



# **BIOLOX<sup>®</sup> OPTION**

Femoral prosthesis head system

**BIOLOX® OPTION Prosthesis Head System**

BIOLOX® OPTION is a prosthesis head system that incorporates the requirements of the orthopaedic-surgical sector.

The system serves to fit a ceramic prosthesis head in the case of acetabular cup revisions or when changing a ball head on a prosthesis stem left in situ.

The BIOLOX® OPTION prosthesis head system consists of two components:

- Adapter sleeve 12/14 mm taper
- BIOLOX® delta\* ceramic prosthesis head

The adapter sleeve is manufactured from a titanium alloy TiAl6V4 (ISO 5832-3) and is equipped with a 12/14 mm-inner cone, which creates the connection to the stem. The prosthesis head of the system is made from the wear-resistant high-performance BIOLOX® delta\*, an aluminium oxide matrix composite ceramic. The ceramic is bioinert, biocompatible, hard-wearing and therefore prevents allergic reactions. The prosthesis head, with its specially-developed inner cone is perfectly adapted to the outer cone of the adapter sleeve.

The adapter is malleable and capable of changing shape in order to compensate for small defects on the taper of stem that has not been revised and therefore ensures optimum pressure distribution over the ceramic prosthesis head.

**Advantages**

- Low-wear solution for revision treatment
- Femoral head can be combined with a new, unused or slightly damaged cone
- No restriction of mobility by the adapter due to its neckless design
- Simple assembly of prosthesis head and adapter

**Sizes**

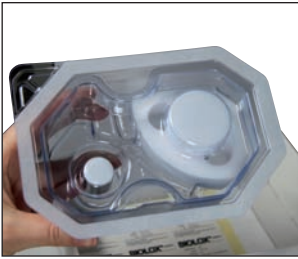
- 4 head diameters: 28, 32, 36 and 40 mm
- 4 neck lengths: S/-3.0, M/+0, L/+4.0 & XL/+7.0 mm
- 12/14 mm taper adapters

The BIOLOX® OPTION system is available in the following sizes:



\*BIOLOX® delta and BIOLOX® forte are products made by CeramTec GmbH, Plochingen

## ■ Handling



### Assembly of the prosthesis head with the taper

During the operation, the prosthesis head is inserted onto the titanium sleeve in packaging tray.

Once the prosthesis head and titanium sleeve are firmly connected to one another, they can be fitted to the clean and dry stem taper together.

The BIOLOX® OPTION prosthesis head is fitted to the adapter sleeve in the packaging and secured with firm pressure.

In order to ensure the optimum success of the BIOLOX® OPTION system, it is vital that the CeramTec GmbH user manual, which is contained in the delivery package, be followed, in addition to the general information contained in this brochure.

### Final assembly onto the stem

- The stem taper must be dry and free from blood and contaminants (such as tissue, bone and cement residues)
- Fit the BIOLOX® OPTION head system onto the taper with a rotating movement and slight pressure
- The prosthesis head should be easy to assemble onto the taper using the adapter. Do not use BIOLOX® OPTION if pressure is required during assembly
- Secure the unit with the aid of the driver fitted to the femoral head and a moderate hammer blow
- Check the stability of the unit by trying to remove the head manually



### Caution:

A metal hammer must never be used on the BIOLOX® OPTION femoral head. Only a plastic head impactor like 130-600 or 131-610/01 provided by LINK® must be used for this purpose.

## ■ Preoperative Planning

### Important!

During preoperative planning, the taper of the stem remaining in situ must be checked for compatibility with the 12/14 mm taper. BIOLOX® OPTION prosthesis heads made from BIOLOX® delta\* can be combined with BIOLOX® forte\* or BIOLOX® delta\* inserts, as well as polyethylene and X-LINKed® inserts as articular surfaces.

In case of revision surgery, the remaining femoral head (and sleeve, if applicable) must be extracted with a suitable extraction instrument to avoid unnecessary damage to the stem taper. After extraction, the remaining stem taper has to be inspected. If the taper is undamaged the BIOLOX® OPTION system can be used with the taper. If the taper is damaged,

the operating surgeon must inspect the degree of damage and make sure that this damage is tolerable.

Inspection of the stem taper and decision criteria:

- Tolerable condition: used stem tapers displaying fine marks from head-stem disassembly.
- Intolerable stem taper deformations: see Figs. underneath ,Permitted' and ,Not permitted'.

The BIOLOX® OPTION system must not be used with stem tapers under these conditions.

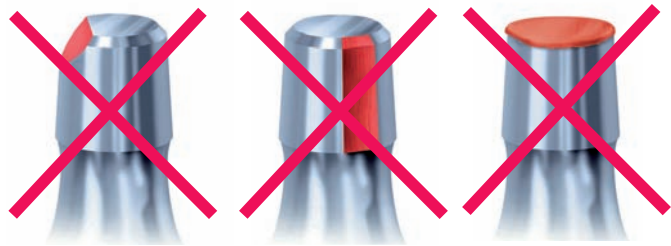
**In cases where the BIOLOX® OPTION system can only be fitted using pressure on the taper, the BIOLOX® OPTION system must not be used.**

### Permitted!



- Unused or slightly damaged cone

### Not permitted!



- Tapered cone, not permitted
- Cone with large flat area, not permitted
- Crushed cone, not permitted

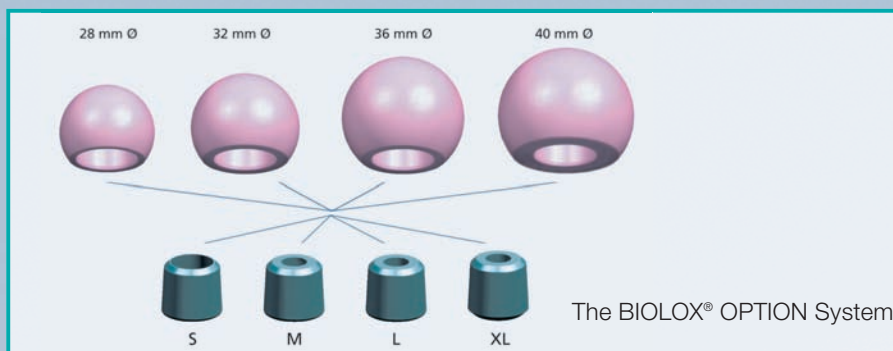
Compatibility of the articular surfaces:

	28	32	36	40
BIOLOX® delta*				
BIOLOX® forte*				
PE				
X-LINKed®				

BIOLOX® forte   
 BIOLOX® delta   
 Polyethylen   
 X-LINKed®

Prosthesis heads, ceramic, with sleeves in S, M, L, XL lengths  
 Material: BIOLOX® delta\*, taper (TiAl6V4) 12/14 mm

Item no.	Ø mm	Size	Neck length (mm)
128-628/01	28	S	short (-3)
128-628/02	28	M	medium (0)
128-628/03	28	L	long (+4)
128-628/04	28	XL	extra long (+7)
128-632/01	32	S	short (-3)
128-632/02	32	M	medium (0)
128-632/03	32	L	long (+4)
128-632/04	32	XL	extra long (+7)
128-636/01	36	S	short (-3)
128-636/02	36	M	medium (0)
128-636/03	36	L	long (+4)
128-636/04	36	XL	extra long (+7)
128-640/01	40	S	short (-3)
128-640/02	40	M	medium (0)
128-640/03	40	L	long (+4)
128-640/04	40	XL	extra long (+7)



CE 0297



CeramTec GmbH  
CeramTec Platz 1-9 · 73207 Plochingen, Germany

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