PRODUCT CATALOGUE

www.biometricdental.com

CONTENTS

SIMPLE AND UNIVERSAL FIXTURE GEOMETRY

Designed for tissue care and aesthetic results

Abutment shape and design creates enough room for soft tissue – ideal for narrow spaces and implants close to each other

Platform switching effect allows bone overgrowth and better support for soft tissue – better results in aesthetic zone

Self tapping and bone condensing effect due to the conical fixture shape

Hex part for indexing the abutments to avoid mistakes during impression taking and final fixation

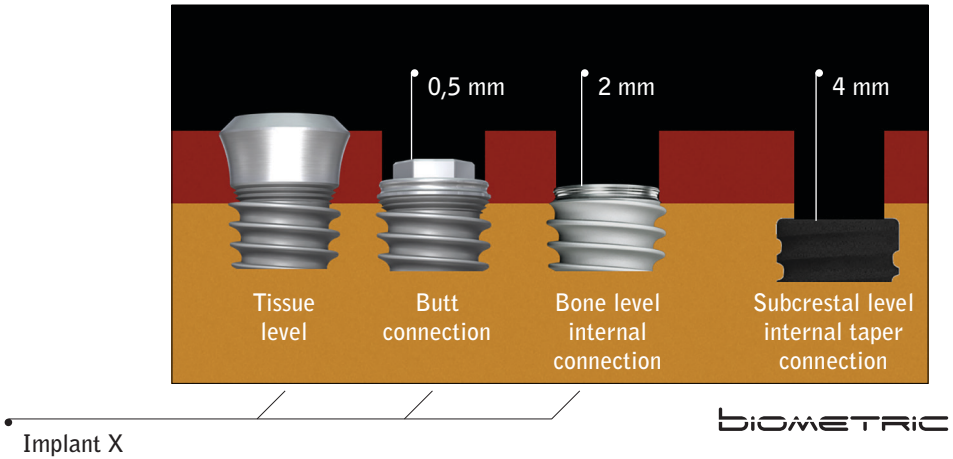
Morse taper internal connection for easy fixation of prosthetic componentsless stress on the abutment fixing screws – less risk of screw breakage

Strong apex with aggressive thread for fixation in soft spongy bone

1. Lazzara, RJ; Porter, SS. Platform switching: a new concept in implant dentistry for controlling postrestorative crestal bone levels. Int J Periodontics Restorative Dent. 2006 Feb; 26(1):9-17.
2. Schoenbaum, TR. Abutment Emergence Profile and Its Effect on Peri-Implant Tissues. Compend Contin Educ Dent. 2015 Jul-Aug; 36(7):474-9.

CHOOSING THE IMPLANT TYPE

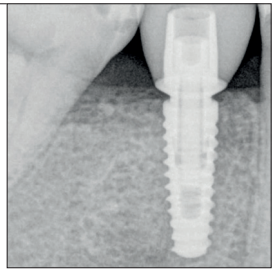
Emergence profile



MORSE-TAPER CONNECTION

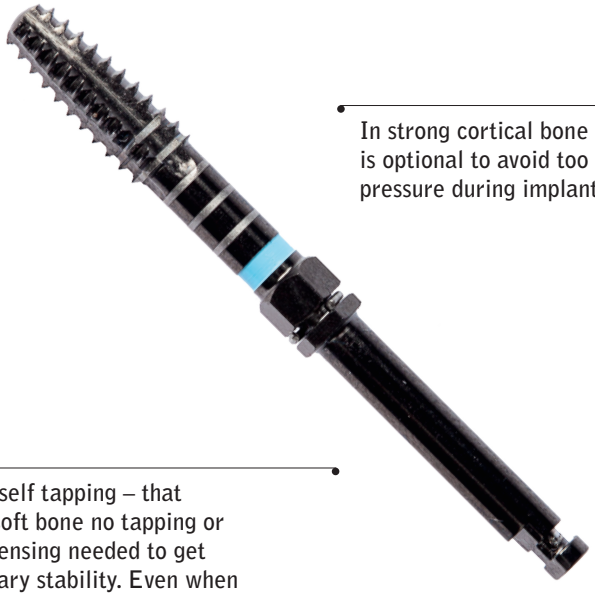
Morse taper internal connection for easy fixation of prosthetic components – less stress on the abutment fixing screws – less risk of screw breakage

Bone overgrowth effect

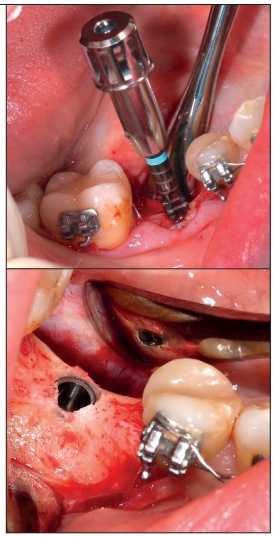


SELF TAPPING AND DRILLING DESIGN

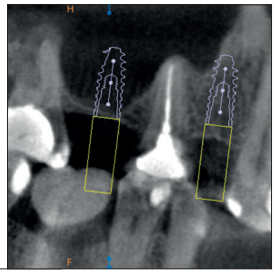
Aggressive in soft bone and gentle in cortical areas
Force direction to apical part of implant



In strong cortical bone prepping is optional to avoid too much pressure during implant insertion



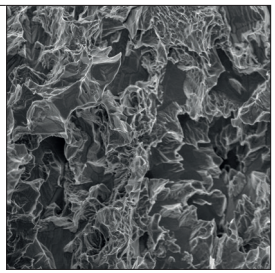
Fixture is self tapping – that means in soft bone no tapping or bone condensing needed to get good primary stability. Even when only 1mm of bone is available



SLA SURFACE TREATMENT

Studies demonstrate that the surface roughness is important for osteoblast adhesion, proliferation, differentiation and on protein synthesis. Biometric implants have excellent SLA surface topography to ensure fast osteointegration

Surface magnified to 3 µm



Platform areas have less aggressive treatment to make it easier to clean or modify in the case of bone loss and Periimplantitis Micro-rough surface still allows bone adhesion

CLINICAL TESTS

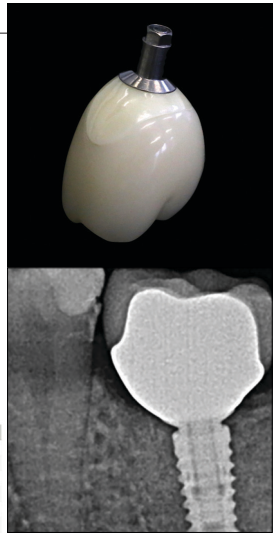
The goal was to evaluate implant primary stability in different bone qualities

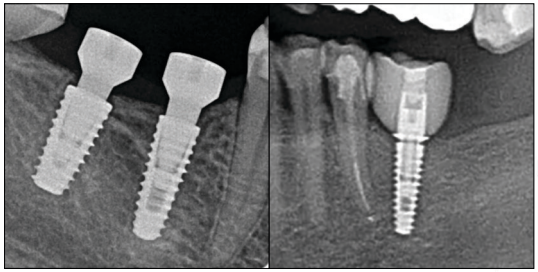
Implants placed: 109

Parameters of fixture: Ø 3,5 mm, length 10 mm

Bone quality evaluation by Lekoholm-Zarb (D1-D4)

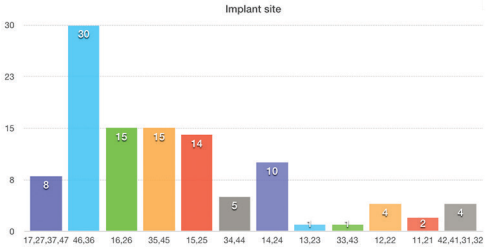
Primary stability evaluated by Johansson-Stird (Ncm)

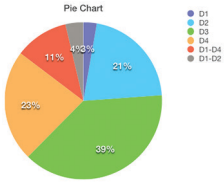


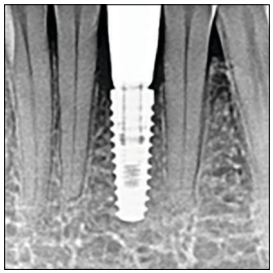


Bone quality index by Lekholm & Zarb 1985 (D1-D4)

BONE DENSITY	UNITS PLACED
D1	3
D2	23
D3	42
D4	25
D1-D4	12
D1-D2	4

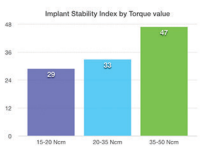






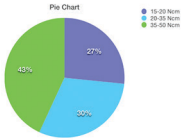
Total implants placed: 109
Diameter 3,5mm
Length 10mm

Non submerged implants: 54
Submerged implants: 55
Immediate after extraction: 3



Implant Stability by Insertion Torque (Johansson-Strid 1994)

BONE DENSITY	UNITS PLACED
15-20 Ncm	29
20-35 Ncm	33
35-50 Ncm	47



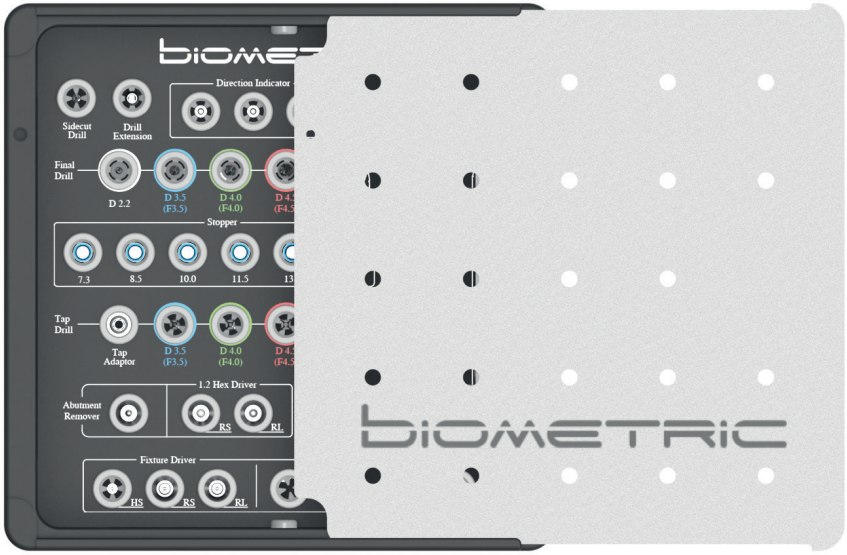
BIOMETRIC

THE CONCEPT

- Simple and universal fixture geometry
- Sharp conical connection for strong fixation, bone overgrowth and better force distribution; no micro gap and micro movement
- SLA surface treatment – different roughness in platform area
- Self tapping and drilling design – aggressive in soft bone and gentle in cortical areas, force direction to apical part of implant
- Simple universal kit and less instruments
- Designed for tissue care and aesthetic results
- Compatible with CAD CAM systems and prosthetic solutions

BIOMETRIC INSTRUMENT KIT

Introduction



DESIGN

The Biometric instrument kit is designed to keep the surgical and prosthetic instrument set as simple as possible and to prevent mistakes during implant surgery or maintenance. Biometric's philosophy is to protect the environment and act responsibly.

MATERIALS

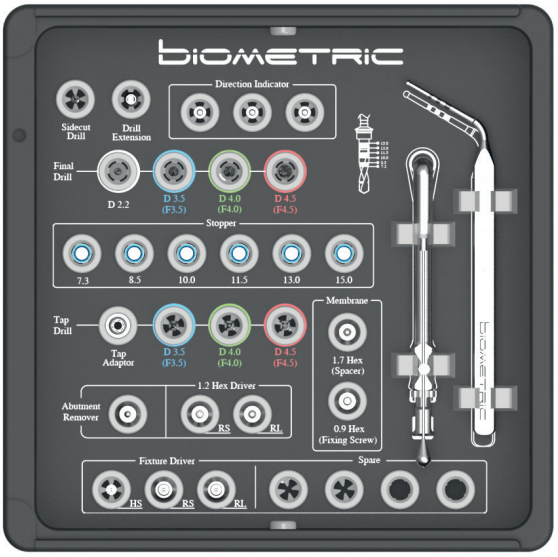
High-quality materials have been used to create a long-lasting and durable product. An aluminum (AL6061) metal case and slide cover are able to be placed into the autoclave thousands of times and are suitable for heavy use. All materials are recyclable, and no plastic has been used in our product.

FULLY AUTOCLAVABLE

The shape and size of the Biometric surgical kit are designed to fit any kind of autoclave. As many as two or three kits, including surgical instruments, can be placed into the autoclave at once.

BIOMETRIC INSTRUMENT KIT

Contents



SIDECUT DRILL

The sharp TrimRite® stainless steel Lindemann drill (a sidecut drill) is useful as a pointing instrument. It also has a side-cut effect to correct implant angulation.

DRILL EXTENSION

The drill extension has a unique design. It's extremely safe to use – a perfect fit with all other surgical instruments without a risk of losing any parts during critical surgical steps. The instrument is used in complicated situations where more length is needed. The drill extension is also useful for implant insertion with an HS fixture driver.

DIRECTION INDICATOR

Direction indicators are useful for checking single implant angulation during preparation. This step is important for screw-fixed prosthodontics or use of a CAD-CAM TI-Base. Indicators are also essential for paralleling multiple implants.

FINAL DRILLS

High-quality and long lasting TrimRite® stainless steel final drills are color coded and laser marked. A simple and effective design helps to avoid over-heating of the bone and has several cutting zones to prevent vibration during preparation - no need for internal cooling. Working speed is a max of 2000 rpm. Attention! It is highly recommended to replace drills after 25-30 surgeries to avoid any heat damage!

STOPPERS

Stoppers are useful for safe surgery. No need to focus on laser marks, and no need to calculate depth. Stoppers are designed for the specific inplant length + 1 mm for correct implant positioning (1 mm subcrestal).

BIOMETRIC INSTRUMENT KIT

Contents

COUNTERSINK DRILL

Countersink drill can be used to avoid cortical tension and complications while inserting implant. Drill also has a bone condensing effect when used counterclockwise.

TAP INSTRUMENTS

Tap instruments are designed both for bone condensing and preparation of delicate cortical bone. Tapping helps to avoid overcondensing of the strong bone, which may lead to bone loss and implant failure.

HEX DRIVERS

The 1.2 HEX driver is used to match both healing abutments and final prosthetic components. The 1.7 HEX driver and 0.9 HEX driver are used to fix spacers and membrane screws.

ABUTMENT REMOVER

The abutment remover is useful for opening already tightened abutments. The abutment remover is also recommended for use in dental labs. The abutment HEX is a delicate structure and can be distorted using inappropriate devices.

FIXTURE DRIVERS

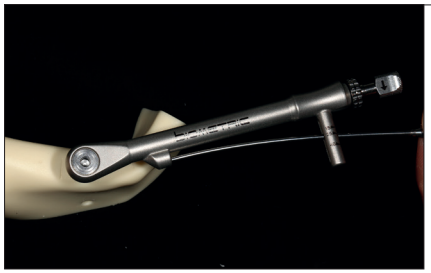
Fixture drivers are designed to fit perfectly into an implant's internal thread slot. Be careful with insertion - all force over 50-60 Ncm may lead to distortion of internal implant structures and can cause failure.

TORQUE DRIVER

The torque driver is a universal instrument for HEX drivers used in surgery or prosthetic procedures.

DEPTH GAUGE

The depth gauge has laser marked tip and depth marks. All measurements have been calculated with the principle of +1 mm to avoid incorrect implant positioning.



Insertion torque

Submerged approach: 10-20 Ncm.

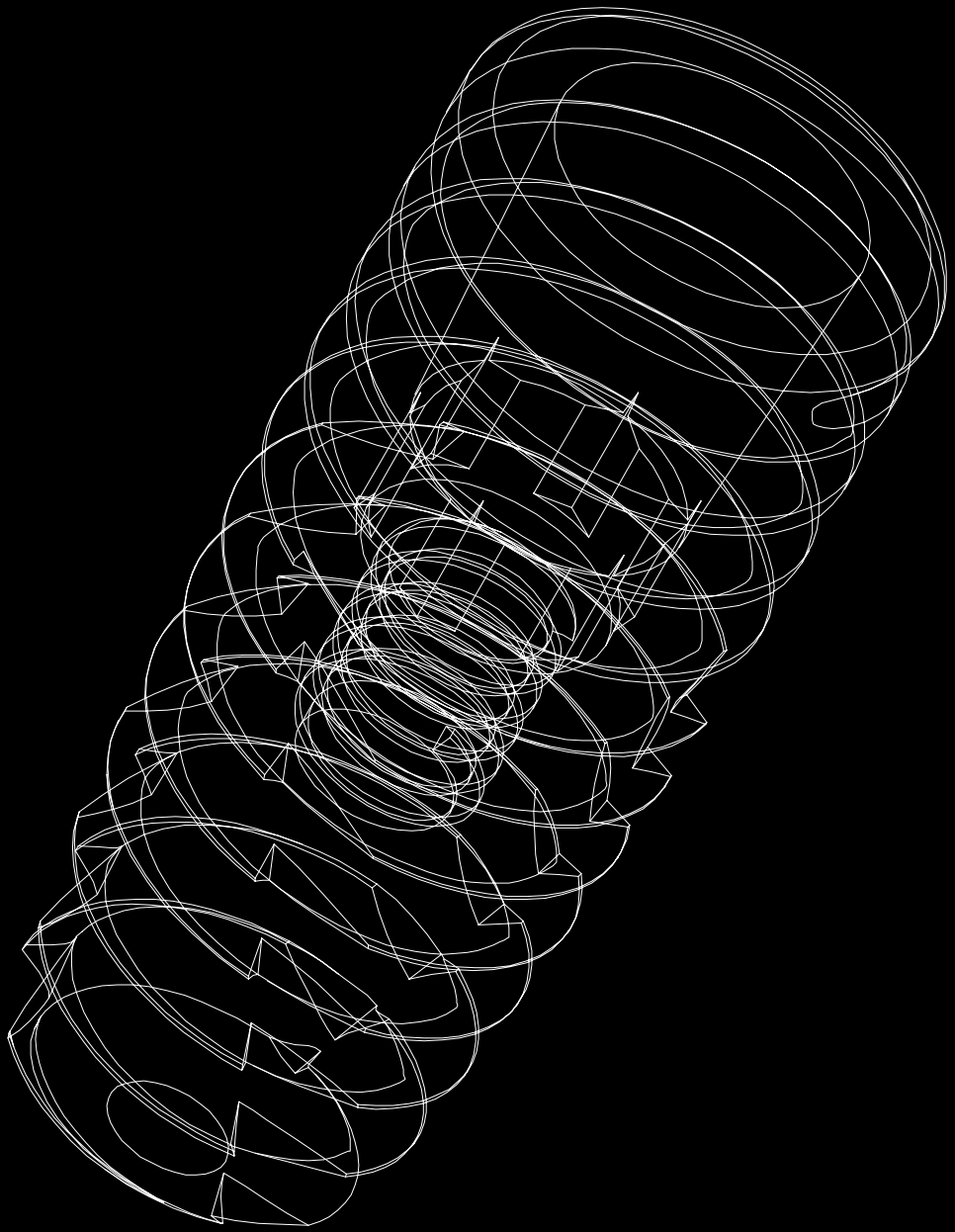
Nonsubmerged approach: 20-30 Ncm.

Immediate loading: 30-40 Ncm.

Do no exceed 40 Ncm.

BIOMETRIC PRODUCT CHART

Fixture	Healing		Impression coping	Lab analog	Abutment	CAD-CAM	
							
Fixture	Spacer	Healing abutment	Pick-up impression	Regular lab analog	Rescue abutment	Sirona-Cerec compatible Ti base straight	CAD-CAM scan body
							
Cover screw	Membrane fixing screw / Access screw	Individual healing abutment	Transfer impression		Cemented abutment	Sirona-Cerec compatible Ti base angled	CAD-CAM lab analog
							
					Angled abutment		

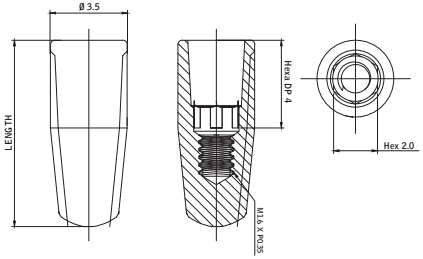


BIOMETRIC FIXTURE

Regular platform

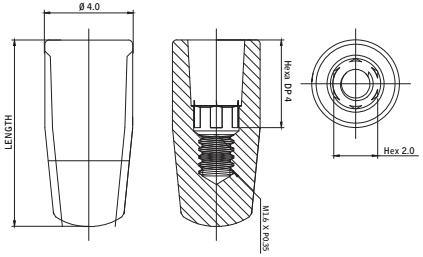
** Material: Titanium Gr4*

Diameter Ø 3,5 mm



Length, mm	8,5	10,0	11,5	
Prod. code	BFR3508	BFR3510	BFR3511	Cover screw included

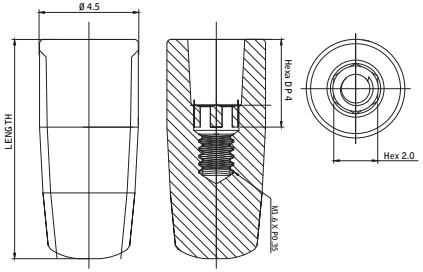
Diameter Ø 4,0 mm



Cover screw included

Length, mm	7,3	8,5	10,0	13,0	15,0
Prod. code	BFR4007	BFR4008	BFR4010	BFR4013	BFR4015

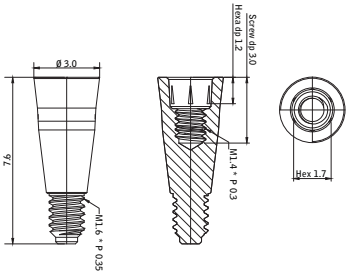
Diameter Ø 4,5 mm



Length, mm	10,0	11,5	13,0	
Prod. code	BFR4510	BFR4511	BFR4513	Cover screw included

MEMBRANE FIXING SCREW WITH SPACER / ACCESS SCREW

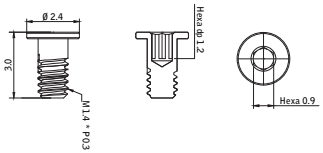
Diameter Ø 3,0 mm. Length 7,6 mm



Prod. code	BSM3076

Diameter Ø 2,4 mm. Length 3,0 mm

2 mm higher than standard cover screw



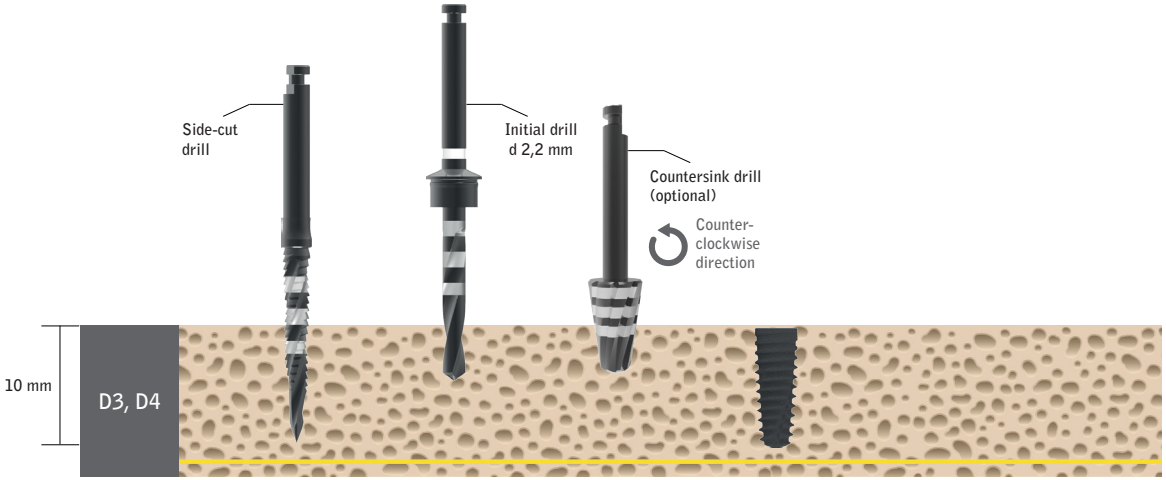
Prod. code	BSA2430

PROTOCOL

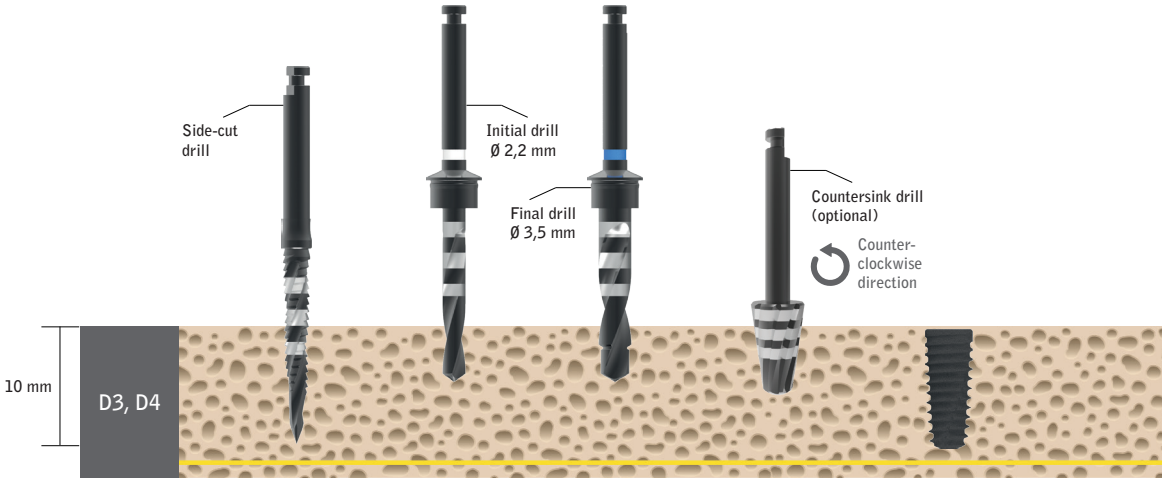
Biometric fixture drilling sequence

Bone structure D3 and D4

Biometric fixture Ø 3,5 mm, bone structure D3 and D4



Biometric fixture Ø 4,0 mm, bone structure D3 and D4

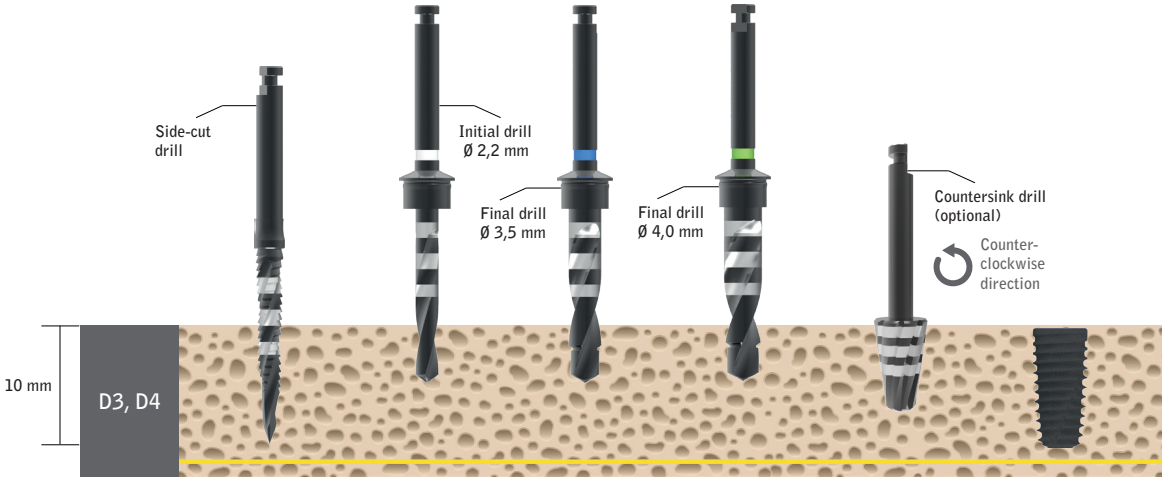


PROTOCOL

Biometric fixture drilling sequence

Bone structure D3 and D4

Biometric fixture Ø 4,5 mm, bone structure D3 and D4



NB

All depth-marks on instruments include +1 mm for correct implant positioning.

NB

Use sharp probe or side cut drill for direction marking and bone sounding.

NB

Drill only 1/3 length with initial Ø 2,2 mm drill if necessary.

NB

Position implant at least 1 mm deeper from the crest.

TIP

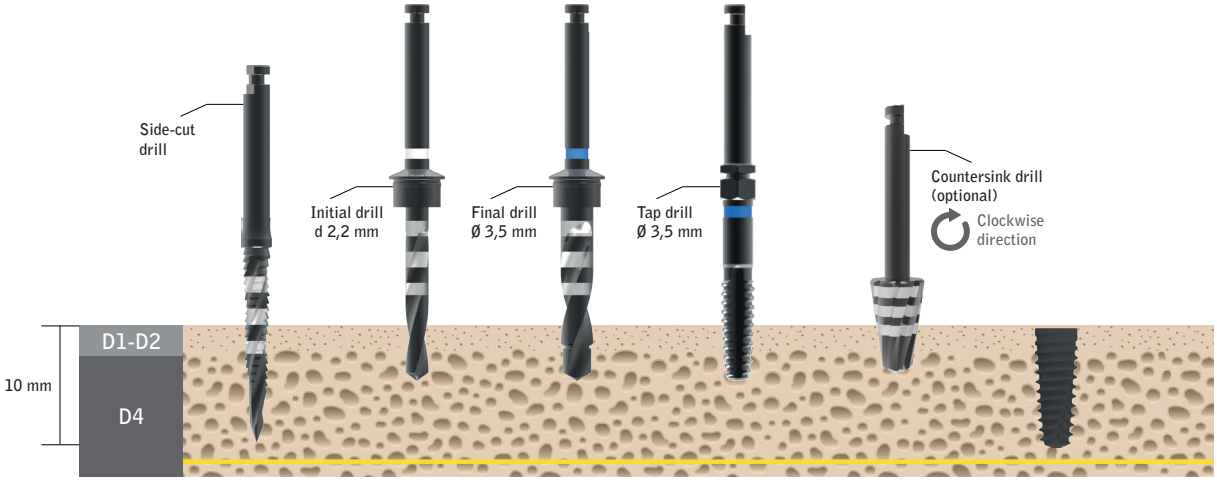
Use Ø 3,5 mm tap drill for bone condensing and insert Ø 4,5 mm implant to avoid bone damage and spinning effect.

PROTOCOL

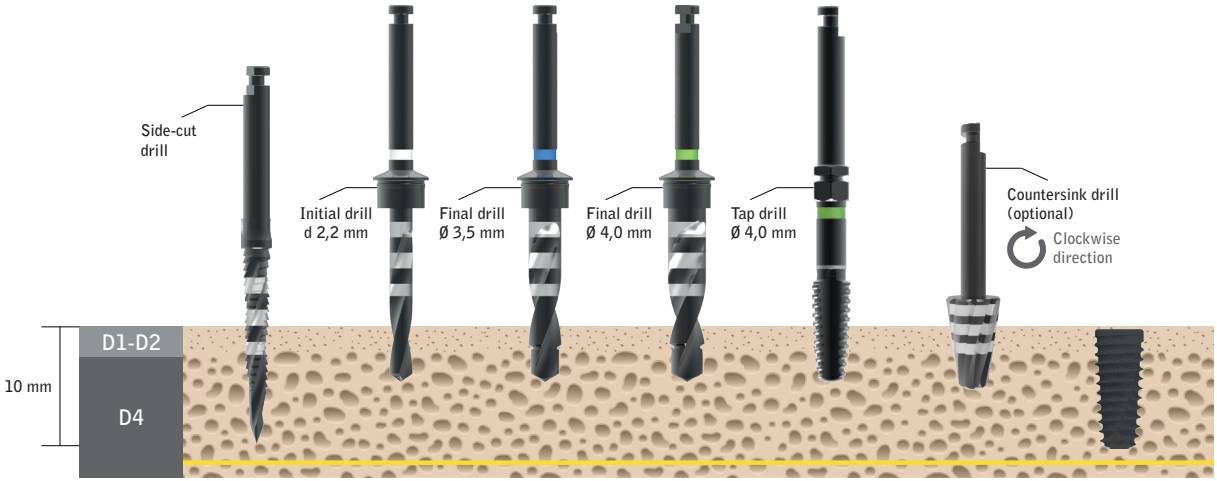
Biometric fixture drilling sequence

Bone structure D1-D2/D4

Biometric fixture Ø 3,5 mm, bone structure D1-D2/D4



Biometric fixture Ø 4,0 mm, bone structure D1-D2/D4

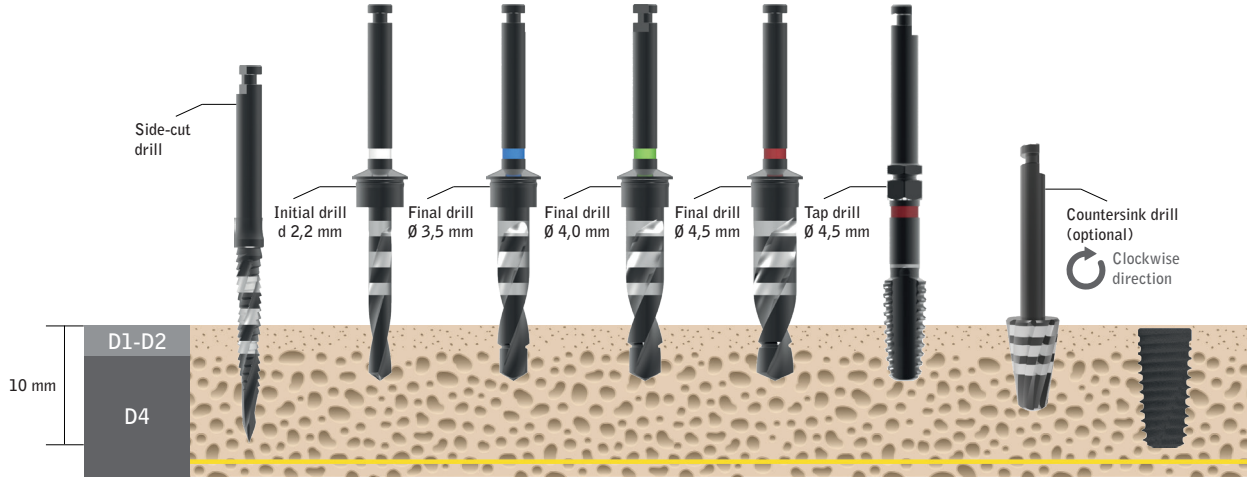


PROTOCOL

Biometric fixture drilling sequence

Bone structure D1-D2/D4

Biometric fixture Ø 4,5 mm, bone structure D1-D2/D4



NB

All depth-marks on instruments include +1 mm for correct implant positioning.

NB

Only cortical drilling, only cortical pre tap.

NB

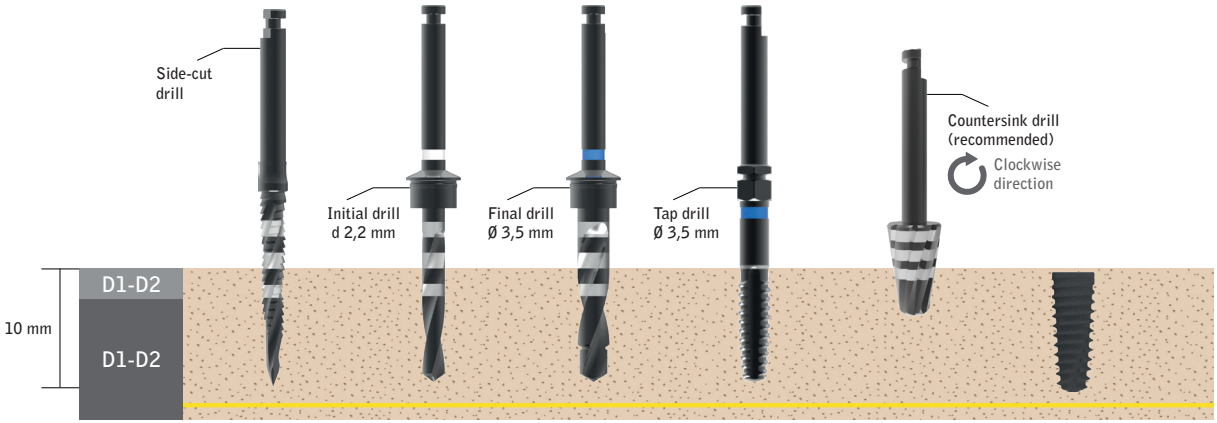
Position implant at least 1 mm deeper from the crest.

PROTOCOL

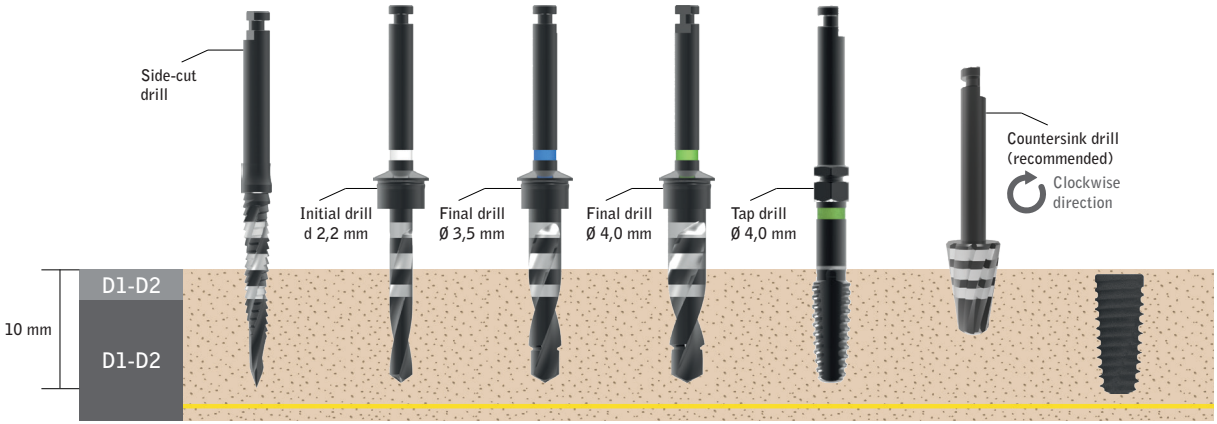
Biometric fixture drilling sequence

Bone structure D1-D2

Biometric fixture Ø 3,5 mm, bone structure D1-D2



Biometric fixture Ø 4,0 mm, bone structure D1-D2

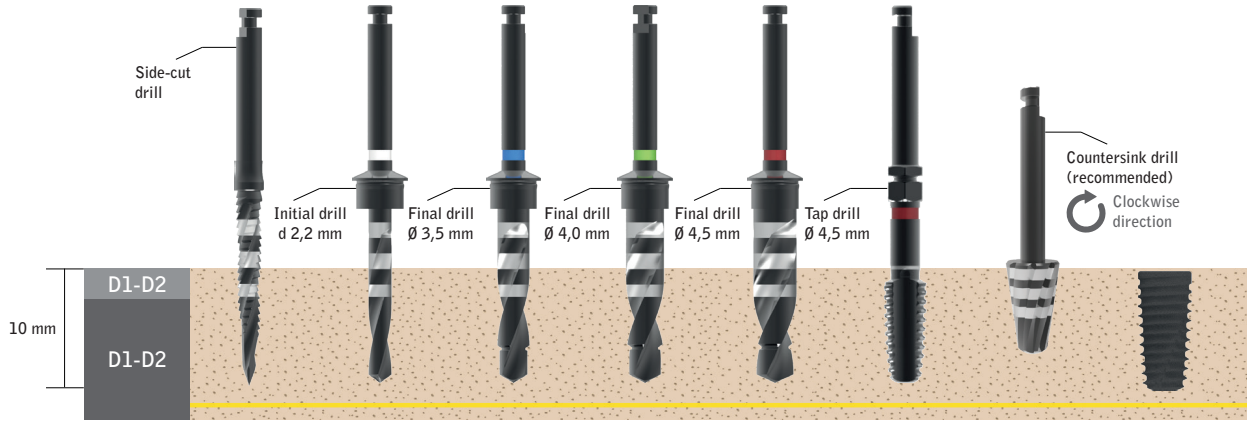


PROTOCOL

Biometric fixture drilling sequence

Bone structure D1-D2

Biometric fixture Ø 4,5 mm, bone structure D1-D2

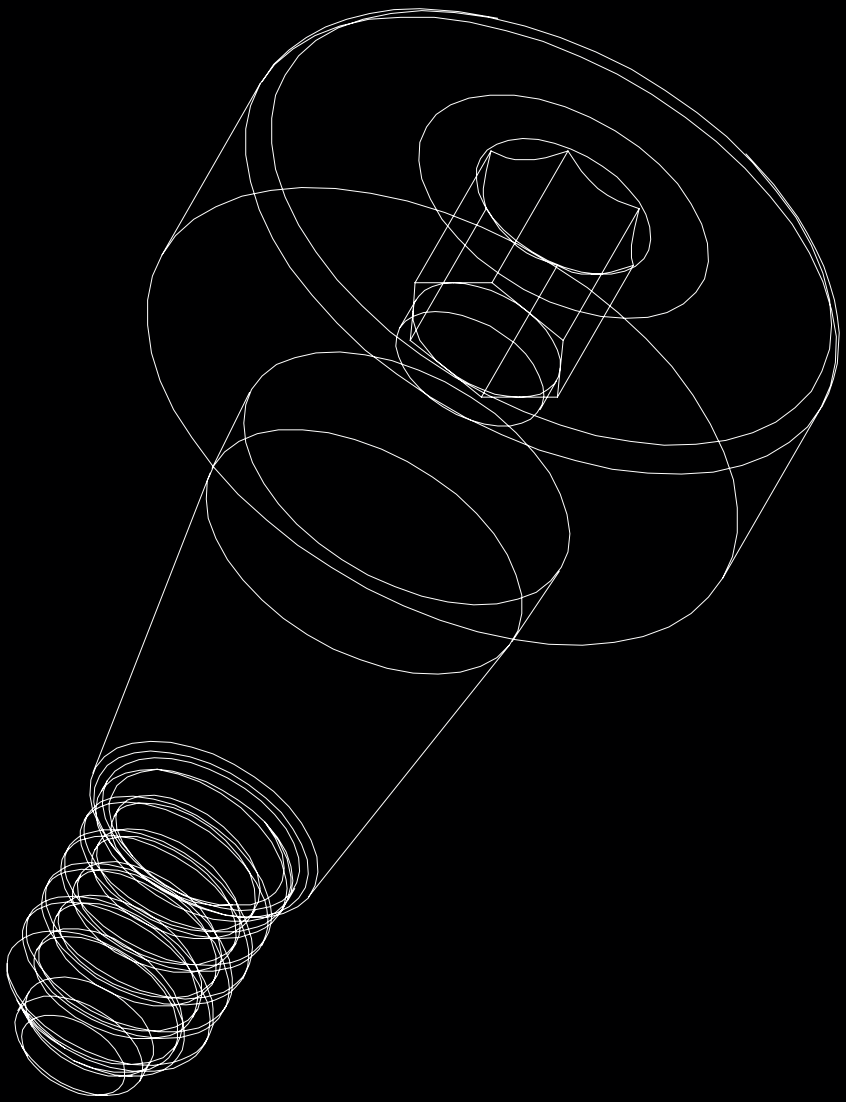


NB

All depth-marks on instruments include +1 mm for correct implant positioning.

NB

Position implant at least 1 mm deeper from the crest.

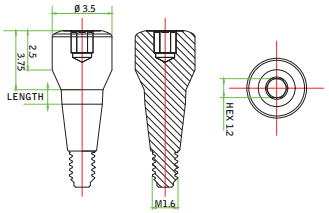


HEALING ABUTMENT

Temporary restorations for contouring of the soft tissue

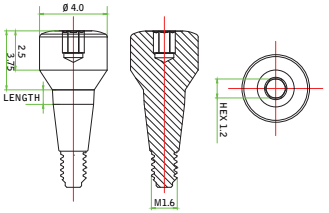
** Tightening torque 8~10 Ncm*

Diameter Ø 3,5 mm



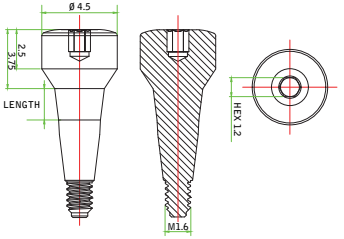
Length, mm	0,6	1,6	2,6
Prod. code	BHA3501	BHA3502	BHA3503

Diameter Ø 4,0 mm



Length, mm	0,6	1,6	2,6
Prod. code	BHA4001	BHA4002	BHA4003

Diameter Ø 4,5 mm



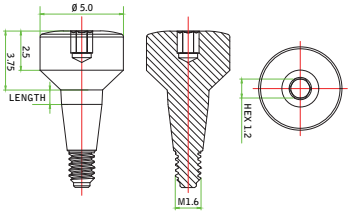
Length, mm	0,6	1,6	2,6
Prod. code	BHA4501	BHA4502	BHA4503

HEALING ABUTMENT

Temporary restorations for contouring of the soft tissue

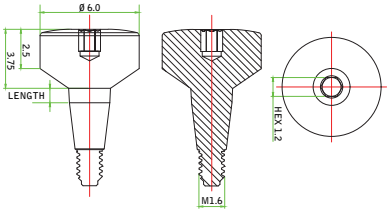
** Tightening torque 8~10 Ncm*

Diameter Ø 5,0 mm



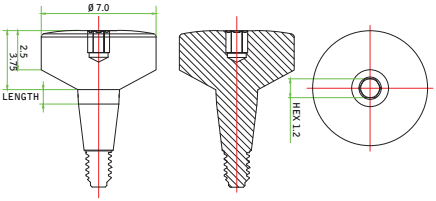
Length, mm	0,6	1,6	2,6
Prod. code	BHA5001	BHA5002	BHA5003

Diameter Ø 6,0 mm



Length, mm	0,6	1,6	2,6
Prod. code	BHA6001	BHA6002	BHA6003

Diameter Ø 7,0 mm



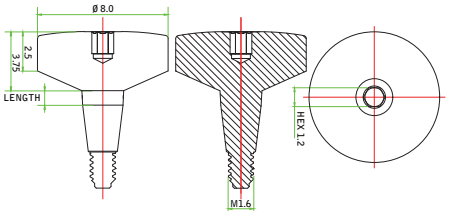
Length, mm	0,6	1,6	2,6
Prod. code	BHA7001	BHA7002	BHA7003

HEALING ABUTMENT

Temporary restorations for contouring of the soft tissue

** Tightening torque 8~10 Ncm*

Diameter Ø 8,0 mm



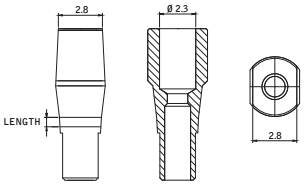
Length, mm	0,6	1,6	2,6
Prod. code	BHA8001	BHA8002	BHA8003

TIP

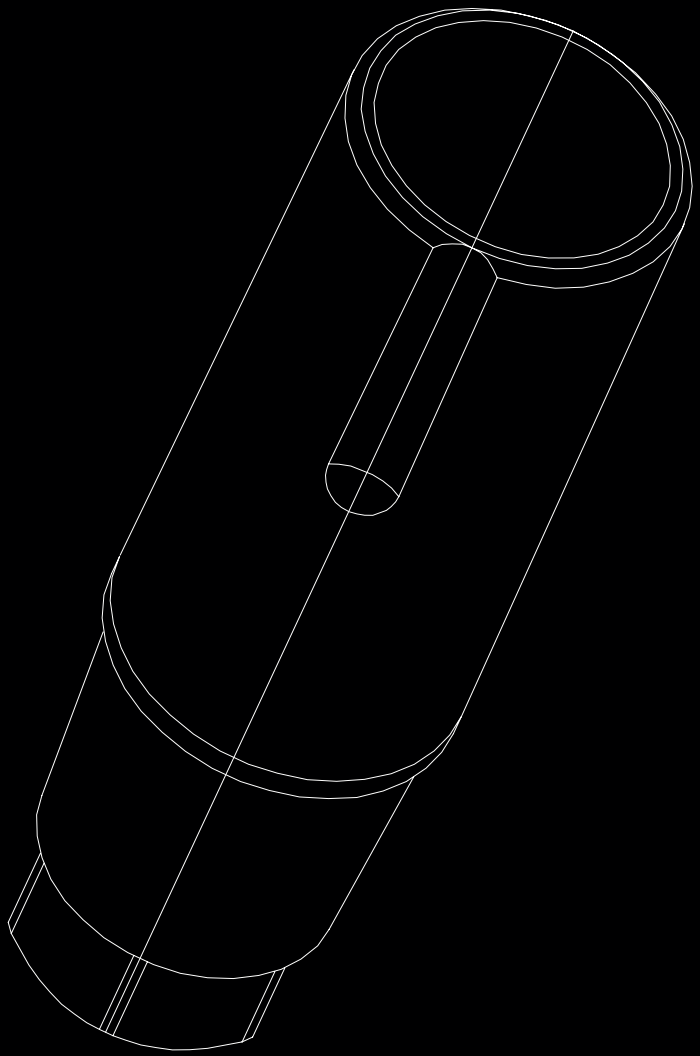
Wide healing abutment helps to create better soft tissue contour after tooth extraction or closing fresh extraction socket after implantation.

INDIVIDUAL HEALING ABUTMENT

Diameter Ø 3,5 mm



Length, mm	0,6	2,6	Abutment screw included
Prod. code	BIHA3501	BIHA3503	

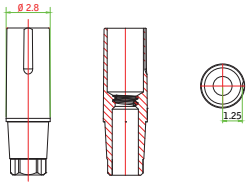


RESCUE ABUTMENT

Cementable on screw-retained abutment for single tooth and bridges

** Customisable by grinding * Tightening torque 30 Ncm*

Diameter Ø 2,8 mm



Prod. code	BRA2800	Abutment screw included

TIP

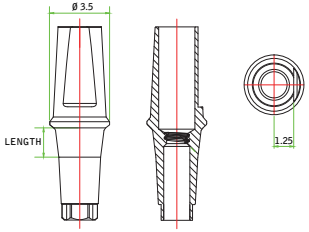
In case of bone remodelling or reduction, rescue abutment helps to place the crown margin directly on implant neck.

CEMENTED ABUTMENT

Cementable on screw-retained abutment for single tooth and bridges

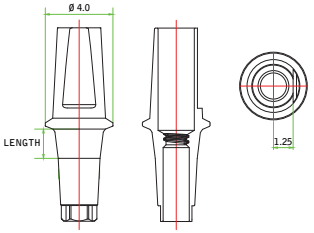
** Customisable by grinding * Tightening torque 30 Ncm*

Diameter Ø 3,5 mm



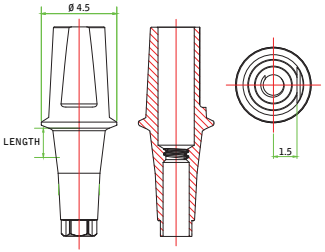
Length, mm	0,6	1,6	2,6	Abutment screw included
Prod. code	BCA3501	BCA3502	BCA3503	

Diameter Ø 4,0 mm



Length, mm	0,6	1,6	2,6	Abutment screw included
Prod. code	BCA4001	BCA4002	BCA4003	

Diameter Ø 4,5 mm



Length, mm	0,6	1,6	2,6	Abutment screw included
Prod. code	BCA4501	BCA4502	BCA4503	

ANGLED ABUTMENT

Cementable on screw-retained abutment for single tooth and bridges

** Abutment screw included * Tightening torque 30 Ncm*

Diameter Ø 3,5 mm. Angle 15°

Length, mm	0,6	1,6	2,6	Abutment screw included
Prod. code	BAA35151	BAA35152	BAA35153	

Diameter Ø 3,5 mm. Angle 25°

Length, mm	0,6	1,6	2,6	Abutment screw included
Prod. code	BAA35251	BAA35252	BAA35253	

ANGLED ABUTMENT

Cementable on screw-retained abutment for single tooth and bridges

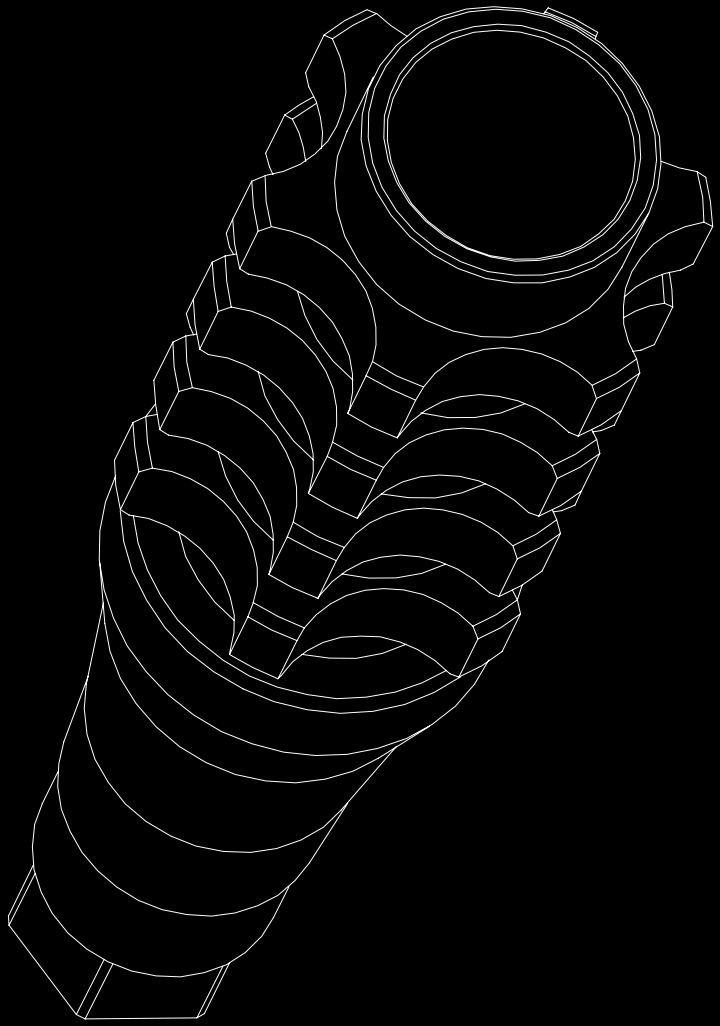
** Abutment screw included * Tightening torque 30 Ncm*

Diameter Ø 4,5 mm. Angle 15°

Length, mm	0,6	1,6	Abutment screw included
Prod. code	BAA45151	BAA45152	

Diameter Ø 4,5 mm. Angle 25°

Length, mm	0,6	1,6	Abutment screw included
Prod. code	BAA45251	BAA45252	

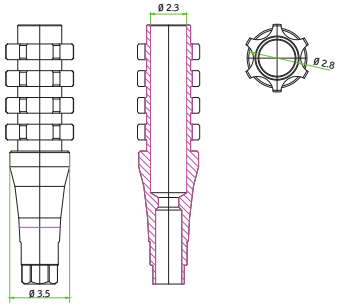


PICK-UP IMPRESSION

Pick-up impression coping

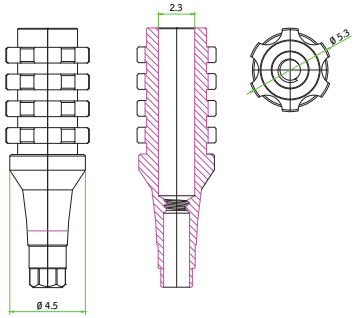
** Pick-up guide pin included * Tightening torque 8~10 Ncm*

Diameter Ø 3,5 mm



Length	Short	Long
Prod. code	BPI35S	BPI35L

Diameter Ø 4,5 mm



Length, mm	Short	Long
Prod. code	BPI45S	BPI45L

Pick-up guide pins

Length	Short	Long
Prod. code	BPIGPS	BPIGPL

TRANSFER IMPRESSION

Transfer impression coping

** Transfer guide pin included * Tightening torque 8~10 Ncm*

Diameter Ø 3,5 mm

Length	Short	Long
Prod. code	BTI35S	BTI35L

Diameter Ø 4,5 mm

Length, mm	Short	Long
Prod. code	BTI45S	BTI45L

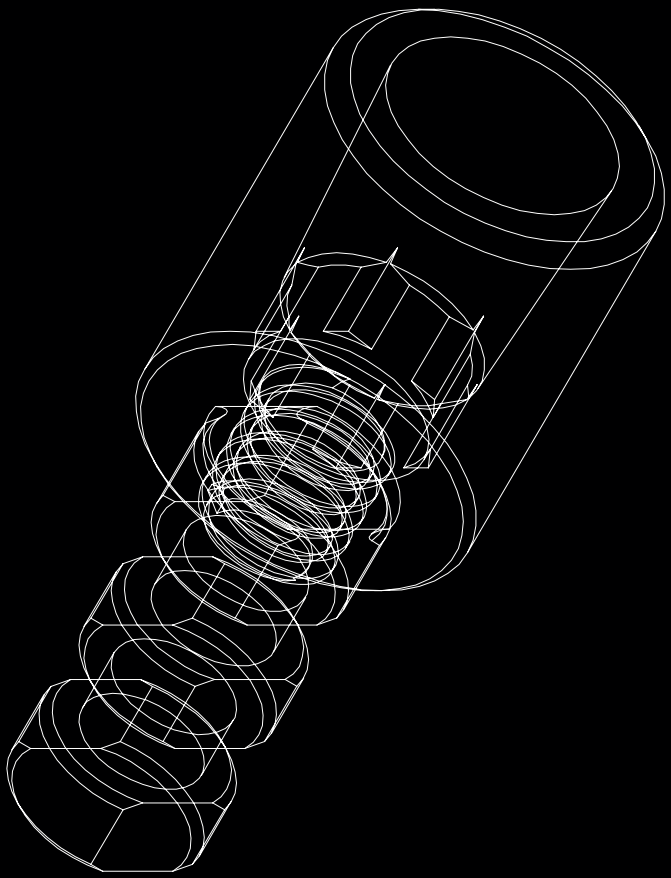
Transfer guide pins

Length	Short	Long
Prod. code	BTIGPS	BTIGPL

REGULAR LAB ANALOG

Not suitable for 3D printed models

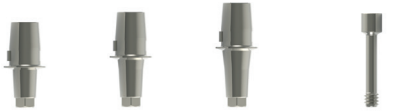
Prod. code	BLAR

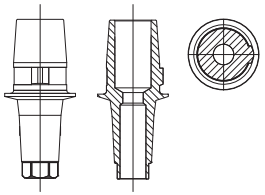


SIRONA-CEREC COMPATIBLE TI BASE STRAIGHT

** Fixing screw included*

Diameter Ø 4,3 mm



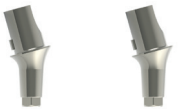


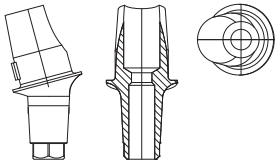
Length, mm	1,0	2,0	3,0	Fixing screw included
Prod. code	BCTA4501	BCTA4502	BCTA4503	

SIRONA-CEREC COMPATIBLE TI BASE ANGLED

** Fixing screw included*

- Diameter Ø 4,3 mm. Angle 15°

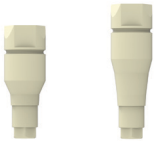


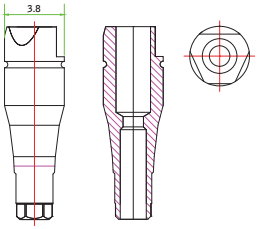


Length, mm	2,0	3,0	Fixing screw included
Prod. code	BCTAA4502	BCTAA4503	

SCAN BODY

Diameter Ø 3,5 mm

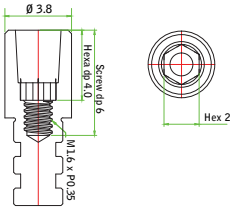




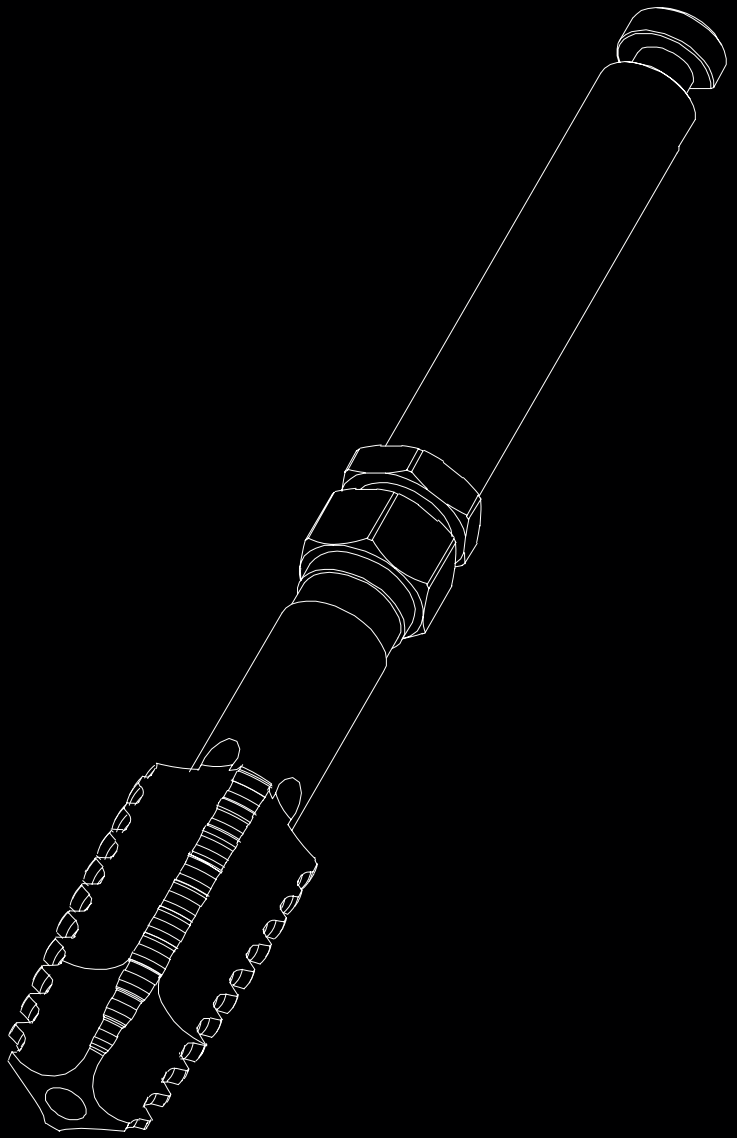
Length	Short	Long	Abutment screw included
Prod. code	BSB35S	BSB35L	

CAD-CAM LAB ANALOG

For 3D-printed models

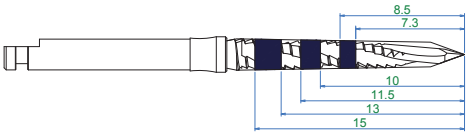


Prod. code	BLA



INSTRUMENTS

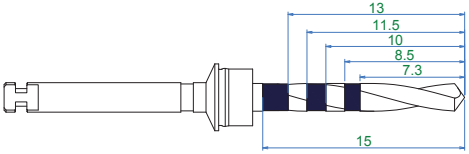
Lindemann drill / side-cut drill



Prod. code	BDP22

All depth-marks include +1 mm of margin.

Final drill 2,2 mm, length 16 mm



Prod. code	BFD22

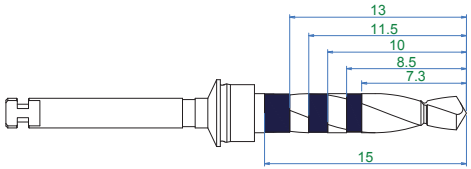
All depth-marks include +1 mm of margin.

Direction indicator

Prod. code	BDI

INSTRUMENTS

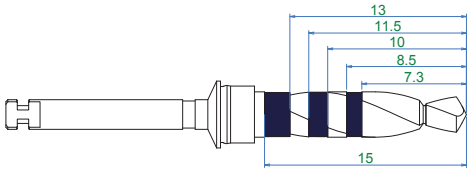
Final drill 3,5 mm, length 16 mm



Prod. code	BFD35

All depth-marks include +1 mm of margin.

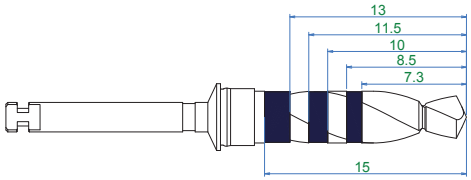
Final drill 4,0 mm, length 16 mm



Prod. code	BFD40

All depth-marks include +1 mm of margin.

Final drill 4,5 mm, length 16 mm



Prod. code	BFD45

All depth-marks include +1 mm of margin.

INSTRUMENTS

Tap drill 3,5 mm

Prod. code	BTD35

Tap drill 4,0 mm

Prod. code	BTD40

Tap drill 4,5 mm

Prod. code	BTD45

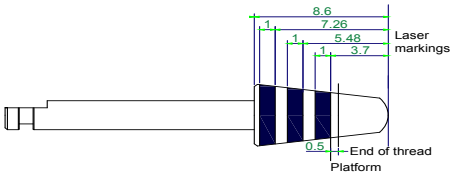
INSTRUMENTS

Countersink drill

Recommended for D1/D2 cortical bone structure

Bone condensing effect when used counterclockwise

Max speed 30 rpm



Prod. code	BCSD

Drill extension

Prod. code	BDE

Tap adaptor

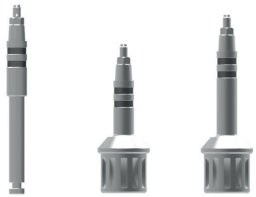
Prod. code	BTDA

INSTRUMENTS

Stoppers

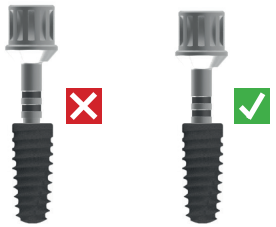
Length, mm	7,3	8,5	10,0	11,5	13,0	15,0
Prod. code	BST73	BST85	BST10	BST11	BST13	BST15

Fixture drivers



Prod. code	BFDM	BFDHS	BFDHL

Correct use



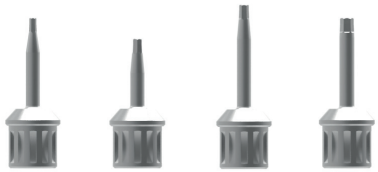
Instrument pops out when exceeding 50 Ncm

Abutment remover

Prod. code	BAR

INSTRUMENTS

HEX drivers



HEX	0,9	1,2 short	1,2 long	1,7
Prod. code	BHD09	BHD12S	BHD12L	BHD17

Depth gauge

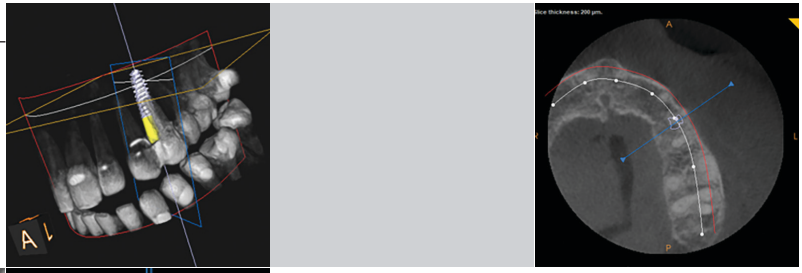
Prod. code	BDG	All depth-marks on instrument include +1 mm for correct implant positioning.

Torque wrench

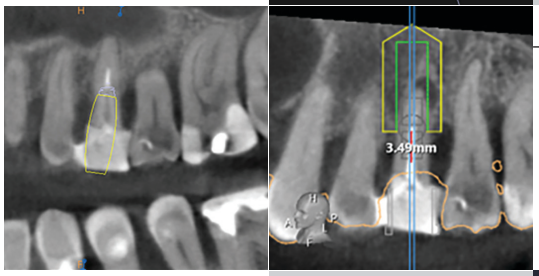
Prod. code	BTW

CASE I :: COMPUTER GUIDED SURGERY

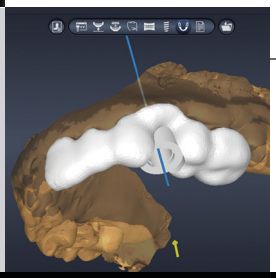
DICOM data



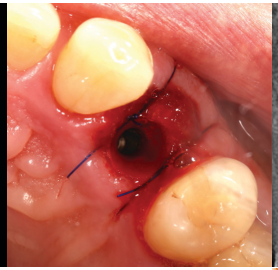
Virtual treatment planning



Surgical guide design

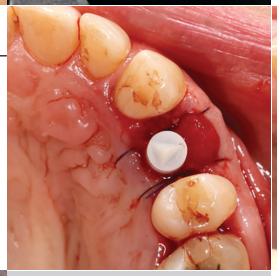


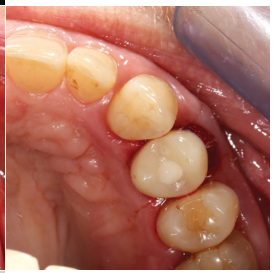
CASE I :: COMPUTER GUIDED SURGERY



Undersize preparation allows to get a good primary stability on the apical region

Scanning over ti-base and scan body



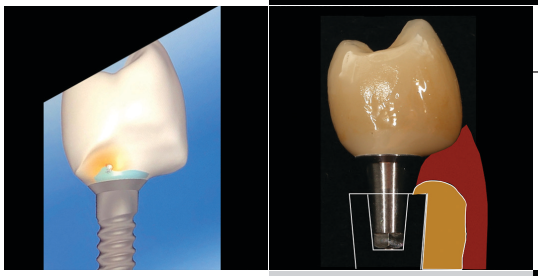


Day of surgery

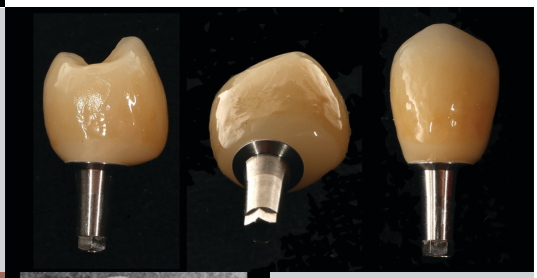
2,5 month follow-up

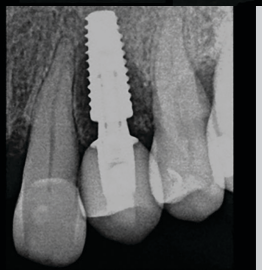
CASE I :: COMPUTER GUIDED SURGERY

Final prosthetics - the same day prosthetics

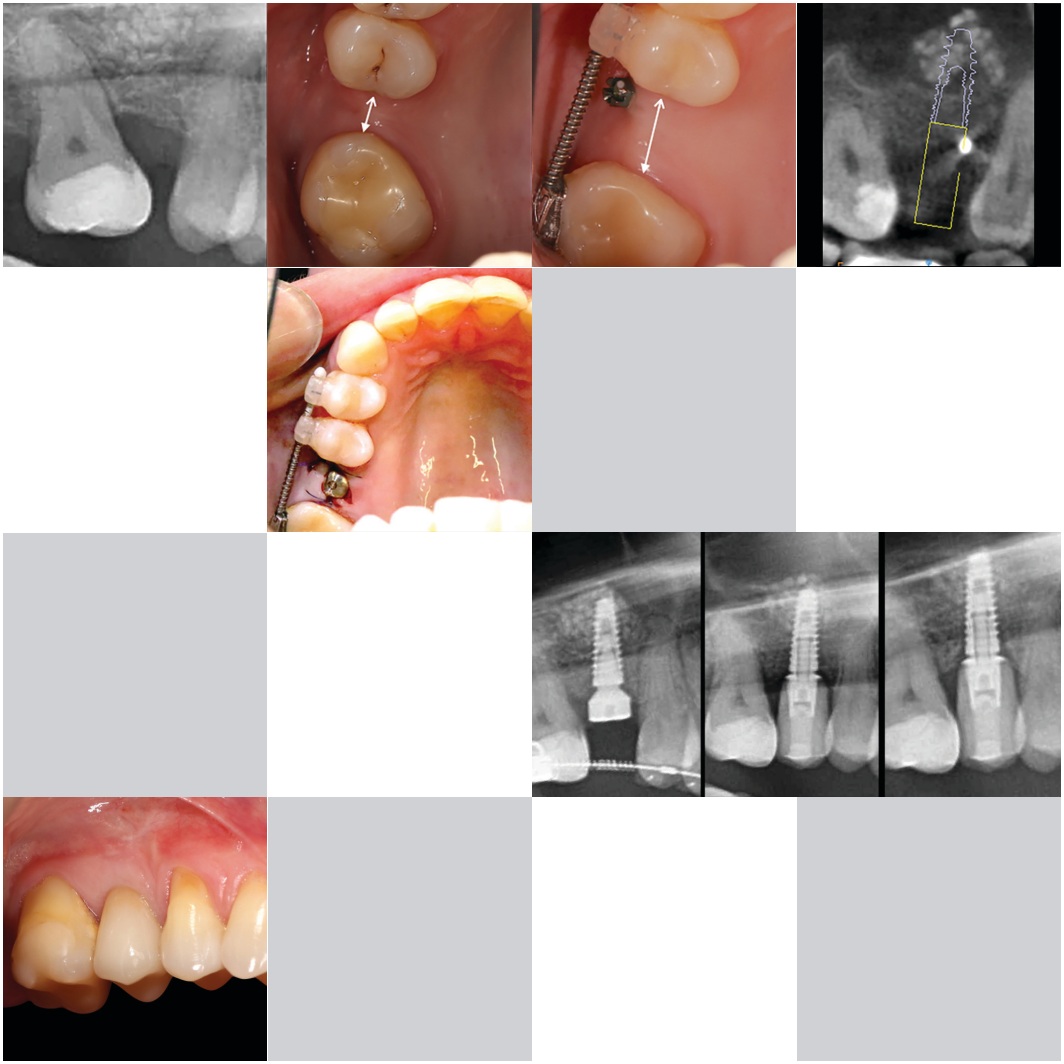


Emergence profile on molars and premolars



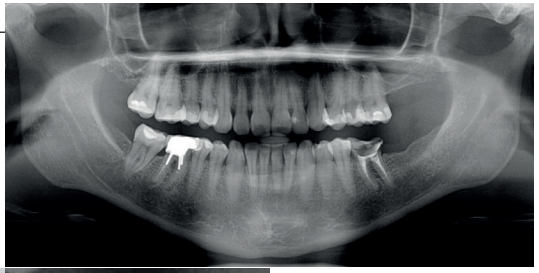


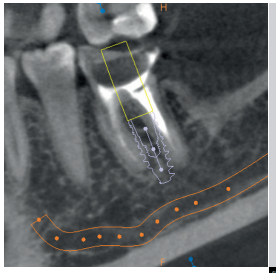
CASE II :: MISSING UPPER MOLAR



CASE III

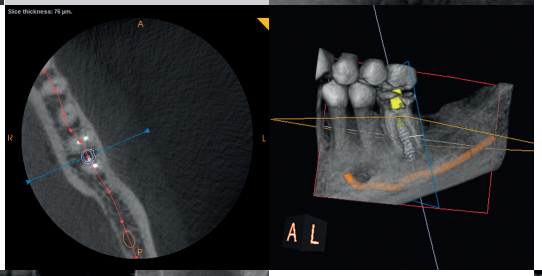
Clinical situation tooth 36: long treatment history, periodontal lesion, vertical fracture

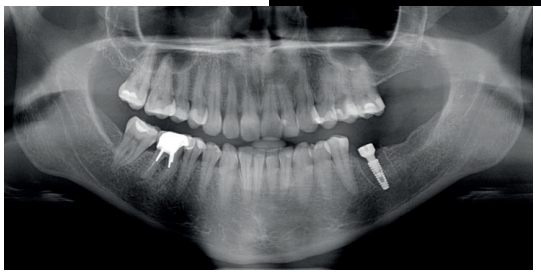


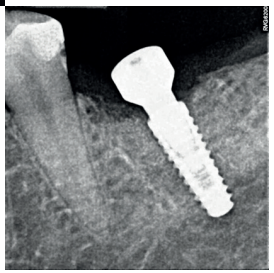


Treatment options:
Root canal re-treatment; hemisection; casted post and core and prosthetic crown placement; apicoectomy if needed.

Versus:
Immediate implantation after extraction, root guided surgery for optimal implant position; prosthetic crown with individual abutment.

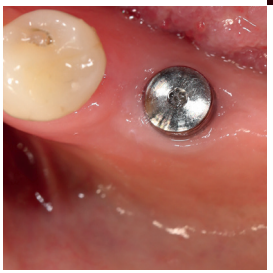




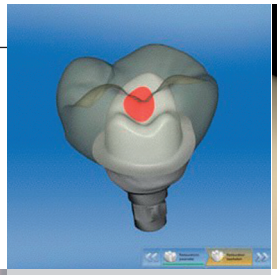


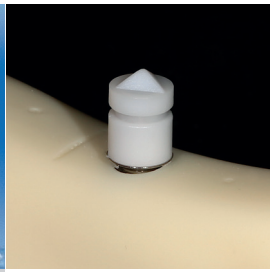
CASE III

Perfect healing after five months



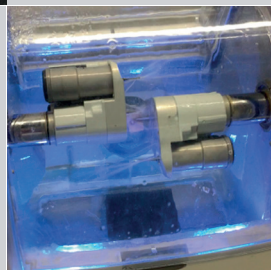
Scanning over ti-base and scan body





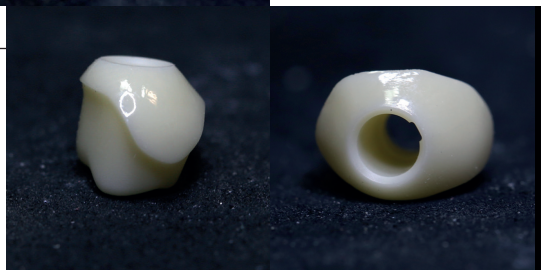
CASE III

Milling with
CEREC MC-XL



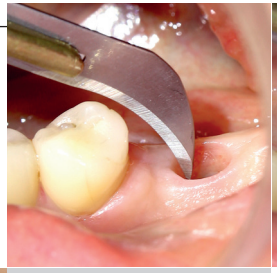
E-max crown and
zirconium abutment

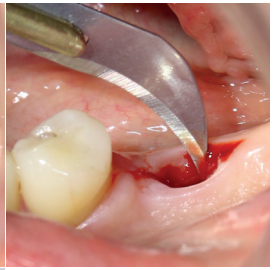
Abutment treated and
glued on ti-base



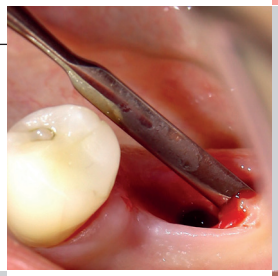
CASE III

Soft tissue management…



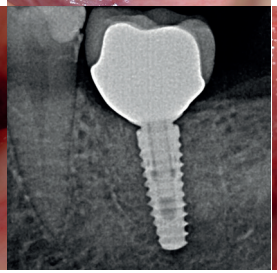


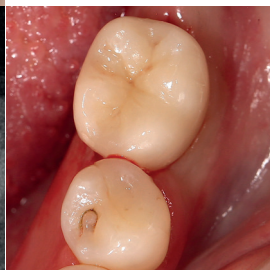
…to adapt abutment



Perfect soft tissue support

Final position after soft tissue correction





biometric

www.biometricdental.com