



CAMLOG®
Titanium bases CAD/CAM free



Prosthetic restoration



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General informations

CAMLOG® Implant system

The CAMLOG® Implant system have been developed based on long-standing clinical and laboratory experience. It is user-friendly and consistently prosthetical-oriented.

All products are always manufactured using the most state-of-the-art technology. These are continuously being further developed by the company's research and development team in collaboration with clinics, universities and dental technicians and therefore stay abreast of the latest technology.

The descriptions that follows are not adequate to permit immediate use of the CAMLOG® Implant system. Introduction by a surgeon experienced in using of the system is strongly recommended. CAMLOG® Products should only be used by dentists, doctors, surgeons and dental technicians who have been trained in using the system. Appropriate courses and training sessions are regularly offered by Camlog. Methodological errors in treatment can result in loss of the implant and significant loss of peri-implant bone.

Not all Camlog products and services are available in all countries.

Packaging units

Unless otherwise descried, one product is included in each package.

The illustrations in this document are for reference only and may differ from the actual product.

Color-coding

Color-coding of the surgical and prosthetic CAMLOG® Products

Color		Diameter
	Grey	3.3 mm
	Yellow	3.8 mm
	Red	4.3 mm
	Blue	5.0 mm
	Green	6.0 mm

Product overview

CAMLOG® Titanium bases CAD/CAM free

CAMLOG® Titanium bases CAD/CAM free is acting as bonding bases for customized, implant-supported dental restorations made of suitable materials. A scanbody must be used to digitize the restoration. Then the digitally acquired geometry is used in the modeling and fabrication of mesostructures and suprastructures using CAD/CAM techniques.

CAMLOG® Titanium bases CAD/CAM free are available in crown version and are supplied non-sterile, each with an abutment screw and a lab screw.

In order to achieve a high level of user friendliness as well as a high precision fit of the CAD/CAM free fabricated abutments, the geometries of the CAMLOG® Titanium bases CAD/CAM free are available as a CAD library for leading dental CAD systems (3Shape, Exocad and Dental Wings).

For more information, see www.camlog.com.

Single crown restorations

For the fabrication of single crown restorations, CAMLOG® Titanium bases CAD/CAM of the crown version are also available in Platform Switching (PS) design.

Titanium bases for crowns are color-coded to match the implant diameters and are available for implant diameters 3.8 / 4.3 / 5.0 mm with a shoulder height of 0.3 mm. For 3.3 mm implant diameters the shoulder height is 0.4 mm. Single crown restorations are secured against rotating with a rotation locking. The titanium bases CAD/CAM free are available in the chimney heights 4.7 mm and 6.5 mm.

CAMLOG® Titanium bases CAD/CAM for Platform Switching (PS)

Titanium bases CAD/CAM PS are available as an option in the crown version with implant diameters of 3.8 / 4.3 / 5.0 mm. The gingival height is 0.8 mm.

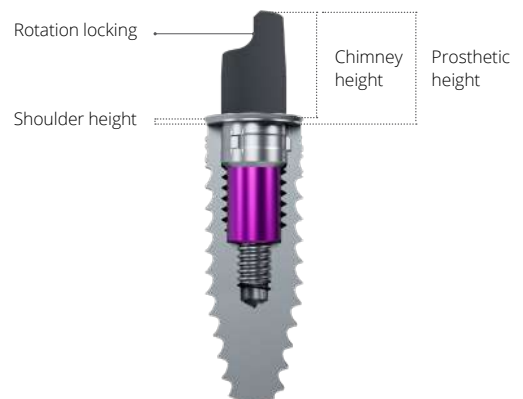
NOTE:

If CAMLOG® Healing caps PS were used during the healing phase, impression taking and the prosthetic restoration must be performed with Platform Switching components.

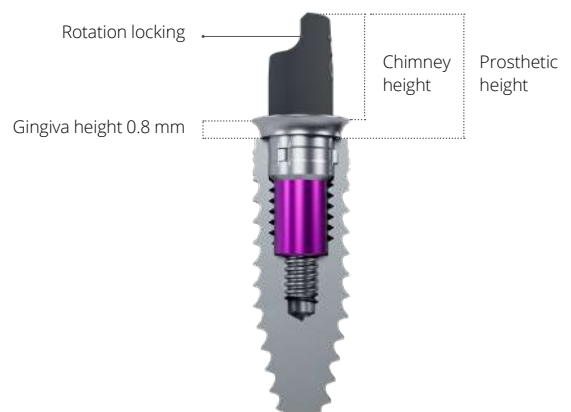
CAMLOG® Healing caps, Impression posts, Abutments and Titanium bases CAD/CAM PS are tapered in diameter at the shoulder support and thus enable soft tissue adaptation over the implant shoulder.

IMPORTANT NOTES:



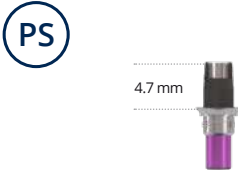
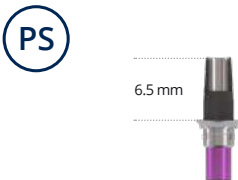
- Titanium bases CAD/CAM free, crown, may not be modified.
- Titanium bases CAD/CAM free, crown incl. PS, are not suitable for primary splinting.
- Further important information on the products is described in the corresponding Instructions for Use and must be observed.



CAMLOG® Titanium bases CAD/CAM free, crown



CAMLOG® Titanium bases CAD/CAM PS for Platform Switching, crown

	Article	Art. No.	Ø	GH
	CAMLOG® Titanium base CAD/CAM free, crown, short bonding base for individual CAD/CAM fabricated dental prosthesis incl. abutment screw and lab screw Material Titanium alloy	K2247.3348	3.3 mm*	-
		K2247.3848	3.8 mm	
		K2247.4348	4.3 mm	
		K2247.5048	5.0 mm	
	CAMLOG® Titanium base CAD/CAM free, crown, long bonding base for individual CAD/CAM fabricated dental prosthesis incl. abutment screw and lab screw Material Titanium alloy	K2265.3848	3.8 mm	-
		K2265.4348	4.3 mm	
		K2265.5048	5.0 mm	
	CAMLOG® Titanbasis CAD/CAM free PS für Platform Switching, crown, short bonding base for individual CAD/CAM fabricated dental prosthesis incl. abutment screw and lab screw Material Titanium alloy	K2247.3808	3.8 mm	0.8 mm
		K2247.4308	4.3 mm	
		K2247.5008	5.0 mm	
	CAMLOG® Titanbasis CAD/CAM free PS for Platform Switching, crown, long bonding base for individual CAD/CAM fabricated dental prosthesis incl. abutment screw and lab screw Material Titanium alloy	K2265.3808	3.8 mm	0.8 mm
		K2265.4308	4.3 mm	
		K2265.5008	5.0 mm	

GH: Gingiva height

* only for crown restorations in the region of the upper lateral and lower lateral and central incisors

CAMLOG® Bonding aids

The CAMLOG® Bonding aid, which can be used extraorally and exclusively with a straight screw channel, is an aid for the easy screw connection of abutments to lab analogs without the use of instruments. It prevents the flow of bonding material into the screw channel while bonding the prosthetic restoration, and damage to the screw channel of the abutment during sandblasting. Bonding aids must be purchased separately and are available in two sizes each, with M1.6 thread for abutments with implant diameters 3.3 / 3.8 / 4.3 mm and M2.0 thread for implant diameters 5.0 / 6.0 mm.



IMPOTANT NOTE:

Bonding aids may only be used extraorally and with a straight screw channel (angulation 0°).

CAMLOG® Lab screw

Lab screws corresponding to the diameter are available to protect the abutment screw during fabrication of the prosthetic restoration. Lab screws are hand-tightened with a screwdriver, hex, or in the case of an angled screw channel, with a Ballpoint screwdriver, hex.

IMPOTANT NOTE:


For crowns with angled screw channels, the final, unused abutment screw must be inserted before bonding the final restoration. The abutment screw is "trapped" by the bond and cannot be removed without destroying the superstructure.

	Article	Art. No.	Ø	Thread
	CAMLOG® Lab screw, hex for the fixation of abutments on the working model, brown anodized Material Titanium alloy	J4006.1601	3.3 mm	M1.6
			3.8 mm	
			4.3 mm	
		J4006.2001	5.0 mm	M2.0

Lab screws may not be used on patients!


CAMLOG® Abutment screw

Final fixation of the titanium bases CAD/CAM free in the implant is performed with a new and unused abutment screw of corresponding diameter. Ballpoint screwdrivers are to be used for a screw channel with an angulation greater than 0°. If the angulation is 0°, then use a screwdriver, hex. The screws are tightened finally with a torque of 20 Ncm using the appropriate screwdriver incl. mounted torque wrench.

	Article	Art. No.	Ø	Thread
	CAMLOG® Abutment screw, hex for definitive screw retention of abutments into the implant Material Titanium alloy	J4005.1601	3.3 mm	M1.6
			3.8 mm	
			4.3 mm	
		J4005.2001	5.0 mm	M2.0






Required instruments

Torque wrench

	Article	Art. No.
	Torque wrench with continuous torque adjustment until maximal 30 Ncm Material Stainless steel	J5320.1030





Required instruments

Screwdriver for manual screw insertion with the wrench

	Article	Art. No.	Dimensions
	Screwdriver, hex, extra short only for the straight screw channel, manual/wrench Material Stainless steel	J5317.0510	14.5 mm
	Screwdriver, hex, short only for the straight screw channel, manual/wrench Material Stainless steel	J5317.0501	22.5 mm
	Screwdriver, hex, long only for the straight screw channel, manual/wrench Material Stainless steel	J5317.0502	30.3 mm
	Ballpoint Screwdriver, hex, short for the angled screw channel, manual/wrench Material Stainless steel	J5319.0501	24.0 mm
	Ballpoint Screwdriver, hex, long for the angled screw channel, manual/wrench Material Stainless steel	J5319.0502	32.0 mm

Required instruments

Screwdriver for screw insertion with ISO shaft

	Article	Art. No.	Dimensions
	Screwdriver, hex, short for the straight screw channel, ISO shaft Material Stainless steel	J5317.0504	18.0 mm
	Screwdriver, hex, long for the straight screw channel, ISO shaft Material Stainless steel	J5317.0503	26.0 mm
	Ballpoint Screwdriver, hex, short for the angled screw channel, ISO shaft Material Stainless steel	J5319.0504	27.0 mm
	Ballpoint Screwdriver, hex, long for the angled screw channel, ISO shaft Material Stainless steel	J5319.0503	35.0 mm

Cast fabrication

For the fabrication of the working model, lab analogs and implant analogs are available optionally for conventional cast fabrication and for printed models.

	Article	Art. No.	Ø
	CAMLOG® Lab analog for cast models Material Titanium alloy	K3010.3300	3.3 mm
		K3010.3800	3.8 mm
		K3010.4300	4.3 mm
		K3010.5000	5.0 mm
	CAMLOG® Implant analog for printed and cast models Material Titanium alloy	K3025.3300	3.3 mm
		K3025.3800	3.8 mm
		K3025.4300	4.3 mm
		K3025.5000	5.0 mm
	DIM-Analog® for the CAMLOG® Implant system for printed models incl. thumbscrew Material Titanium alloy/stainless steel	K3012.3300	3.3 mm
		K3012.3800	3.8 mm
		K3012.4300	4.3 mm
		K3012.6000	5.0 mm

Manufacturer DIM Analog®: nt-trading GmbH & Co. KG, G.-Braun-Straße 18, 76187 Karlsruhe, Germany
 DIM Analog® is a registered trademark of nt-trading GmbH & Co. KG

Application

Conventional impression taking and cast fabrication

Impression taking for single crowns using impression posts (conventional) and cast fabrication are described in the corresponding CAMLOG® Working Instructions. The three-dimensional position can also be determined with the aid of a scan.



Recording of the implant/lab analog/implant analog position by scanning

The CAMLOG® Scanbodies are used for optical three-dimensional localization (incl. determination of the axial inclination and orientation of the grooves) of CAMLOG® Implants in the mouth and of CAMLOG® Lab analogs in the working model. The scanbodies are available for all implant diameters, labeled according to the corresponding implant diameter. The scanbodies are available for single use (sterile) as well as reusable for multiple use.

Camlog recommends the CAMLOG® Scanbody PEEK for laboratory applications.

NOTE:

The single use of the sterile scanbody is limited to use in the mouth. The scanbody can be used repeatedly on the working model taking the integrity of the scanbodies into account. The CAMLOG® Scanbody reusable must be sterilized before intraoral use.

	Article	Art. No.	Ø
	CAMLOG® Scanbody for optical, 3-dimensional localization of CAMLOG® Implants in the mouth or CAMLOG® Lab analogs in the working model, incl. abutment screw, sterile Not compatible with the CEREC and inLab systems from Sirona® Material PEEK	K2610.3310	3.3 mm
		K2610.3810*	3.8 mm
		K2610.4310*	4.3 mm
		K2610.6010*	5.0 mm
			6.0 mm
	CAMLOG® Scanbody multi-use incl. CAMLOG® Abutment screw Not compatible with the CEREC and inLab systems from Sirona® Material Titanium alloy	K2630.3300	3.3 mm
		K2630.3800*	3.8 mm
		K2630.4300*	4.3 mm
		K2630.6000*	5.0 mm
			6.0 mm

* can also be used for Platform Switching

Please check whether the CAMLOG® Scanbody is available in the CAD software used. CAD libraries for selected CAMLOG® Prosthetic components are available for free download at: www.camlog.com/en/media-center/cad-libraries.

Fabrication of crown restorations on CAMLOG® Titanium bases CAD/CAM free

The titanium base CAD/CAM free can be fixed hand-tight with the corresponding lab screw in the lab analog using a Ballpoint screwdriver in case of an angled screw channel or with a screwdriver, hex, for 0° angulation. The titanium base must be seated in the lab analog/implant analog correctly.

The rotation locking of the titanium base CAD/CAM free must be aligned in the direction of the planned screw channel. This allows the screw channel to be deflected by up to 25° from the implant axis. A deviation from the longitudinal axis of 35° is possible in the horizontal direction.

Manufacturing is possible by various methods:

CAD/CAM fabricated crowns

CAD libraries with the geometries of the CAMLOG® Titanium bases CAD/CAM free, crown (incl. PS), the scanbodies and a suggested milling geometry, are provided at www.camlog.com.

Wax-up and digitization

Digitize the wax-up by scanning and read into suitable CAD software as a three-dimensional dataset for further processing. The thus digitally captured geometry is used in fabricating single crown restorations using CAD/CAM technology.

Wax-up and cast/mold processing

Alternatively, casting technology can be used to transfer the wax-up on the modeling aid to a cast framework or molding techniques can be used to transfer the wax-up to a pressed framework.

Cast construction

The framework is modeled directly on the titanium bases CAD/CAM free and is prepared with suitable materials in a conventional manner. The instructions of the manufacturers of the materials used must be followed.

NOTE:

CAMLOG® Titanium bases CAD/CAM free, crown, may not be modified.

TIP: Before bonding, check again that the abutment screw can be accessed with the screwdriver. Here Camlog recommends the use of the Ballpoint screwdriver, hex, for an angled screw channel or a screwdriver, hex, in case of 0° angulation.



Vertical deflection of the screw channel



Horizontal deflection of the screw channel



Bonding of the suprastructure

Conditioning of the titanium bases CAD/CAM free

The titanium base CAD/CAM free is preconditioned by Camlog and can be used without blasting. The bonding surfaces must be cleaned by suitable means (e.g. steam cleaning).

NOTE:

For crowns with angled screw channels, the final, unused abutment screw must be inserted before bonding the final restoration. The abutment screw is “trapped” by the bond and cannot be removed without destroying the superstructure.

TIP: Camlog recommends for sandblasting and bonding that the titanium base CAD/CAM free be screwed to a corresponding lab analog to protect the implant-abutment connection and for easier handling. Only in the case of non-angled screw channels can the bonding aid be used in place of a lab screw to protect the screw channel and avoid seepage of the bonding aid. For angled screw channels, the screw channel must be protected against seepage of the bond by other suitable measures.

The components are connected with a suitable fixing cement. The fixing cement is mixed according to the manufacturer's instructions and applied to the CAD/CAM free titanium base. The individually fabricated mesostructure or single crown is first rotated during placement until it rests on the supporting surface of the titanium base. Only then can the superstructure be pressed onto the titanium base as far as it will go. Excessive fixing cement must be removed immediately.

NOTE:

To bond the titanium base CAD/CAM free to a mesostructure or single crown restoration, Camlog recommends extraoral use of the bonding agent “PANAVIA™ F 2.0” from Kuraray Europe GmbH, or “Multilink® Hybrid Abutment” from Ivoclar Vivadent AG. Observe the manufacturer's processing instructions. ALTATEC GmbH/CAMLOG Biotechnologies AG accepts no responsibility for the durability of the suprastructure and the adhesive used.

After bonding has been completed, clean the sealed screw channel or covered abutment screw head and remove the sealing material. Take the titanium base / superstructure connection from the model, remove excess fixing cement and clean.

Definitive insertion of the suprastructure into the implant

Thoroughly clean and dry the inner configuration of the implants prior to final insertion of the titanium bases CAD/CAM free. Then transfer the bonded and cleaned titanium bases/superstructure to the implants and fixate with new, unused CAMLOG® Abutment screws. In superstructures with an angled screw channel, the abutment screw is trapped after bonding and can no longer be removed.

In the case of an angled screw channel, the abutment screws are tightened finally with a Ballpoint screwdriver, hex, or, at 0° angulation, with a screwdriver, hex, including mounted torque wrench with a tightening torque of 20 Ncm. To achieve maximum pre-tensioning of the screw, retighten with the same tightening torque after approx. 5 minutes. These values apply to all CAMLOG® Titanium bases CAD/CAM free.

To ensure that the abutment screw can be removed again, the screw head is covered with a material which can be removed easily (e. g. sterile Teflon tape or gutta-percha) and the screw channel closed for hygienic reasons, for example with composite.

IMPORTANT NOTES:

- The prosthetic components must be cleaned and disinfected prior to final insertion. Camlog recommends sterilizing of the components (see also the “Preparation instructions for the CAMLOG®/CONELOG® Implant system”, Art. No. J8000.0032).
- In superstructures with an angled screw channel, the abutment screw is trapped after bonding and can no longer be removed.
- New unused abutment screws, hex, must be used for final fixation of the abutments.
- Observe the prescribed tightening torques of the screws for final fixation (see also current CAMLOG® Implant System Catalog).
- For hygienic reasons the occlusal screw openings must be sealed occlusally, e. g. with composite.

Further documentation

Further information on the CAMLOG® Products can be found in the following documents:

- CAMLOG® Product catalog
- CAMLOG® Working instructions
- CAMLOG® Instructions for use
- Preparation instruction
- Camlog literature overview
- Camlog and science

The documents are available from the local representative.

See also:

<https://ifu.camlog.com>

www.camlog.com

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Headquarters

CAMLOG Biotechnologies GmbH | Margarethenstr. 38 | 4053 Basel | Switzerland
Phone +41 61 565 41 00 | Fax +41 61 565 41 01 | info@camlog.com | www.biohorizonscamlog.com

Manufacturer CAMLOG® and CONELOG® Products: ALTATEC GmbH | Maybachstr. 5 | 71299 Wimsheim | Germany

