

# BA Hip Stem System

## Surgical Technique



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# BIOTECH

REF:  
VB-001-PROSP-ST-03-EN-00

Revision:  
1

Publication date:  
07.01.2020

CE 1011

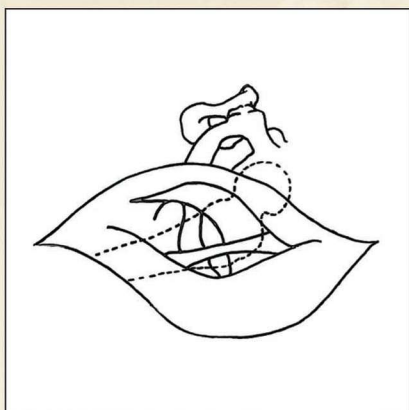
## "Movement is Life"

**The BA Hip System** implants, cemented as well as cementless, can be implanted with a single set of instruments. This easy to use instrumentation thereby provides intra-operative flexibility and allows for a predictable, reliable and reproducible result.

The collarless stems are proportionally sized and designed such that a proximal femoral fit is achieved. The initial stability of the cementless stem is based on the titanium plasma sprayed porous coating in the proximal part of the prosthesis. Through this coating a controlled oversize is created which is slightly larger than the prepared bony envelop. This ensures a direct post-operative stability and reduces strongly the potential for micro-motion. This initial mechanical fixation will change into a biological fixation as a result of bone growing into the porous coating. The rasp geometry is 1:1 with the prosthesis, which allows the surgeon to choose the preferred cement mantle thickness by using a prosthesis smaller than the reamed cavity. The standard 12/14 (5°42'30") taper of the prosthesis can be accommodated with metal as well as ceramic modular heads.

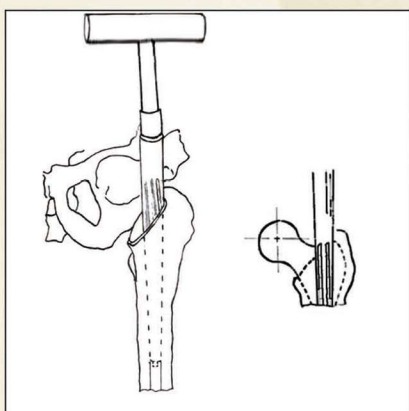
## Surgical Technique

### Patient Position and Exposure



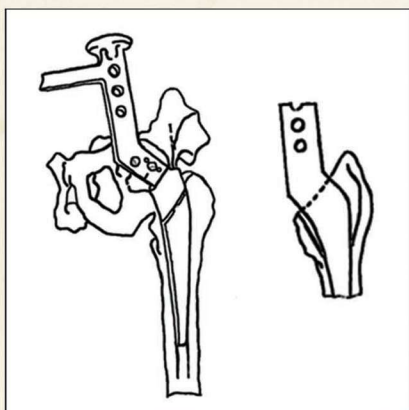
The patient position and exposure of the femur are done in the routine manner. Ensure that the femur is well presented to provide good access to the femoral canal. The femoral neck is transected at 45-50° to the longitudinal axis of the femur and the femoral head is removed. It can be of help to use the femoral rasp as a guide to orientate the osteotomy angle. A box chisel may be used to open the femoral canal. Accurate positioning of the entry point will facilitate reaming of the femoral canal resulting in a neutral orientation of the final implant.

### Reaming the Femoral Canal



Once the medullary canal is located, a hand-held tapered reamer is introduced slowly. A neutral position of the reamer is shown by the fact that most of the reamer can be introduced before circumferential cortical bone is encountered. Marks on the reamer will indicate the position of the femoral head in relation to the corresponding rasp/prosthesis. Take care that healthy cortical bone stock is not sacrificed.

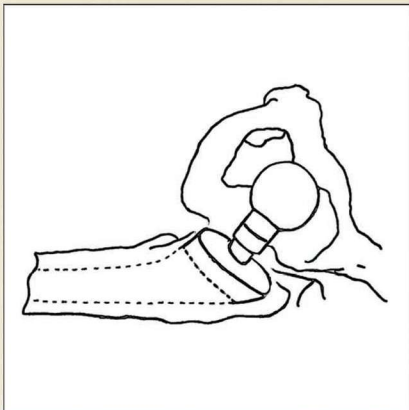
### Rasping the Femoral Canal



The femoral canal is shaped to the prosthesis with the use of rasps, starting with the smallest size. Rasping is continued with incremental sizes until rigid cortical bone contact prevents a fully seated rasp from further introduction. During the rasping procedure the desired angle and version of the stem need to be controlled by the surgeon. If fully seating can not be achieved, use of the reamer might be needed again.

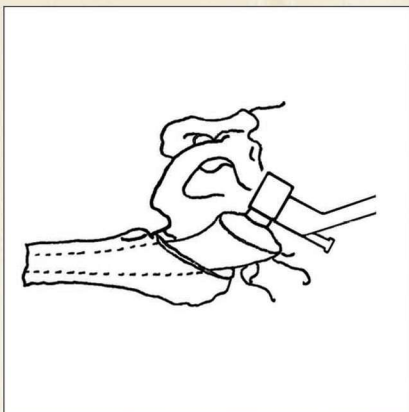
# "Movement is Life"





### Trial Reduction

The modular rasp system allows for a trial reduction once the rasping procedure has been completed. Simply remove the rasp handle and replace it by a trial head-neck component. The joint can be reduced to examine leg length, stability and range of motion. If need be, adjustments can be made.



### Femoral Component Insertion

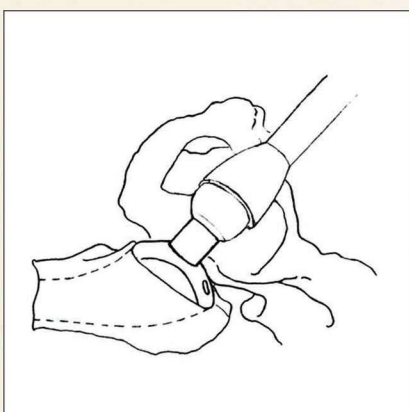
#### Cementless Component

**The size of the final stem corresponds with the final rasp size used for trial reduction.** Increasing impaction force will be needed to fully seat the prosthesis.

#### Cemented Component

The bone bed is cleaned and the bone cement is prepared and introduced into the femoral canal according to standard recommendations. The dimensions of a rasp correspond to the dimensions of the same size prosthesis. This gives the surgeon control over the cement mantle thickness. **Choosing a prosthesis one size smaller than the final rasp, allows for a 1,25 mm circumferential cement mantle.** The stem is inserted into the cement until it's final depth is reached and pressure is applied until the cement has cured.

In case another trial reduction is preferred, special trial heads are available.



### Femoral Head

It is recommended that the prosthesis taper is thoroughly cleared from any blood and/or debris before the final head is attached. After doing so, the appropriate metal or ceramic femoral head is placed onto the clean and dried taper and lightly tapped with the head impactor. The hip is reduced and closure is done in a routine fashion.

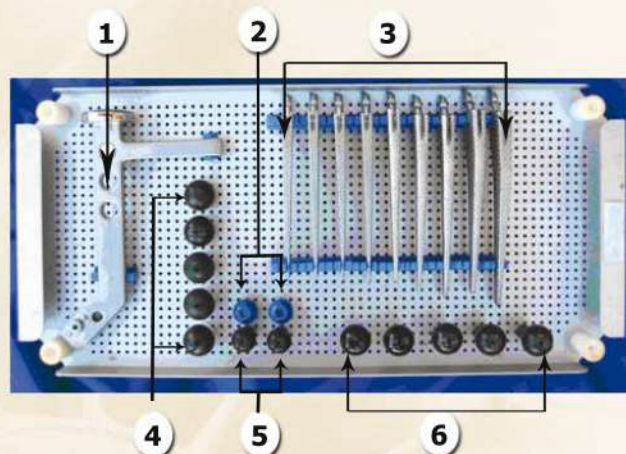
# "Movement is Life"

BioTech™ does not practice medicine and does not recommend any particular surgical technique or implant for use on a specific patient. Choosing the appropriate technique and implant is the responsibility of the surgeon performing implant procedures.

## BA Rasp Tray 720-0002-0000

	Biotech art.nr.	description	Qty/set
1.	720-0002-0021	Rasp handle	1 pc
2.	720-0002-0023...0024	Trial modular head 22mm (M-L)	2 pc
3.1	720-0002-0011	BA Stem Rasp 6,25	1 pc
3.2	720-0002-0012	BA Stem Rasp 7,50	1 pc
3.3	720-0002-0013	BA Stem Rasp 8,75	1 pc
3.4	720-0002-0014	BA Stem Rasp 10,00	1 pc
3.5	720-0002-0015	BA Stem Rasp 11,25	1 pc
3.6	720-0002-0016	BA Stem Rasp 12,50	1 pc
3.7	720-0002-0017	BA Stem Rasp 13,75	1 pc
3.8	720-0002-0018	BA Stem Rasp 15,00	1 pc
3.9	720-0002-0027	BA Stem Rasp 16,25	1 pc
3.10.	720-0002-0019	BA Stem Rasp 17,50 *	1 pc
4.	720-0002-0006...0010	Trial modular head 28mm (S-XXL)	5 pc
5.	720-0002-0025...0026	Trial modular head for rasp 22mm (M-L)	2 pc
6.	720-0002-0001...0005	Trial modular head for rasp 28mm (S-XXL)	5 pc

\* optionally: 18,75 mm and 20,00mm



## BA Femur Instruments 720-0001-0000

	Biotech art.nr.	description	Qty/set
1.	720-0001-0004	Tapered reamer	1 pc
2.	720-0001-0002	Modular head impactor	1 pc
3.	720-0001-0003	Conical impactor	1 pc
4.	720-0001-0008	Box chisel	1 pc
5.	720-0001-0005	T-handle for 0004	1 pc
6.	720-0001-0006	Extractor with head	1 pc
7.	720-0001-0001	Stem impactor	1 pc

