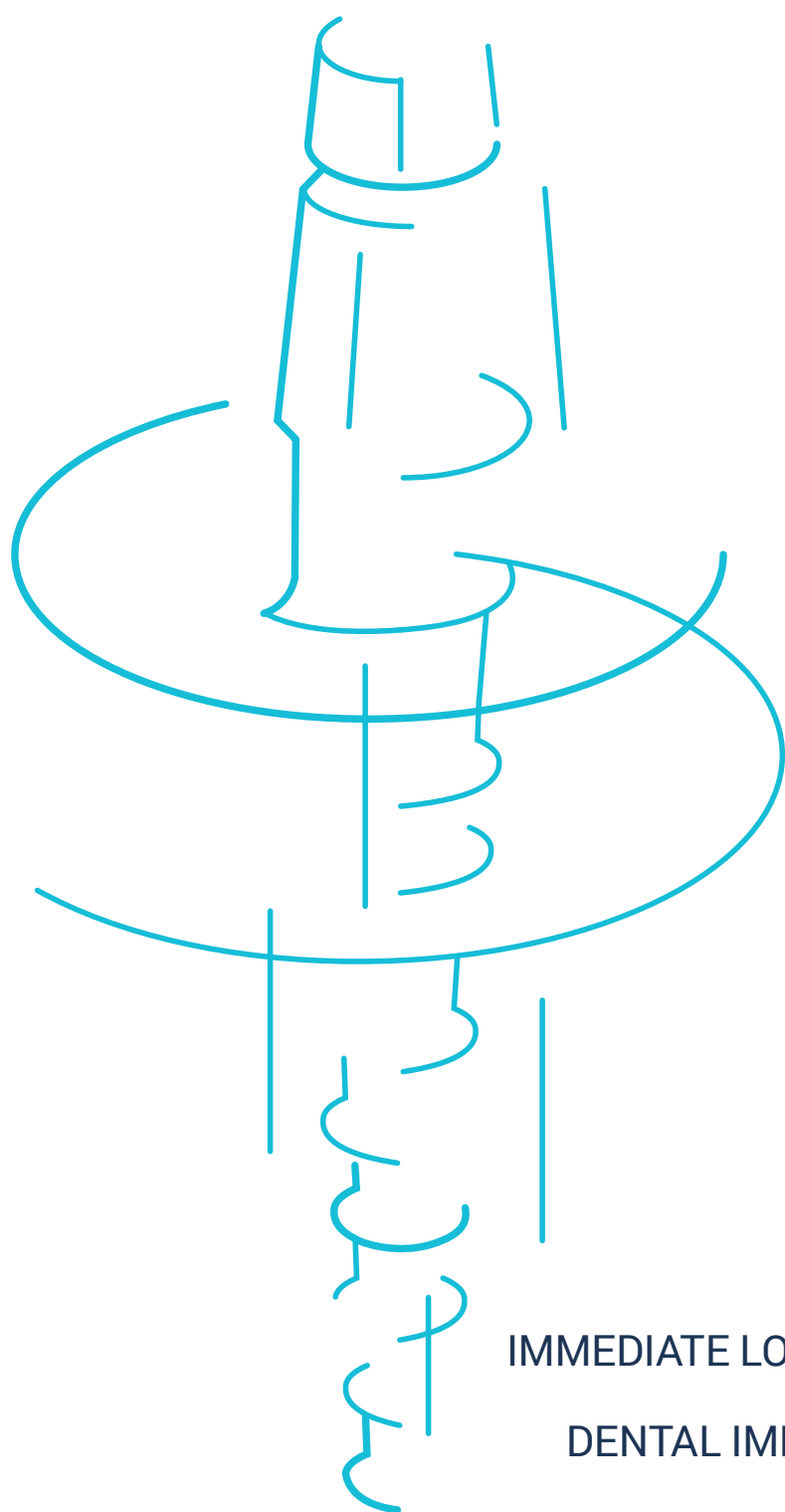
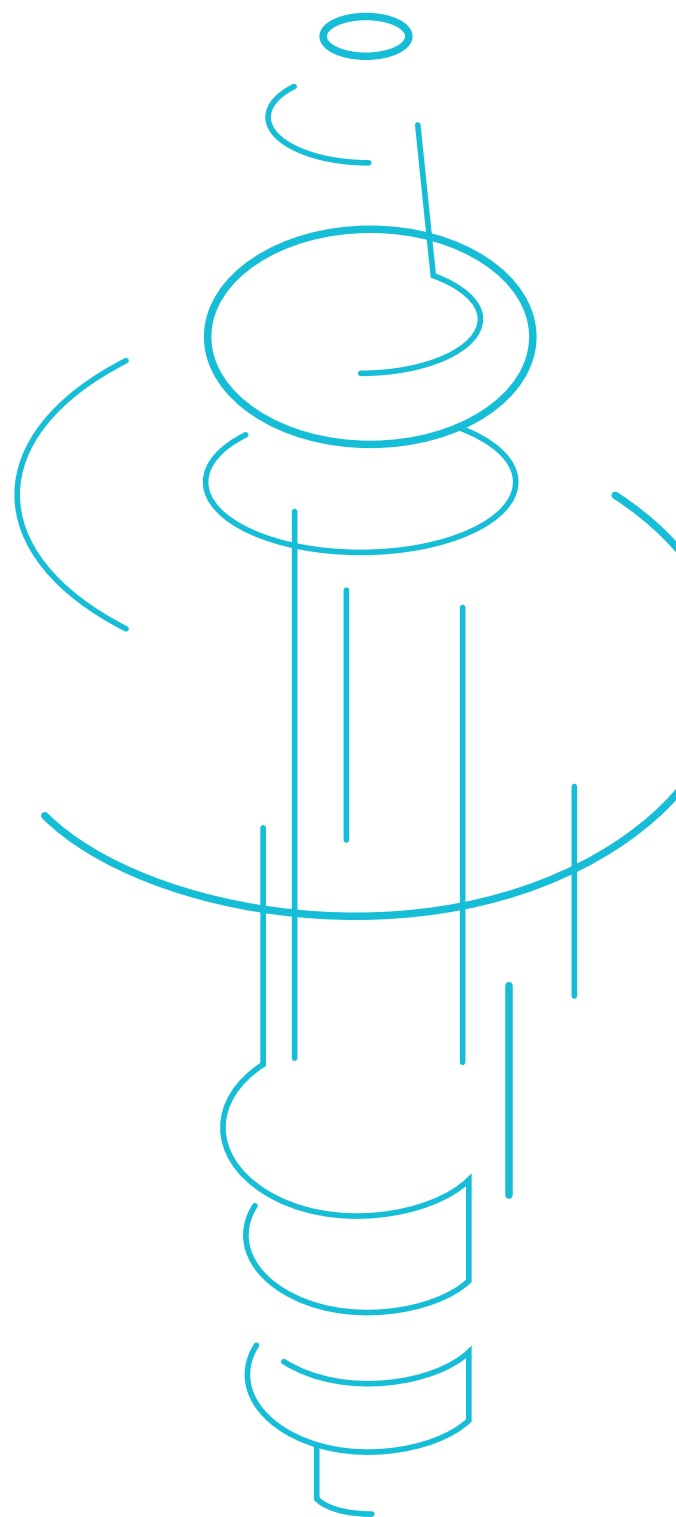


ONEWAY  
**BIOMED**



IMMEDIATE LOADING single part implants  
DENTAL IMPLANT SYSTEM **GBC**®

**SYMBOLS FOR IMPLANT PROPERTIES AND PROSTHETIC SOLUTIONS**

Small Abutment Head



Multi-Unit Abutment



Apical Wide Thread



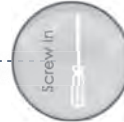
Large Abutment Head



Micro Thread



For Screw-in Prosthetics



Ball Abutment



Bendable



For Cemented Prosthetics



Localicer® Abutment





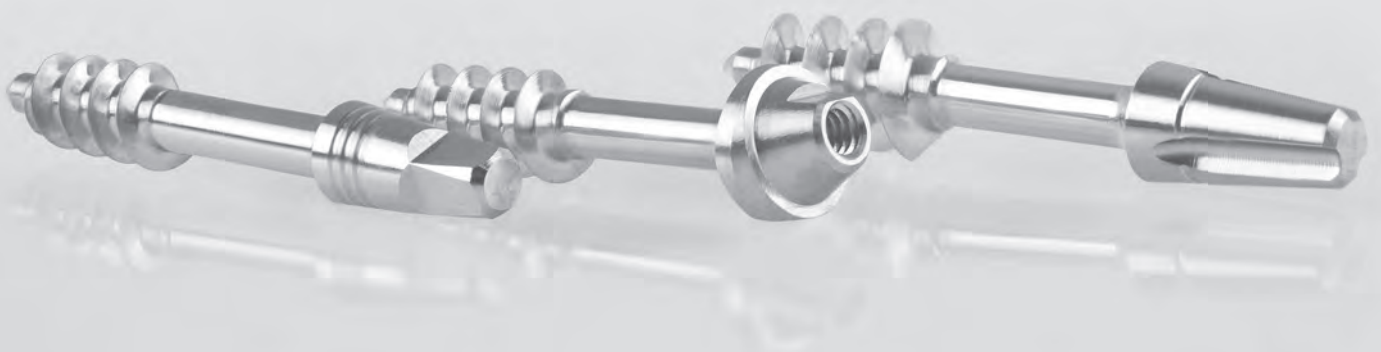
## APPLICATION AREAS

### OF THE STRATEGIC IMPLANT® FOR ANCHORAGE IN THE UPPER AND LOWER JAW

**GBC®** implants can be used immediately in extraction sockets if the basal support is sufficient. The anti-rotation protection ensures immediate stability against unintentional unscrewing before prosthetic loading. The prosthesis should be inserted before the 3<sup>rd</sup> post-operative day. **GBC®** implants are made of strong, biocompatible titanium alloy Ti6Al4V. **GBC®** implants are used typically for segments and circular bridges in an immediate splinting protocol. Their use is permitted only for authorized users.

The prescribed or recommended tightening torques for implants, abutments and screws can be found on our website:

[www.implant.com/en/downloads](http://www.implant.com/en/downloads)



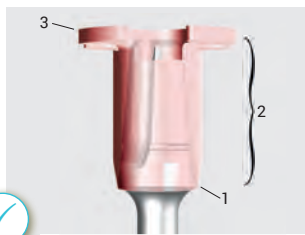
## FITTING AND CEMENTING OF PROSTHETICS

The lower border of the abutment head of the Strategic implant® is (only) used as a margin to hold the transfer during impression-taking. Because the implant and the abutment head are both polished, the lower margin of the implant does not typically serve as a crown margin as we know it from teeth or conventional 2-stage implants. There are no medical or technical reasons why the crown margin (or the margin of the technical abutment) should reach the lower border of the abutment head.

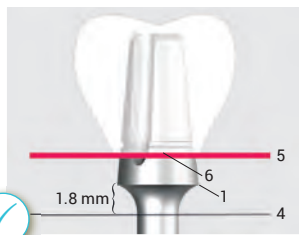
It is important however that enough distance between the lower margin of the prosthetic workpiece and the gums (or the bone respectively) is left after cementation. We recommend to use only strong permanent cements (e.g. Fuji Plus, GC Corp.) and to have a vertical cementing surface/zone of at least 4 mm on the abutments. The abutment head may be shortened/adjusted vertically and/or laterally in order to achieve a good aesthetic result and to allow good phonetics.

Those surfaces on the abutment head which will provide retention for the cement must be roughened and cleaned before cementation. All other surfaces of the abutment head must remain fully polished.

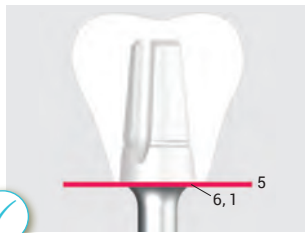
The main aim of this step of the treatment is the incorporation of a prosthetic workpiece which is easily cleanable or which allows self-cleaning (on the lingual or palatal side) in function.



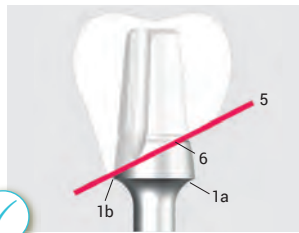
**Fig. 1**  
The transfer cap (3) is positioned on the abutment head until the lower border of the abutment head (1) is reached. The transfer will sit firmly in this position. Then the impression is taken with silicone putty or heavy body silicone material. This allows the transfer of the implant position to the model.



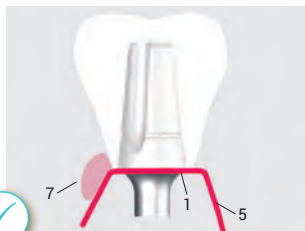
**Fig. 2**  
The implant was placed approximately 1.8 mm above the bone level (4). The mucosa level (5) reaches higher than the lower border of the abutment head (1). The level of the crown margin (6) and the lower border of the abutment head (1) are in a distance to each other. This avoids retention of cements and debris in the sub-mucosal area. This is a correct result. On the x-ray the crown will appear however as "too short", considering not applicable criteria from conventional dentistry.



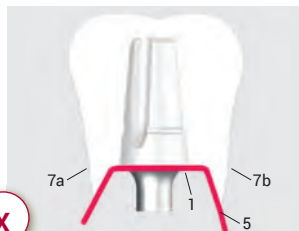
**Fig. 3**  
The crown margin (6) will be the same level as the lower border of the abutment head (1) if the abutment head sits on the mucosa line (5).



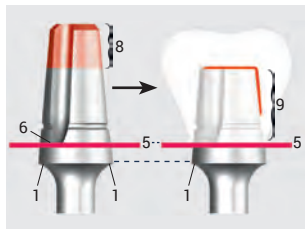
**Fig. 4**  
If the abutment head is positioned on a mucosal slope, the lower border of the abutment head is on one side (1a) deeper in the mucosa than on the other side (1b). In such a case the crown margin (6) will also run oblique, in order to avoid submucosal position of parts of the crown. See the clinical example in Fig. 9. Also in this case the crown may appear as "too short" on the x-ray, considering not applicable criteria from conventional dentistry.



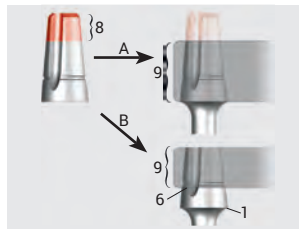
**Fig. 5**  
For aesthetic reasons it may be necessary to create vestibular overhang portions of the prosthetic workpiece (7).



**Fig. 6**  
It is not allowed to create such prosthetic overhangs (7a, 7b) on both sides of the prosthetic workpiece, because this would lead to a non-hygienic situation without the possibility of self-cleaning. Food and debris will get stuck in the area of the mucosal penetration area of the implant and this will create an inflammation.



**Fig. 7**  
If vertical height is missing, the top part of the abutment head may be shortened (region 8 is removed). At the same time it might be necessary to keep a distance between the lower margin of the abutment head (1) and the lower crown margin (6). Nevertheless the vertical cementation area (9) should be not less than 4 mm high.



**Fig. 8**  
If abutment heads are used as technical abutments, they are shortened after the final cementation of the prosthetic workpiece (region 8 is removed) and after the cement has fully set. This adjustment may be done at the first control appointment. They remain "open". The height of the cementing surface (9) should be not less than 4 mm. The lower margin of the abutment does not necessarily coincide with the lower border of the abutment head.



**Fig. 9**  
The implant crowns 43 and 44 have been shortened more than 3 mm on the lingual side and on the vestibular side an overhang has been modelled. The necessary height for cementation is given both on the vestibular and the lingual side on the abutment head.

### CONCLUSION

The question if the prosthetic construction is properly fitted to the abutment of the Strategic implant® depends on the spatial relationship between the crown margin to the mucosa much more than on anything else. Relevant for any judgement about the length of the crown is the moment of the cementation. Only for selected bridge materials and bridge designs, subgingival connection between implant abutment and prosthetics is possible. In such cases the final connection between the two components requires an open surgical cementation.

**THE ADVANTAGES** OF GBC® IMPLANTS

**SMALL HEAD**



**LARGE HEAD**



For anchorage in the 1<sup>st</sup>, 2<sup>nd</sup> and if necessary 3<sup>rd</sup> cortical

For the cortical anchorage of dental prostheses

Can be used in sockets for a given indication immediately after extraction and loaded immediately in many cases

Mechanically smoothed surface in all areas

Self-tapping thread with endosseous anti-rotation protection

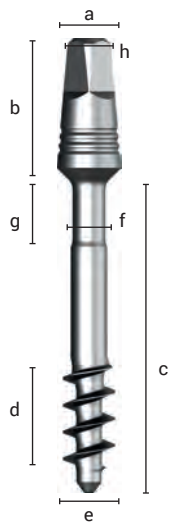
Conditionally suitable for individual tooth prostheses

Made of highly resistant titanium alloy

## GBC® IMPLANTS 2.7 MMD WITH SMALL ABUTMENT HEAD

These implants are used for the following indications

- Supporting (additional) implants for cortical anchorages of bridges and crowns
- Creation of a three-point support for the cortical anchorage of dental prostheses



Description	c	d	e	g	Drill	REF	Price cat.
GBC 2.7 10	10	4.5	2.7	2.55	Twist Drill 1.8	BM2250	G
GBC 2.7 12	12	4.5	2.7	2.95	Twist Drill 1.8	BM2251	G
GBC 2.7 14	14	5.5	2.7	2.95	Twist Drill 1.8	BM2252	G
GBC 2.7 17	17	5.5	2.7	2.95	Twist Drill 1.8	BM2253	G
GBC 2.7 20	20	5.5	2.7	2.95	Twist Drill 1.8	BM2254	G
GBC 2.7 23	23	5.5	2.7	2.95	Twist Drill 1.8	BM2255	G
GBC 2.7 26	26	5.5	2.7	2.95	Twist Drill 1.8	BM2256	G
GBC 2.7 29	29	5.5	2.7	2.95	Twist Drill 1.8	BM2257	G
GBC 2.7 32	32	5.5	2.7	2.95	Twist Drill 1.8	BM2258	G

**USE LIMITATIONS** GBC2.7 must not be used as an implant for single tooth replacement, however two or more GBC2.7 may serve as such. If **only** GBC 2.7 is used in very thin jaws, the surgeon should try to insert at least eight, but better more (up to 12 implants) for this jaw. GBC 2.7 are considered additional dental implants and they are used with other GBC implants 3.5 mm - 12 mm in order to increase the stability of the implant-prosthetic system.

a) Max. abutment Ø	3.35 mm
b) Abutment height	6.8 mmh
c) Nominal length	10 - 32 mm
d) Length of apical thread	4.5 / 5.5 mm
e) Enossal Ø	max. 2.7 mm
f) Neck Ø in bending zone	1.9 mm
g) Length of bending zone	2.55 - 2.95 mm
h) Square AF (across flats)	1.9 mm
Tool	IT K, AHK

## TWIST DRILL

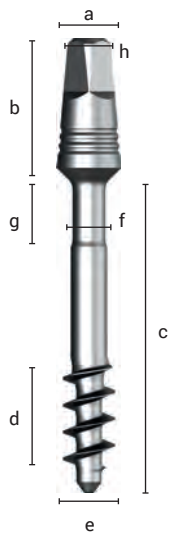


Description	Ø	Max. working length	REF	Price cat.
Twist Drill 1.8/23	1.8 mm	23 mm	BM1370	D

**GBC® IMPLANTS 3.0 MMD WITH SMALL ABUTMENT HEAD**

These implants are used for the following indications

- Supporting (additional) implants for cortical anchorages of bridges and crowns
- Creation of a three-point support for the cortical anchorage of dental prostheses



Description	c	d	e	g	Drill	REF	Price cat.
GBC 3.0 10	10	4.5	3.0	2.55	Twist Drill 1.8	BM2210	G
GBC 3.0 12	12	4.5	3.0	2.95	Twist Drill 1.8	BM2211	G
GBC 3.0 14	14	5.5	3.0	2.95	Twist Drill 1.8	BM2212	G
GBC 3.0 17	17	5.5	3.0	2.95	Twist Drill 1.8	BM2213	G
GBC 3.0 20	20	5.5	3.0	2.95	Twist Drill 1.8	BM2214	G
GBC 3.0 23	23	5.5	3.0	2.95	Twist Drill 1.8	BM2215	G
GBC 3.0 26	26	5.5	3.0	2.95	Twist Drill 1.8	BM2216	G
GBC 3.0 29	29	5.5	3.0	2.95	Twist Drill 1.8	BM2217	G
GBC 3.0 32	32	5.5	3.0	2.95	Twist Drill 1.8	BM2218	G

**USE LIMITATIONS** GBC 3.0 must not be used as an implant for single tooth replacement, however two or more GBC 3.0 may serve as such. If **only** GBC 3.0 is used in very thin jaws, the surgeon should try to insert at least eight, but better more (up to 12 implants) for this jaw. GBC 3.0 are considered additional dental implants and they are used with other GBC implants 3.5 mm - 12 mm in order to increase the stability of the implant-prosthetic system.

a) Max. abutment Ø	3.35 mm
b) Abutment height	6.8 mm
c) Nominal length	10 - 32 mm
d) Length of apical thread	4.5 / 5.5 mm (depending on the endosseous implant length)
e) Enossal Ø	max. 3.0 mm
f) Neck Ø in bending zone	1.9 mm
g) Length of bending zone	2.55 - 2.95 mm
h) Square AF (across flats)	1.9 mm
Tool	IT K, AHK

**TWIST DRILL**

Description	Ø	Max. working length	REF	Price cat.
Twist Drill 1.8/23	1.8 mm	23 mm	BM1370	D

**PATHFINDER DRILLS**

Conical 3-edge drill as initial drill, ideally suited for all crestal implant systems. The drill also passes between narrow cortical areas without pressure.



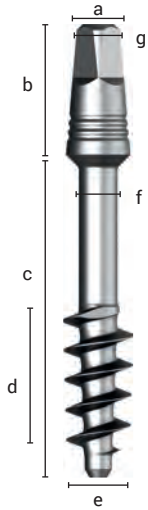
Description	Colour	Max. working length	REF	Price cat.
BCDX 1	yellow	15 mm	BM2103	C



**GBC® IMPLANTS WITH SMALL ABUTMENT HEAD**

**GBC® implants 3.5 mmd - 4.5 mmd**

For anchorage in the 1<sup>st</sup>, 2<sup>nd</sup> and if necessary 3<sup>rd</sup> cortical, for the cortical anchorage of dental prostheses. GBC® implants can be used in sockets for a given indication immediately after extraction and loaded immediately in many cases. Mechanically smoothed surface in all areas. The abutment head is identical to the head of GCS® implants. Self-tapping thread with endosseous anti-rotation protection. Conditionally suitable for individual tooth prostheses. **Insertion tools:** IT GCS, ITX GCS, ITS GCS, Adapter AHK.



	Description	c	d	e	REF	Price cat.
	GBC 3.5 10	10	5.5	3.5	BM2010	G
	GBC 3.5 12	12	5.5	3.5	BM2048	G
	GBC 3.5 14	14	7.5	3.5	BM2011	G
	GBC 3.5 17	17	7.5	3.5	BM2026	G
	GBC 3.5 20	20	7.5	3.5	BM2012	G
	GBC 3.5 23	23	7.5	3.5	BM2013	G
	GBC 3.5 26	26	7.5	3.5	BM2014	G
	GBC 3.5 29	29	7.5	3.5	BM2015	G
	GBC 3.5 32	32	7.5	3.5	BM2042	G
	GBC 3.5 35	35	7.5	3.5	BM2043	G
	GBC 3.5 38	38	7.5	3.5	BM2044	G
	GBC 4.5 10	10	7.5	4.5	BM2055	G
	GBC 4.5 12	12	7.5	4.5	BM2056	G
	GBC 4.5 14	14	7.5	4.5	BM2016	G
	GBC 4.5 17	17	7.5	4.5	BM2017	G
	GBC 4.5 20	20	7.5	4.5	BM2018	G
	GBC 4.5 23	23	7.5	4.5	BM2019	G
	GBC 4.5 26	26	7.5	4.5	BM2020	G
	GBC 4.5 29	29	7.5	4.5	BM2021	G

- a) Max. abutment Ø 3.35 mm
- b) Abutment height 6.8 mm
- c) Nominal length 10 - 38 mm
- d) Length of thread 5.5 / 7.5 mm
- e) Enossal Ø 3.5 / 4.5 mm
- f) Neck Ø at the top 2.0 mm
- g) Square AF (across flats) 1.9 mm

Max. insertion torque 80 Ncm

**FIELD OF APPLICATION** Enossal dental implant for cortical anchorage.

**INCLUSIVE**

GBC® implants are delivered incl. lab-set REF 462353, consisting of



Double analogue, plastic  
**IA4/IAU**  
**BM5118**



Impression post castable, internally edged, for large head  
**PA X**  
**BM1429**

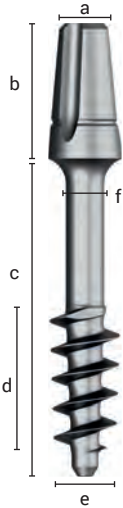


Impression post castable, internally round, for small head  
**TSPA 4**  
**BM1394**



**NOTE** This is a standard lab-set and therefore contains parts for both **LARGE** abutment heads (**PA X**) and **SMALL** abutment heads (**TSPA 4**).

**GBC® IMPLANTS WITH LARGE ABUTMENT HEAD**



	Description	c	d	e	REF	Price cat.
	GBC 3.6 10	10	5.5	3.6	BM2070	H
	GBC 3.6 12	12	5.5	3.6	BM2107	H
	GBC 3.6 14	14	7.5	3.6	BM2071	H
	GBC 3.6 17	17	7.5	3.6	BM2072	H
	GBC 3.6 20	20	7.5	3.6	BM2073	H
	GBC 3.6 23	23	7.5	3.6	BM2074	H
	GBC 3.6 26	26	7.5	3.6	BM2075	H
	GBC 3.6 29	29	7.5	3.6	BM2076	H
	GBC 4.6 8	8	3.5	4.6	BM2108	H
	GBC 4.6 10	10	5.5	4.6	BM2077	H
	GBC 4.6 12	12	4.5	4.6	BM2109	H
	GBC 4.6 14	14	7.5	4.6	BM2078	H
	GBC 4.6 17	17	7.5	4.6	BM2079	H
	GBC 4.6 20	20	7.5	4.6	BM2080	H
a) Abutment Ø	GBC 4.6 23	23	7.5	4.6	BM2081	H
b) Abutment height	GBC 4.6 26	26	7.5	4.6	BM2082	H
c) Nominal length	GBC 4.6 29	29	7.5	4.6	BM2083	H
d) Length of thread	GBC 5.5 8	8	3.5	5.5	BM2111	K
e) Enossal Ø	GBC 5.5 10	10	5.5	5.5	BM2051	K
f) Neck Ø at the top	GBC 5.5 12	12	6.0	5.5	BM2022	K
<b>Max. insertion torque 80 Ncm</b>	GBC 5.5 14	14	6.0	5.5	BM2023	K
	GBC 5.5 17	17	6.0	5.5	BM2024	K
	GBC 5.5 20	20	6.0	5.5	BM2047	K
	GBC 5.5 23	23	7.5	5.5	BM2116	K
	GBC 5.5 26	26	7.5	5.5	BM2117	K
	GBC 5.5 29	29	7.5	5.5	BM2118	K

**INCLUSIVE**

GBC® implants are delivered incl. lab-set REF 462353, consisting of



Double analogue, plastic  
**IA4/IAU**  
**BM5118**



Impression post castable, internally edged, for large head  
**PA X**  
**BM1429**



Impression post castable, internally round, for small head  
**TSPA 4**  
**BM1394**



**ACCESSORIES**

Analogue **IAB**  
Pack of 5  
**REF 462106**  
**Price cat. B**

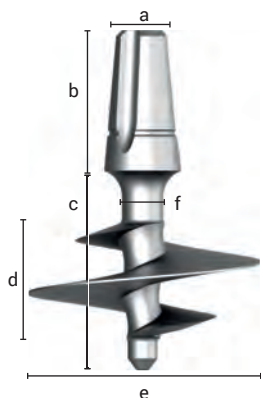


Impression post **TSPA 5**  
Pack of 5  
**REF 462030**  
**Price cat. B**

The red impression cap and the red analogue are round (not secured against rotation).

**NOTE** This is a standard lab-set and therefore contains parts for both **LARGE** abutment heads (**PA X**) and **SMALL** abutment heads (**TSPA 4**).

## GBC® IMPLANTS WITH LARGE ABUTMENT HEAD



	Description	c	d	e	f	REF	Price cat.
	GBC 7.0 8	8	5.5	7	2.0	BM2112	K
	GBC 7.0 10	10	5.5	7	2.0	BM2106	K
	GBC 7.0 12	12	5.5	7	2.0	BM2030	K
	GBC 7.0 14	14	5.5	7	2.0	BM2031	K
	GBC 7.0 17	17	5.5	7	2.0	BM2032	K
	GBC 7.0 20	20	5.5	7	2.0	BM2046	K
	GBC 9.0 8	8	5.5	9	2.1	BM2113	M
	GBC 9.0 10	10	5.5	9	2.1	BM2033	M
	GBC 9.0 12	12	5.5	9	2.1	BM2034	M
	GBC 9.0 14	14	5.5	9	2.1	BM2035	M
	GBC 10.5 10	10	6.5	10.5	2.1	BM2039	M
	GBC 10.5 12	12	6.5	10.5	2.1	BM2040	M
	GBC 10.5 14	14	6.5	10.5	2.1	BM2041	M
	GBC 10.5 17	17	6.5	10.5	2.1	BM2050	M
a) Abutment Ø	3.9 mm						
b) Abutment height	7.2 mm						
c) Enossal length	8 - 20 mm						
d) Length of thread	5.5 - 6.5 mm						
e) Enossal Ø	7 - 12 mm						
f) Neck Ø at the top	2.0, 2.1 mm						
<b>Max. insertion torque 80 Ncm</b>							
	GBC 12.0 8	8	5.5	12	2.1	BM2114	O
	GBC 12.0 10	10	5.5	12	2.1	BM2036	O
	GBC 12.0 12	12	6.5	12	2.1	BM2037	O
	GBC 12.0 14	14	6.5	12	2.1	BM2038	O

Insertion tools: UST 1 M, UST 2 M, Adapter UST 1

## INCLUSIVE

GBC® implants are delivered incl. lab-set REF 462353, consisting of



Double analogue, plastic

IA4/IAU

BM5118



Impression post castable, internally edged, for large head

PA X

BM1429



Impression post castable, internally round, for small head

TSPA 4

BM1394

**NOTE** This is a standard lab-set and therefore contains parts for both **LARGE** abutment heads (PA X) and **SMALL** abutment heads (TSPA 4).

## ACCESSORIES

Analogue IAB

Pack of 5

REF 462106

Price cat. B



Impression post TSPA 5

Pack of 5

REF 462030

Price cat. B

The red impression cap and the red analogue are round (not secured against rotation).

**HANDGRIP SELF LOCKING**

For machine reprocessing, cannot be dismantled. Clean in an ultrasonic bath at 45° with an alkaline cleaning agent. For adapter, self-locking. Please note the cleaning instructions on [www.implant.com/en/downloads](http://www.implant.com/en/downloads)



**DRILLS**

Description	Length	Code	REF	Price cat.
Adapter	100 mm	BCD 1 Adapter	BM1222	F
Twist Drill	110 mm	Twist Drill 2.0	BM1220	F

**INSERTION TOOLS**

Description	Length	Code	REF	Price cat.
For GCS®, GCS® B, KDS, GBC 3.5, GBC 4.5	70 mm	Adapter UST 2	BM2062	D
For GCS® X, GCS® TX, GCS® Plus, GBC 3.6, GBC 4.6, ab > 5.5	70 mm	Adapter UST 1	BM2063	F

**USE OF THE HANDGRIP**

ON THE EXAMPLE OF A LARGE ABUTMENT HEAD GBC® IMPLANT

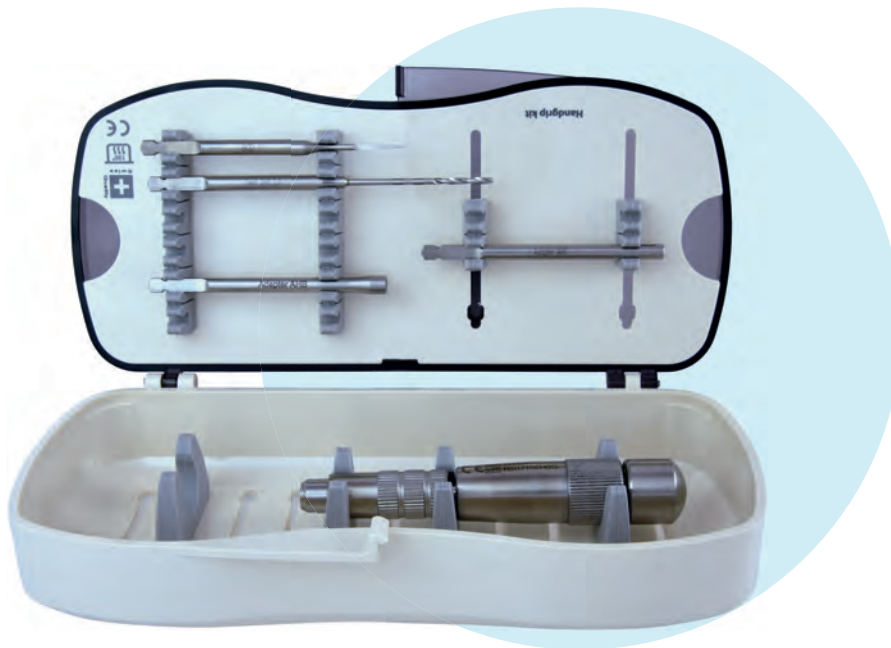


1. Use of the handgrip



2. Break off and implant immediately in the designated place



**HANDGRIP TRAY**

Size of closed tray  
**W 195 mm D 90 mm H 45 mm**  
 For all autoclaves

**Description**

BCD 1 Adapter  
 Twist Drill 2.0  
 Adapter UST 2  
 Adapter UST 1  
 Handgrip

**Length**

100 mm  
 110 mm  
 70 mm  
 70 mm  
 110 mm

**REF**

**BM1222**  
**BM1220**  
**BM2062**  
**BM2063**  
**BM1360**









**Price €**

**Handgrip tray w/o content**  
**Handgrip tray with content**



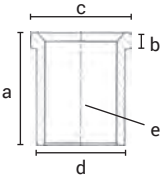
**BM2061**      **upon request**  
**SBM2061**      **upon request**

Please read our detailed instructions for cleaning and re-sterilization of surgical instruments on  
<https://implant.com/en/downloads>

**IMPRESSION TAKING AND LABORATORY ACCESSORIES FOR GBC® AND GCS® IMPLANTS**

	Description	Unit	Code	REF	Price cat.
ALTERNATIVE	 Impression post castable, POM For small head Internally round	Pack of 5	TSPA 4	BM1394	B
	 Impression post castable, POM For small head Internally round	Pack of 5	TSPA 4	BM1372	B
	 Impression post castable, POM For large head Internally round	Pack of 5	TSPA 5	BM1393	B
	 Impression post castable Internally edged	Pack of 5	PA X	462136	B
	Double analogue, metal	1 piece	IA4/IAU	BM5119	A
	Double analogue, plastic	Pack of 5	IA4/IAU	BM5118	B
	Castable abutment and base for provisionals For small head 7 mm high, white, internally round	Pack of 5	PO4	BM1317	B
	Castable abutment For large head Internally round	Pack of 5	POB	BM5121	B

**GUIDE JACKET**

	Description	Unit	Material	REF	Price cat.
	BFH 2.0 guide jacket 2.0mmd	Pack of 5	Ti6Al4V	BM7100	B
	BFH 2.5 guide jacket 2.5mmd	Pack of 5	Ti6Al4V	BM7101	B
	a) Length b) Height of step c) Max. Ø top d) Nominal Ø e) Ø of drilling in the drill template	5 mm 0.7 mm 3.7 / 4 mm 3 / 3.35 mm 2.05 / 2.55 mm			



Model with residual teeth for the fabrication of a drill guide for creating cavities for fixing the later drill guide for implant cavities.



Drill guide for creating cavities for later fixation of the surgical drill guide.



Surgical drill guide for safe GBC® placement. The drill sleeves are designed for 2.0 mm Twist drills.

## PATHFINDER DRILLS


Conical 3-edge drill as initial drill, ideally suited for all crestal implant systems. The drill also passes between narrow cortical areas without pressure.

	Description	Colour	Max. working length	REF	Price cat.
	BCD 1	yellow	15 mm	BM2100	C
	BCD 2	black	15 mm	BM2101	C
	BCD 3	red	13 mm	BM2102	C
	BCDX 1	yellow	15 mm	BM2103	C
	BCDX 2	black	15 mm	BM2104	C
	BCDX 3	red	15 mm	BM2105	C
	BCD 1 Adapter Pathfinder for handgrip Length 100 mm			BM1222	F

## TWIST DRILLS

	Description	Ø	Max. working length	REF	Price cat.
	Twist Drill 1.8/23	1.8 mm	23 mm	BM1370	D
	Twist Drill 2.0/21	2.0 mm	21 mm	BM1361	D
	Twist Drill 2.0/30	2.0 mm	30 mm	BM1362	D
	Twist Drill 2.0/40	2.0 mm	40 mm	BM1223	D
	Twist Drill 2.5/21	2.5 mm	21 mm	BM1363	D
	Twist Drill 2.0 Cylindrical drill 2.0 mm For handgrip, length 110 mm		35 mm	BM1220	F
	Pilot drill For surgical handgrip For chuck 2.35 mmd			BM1226	F
	Twist Drill 2.0/30 For surgical handgrip For chuck 2.35 mmd		30 mm	BM1227	F

**HARD METAL CUTTER**

	Description	Length	Code	REF	Price cat.
	Hard metal bone cutter short, for FG	30 mm	SHMC S	BM6026	F
	Hard metal bone cutter long, for FG	36 mm	SHMCL	BM6027	F

**INSERTION TOOLS AND ADAPTER**

	Description	Code	REF	Price cat.
	For GBC® implants with Ø 3.5 mm + 4.5 mm	IT K	BM1336	D
	Insertion tool short, for small head Use with RAT 2 and TW2	ITS K	BM1338	D
	Adapter for GBC 3.5 / 4.5 Use with handgrip REF 311431	AHK	BM2062	D
	Insertion tool long, for large head Use with RAT 2 and TW2	UST 2 M	BM2064	E
	For GBC® implants with Ø 3.6, 4.6, 5.5, 7, 9, 10.5, 12 mm	Adapter UST 1	BM2110	E
	For GBC® implants with Ø 3.6, 4.6, 5.5, 7, 9, 10.5, 12 mm Use with handgrip REF 311431	Adapter UST 2	BM2063	F

**WIRES FOR INTRA-ORAL WELDING**

Description	Material	Ø	REF	Price cat.
Titanium wire (5 piece á 15cm/pack)	TiGr.2	1.5 mm	BM2001	B
Titanium wire (5 piece á 15cm/pack)	TiGr.2	2.0 mm	BM2002	B
Titanium wire (5 piece á 15cm/pack)	Ti6Al4V	2.0 mm	BM2003	B







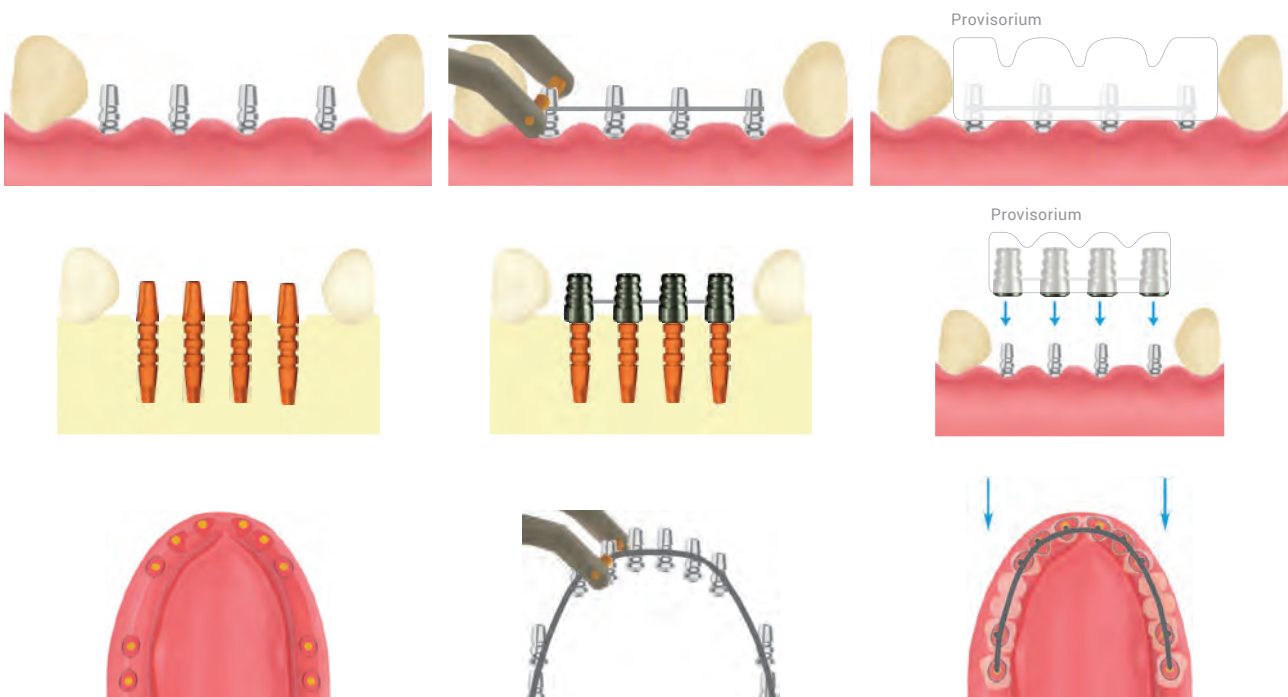
### TITANIUM CAPS FOR LASER CONNECTION

Multi-use titanium caps for:

- use in immediately lasered bridge frames, together with the bar profiles (without bar matrices)
- the radiological control of plastic modeling
- for direct Polymerization into the bridge prosthesis
- direct veneering with titanium ceramics
- material: Ti Grade 4

	Description	Code	REF	Price cat.
	Titanium cap, radio opaque For small head For GCS, GCS B, GBC 3.5, GBC 4.5	MA4	<b>BM6024</b>	<b>B</b>
	Titanium cap, radio opaque For large head For GCS X, GCS Plus, GBC 3.6, GBC 4.6-GBC 12	MA5	<b>BM6025</b>	<b>B</b>

### INTRA-ORAL WELDING








Nanda S., Ihde S., Nanda P. Intra-oral welding-A usefull adjunct in immediate loading implantology using GBC implants. CMF Impl. Dir. Vol 9, No.2, 13-24, 2014

### SCANBODIES

	Description	Material	Systeme	REF	Price cat.
	Scanbody-4 For small head	Peek	GCS, GBC	<b>BM1561</b>	<b>B</b>
	Scanbody-5 For large head	Peek	GCS, GBC	<b>BM1562</b>	<b>B</b>

**CEMENTABLE ANGULATION ADAPTER (Ti6AL4V)**

These adapters are mounted on **GBC®** implants to compensate for the insertion direction. Plastic cements are preferably used. The implant head must be roughened beforehand. The protruding head parts are then removed. The impression is taken directly on the adapter.


		Description	Code	REF	Price cat.
	 AA15 KK	Adapter, 15° For small head	AA15 KK	BM1303	C
	 AA25 KK	Adapter, 25° For small head	AA25 KK	BM1305	C
	 AA5 15°	Adapter 15° For large head	AA5 15°	BM1197	C
	 AA5 25°	Adapter 25° For large head	AA5 25°	BM1198	C

**CASTABLE CROWN BASE**


These adapters are used by the dental technician for modeling of bridge frames. In the metal try-in, the protruding head parts are removed by the dentist.

	Description	Height	Code	REF	Price cat.
	Adapter 15° For small head Reducible and castable Pack of 5	7.5 mm	AAL 15 KK	BM1308	C

**LAB ANALOGUE**

	Description	Code	REF	Price cat.
	Abutment analogue for angulation adapter For small head 15° and 25°	AAA	BM1309	B

**CASTABLE ABUTMENT AND IMPRESSION TRANSFER**

	Description	Code	REF	Price cat.
	Castable abutment and transfer for AAA Pack of 5	PA AAA	BM1310	B

**CEMENTING ABUTMENT**

Replacement abutment for cementing. For GBC implants up to a shaft diameter of 2.1 mm. Larger shafts must be ground down. Allows the vertical correction of the abutment position. Mounting e.g. with Fuji Plus. With drain hole, machined surface. Material **Ti6Al4V**.

	Description	Code	REF	Price cat.
	Replacement abutment for GBC internal diameter 2.15 mm	B21	BM1209	A

## INSTRUMENT TRAY FOR GCS® AND GBC®



Size of closed tray  
 W 175 mm D 145 mm H 65 mm  
 For all autoclaves. Autoclavable up to 134° C,  
 not suitable for dry heat sterilizers.

Description	System	Head	REF	Description	System	REF	Price €
UST 1 M	GCS/GBC	large	<b>BM2064</b>	Twist Drill 2.0 30	GBC	<b>BM1362</b>	
UST 2 M	GCS/GBC	large	<b>BM2110</b>	Twist Drill 2.0 21	GBC	<b>BM1361</b>	
IT2 W	GCS/GBC	large	<b>BM3339</b>	Twist Drill 2.5 21	GBC	<b>BM1363</b>	
IT K	GCS/GBC	small	<b>BM1336</b>	Twist Drill 1.8/23	GBC	<b>BM1370</b>	
UST 1 S	GCS/GBC	small	<b>BM1338</b>	BCD 1	GCS/GBC	<b>BM2100</b>	
ITW K	GCS/GBC	small	<b>BM1340</b>	BCD 2	GCS/GBC	<b>BM2101</b>	
ITWH K	GCS/GBC	small	<b>BM1339</b>	BCD 3	GCS/GBC	<b>BM2102</b>	
DOS 1	GCS *		<b>BM1330</b>	BCDX 1	GCS/GBC	<b>BM2103</b>	
DOS 2	GCS *		<b>BM1331</b>	BCDX 2	GCS/GBC	<b>BM2104</b>	
DOS 3	GCS *		<b>BM1332</b>	BCDX 3	GCS/GBC	<b>BM2105</b>	
DOS 4	GCS *		<b>BM1333</b>	RMS	GCS/GBC	<b>BM1364</b>	
DOS 5	GCS *		<b>BM1334</b>	RMS	GCS/GBC	<b>BM1364</b>	
C-Drill KM 1	GCS *		<b>BM1071</b>	DX 2	GCS/GBC	<b>BM1349</b>	
C-Drill KM 2	GCS *		<b>BM1072</b>	TW2	GCS/GBC	<b>BM1356</b>	
C-Drill KM 3	GCS *		<b>BM1073</b>	Instrument tray w/o content		<b>BM4264</b>	upon request
DS 2	GCS *		<b>BM1359</b>	Instrument tray with content		<b>SBM4264</b>	upon request
IT TB K	GCS *		<b>BM1345</b>				

\* The content for the system GCS® is optional

**INSERTION TOOLS**

		Description	Type	Length	For implant	REF	Price cat.
		IT K	long	20 mm	GBC, GCS, GCS B, KDS	BM1336	D
		UST 1 L	extralong	45 mm	GBC, GCS, GCS B, KDS	BM1337	D
		UST 1 S	short	7 mm	GBC, GCS, GCS B, KDS	BM1338	D
		UST 1 M	long	19 mm	GBC, GCS, GCS B, KDS	BM2064	E
		UST 2 M	short	7 mm	GBC, GCS X, GCS Plus	BM2110	E
		IT2W		23 mm	GCS, GBC	BM3339	E

**STARTER TRAY**

Autoclavable up to 134° C, not suitable for dry heat sterilizers.  
This surgical kit contains all drills and tools for first works  
with the system GBC® and GBC® MU.  
Material: autoclavable plastic.



Description	REF	Price €
IT K	BM1336	
UST 1 S	BM1338	
UST 1 M	BM2064	
UST 2 M	BM2110	
BCD 1	BM2100	
Twist Drill 2.0 21	BM1361	
Twist Drill 2.0 30	BM1362	
Twist Drill 2.5 21	BM1363	
Twist Drill 1.8/23	BM1370	
BCDX 1	BM2103	
HT 1.25	BM3022	optional content
ITX MU 15	BM3222	
Torque wrench TW2	BM1356	
<b>Starter tray w/o content</b>	<b>BM6505</b>	<b>upon request</b>
<b>Starter tray with content</b>	<b>SBM6505</b>	<b>upon request</b>

**THE ADVANTAGES** OF GBC® MU IMPLANTS



For occlusal  
screwed bridges

Feature a  
pre-angulation  
of 15°

May be bent  
additionally, using the  
insertion tool

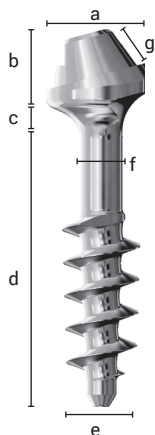
In conjunction  
with the clinically  
possible rotational  
positions of the head,  
virtually all possible  
angulations can be  
realized

May be used  
by authorized users  
only

Made of highly  
resistant  
titanium alloy

**GBC® MU IMPLANTS**

**GBC® MU** implants feature a pre-angulation of 15 degrees. **GBC® MU** may be bent additionally, using the insertion tool. In conjunction with the clinically possible rotational positions of the head, virtually all possible angulations can be realized. **GBC® MU** implants may be used by authorized users only. Material Ti6Al4V.



a) Abutment Ø	4.8 mm
b) Abutment height	3.7 mm
c) Trans-mucosal height	0.8 mm
d) Enossal length	8 - 38 mm
e) Enossal Ø	3.6 - 7.0 mm
f) Neck Ø	2 mm
g) Height of connecting part	2 mm
Prosthetic screw	SFK MU

Description	REF	Price cat.	Description	REF	Price cat.
GBC MU 3.6 8	<b>BM1298</b>	N	GBC MU 4.6 23	<b>BM1286</b>	N
GBC MU 3.6 10	<b>BM1299</b>	N	GBC MU 4.6 26	<b>BM1287</b>	N
GBC MU 3.6 12	<b>BM1277</b>	N	GBC MU 4.6 29	<b>BM1288</b>	N
GBC MU 3.6 14	<b>BM1200</b>	N	GBC MU 4.6 32	<b>BM1289</b>	N
GBC MU 3.6 17	<b>BM1201</b>	N	GBC MU 4.6 35	<b>BM1290</b>	N
GBC MU 3.6 20	<b>BM1202</b>	N			
GBC MU 3.6 23	<b>BM1203</b>	N	GBC MU 5.5 10	<b>BM1204</b>	N
GBC MU 3.6 26	<b>BM1278</b>	N	GBC MU 5.5 12	<b>BM1205</b>	N
GBC MU 3.6 29	<b>BM1279</b>	N	GBC MU 5.5 14	<b>BM1206</b>	N
GBC MU 3.6 32	<b>BM1215</b>	N	GBC MU 5.5 17	<b>BM1259</b>	N
GBC MU 3.6 35	<b>BM1216</b>	N	GBC MU 5.5 20	<b>BM1260</b>	N
GBC MU 3.6 38	<b>BM1217</b>	N	GBC MU 5.5 23	<b>BM1241</b>	N
			GBC MU 5.5 26	<b>BM1242</b>	N
GBC MU 4.6 8	<b>BM1280</b>	N			
GBC MU 4.6 10	<b>BM1281</b>	N	GBC MU 7.0 10	<b>BM1207</b>	N
GBC MU 4.6 12	<b>BM1282</b>	N	GBC MU 7.0 12	<b>BM1208</b>	N
GBC MU 4.6 14	<b>BM1283</b>	N	GBC MU 7.0 14	<b>BM1262</b>	N
GBC MU 4.6 17	<b>BM1284</b>	N	GBC MU 7.0 17	<b>BM1263</b>	N
GBC MU 4.6 20	<b>BM1285</b>	N	GBC MU 7.0 20	<b>BM1264</b>	N

**MULTI-UNIT LAB SET**

Description	Code	REF	Price cat.
<b>Titanium base</b> Use with SF K MU	<b>T-Base MU</b>	<b>BM3169</b>	
<b>Castable abutment</b> Use with T-Base and SF K MU	<b>PA2 MU</b>	<b>BM3170</b>	
<b>Prosthetic screw</b> for GCS® MU and GBC® MU	<b>SF K MU</b>	<b>BM3159</b>	
<b>COMPLETE SET</b>		<b>BM3112</b>	<b>E</b>

**ACCESSORIES SINGLE-PIECE MULTI-UNIT IMPLANTS**

	Description	Code	REF	Price cat.
   	Insertion tool for GCS® MU, GBC® MU and Hexacone Plus MU 15° Use with IT2 GBC, IT2 S GBC, AH MU Tool HT 1.25	ITX MU15	BM3222	G
	Insertion tool long For large head Use with RAT2 and TW2, length 19 mm	UST 1 M	BM2064	E
	Insertion tool short For large head Use with RAT2 and TW2, length 7 mm	UST 2 M	BM2110	E
	Adapter for handgrip Fits ITX MU15 (REF BM3222)	Adapter UST 1	BM2063	F
  	Hex Instrument 1.25, length 14 mm short	HTS 1.25	BM3023	C
	Hex Instrument 1.25, length 21 mm medium	HT 1.25	BM3022	C
	Hex Instrument, length 45 mm long	HTX 1.25	BM7764	C
	 Scan abutment for MU implants Incl. screw SSA MU Sterilisable, two-part, material Ti6Al4V	SAB MU	BM3135	D
<b>Parts for passive connection of the bridge frame</b>	 Prosthetic screw for GCS® MU and GBC® MU	SF K MU	BM3159	B
	 Castable abutment Use with T-Base and SF K MU	PA2 MU	BM3170	B
	 Titanium base * Use with SF K MU (REF 418164) For GCS® MU, GBC® MU and Hexacone Plus MU	T-Base MU	BM3169	B
<b>Parts for UCLA technique</b>	 Prosthetic screw For GCS® MU and GBC® MU	SF K MU	BM3159	B
	 Castable abutment UCLA For direct use on MU implants SF K MU sold separately	PA MU	BM3200	B
<b>Part for UCLA technique &amp; passive connection</b>	 Digital lab analogue for MU implants* For GCS® MU, GBC® MU and Hexacone MU	IA K MU	BM3178	B
  	Long screw for prosthetic use or as pick-up screw for use with HLT MU Tool: HT 1.25, material Ti6Al4V	SFL MU	BM3218	B
	Transfer for pick-up impressions Straight Delivery incl. SFL MU	HLT MU	BM3152	C
	Temporary base SF K MU or SFL MU sold separately	TC MU	BM3151	D

EXTENSION SET FOR GBC® TRAY

Works with all MU implants

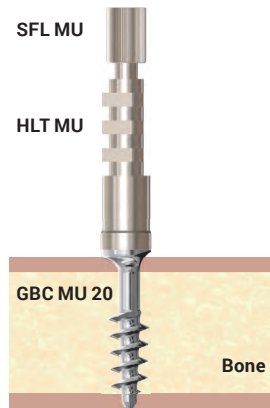
\* PLEASE GO TO [HTTPS://IMPLANT.COM/EN/DOWNLOADS](https://implant.com/en/downloads) TO DOWNLOAD THE CORRESPONDING STL FILES  
 SEE PAGE 16 FOR SCANBODIES FOR DIGITAL IMPRESSIONS ON MU IMPLANTS

**APPLICATION OF SINGLE-PIECE MULTI-UNIT IMPLANTS**

1.

Tighten screw SFL MU with the tool HT 1.25.

Fix the transfer with the long screw, then take pick-up-impres- sion.



4.

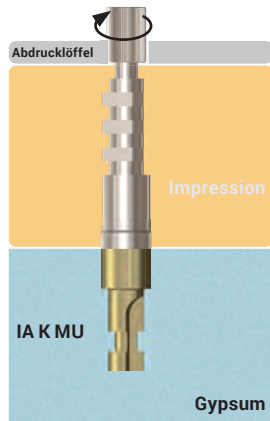
T-Base is sandblasted from the outside and cleaned.

The bridge frame is sandblasted from below in the area of the implants.



2.

Connect the transfer to the implant analogue (IA K MU) and pour the impression with gypsum.



5.

All T-Base are fixed to the im- plants with SF K MU or the long screw SFL MU. Then all T-Base are glued with adhesive ce- ment to the bridge frame.

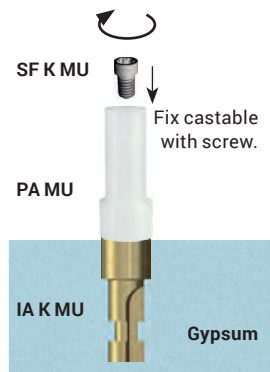
This guarantees a passive fit. Composite excess is removed and the site is polished.



3. a

Connect PA MU with SF K MU on the analogue IA K MU. Tighten screw SFL MU with the tool HT 1.25.

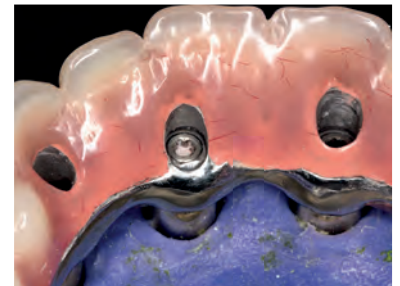
Now the modulation can be created and the frame is veneered. Veneering is possible with acryl, composite and ce- ramics.



6.

Now the bridge may be scre- wed on passive with SF K MU.

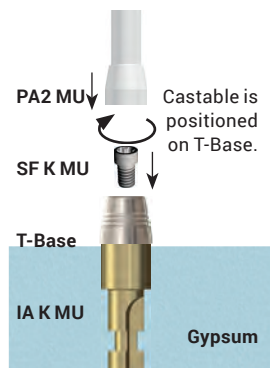
Screw canals are closed with temporary filling material or composite, taking into consi- deration that later access must be possible.



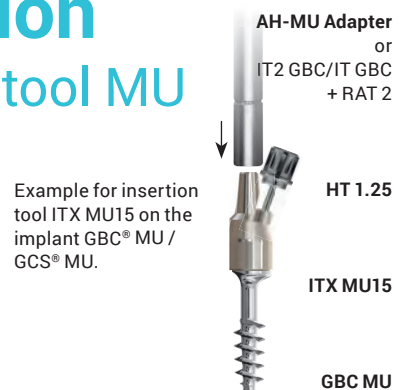
3. b

T-Base is positioned over the analogue and screwed on with SF K MU. The cartable PA2 MU is then fitted on top of the T-Base.

Now the modulation is made. Veneering is possible with acryl, composite and ce- ramics.



**Application of insertion tool MU**



Example for insertion tool ITX MU15 on the implant GBC® MU / GCS® MU.



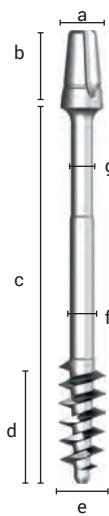
### GZI ZYGOMA SCREW IMPLANTS

GZI implants are inserted either trans-sinusally (between the membrane and outer bones) or submucosal in the lateral upper jaw and anchored in the area of the Os Zygomaticum. In this case, the smooth parts of the implant are submucosal.

These implants are only used by experienced practitioners with a good knowledge of anatomy. GZI implants have a bending area below the cementing abutment and can therefore be inserted into the dental arch according to the axis even after palatal insertion into the upper jaw. A separate vertical osteotomy may be necessary for this. See scheme. In one-sided free-end situations, it can be combined with one or more GBC implants in the area of the tubero-ptyergoid region.

The treatment should be carried out in immediate loading protocol. Immediate splinting of the implants is necessary.

**Material** Highly resistant titanium alloy Ti6Al4V.



Description	Enossal Ø	Length	REF	Price cat.
GZI 4.6 35	4.6	35	<b>BM2090</b>	<b>K</b>
GZI 4.6 37.5	4.6	37.5	<b>BM2091</b>	<b>K</b>
GZI 4.6 40	4.6	40	<b>BM2092</b>	<b>K</b>
GZI 4.6 42.5	4.6	42.5	<b>BM2093</b>	<b>K</b>
GZI 4.6 45	4.6	45	<b>BM2094</b>	<b>K</b>
GZI 4.6 47.5	4.6	47.5	<b>BM2095</b>	<b>K</b>
GZI 4.6 50	4.6	50	<b>BM2096</b>	<b>K</b>
GZI 4.6 52.5	4.6	52.5	<b>BM2120</b>	<b>K</b>
GZI 4.6 55	4.6	55	<b>BM2121</b>	<b>K</b>

- a) Abutment Ø 3.9 mm
- b) Abutment height 7.2 mm
- c) Enossal length 35 - 55 mm
- d) Length of thread 10 mm
- e) Enossal Ø 4.6 mm
- f) Neck Ø above thread 2.2 mm
- g) Neck Ø at the top 2.0 mm

**INCLUSIVE**

GZI implants are delivered incl. lab-set REF 462353, consisting of



Double analogue, plastic

**IA4/IAU**

**BM5118**



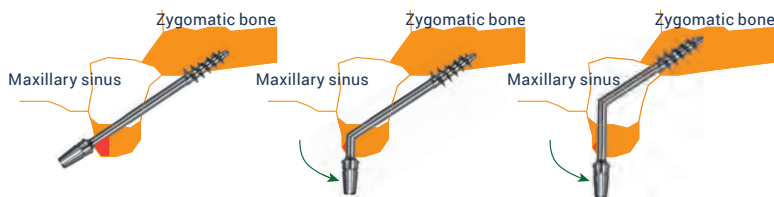
Impression post castable, internally edged, for large head  
**PA X**

**BM1429**



Impression post castable, internally round, for small head  
**TSPA 4**




**BM1394**




**NOTE** This is a standard lab-set and therefore contains parts for both **LARGE** abutment heads (**PA X**) and **SMALL** abutment heads (**TSPA 4**).

**GZI implants may be used in a trans-sinusally or sub-mucosal manner. The abutment head is aligned with the tooth arch through bending.**

## TWIST DRILLS

	Description	REF	Price cat.
	Twist Drill 2.2 / 50 for Zygoma implants, SS	BM1428	F
	Twist Drill 2.2 / 55 for Zygoma implants, SS	BM1369	F
	Twist Drill 2.2 for handgrip for Zygoma implants Length 100 mm	BM1224	F

## IMPRESSION TAKING AND LABORATORY ACCESSORIES FOR ZSI

	Description	Unit	Code	REF	Price cat.
	Impression post castable, POM Internally round	Pack of 5	TSPA 5	BM1393	B
	Double analogue, metal For large and small head	1 piece	IA4/IAU	BM5119	A
	Double analogue, plastic For large and small head	Pack of 5	IA4/IAU	BM5118	B
	Castable abutment For large head Internally round	Pack of 5	POB	BM5121	B

## SINGLE PIECE IMPLANT PRO KIT

All trays are delivered **WITHOUT CONTENT**. The tray offers a quick overview of the different lengths and diameters at hand, as well as the available amount of the corresponding implants.

Description	Suitable for implant size	REF	Price cat.
Single Piece Implant Pro Kit GBC® 2.7 - 3.0	GBC® 2.7 - 3.0	BM2501	R
Single Piece Implant Pro Kit GBC® 3.5 - 4.5	GBC® 3.5 - 4.5	BM2505	R
Single Piece Implant Pro Kit GBC® 3.6 - 4.6	GBC® 3.6 - 4.6	BM2506	R
Single Piece Implant Pro Kit GBC® 4.5 - 4.6	GBC® 4.5 - 4.6	BM2503	R
Single Piece Implant Pro Kit GBC® 5.5 / 7 / 9 / 10.5 / 12	GBC® 5.5 / 7 / 9 / 10.5 / 12	BM2504	R



## AUXILIARY TOOL

Auxiliary tool for determining the plane of bite in relation to the Camper's plane and the bipupillary line during the creation of the upper jaw part of the bite registration. Can be used with wax or silicone.



REF	Price cat.
BM1199	N

EN

**MANUFACTURER'S INFORMATION** regarding the preparation of **refillable medical devices** complies with EN ISO 17664.

**Please read carefully!**

**Medical devices which may be re-processed are**

- Tools for abutments and screws
- Torque control instruments and ratchets
- Instruments for preparing endosteous bone cavities (drills, cutters)
- Bone expansion screws and distractors
- Drill guide sleeves
- Abutments and screws, provided they do not remain in/with the patient between individual treatment appointments and are not used on other patients. They should be stored by the operator between the treatment appointments, e.g. together with the patient's file.
- Manual instruments for the placement of implants and bone preparation.

**Re-usability**

Frequent re-processing has influence on the product especially if high temperatures are applied for sterilisation. Drills for bone cavities should be used only 10 times. Tools and ratchets may be used along as they fit to the 2<sup>nd</sup> part. In general the operator is responsible for the decision of re-using and re-processing of instruments. Damaged instruments and instruments showing signs of wear must be discarded. Liability of the manufacturer is void. If these restrictions are not regarded.

**Legal bases**

The following legal bases, regulations and recommendations are applied with regard to the products mentioned above. (Germany)

- Directive 93/42/EEC
- Medical device regulation (which is valid in the country where the medical device is used for treatment or where the functionality of the medical device is being evaluated)
- Bundesgesundheitsblatt (Federal Health Gazette) 2001 : 44: 1115-1126

Hygiene requirements for the processing of medical devices (Recommendation of the Commission for Hospital Hygiene (Kommission für Krankenhaushygiene) at the Robert-Koch-Institute and the Federal Ministry for Drugs and Medical Devices [Bundesministerium für Arzneimittel und Medizinprodukte]).

**Legal information**

Implants and other components of the implant system Diston, B01, B03, B0CE5, B0C as well as K03 PLUS (total implants according to the Commission on biotechnological implants as issued by the International Implant Foundation/ Munich, see www.ImplantFoundation.org/en/consensus-papers) are sold only to licensed practitioners with valid authorization of the manufacturer (or issued by the IF) for the use of the system. This demand for further and continuous education is also valid for advising patients before and after the placement of the implants.

**General principles**

All reusable products must be cleaned, disinfected and sterilised before each use; this also applies to the initial use of products that are supplied nonsterile. Efficient cleaning and disinfection is essential for effective sterilisation. Special cleaning/sterilisation instructions should be obtained from the instructions for use. The operating instructions of the practice unit must also be observed. As the operator responsible for the safety of instruments during use, please ensure that only adequate, validated parameters specific to the unit and product are constantly maintained during each cycle. Please also observe all valid legal and hygiene regulations of the dental practice and dental hospital.

This applies in particular to the different guidelines regarding effective pin inactivation. Important: Always wear protective gloves for your own safety when handling contaminated instruments!

- Instruments made from different materials should never be disinfected, cleaned or sterilised together. This also applies when using an ultrasonic cleaner.
- During mechanical cleaning, instruments should be changed so that they cannot come into contact, as otherwise there is the risk of damage.
- Multi-part instruments such as ratchets, trephine drills, screwdrivers etc. should be disassembled into their component parts and these should be individually disinfected, cleaned or sterilised.
- These instruments should also be stored disassembled until the next use.

**Care instructions of surgical steel instruments**

Surgical steel instruments can quickly become damaged with inadequate or incorrect care. Only commercially available solvents should be used for surgical steel if in doubt contact **onewayblomed GmbH**. The following are not recommended:

- Disinfection/cleaning agent with a high chlorine content
- Disinfection/cleaning agent with a high oxalic acid content
- The following are not recommended for instruments with colour coding
- Too high solvent concentrations, disinfection/cleaning agent with the ingredients mentioned above
- Too high temperatures with mechanical cleaning and sterilisation; never higher than 135° C

**Conditioning**

Coarse impurities must be removed from the products immediately after use (within 1-2 hrs maximum). Surgical residue (blood, secretions, tissue residue) should not be allowed to dry on the products. Instruments should be placed in a disinfectant solution immediately after surgery. For temporary storage and pre-disinfection/cleaning immediately after use on patients the instrument can be placed in an interim stand filled with a suitable cleaning/disinfection agent. Contamination should then be cleaned from the instruments under running water or in a disinfectant solution; the disinfectant should be aldehyde-free (otherwise fixation of blood and contamination), have proven efficacy (e.g. DGHM [German Society for Hygiene and Microbiology]/FDA approved and CE Mark), be suitable for instrument disinfection and compatible with the instrument (see Section "Material compatibility"). Follow the disinfectant instructions for use. For manual removal of contamination use only a clean, soft brush or a clean soft cloth which is used specifically for this purpose. Never use metal brushes or steel wool.

- Please note that the disinfectant used for conditioning is only for personal protection and cannot replace the subsequent disinfection step to be performed after cleaning.
- Never allow instruments to remain wet or moist for a longer period of time.
- Corroded, rusty instruments must be cleaned in an ultrasonic cleaner (reaction time with high bacterial loading 15 minutes in a 3% concentration) or drill disinfectant (reaction time with high bacterial loading 15 min.). Ensure when using other products for cleaning and disinfection.
- That the products are basically suitable for the cleaning and disinfection of instruments.
- That the cleaning and disinfection agent – if applicable – is suitable for ultrasonic cleaning (see footnote).
- That a cleaning and disinfection agent with proven efficacy (e.g. DGHM or FDA approved and CE Mark) is used.
- That the chemicals used are compatible with the instruments; alkaline cleaning solutions should be preferred.

A prerequisite for the use of a combined cleaning/disinfection agent is very low bacterial preloading (no visible contamination) due to effective pre-cleaning of the instruments. The concentrations and reaction times given by the manufacturer of the cleaning-disinfection agent must be strictly adhered to.

Use only freshly mixed solutions, sterile or low-bacteria (max. 10 germs/ml) and low-endotoxin (max. 0.25 endotoxin units/ml) water (e.g. aqua vitae purificata) and only filtered air for drying. Instruments that cannot be autoclaved must be disinfected before each use.

**Cleaning/disinfection**

For cleaning and disinfection **onewayblomed GmbH** recommends the use of:

- Instrument disinfectant (reaction time with high bacterial loading 15 minutes in a 3% concentration) or drill disinfectant (reaction time with high bacterial loading 15 min.). Ensure when using other products for cleaning and disinfection.
  - That the products are basically suitable for the cleaning and disinfection of instruments.
  - That the cleaning and disinfection agent – if applicable – is suitable for ultrasonic cleaning (see footnote).
  - That a cleaning and disinfection agent with proven efficacy (e.g. DGHM or FDA approved and CE Mark) is used.
  - That the chemicals used are compatible with the instruments; alkaline cleaning solutions should be preferred.
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**Process: Cleaning and disinfection**

**Automatic cleaning in a cleaning and disinfection unit in combination with the cleaning agent recommended by the unit manufacturer.**

**Procedure:**

1. Insert the instruments so that the liquid can flow out of the drain tubes and blind holes. Set the cycle and adhere to the unit manufacturer's wash and rinse times. The cleaned components should be examined for visible air when removing the instruments. If necessary, repeat the cycle or clean manually.

**Manual cleaning**

1. Thoroughly clean disinfection/cleaning agent from the instruments by rinsing them with water and, if required with the aid of a soft nylon brush.
- **Ultrasonic cleaner:** Place the components in a basket, avoid acoustic shadows. Add an enzymatic cleaning agent to the water and clean the components at a temperature of 40 - 50° C in the ultrasonic cleaner (35-40 kHz) for 3 minutes.
- Ensure that the components are immersed completely in the water without bubbles.
2. Then remove the instruments from the cleaning solution and rinse them thoroughly (minimum 1 min.) under running water. Use fully deaerated water for this stage, if possible.
3. Then dry the instruments with compressed air.
4. Check the instruments visually and repeat the cleaning stage, if necessary.
5. Pack the instrument as soon as possible after removal (see Section "Packaging". If necessary after drying again of a clean location).
6. Document the approval.

**Mechanical cleaning**

Cleaning, disinfection and drying in accordance with DIN EN ISO 15883-1:2006 and DIN EN ISO 15883:2006.

**Pre-cleaning:** Place the disassembled instruments in cold water for 5 minutes. Then brush the disassembled instruments with a soft nylon brush under water to remove coarse impurities.

**Mechanical cleaning:** e.g. using the Miele 6335 CD unit at 35° C for 3 minutes (programme Vario ID) with an enzymatic cleaner.



**Important points**

- All instruments must be sterilised after cleaning.
- When sterilising multi-part instruments in an autoclave without a drying programme, it is essential that the instruments are always sterilised in a disassembled state!
- The instruments should always be checked for corrosion after sterilisation.
- The scaling of the instruments must still be visible after sterilisation; otherwise the instruments should be replaced.
- New instruments must be cleaned and sterilised without packaging before using for the first time.
- Preparation of all instruments with cavities is particularly critical. This applies especially to internally cooled drills, placement aids and instruments with blind holes. As the water supply cavity cannot be checked with internally cooled drills and bone chips and debris could be carried from patient to patient, we recommend using these instruments as single-use products only or using them exclusively on one patient. With all other instruments it must be ensured that the cavities are completely clean. Multi-part placement aids should be disassembled for cleaning, if possible.

**Control**

Check all instruments after cleaning and cleaning/disinfection for corrosion, damaged surfaces, chipping, damage to the shape (e.g. bent and non-concentric cutting instruments, damaged or blunt blades) as well as contamination and discard any damaged instruments. Instruments that are still contaminated must be cleaned and disinfected again. Then check the function and integrity of the instruments. If it is not necessary to apply care products (e.g. oil) to instruments and abutments or screws.

**Special aspects to observe with drills and cutters**

- Use cutting instruments for a maximum of 10 times. Thoroughly check these instruments after each use for cleanliness (including the internal cooling section) in particular, and the sharpness of the blades. The wear of bone drills depends on the hardness of the bone at the site, if in doubt, drills should only be used once. There is a considerable loss of cutting performance if the tip is damaged. To ensure core of the drills it is therefore essential to observe the following points:
- During the operation drills should be placed gently in the storage tray, which can be filled with physiological saline solution. Drills should not be kept in the physiological saline solution for longer than 1 hour to avoid corrosion.
- Never drop the drills directly on the tip.
- The drills should not come into contact during ultrasonic cleaning.

**Packaging**

- Sort out the instruments in the sterilisation tray and then pack them in single-use sterilisation packaging (single or double packaging) and/or sterilisation container, which
  - complies with DIN EN 868-2/1/2/3 EN ISO/ANSI AAMI ISO 11607
  - is suitable for steam sterilisation (temperature resistant up to min. 137° C (299° F), adequate steam permeability)
  - provides adequate protection of the instruments and sterilisation packaging against mechanical damage
  - is regularly serviced according to the manufacturer's instructions (sterilisation container)

**Sterilisation Method:**

Fractional pre-vacuum procedure (according to ISO 17665 or ISO 13060) in a unit that complies with EN 285

Temperature: heat to 132° C max. 137° C  
Pressure: 3 pre-vacuum stages with min. 60 mbar pressure

Hold time: minimum 3 min. at 132° C  
Drying time: minimum 10 min.

Check the sterile indicator packaging for damage after sterilisation; check the sterilisation indicators. To avoid staining and corrosion the steam must not contain any ingredients. The disinfectant therefore has to have been thoroughly removed. The recommended maximum levels of the ingredients for drinking water and steam condensate are specified in EN 285.

Sterilisation using hot-air sterilizer and/or glass bead sterilizers is not advised, as the high temperatures blunt the cutting surfaces of the drills.

Instruments should be sterilised in the trays recommended by the autoclave manufacturers if there is not a system-specific instrument tray available.

**Storage**

After sterilisation the instruments must be stored dry and dust-free in the sterilisation packaging. The instruments should also be protected against sunlight and heat. The maximum storage period (expiry date) depends on steel tools and must be determined and validated by the user.

**Information on handling multi-part instruments**

Multi-part instruments must be disassembled before sterilisation. Please note the schematic diagram below.

**RAT2:** Unscrew the cover screw and remove the push-rod. The push-rod and ratchet housing (inner and outer) must be thoroughly cleaned and then dried. The individual components of the ratchet are shrink-wrapped together in a sterilisation bag and sterilised. Ensure that the paper side of the sterilisation bag is placed so that the water vapour can escape and that the ratchet or its parts are not lying in water. After sterilisation – generally just before beginning of implant placement, the ratchet should be thinly lubricated using a silicone oil and reassembled. The function of the ratchet should then be checked before beginning surgery.

**Legend**

CE1936

**Warnings**  
We do not know of any warnings, provided the instructions for use are followed for the products to be used as well as the corresponding disinfection and cleaning agent.

**onewayblomed GmbH** reserves the right to change the design of the products and components or their packaging, group instructions for use as well as resorbable prices and delivery conditions. Liability is limited to the use of defective products. Any further claims are excluded.

Further information about the preparation of medical products is available in the Internet at [www.10.de/ww/a-0-0-0-0](http://www.10.de/ww/a-0-0-0-0).

Date of the latest revision: 2021-03

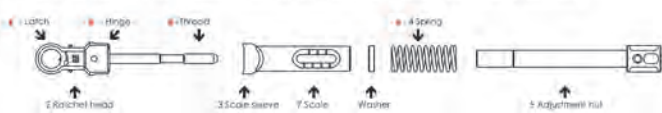
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**Schematic diagram of the TW/TW2 torque wrench**

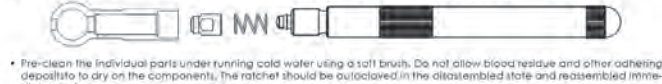
- After use the instrument should be disassembled into its individual parts – no tool is required for disassembly.



- Pre-clean the individual parts under running cold water using a soft brush. Do not allow blood residue and other adhering deposits to dry on the components.

**Schematic diagram of the RAT2 ratchet**

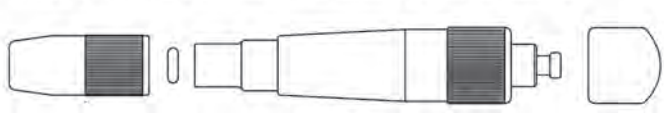
- After use the instrument should be disassembled into its individual parts – no tool is required for disassembly.



- Pre-clean the individual parts under running cold water using a soft brush. Do not allow blood residue and other adhering deposits to dry on the components. The ratchet should be autoclaved in the disassembled state and reassembled immediately before use.

**Schematic diagram of the handle REF 311430 (can be disassembled)**

- After use the instrument should be disassembled into its individual parts – no tool is required for disassembly.



- Pre-clean the individual parts under running cold water using a soft brush. Do not allow blood residue and other adhering deposits to dry on the components. The handle should be autoclaved in the disassembled state and reassembled immediately before use.

**Schematic diagram of the handle REF 311431 (cannot be disassembled)**



- Pre-clean the instrument under running cold water using a soft brush. Do not allow blood residue and other adhering deposits to dry on the handle. The handle should be thoroughly cleaned immediately using an ultrasonic cleaner before mechanical cleaning.
- Manual cleaning (including ultrasonic cleaner (see above) and mechanical cleaning) should be performed in sequence.

# ONEWAY BIOMED

Basal implants may only be used and operated by qualified persons with valid authorisation (para. 2 MedProdAnw Verordnung).

We are certified according to DIN EN ISO 13485 and Annex II of Directive 93/42 EEC.

The product dimensions shown in this brochure may differ from reality for technical reasons.

**GBC®** is a registered trademark. Pat. Pend.

If implants are reprocessed, there is a risk of the development of infections, because no validated method for processing exists. Implants therefore may not be reprocessed.

(The products of this catalogue are CE marked (class I) and CE 1936 marked (class IIa and IIb) according to 93/42/EC Directive).

Commercial products that are not monitored by our notified body are declared as third-party products.

## Compilation and explanation of symbols on the packaging:



Batch No.



Sterilized by gamma radiation



Non-sterile



Intended for use by dentists or surgeons only



Single use product



Instruction for use



Expiry date



Store in a dry place



Store tightly keep closed



Do not use if packing is damaged



Do not resterilize



Manufacturer



Production date

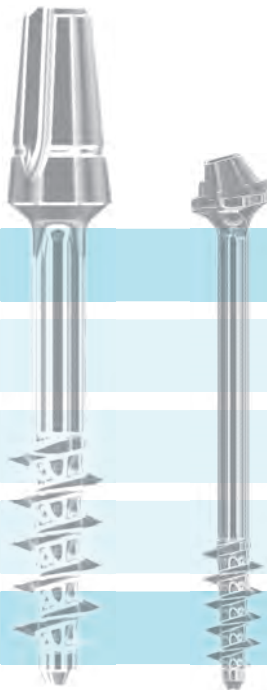


Catalogue number

## BASAL SCREW

GBC®

GBC® MU



1<sup>st</sup> cortical

2<sup>nd</sup> cortical

ONEWAY  
**BIOMED**



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