

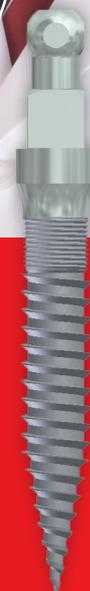
MINI IMPLANT



CHOICE GUIDE

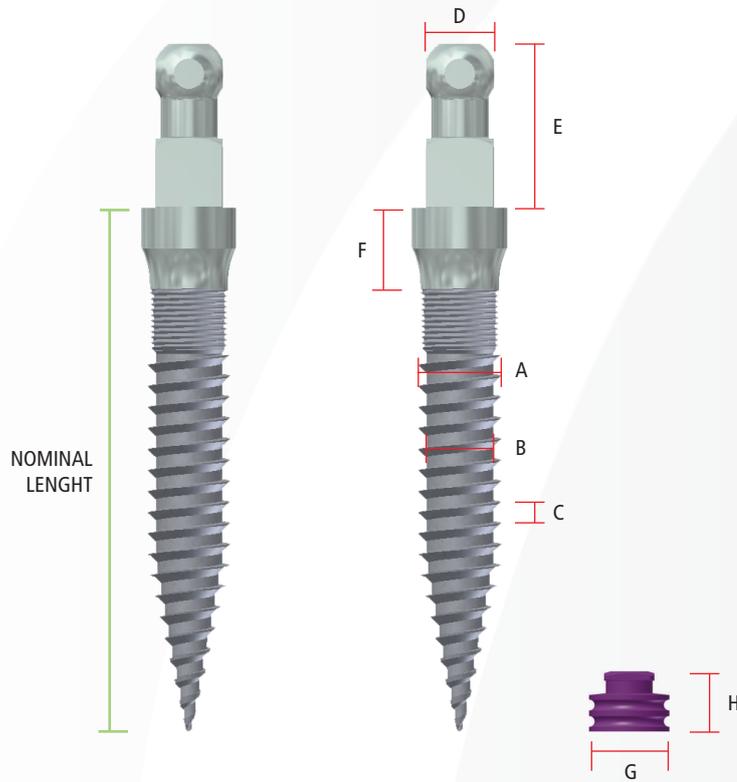


Special implant
for the stabilization of removable dentures



MINI IMPLANT

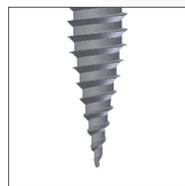
Special implant for the stabilization of removable dentures



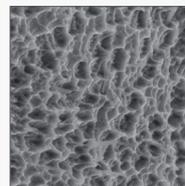
Prosthesis not required



Differentiated threading



Minimally invasive implant



DAES surface

A	B	C	D	E	F	G	H
IMPLANT DIAMETER	IMPLANT BODY DIAMETER	THREAD PITCH	O-BALL DIAMETER	INTRAMUCOSAL HEIGHT	SMOOTH NECK	CAP DIAMETER	CAP HEIGHT
1,9	1,6	0,6	1,8	4	1,8	4	3,3
2,5	2	0,8	1,8	4	1,8	4	3,3

All measurements are in millimeters

- Thin and minimally invasive implant
- Prosthesis not required
- Suitable for monofasic surgery
- Ideal for denture stabilization
- Useful as supporting implant to reduce early loading on traditional implants
- Realized in titanium grade 5

AVAILABLE DIAMETERS AND LENGTHS

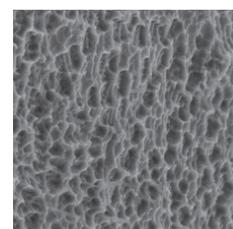
DIAMETER	NOMINAL LENGHT	REFERENCE	DESCRIPTION	SHAPE
1,9	10	IMI19100A	Mini Implant Ø 1,9mm L10,0mm + Cap	
	11,5	IMI19115A	Mini Implant Ø 1,9mm L11,5mm + Cap	
	13	IMI19130A	Mini Implant Ø 1,9mm L13,0mm + Cap	
	15	IMI19150A	Mini Implant Ø 1,9mm L15,0mm + Cap	
2,5	10	IMI25100A	Mini Implant Ø 2,5mm L10,0mm + Cap	
	11,5	IMI25115A	Mini Implant Ø 2,5mm L11,5mm + Cap	
	13	IMI25130A	Mini Implant Ø 2,5mm L13,0mm + Cap	
	15	IMI25150A	Mini Implant Ø 2,5mm L15,0mm + Cap	

The implant is supplied with titanium cap, which is provided with retentive "O ring".

IMPLANTS SURFACE

Biotec-BTK uses titanium Ti6Al4V Eli to produce Mini Implant and related prosthetic components, certified according to strict ASTM F136 American standards, with tension and mechanical elasticity values appropriate in maintaining and guaranteeing high resistance to occlusal loads. This guarantee is further extended by additional chemical and mechanical analysis controls on each supply lot. For surgical instruments, Biotec uses stainless steel with excellent hardness and corrosion-proofing characteristics.

Biotec-BTK implant surface is realized through a Double Acid Etching Process. This treatment aims at obtaining, by subtraction, an implant surface with controlled micro-roughness. An additional morphologic analysis at SEM (Scanning Electron Microscopy) shows how treatment surface roughness is able to replicate a dimension of craters with average values near 2 µm. These dimensions favour initial osteoblastic anchoring and therefore the interaction with the bone tissue, making osteointegration time shorter than other implant systems treated with different techniques.



Treated surface profile at 7.500X

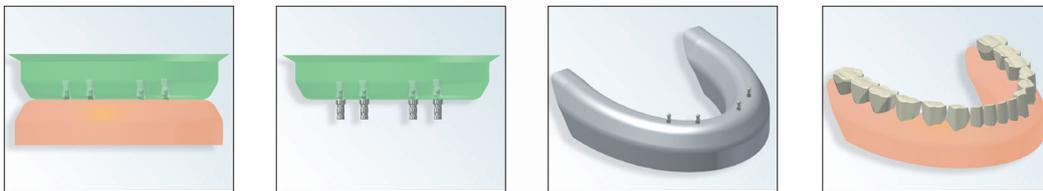
IMPRESSION TAKING AND DENTURE DEVELOPMENT

Insert the castable-transfer on the MINI implant ensuring the perfect coupling between the parts. Take the impression with the appropriate material and the individual impression tray.

Wait up to the sufficient hardening of the material and extract the impression from the oral cavity with the castable-transfer, ensuring the perfect connection of the parts.

Develop the plaster model.

Realize the removable denture including the retentive caps positioned on the spheres of implant replicas, considering a wide tissue support. Place the removable denture in the patient mouth, after all appropriate checkings. Particular attention has to be paid to the adequate tissue support also in the subsequent periodical controls, potentially relining the denture.



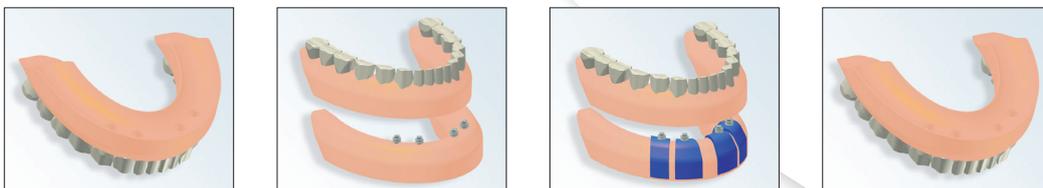
INSERTION OF RETENTIVE CAPS ON THE EXISTING DENTURE

In the existing denture, realize some cavities in which retentive caps will be inserted, in correspondence of MINI implants spheres.

Insert the retentive caps on the MINI implants spheres and place the denture in the patient's mouth in order to verify the correct positioning and support, making the necessary adjustments.

Once removed denture and caps, protect the mucous with dams to avoid a contact of the resin with tissues in the next phase. Reposition retentive caps. Fill cavities previously prepared in the denture with autopolymerizing resin and insert it in the patient's mouth, then bite without excessive compression.

At the end of the polymerization phase, remove denture and dams. Check and finish potential exceeds of resin off. Particular attention has to be paid to the adequate tissue support also in the subsequent controls, possibly relining the denture. Then position the denture in the patient's mouth.



PROSTHETICS

Retentive Housing

**MATERIAL
USE**

Titanium grade 5 (Ti6Al4V)
Cap with OR 70-80 Shore to be placed inside the denture.



1,9	2,5
COR1770	

O-Ring

**MATERIAL
USE**

NBR
To be used in case of wear of the OR which have been inserted inside the retentive caps.
OR density: 70-80 Shore

NOTE

Kit of 6 pieces



1,9	2,5
690NA040	

Straight Abutment Mini

**MATERIAL
USE**

Titanium grade 5 (Ti6Al4V)
Cementable straight abutment to be used when the implant works as a section-breaker support on a bar.



1,9	2,5
MMI17H1	

Angled Abutment Mini

**MATERIAL
USE**

Titanium grade 5 (Ti6Al4V)
Cementable 15° angled abutment to be used when the implant works as a section-breaker support on a bar.



1,9	2,5
MMI1715	

Castable Plastic Abutment Transfer

**MATERIAL
USE**

PMMA
To be used as a plastic abutment in order to realize an abutment through fusion, or as a transfer for the impression taking.



1,9	2,5
CMI17	

Implant replica Mini

**MATERIAL
USE**

Stainless steel
To be inserted in the choke model as implant replica

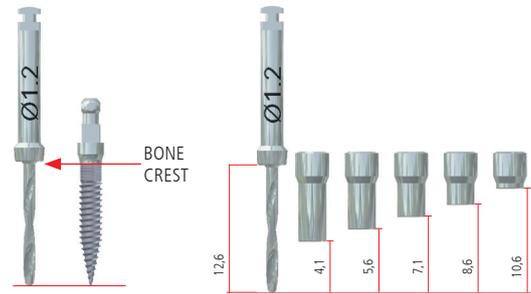


1,9	2,5
AMI17	

IMPLANT POSITIONING

The MINI implant is usually inserted in a surgical "under-prepared" site, proportionally to the bone density. In order to identify the most suitable implant according to the bone density, follow the in-structions of the table in the below table. The table is indicative but also useful to the dentist in order to help him making all his evaluations.

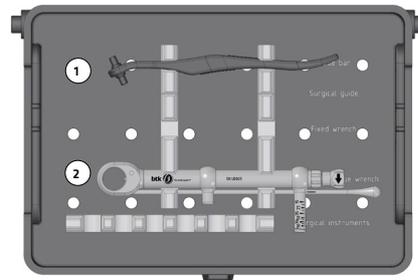
HOLE DEPTH	12,6 mm	10,6 mm	8,6 mm	7,1 mm	5,6 mm	4,1 mm
D4 (VERY SOFT)	-	-	2,5 X 15	2,5 X 13	2,5 X 11,5	2,5 X 10
D3 (SOFT)	-	2,5 X 15	2,5 X 13	2,5 X 11,5	2,5 X 10	-
D3 (SOFT)	-	-	-	1,9 X 15	1,9 X 13	1,9 X 11,5
D2 (COMPACT)	2,5 X 15*	2,5 X 13*	2,5 X 11,5*	2,5 X 10*	-	-
D2 (COMPACT)	-	1,9 X 15	1,9 X 13	1,9 X 11,5	1,9 X 10	-
D1 (VERY COMPACT)	1,9 X 15	1,9 X 13	1,9 X 11,5	1,9 X 10	-	-



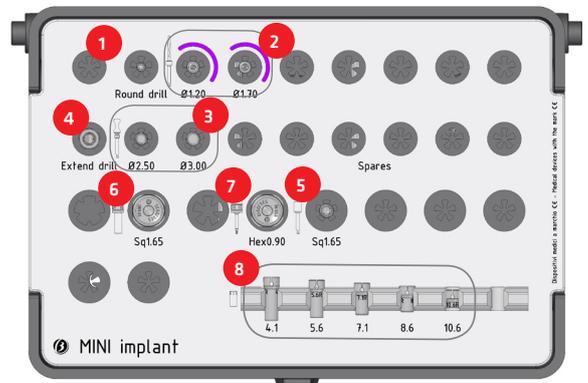
* THE USE OF THE DRILL Ø 1,7 IS ESSENTIAL

The supplied metallic stops allow an adequate preparation of the implant site. They can be a valid help in depth pointing.

SURGICAL KIT MINI IMPLANT



- 1**
GUIDE SHAFT
502MA002 | Ø 2.5 mm
- 2**
TORQUE WRENCH JD, REVERSIBLE
501JD003 | 90 Ncm



- 1**
ROUND DRILL HS
401HS200 | Ø2mm L30mm

- 4**
DRILLS EXTENSION
520HS003 | L28 mm

- 2**
BLADE DRILLS
FMI12N | Ø1.2mm Mini

- 5**
IMPLANT DRIVER
NMIM | Implant Driver Mini Handpiece

- FMI17N | Ø1.7mm Mini

- 6**
ADAPTER CONNECTION
530JD035 | SQ1.65-JD L10mm

- 3**
TISSUE PUNCH HR
490HR250 | Ø2.5mm INT

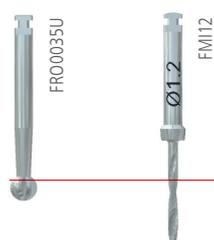
- 7**
SCREWDRIVER JD
530JD012 | HEX 0.90 L15 mm

- 490HR300 | Ø3mm INT

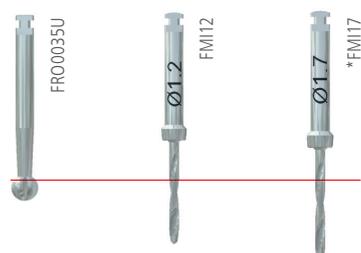
- 8**
DRILL STOP
FSA4 | L4.1mm Mini
- FSA5 | L5.6mm Mini
- FSA7 | L7.1mm Mini
- FSA8 | L8.6mm Mini
- FSA10 | L10.6mm Mini

SURGICAL SEQUENCE

IMPLANT \varnothing 1,9



IMPLANT \varnothing 2,5



* Use in case of compact bone (D1-D2)

SURGICAL PROCEDURE

MUCOTOME OR FLAP

Use the mucotome \varnothing 2,5 or \varnothing 3, which allows the passage of the insertion drivers, up to the reaching of the bone crest. Recommended speed: 40rpm. Differently, in order to have a better visibility on the bone crest, prepare the gingival flap through incision and scraping.

ROUND DRILL

The use of the round drill is recommended to create an invitation on the cortical bone, useful to the positioning of the subsequential drill. Recommended speed: 800-1000 rpm.

FINAL DRILLS

The mini implant is usually inserted in a surgical "under-prepared" site proportionally to the bone density. Drilling must be carried out with sharp drills, intermittently at 800 - 1000 rpm, always with abundant external irrigation with pre-cooled sterile saline solution and avoiding excessive pressures.

Recommended speed: 800 - 1000 rpm.

IMPLANT INSERTION

Manually take the MINI implant from its phial and screw it in the implant site using the pre-assembled plastic device. The mounting device can be removed only after the reaching of an adequate stability in the implant site.

IMPLANT MANUAL INSERTION

Complete the fastenings slowly using the proper connection applied to the handpiece, proceed slowly (max. 15rpm) fixing the maximum torque limit at 35 Ncm. In the event that the limit occurs, DO NOT FORCE in order not to break the MINI implant; it is recommended to remove the implant from the site and repeat the drilling operation increasing the depth. If the implant can't be inserted either when the depth of the drilling matches the length H, then it is necessary to repeat the drilling using a drill with a lightly larger diameter. (\varnothing 1,7mm drill). ATTENTION! Do not try to insert the \varnothing 2,5mm MINI implant in compact bone (D1).

MINI IMPLANT INSERTION WITH HANDPIECE

Complete the fastening using the proper connection connected to the handpiece, proceed slowly (max 15 rpm) fixing the maximum torque limit at 35 Ncm. If reached this limit it's preferable NOT TO FORCE in order not to risk to break the MINI implant; it's better to remove the implant from the site and repeat the drilling operation increasing the depth. If it's not possible to insert the MINI implant even when the depth of drilling corresponds to the length H, it's necessary to repeat the operation of drilling with a drill of larger diameter (drill \varnothing 1,7). ATTENTION! Don't try to insert the MINI implant \varnothing 2,5 in compact bone (D1).

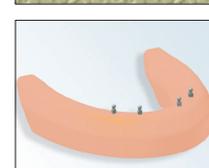
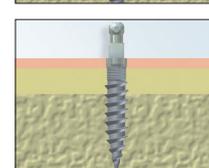
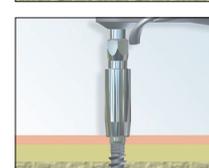
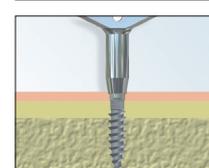
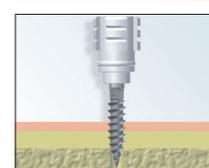
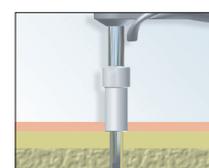
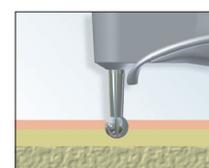
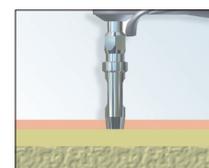
LEVEL AND POSITIONING

In order to reach a proper positioning level, all threads of the MINI implant should be completely overwhelmed in the bone crest, while the square at the base of the sphere should emerge, at least partially, from the gingival profile in order to avoid a possible compression of the soft tissues due to retentive caps.

FINAL POSITIONING PHASE

Place all implants following the previously prepared planning.

If a gingival flap has been executed, then close it through suitable suture.



BTK PERSONAL TUTOR

A program for individual case planning and execution supported by experienced professionals in order to leverage know-how and maximize clinical experience with the aim to achieve sustainable high patient satisfaction rates.

BTK is always at your disposal for any request for further follow-up or information, promoting periodic and ad-hoc training course.

CERTIFIED QUALITY SYSTEM

**BIOTEC is certified UNI EN ISO 9001
and UNI EN ISO 13485.**

Custom-made device, in accordance with Directive 93/42/EEC and subsequent modifications and additions.

The Company is registered at Italian Health Ministry Register of custom-made medical device manufacturers.

MADE IN ITALY USED GLOBALLY



We constantly ensure that the quality of our products and services meet the high expectations of our customers and their patients.

Specialized professionals are taking care to offer comprehensive solutions in applied research, engineering, education and related activities.

