the aesthetics

PRODUCTS FOR CAD-CAM

2

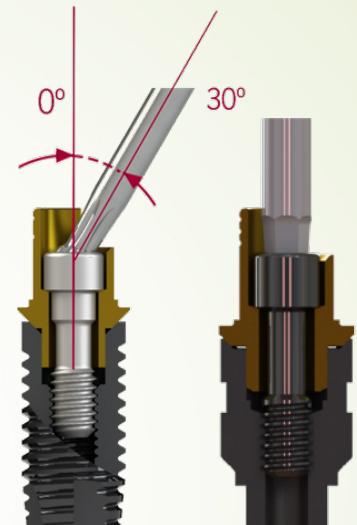
3.0 Dynamic Titanium Base

Titanium Base for milled structures made of Zirconium, metal and PMMA, serves as a connector between CAD/CAM individually fabricated crown/abutments and the implant.



Specifications and advantages

- 1 To provide solutions to the correction of implants bad-positioned for unitary and multiple prosthesis.
- 2 Totally machined, with precision of ± 10 microns, for a perfect adjustment with the implant.
- 3 Ti-Base has a gold anodized to improve the aesthetic
- 4 Can be used both for angled or straight fixation.
- 5 Different libraries: Exocad/3Shape/Dentalwings/Imetric/EGS



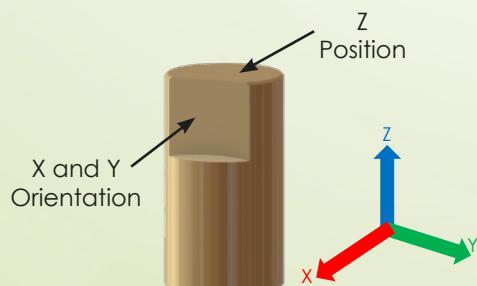
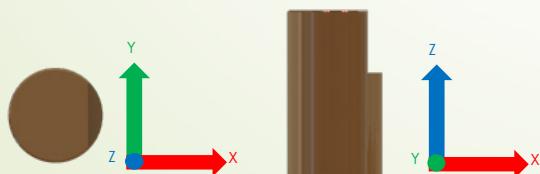
Dynamic screw
0°-30°

Straight screw
The same geometry
as the original

3

Scanbody

Represent the position and orientation of the respective dental implant or analog in CAD-CAM scanning procedures



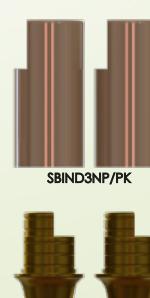
Only four scanbodies for more than 150 compatibilities
The scanbody connected on top of the Ti-Base



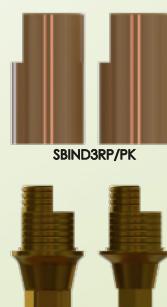
Straumann
Internal Octagon
Regular Platform



Nobel Biocare
Multi-unit
Regular Platform



Narrow
Platforms

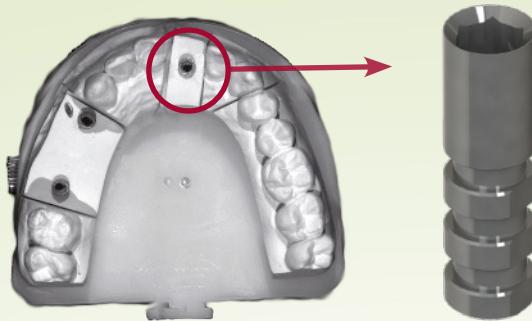


Rest of Regular
and Wide Platforms

STEP BY STEP: Complete work with Ti-Base

1st STEP

Implant replica located at the mouth model



2nd STEP

Position the Titanium Base over the replica



The titanium base cut has to be seen by lingual, because it is the side where the chimney goes out.

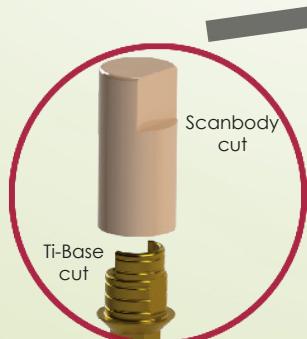
3rd STEP

Position and screw the corresponding screw



4th STEP

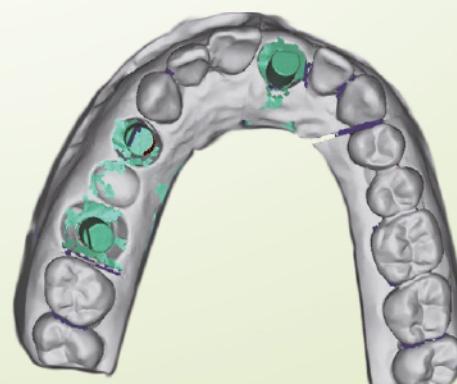
Position the scanbody over the titanium base.



Only a unique position

5th STEP

When we have all mouth model finish with our titanium base and scanbody, we proceed to scan the model.



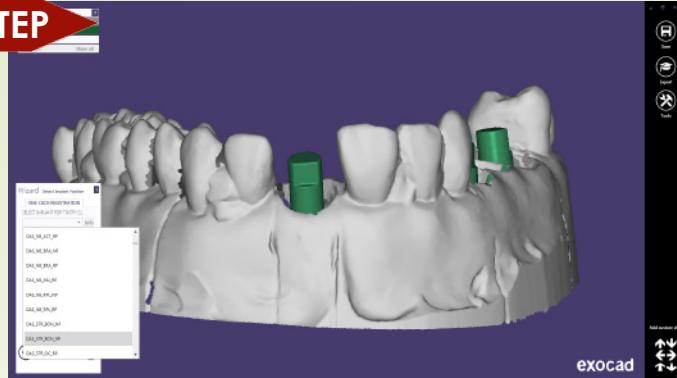
When the scan process finishes, the next step is to design with CAD.

CAD

STEP BY STEP: Draw and design the final restoration

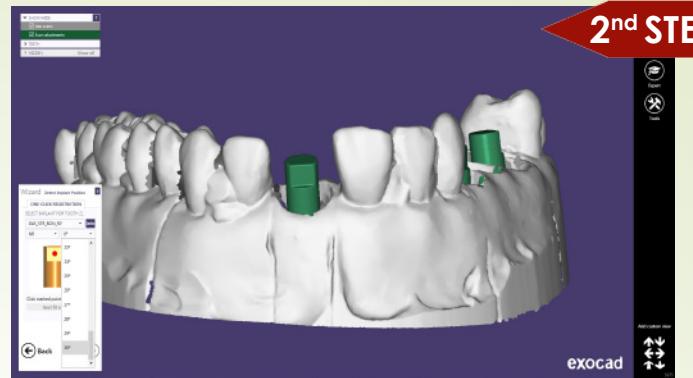
With the CAD software we can design the structure or tooth. The following is an example of a tooth design with EXOCAD software.

1st STEP



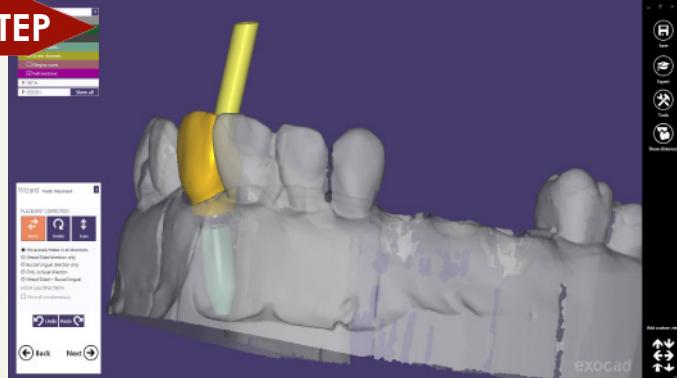
Choose the compatibility to work with.
Our library begins with "DAS_".

2nd STEP



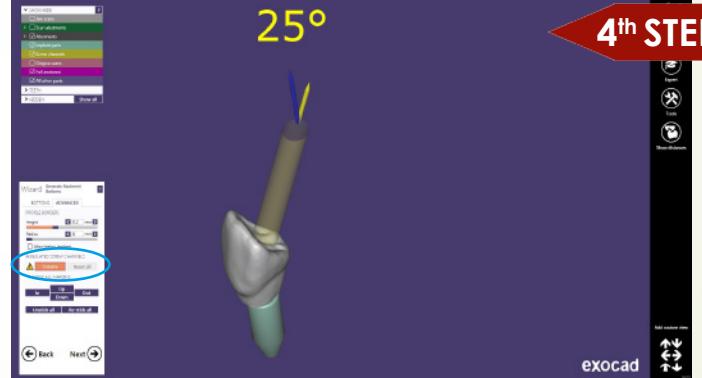
Once we chosen the compatibility, the next step is to select the angle.
This angle can be changed later, on the design structure process.
(0°-25° NP and 0°-30° RP/WP)

3rd STEP



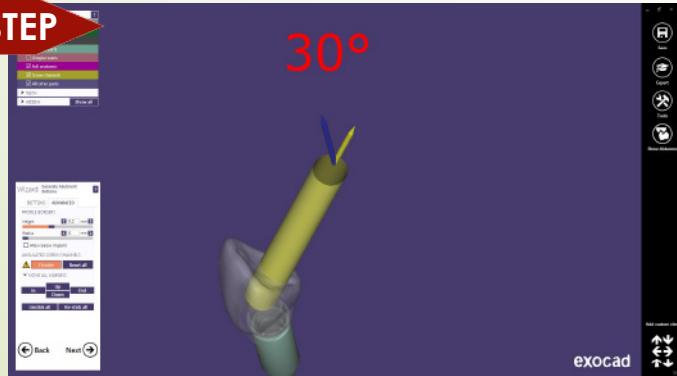
Now it is time to design the structure .

4th STEP



At this moment is when we can modify the angle.
See the option encircled in blue.

5th STEP



See angle change.

6th STEP



Final design with 30° angled channel.

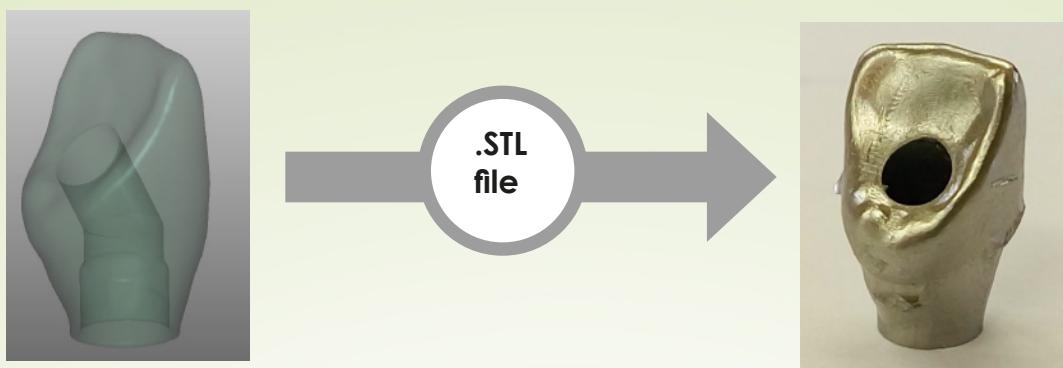


CAM

STEP BY STEP: To design the manufacturing strategy

Following is a working example of a CAM process with Ti-Base.

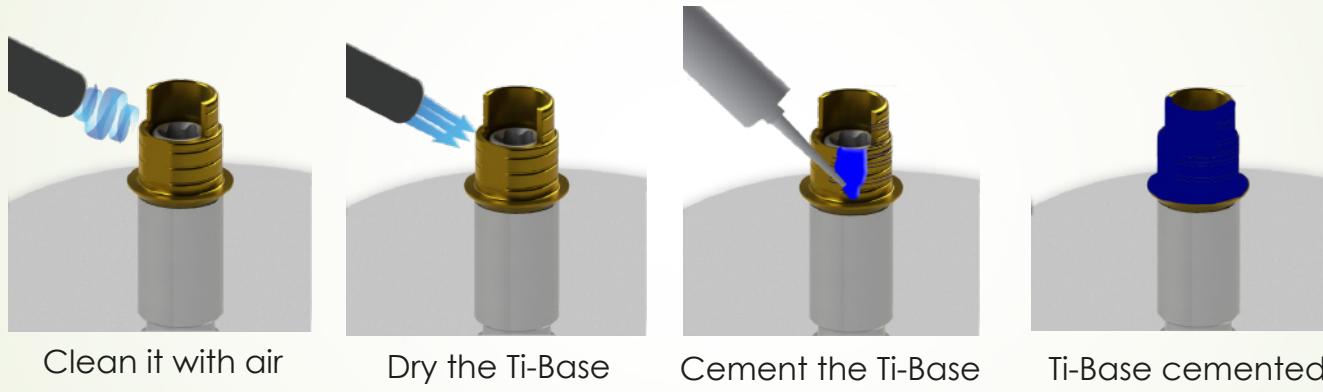
1st STEP



Once we have the CAD-CAM structure, we sent it, as a stl file, to a machine to manufacture the final structure.

2nd STEP

Before locate de structure over the Titanium Base, clean and cement it.



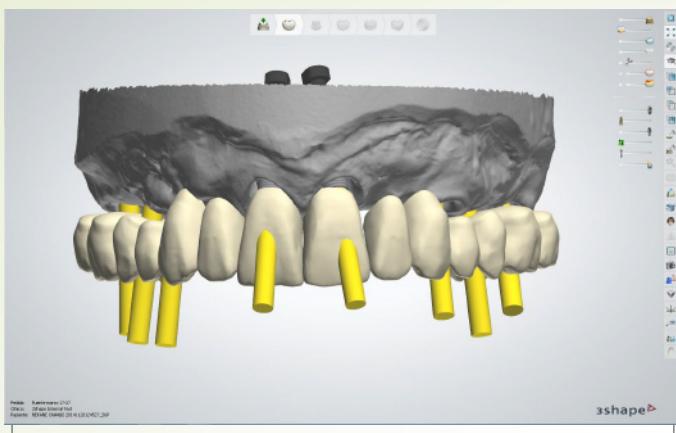
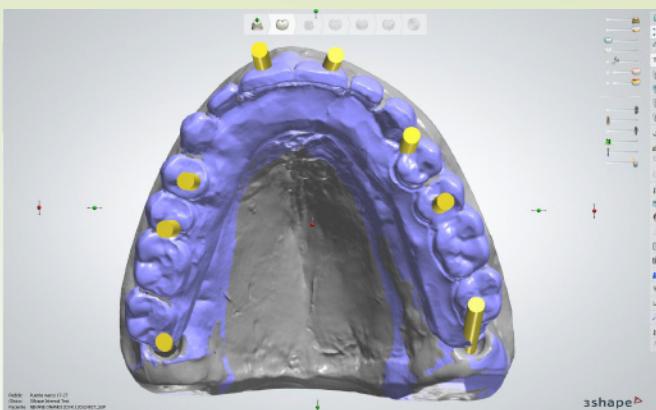
3rd STEP

When cemented process is finished locate the structure over the Titanium Base.



REAL EXAMPLE

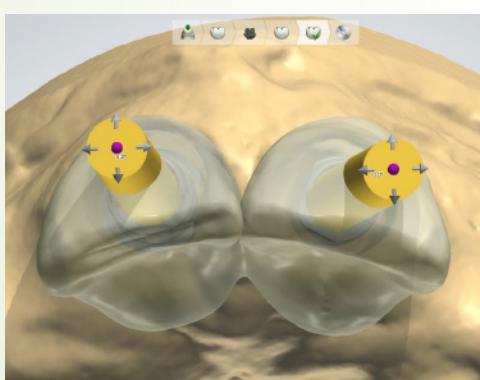
Work made with 3SHAPE and Dynamic Titanium Bases.
Author: Garbident - Prótesis dentales



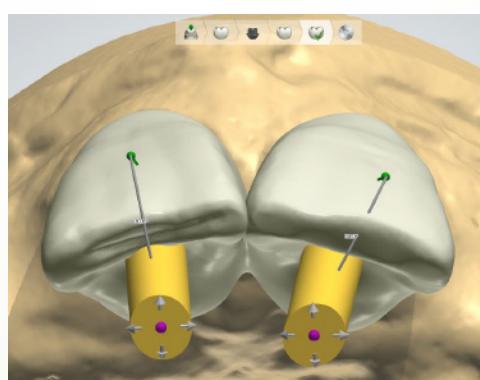
This image shows the chimneys are angulated according to the previous design.



See the angle of the screws holes.



Structure design without angulation



Structure design with 30° angulation



Result of the restoration after the manufacturing proces

4 ➤ Pre-milled Abutment Blank

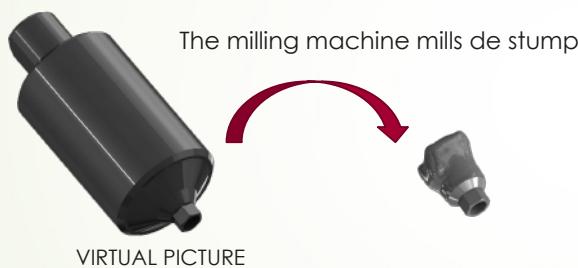
Pre-milled abutment blanks are ideal for fabricating screw-retained crowns. The idea of a prefabricated abutment blank offers the possibility of improvements in the field of individual abutment manufacture.

Pre-form abutment blanks are made of high quality Grade 5 titanium and Chrome Cobalt and are available for the most popular implant systems.



Specifications and advantages:

- The pre-milled blank production process makes quick work. Abutment is milled in 15 minutes.
- Precision machined in the connection is +/- 5 microns.
- A unique universal support (DAS) for all blanks.
- Software library



System components include:

- Pre-Milled Abutment Blank.
- Support for CNC machine (different types of support for CNC, like square 10 cm) or Support for Disc of mill machine.

