

BIOTECH BA REVISION HIP SYSTEM



“Movement is Life”

Biotech offers several options for patients to maintain their freedom of movement for as long as possible. One of this is the **Biotech BA Revision Hip system**. The use of a BA Revision Hip System is usually required due to loosening of the primary implant come from different reasons, but rather has a greater bone preservation ability than the Modular Revision Hip System. Biotech BA Revision Stem System covers most revision indications , with its wide range of sizes and perfect fit. The distal holes provide additional fixation to the impnant.

Surgery steps of the stem:

1. Preparation of the operation

Planning of the operation is important to see clear picture of the primary implant. With X-ray we can determine the position and size of the implant and helps planning the appropriate reconstruction of the hip joint.



2. Patient positioning

The patient position and exposure of the femur are done in the routine manner. Ensure that the femur is well presented and provide good access to the femoral canal.

3. Remove of the primary stem

Remove of the primary BA Stem (femoral component) with the stem extractor (720-0001-0006) (see below)



4. Femoral Canal cleaning

After removing the failed primary implant (femoral component) it is necessary to clean the intramedullar canal.

The canal should be cleaned from any remaining cement or debris at both cemented or uncemented cases. In case it is necessary (depends on the bone surface) additional trochanter sawing (with saw blades) can be made.

5. Preparation of the intramedullar canal

The next step is preparing the space for the BA Revision stem implant with the reamer. For this we use the revision rasps. The femoral canal is shaped to the prosthesis with use of revision rasps, starting with the smallest size. Rasping is continued with incremental sizes until rigid cortical bone prevents a fully seated rasp from further introduction. During the rasping procedure the

desired angle and version of the stem needs to be controlled by the surgeon. If fully seating, can not be achieved, use of the reamer might be needed again.

6. Trial reduction

The modular rasp system allows for a trial reduction once the rasping procedure has been completed. Before remove the rasp there is an option to put trial head on the rasp. If it fits, remove the rasp handle and replace it with the appropriate implant size. The size of the head corresponds with the final trial head size.

the joint can reduced the examine leg length, stability and range of motion. If it is needed, adjustments can be made.

7. Femoral component insertation

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 intramedullary canal is cleaned and the bone cement is prepared and introduced into the femoral canal according to standard recommendations. In case of implanting cemented component, we have to use one size smaller implant then the biggest size of the rasp what we used. The stem is inserted into the cement until it's final depth is reached and pressure is applied until the cement has cured.

Fixing possibility with screw

The inserted BA revision stem can be fixed with the screw through holes located in the distal part. The targeting of the implant in case of small and large bone failure.

8. Femoral head impaction

It is recommended that the prosthesis tapered is thoroughly cleaned 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 reduced and closure is done in a routine fashion.



The post-operative management of the patient is defined by the surgeon according to quality of the bone stock and the stability of the implant.

Surgical Technique BA Acetabular Components

Biotech offers several variations to replace the acetabulum with an implant. Revision option is required due to loosening of the primary implant, which comes from different reasons. Our BA Revision Cup System covers most of the revision indications.

The surgeon can choose between **cemented and uncemented option**.

A full set of dedicated instruments and trial components is available to implant **BA Acetabular Revision Components** and the associated inserts.

1. Pre-operativ templating

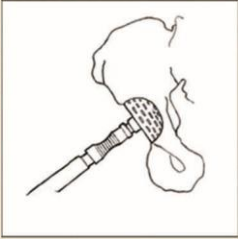
Full pelvis AP X-ray should be available prior to surgery. The BA revision acetabular cup templates allow determining the most likely implant size, location and position. The cup should be positioned on sound bone to optimize stability and bone ingrowth. The head center is as near as possible to the anatomical position, whereas the most inferior part normally is at the level of the bottom of the teardrop.

Uncemented version operation technique



2. Surgical exposure

The surgeon selects the preferred surgical exposure, based on experience and type of procedure. Exposure of the entire acetabular rim should be ensured.



3. Preparation & Reaming of the Acetabulum

After removal of the femoral head, the acetabular cavity is fully exposed by removing soft tissue and osteophytes. Identifying the medial wall can be of help to act as a guide for the depth of the required reaming.

Starting with the smallest size, the acetabular reamer is introduced in 45° of abduction and 15 to 20° of anteversion. Reamer size is progressively increased to remove cartilage and until healthy, bleeding subchondral bone is exposed and the dome of the acetabulum is hemispherical. Care should be taken not to penetrate the medial wall of the acetabulum, to maintain as much as possible of the subchondral plate and remove sclerotic bone only.



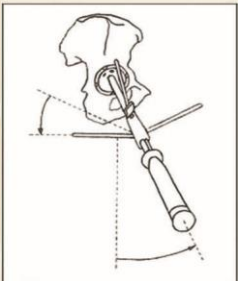
Avoid applying pressure to the dome of the acetabulum if larger reamers need to be used for completion of the peripheral hemispherical configuration. Thickness and strength of the anterior and posterior columns is of major importance, for which reason they need to be assessed regularly. Since the BA BIOTAN Revision Modular Acetabular Press-fit shell Components are provided with a rim flare, line-to-line reaming is recommended.



4. Trial sizing and Shell insetion

Following the preparation of the acetabular cavity, a trial shell corresponding with the size of the last reamer is inserted. Bone coverage, seating depth and apposition are determined.

The final implant corresponding to the size of the trial shell is attached to the inserter and the cup is impacted at the preferred angles; usually 45° abduction - 15° anteversion. In case the bone quality or acetabular rim configuration does not allow for this position, the orientation of the shell may need to be adapted to achieve a firm seating.



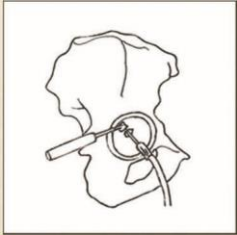
The **BA BIOTAN Revision Modular Acetabular Press-fit shell** allow for **additional screw fixation** if primary stability is not obtained. The shell has **8 holes for the proper fixing**. Since it is recommended that screws are positioned in the dorsal-cranial quadrant, this position of the holes in the shell should be kept in mind at impaction.



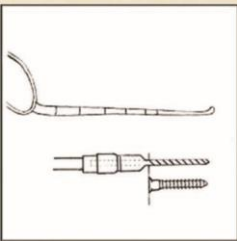
The cup is slowly impacted, carefully ensuring that the preferred angles are maintained while advancing. The alignment guide, attached to the inserter handle, may be of help to achieve the proper orientation. The seating level of the acetabular shell can be verified through the apex

hole, after removal of the inserter tool. Once the shell has reached its final position, the inserter tool is removed.

5. Acetabular Screw Placement



In case initial stability can not be obtained, acetabular screws may be used which are preferably inserted into the dorsal-cranial quadrant. **Screws are available from 15 mm to 70 mm** length with 5 mm increments. There is a flexible drill shaft available and drill bits of 2.8 and 3.2 mm of which the latter is used in case sclerotic bone is encountered. Start drilling to orientate the drill hole in the proper direction and avoid unexpected penetration of the second cortex.



A depth gauge can be used to establish the required screw length in order to avoid screw threads behind the second cortex.

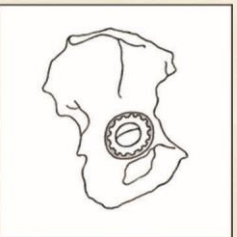
Firm screw fixation might be obtained without penetrating the second cortex, yet a bicortical fixation may be needed in osteoporotic patients.

For screw placement there are a universal screwdriver and screw forceps available in the set of instruments. It is advocated that screws are firmly seated requiring strong rotational resistance.



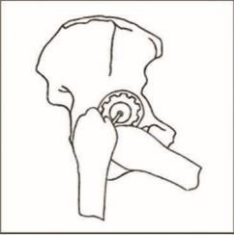
6. Trial Insert Insertion and Trial Reduction

Before inserting the trial insert, make sure there is no chance on soft tissue interference and thoroughly clean the metal component. The rim taps of the acetabular shell allow for various positions of the trial insert, which will loosely fit into the shell without activating the Cliploc fixation mechanism.

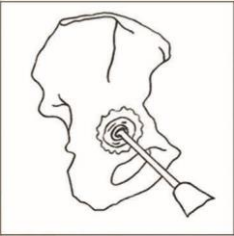


After preparing the femoral side, a trial reduction can be performed with the high-walled trial insert positioned such that optimal stability seems warranted. Joint stability and range of motion is checked in the usual manner. In case it is preferred to adjust the position of the trial insert, the femoral head is dislocated, followed by repositioning of the insert as preferred. Joint stability and range of motion check is repeated.

7. Final Insert Insertion



Once the optimal position of the acetabular trial insert is determined the final component can be inserted according to the same position as the trial component. Before insertion of this final insert, make sure that the Cliploc ring is floating unobstructed in its groove and that no soft tissue can interfere in a proper seating.



After inserting initially by hand, the insert is impacted into its final position by means of the insert impactor. Make sure that the insert is well locked into place by attempting to lift the insert out of the shell, for which an osteotome or hemostat can be used. If the insert disengages from the shell the cause needs to be investigated. Check again carefully the locking ring and if any tissue or bone is preventing the insert from proper seating. Clear the obstruction and repeat the previously mentioned actions until proper seating is achieved.

Cemented version operation technique

If the acetabular bone is **stabil**, following to the preparation of the acetabular cavity, a trial cemented cup sizer, one size smaller than the size of the last reamer is chosen. Bone coverage, seating depth and opposition are determined. Choosing a final **Revision Müller Acetabular Cup** (according to the size of the trial cemented cup) **one size smaller than the final reamer size**, allows for a 2mm circumferential cement mantle



In case the acetabular bone is **instabil** or there is **bone loss**, next to the Revision Müller Acetabular Cup, a **support cemented Revision cup is needed**



ORDERING INFORMATION:

The products are available in **cemented** and **uncemented** versions.

Implants:

BA BIOTAN Revision Femoral Stem w. TPS coating TiAl6V4

001-1171-0750	BA BIOTAN Revision Femoral Stem w. TPS coating	7.50x180mm
001-1171-0751	BA BIOTAN Revision Femoral Stem w. TPS coating	7.50x200mm
001-1171-0752	BA BIOTAN Revision Femoral Stem w. TPS coating	7.50x220mm
001-1171-0753	BA BIOTAN Revision Femoral Stem w. TPS coating	7.50x240mm
001-1171-0754	BA BIOTAN Revision Femoral Stem w. TPS coating	7.50x260mm
001-1171-1000	BA BIOTAN Revision Femoral Stem w. TPS coating	10.00x180mm
001-1171-1001	BA BIOTAN Revision Femoral Stem w. TPS coating	10.00x200mm
001-1171-1002	BA BIOTAN Revision Femoral Stem w. TPS coating	10.00x220mm
001-1171-1003	BA BIOTAN Revision Femoral Stem w. TPS coating	10.00x240mm
001-1171-1004	BA BIOTAN Revision Femoral Stem w. TPS coating	10.00x260mm
001-1171-1250	BA BIOTAN Revision Femoral Stem w. TPS coating	12.50x180mm
001-1171-1251	BA BIOTAN Revision Femoral Stem w. TPS coating	12.50x200mm
001-1171-1252	BA BIOTAN Revision Femoral Stem w. TPS coating	12.50x220mm
001-1171-1253	BA BIOTAN Revision Femoral Stem w. TPS coating	12.50x240mm
001-1171-1254	BA BIOTAN Revision Femoral Stem w. TPS coating	12.50x260mm
001-1171-1500	BA BIOTAN Revision Femoral Stem w. TPS coating	15.00x180mm
001-1171-1501	BA BIOTAN Revision Femoral Stem w. TPS coating	15.00x200mm
001-1171-1502	BA BIOTAN Revision Femoral Stem w. TPS coating	15.00x220mm
001-1171-1503	BA BIOTAN Revision Femoral Stem w. TPS coating	15.00x240mm
001-1171-1504	BA BIOTAN Revision Femoral Stem w. TPS coating	15.00x260mm
001-1171-1750	BA BIOTAN Revision Femoral Stem w. TPS coating	17.50x180mm
001-1171-1751	BA BIOTAN Revision Femoral Stem w. TPS coating	17.50x200mm
001-1171-1752	BA BIOTAN Revision Femoral Stem w. TPS coating	17.50x220mm
001-1171-1753	BA BIOTAN Revision Femoral Stem w. TPS coating	17.50x240mm
001-1171-1754	BA BIOTAN Revision Femoral Stem w. TPS coating	17.50x260mm

**BA BIOTAN Revision Femoral Stem w. HA coating
TiAl6V4**

001-1271-0750	BA BIOTAN Revision Femoral Stem w. HA coating	7.50x180mm
001-1271-0751	BA BIOTAN Revision Femoral Stem w. HA coating	7.50x200mm
001-1271-0752	BA BIOTAN Revision Femoral Stem w. HA coating	7.50x220mm
001-1271-0753	BA BIOTAN Revision Femoral Stem w. HA coating	7.50x240mm
001-1271-0754	BA BIOTAN Revision Femoral Stem w. HA coating	7.50x260mm
001-1271-1000	BA BIOTAN Revision Femoral Stem w. HA coating	10.00x180mm
001-1271-1001	BA BIOTAN Revision Femoral Stem w. HA coating	10.00x200mm
001-1271-1002	BA BIOTAN Revision Femoral Stem w. HA coating	10.00x220mm
001-1271-1003	BA BIOTAN Revision Femoral Stem w. HA coating	10.00x240mm
001-1271-1004	BA BIOTAN Revision Femoral Stem w. HA coating	10.00x260mm
001-1271-1250	BA BIOTAN Revision Femoral Stem w. HA coating	12.50x180mm
001-1271-1251	BA BIOTAN Revision Femoral Stem w. HA coating	12.50x200mm
001-1271-1252	BA BIOTAN Revision Femoral Stem w. HA coating	12.50x220mm
001-1271-1253	BA BIOTAN Revision Femoral Stem w. HA coating	12.50x240mm
001-1271-1254	BA BIOTAN Revision Femoral Stem w. HA coating	12.50x260mm
001-1271-1500	BA BIOTAN Revision Femoral Stem w. HA coating	15.00x180mm
001-1271-1501	BA BIOTAN Revision Femoral Stem w. HA coating	15.00x200mm
001-1271-1502	BA BIOTAN Revision Femoral Stem w. HA coating	15.00x220mm
001-1271-1503	BA BIOTAN Revision Femoral Stem w. HA coating	15.00x240mm
001-1271-1504	BA BIOTAN Revision Femoral Stem w. HA coating	15.00x260mm
001-1271-1750	BA BIOTAN Revision Femoral Stem w. HA coating	17.50x180mm
001-1271-1751	BA BIOTAN Revision Femoral Stem w. HA coating	17.50x200mm
001-1271-1752	BA BIOTAN Revision Femoral Stem w. HA coating	17.50x220mm
001-1271-1753	BA BIOTAN Revision Femoral Stem w. HA coating	17.50x240mm
001-1271-1754	BA BIOTAN Revision Femoral Stem w. HA coating	17.50x260mm

**BA Cemented Revision Stem
HNSS**

001-2172-0750	BA Cemented Revision Stem	7.50x180mm
001-2172-0751	BA Cemented Revision Stem	7.50x200mm
001-2172-0752	BA Cemented Revision Stem	7.50x220mm
001-2172-0753	BA Cemented Revision Stem	7.50x240mm
001-2172-0754	BA Cemented Revision Stem	7.50x260mm
001-2172-1000	BA Cemented Revision Stem	10.00x180mm
001-2172-1001	BA Cemented Revision Stem	10.00x200mm
001-2172-1002	BA Cemented Revision Stem	10.00x220mm
001-2172-1003	BA Cemented Revision Stem	10.00x240mm
001-2172-1004	BA Cemented Revision Stem	10.00x260mm
001-2172-1250	BA Cemented Revision Stem	12.50x180mm
001-2172-1251	BA Cemented Revision Stem	12.50x200mm
001-2172-1252	BA Cemented Revision Stem	12.50x220mm
001-2172-1253	BA Cemented Revision Stem	12.50x240mm
001-2172-1254	BA Cemented Revision Stem	12.50x260mm
001-2172-1500	BA Cemented Revision Stem	15.00x180mm
001-2172-1501	BA Cemented Revision Stem	15.00x200mm
001-2172-1502	BA Cemented Revision Stem	15.00x220mm
001-2172-1503	BA Cemented Revision Stem	15.00x240mm
001-2172-1504	BA Cemented Revision Stem	15.00x260mm
001-2172-1750	BA Cemented Revision Stem	17.50x180mm
001-2172-1751	BA Cemented Revision Stem	17.50x200mm
001-2172-1752	BA Cemented Revision Stem	17.50x220mm
001-2172-1753	BA Cemented Revision Stem	17.50x240mm
001-2172-1754	BA Cemented Revision Stem	17.50x260mm

**BA Cemented Revision Stem
TiAl6V4**

001-2171-0750	BA Cemented Revision Stem	7.50x180mm
001-2171-0751	BA Cemented Revision Stem	7.50x200mm
001-2171-0752	BA Cemented Revision Stem	7.50x220mm
001-2171-0753	BA Cemented Revision Stem	7.50x240mm
001-2171-0754	BA Cemented Revision Stem	7.50x260mm
001-2171-1000	BA Cemented Revision Stem	10.00x180mm
001-2171-1001	BA Cemented Revision Stem	10.00x200mm
001-2171-1002	BA Cemented Revision Stem	10.00x220mm
001-2171-1003	BA Cemented Revision Stem	10.00x240mm
001-2171-1004	BA Cemented Revision Stem	10.00x260mm
001-2171-1250	BA Cemented Revision Stem	12.50x180mm
001-2171-1251	BA Cemented Revision Stem	12.50x200mm
001-2171-1252	BA Cemented Revision Stem	12.50x220mm
001-2171-1253	BA Cemented Revision Stem	12.50x240mm
001-2171-1254	BA Cemented Revision Stem	12.50x260mm
001-2171-1500	BA Cemented Revision Stem	15.00x180mm
001-2171-1501	BA Cemented Revision Stem	15.00x200mm
001-2171-1502	BA Cemented Revision Stem	15.00x220mm
001-2171-1503	BA Cemented Revision Stem	15.00x240mm
001-2171-1504	BA Cemented Revision Stem	15.00x260mm
001-2171-1750	BA Cemented Revision Stem	17.50x180mm
001-2171-1751	BA Cemented Revision Stem	17.50x200mm
001-2171-1752	BA Cemented Revision Stem	17.50x220mm
001-2171-1753	BA Cemented Revision Stem	17.50x240mm
001-2171-1754	BA Cemented Revision Stem	17.50x260mm

Modular Head Range:

**Modular Head Ø 28mm; taper 12/14
CoCr**

016-1111-2800	Modular Head	Small
016-1112-2800	Modular Head	Medium
016-1113-2800	Modular Head	Large
016-1114-2800	Modular Head	Xlarge
016-1115-2800	Modular Head	XXLarge
016-1116-2800	Modular Head	XXXLarge
016-1117-2800	Modular Head	XXXXLarge

**Modular Head Ø 28mm; taper 12/14
HNSS**

016-1211-2800	Modular Head	Small
016-1212-2800	Modular Head	Medium
016-1213-2800	Modular Head	Large
016-1214-2800	Modular Head	Xlarge
016-1215-2800	Modular Head	XXLarge
016-1216-2800	Modular Head	XXXLarge
016-1217-2800	Modular Head	XXXXLarge

**Modular Head Ø 32mm; taper 12/14
CoCr**

016-1111-3200	Modular Head	Small
016-1112-3200	Modular Head	Medium
016-1113-3200	Modular Head	Large
016-1114-3200	Modular Head	Xlarge
016-1115-3200	Modular Head	XXLarge
016-1116-3200	Modular Head	XXXLarge
016-1117-3200	Modular Head	XXXXLarge

Modular Head Ø 32mm; taper 12/14

HSS

016-1211-3200	Modular Head	Small
016-1212-3200	Modular Head	Medium
016-1213-3200	Modular Head	Large
016-1214-3200	Modular Head	Xlarge
016-1215-3200	Modular Head	XXLarge
016-1216-3200	Modular Head	XXXLarge
016-1217-3200	Modular Head	XXXXLarge

Modular Head Ø 36mm; taper 12/14

CoCr

016-1111-3600	Modular Head	Small
016-1112-3600	Modular Head	Medium
016-1113-3600	Modular Head	Large
016-1114-3600	Modular Head	Xlarge
016-1115-3600	Modular Head	XXLarge
016-1116-3600	Modular Head	XXXLarge
016-1117-3600	Modular Head	XXXXLarge

Modular Head Ø 36mm; taper 12/14

HSS

016-1211-3600	Modular Head	Small
016-1212-3600	Modular Head	Medium
016-1213-3600	Modular Head	Large
016-1214-3600	Modular Head	XLarge
016-1215-3600	Modular Head	XXLarge
016-1216-3600	Modular Head	XXXLarge
016-1217-3600	Modular Head	XXXXLarge

Modular Ceramic Head Ø 28mm; taper 12/14

BILOX®delta

016-1311-2800	Modular Ceramic Head	Small
016-1312-2800	Modular Ceramic Head	Medium
016-1313-2800	Modular Ceramic Head	Large

Modular Ceramic Head Ø 32mm; taper 12/14

BILOX®delta

016-1311-3200	Modular Ceramic Head	Small
016-1312-3200	Modular Ceramic Head	Medium
016-1313-3200	Modular Ceramic Head	Large
016-1314-3200	Modular Ceramic Head	XLarge

Modular Ceramic Head Ø 36mm; taper 12/14

BILOX®delta

016-1311-3600	Modular Ceramic Head	Small
016-1312-3600	Modular Ceramic Head	Medium
016-1313-3600	Modular Ceramic Head	Large
016-1314-3600	Modular Ceramic Head	XLarge

Acetabular Cup System

Revision hip cup TiAl6V4

031-2100-0044	44 mm, cemented, right
031-2100-0046	46 mm, cemented, right
031-2100-0048	48 mm, cemented, right
031-2100-0050	50 mm, cemented, right
031-2100-0052	52 mm, cemented, right
031-2100-0054	54 mm, cemented, right
031-2100-0056	56 mm, cemented, right
031-2100-0058	58 mm, cemented, right
031-2100-0060	60 mm, cemented, right
031-2100-0062	62 mm, cemented, right
031-2100-0064	64 mm, cemented, right
031-2101-0044	44 mm, cemented, left
031-2101-0046	46 mm, cemented, left
031-2101-0048	48 mm, cemented, left
031-2101-0050	50 mm, cemented, left
031-2101-0052	52 mm, cemented, left
031-2101-0054	54 mm, cemented, left
031-2101-0056	56 mm, cemented, left
031-2101-0058	58 mm, cemented, left
031-2101-0060	60 mm, cemented, left
031-2101-0062	62 mm, cemented, left
031-2101-0064	64 mm, cemented, left

BA BIOTAN Revision Modular Acetabular Press-fit Shell w. TPS coating, 8-holed TiAl6V4

031-2021-0542	Ø 42mm / Inlay: 21
031-2021-0544	Ø 44mm / Inlay: 21
031-2022-0546	Ø 46mm / Inlay: 22
031-2022-0548	Ø 48mm / Inlay: 22
031-2023-0550	Ø 50mm / Inlay: 23
031-2023-0552	Ø 52mm / Inlay: 23
031-2024-0554	Ø 54mm / Inlay: 24
031-2024-0556	Ø 56mm / Inlay: 24
031-2025-0558	Ø 58mm / Inlay: 25
031-2025-0560	Ø 60mm / Inlay: 25
031-2026-0562	Ø 62mm / Inlay: 26
031-2026-0564	Ø 64mm / Inlay: 26
031-2027-0566	Ø 66mm / Inlay: 27
031-2027-0568	Ø 68mm / Inlay: 27
031-2028-0570	Ø 70mm / Inlay: 28
031-2028-0572	Ø 72mm / Inlay: 28
031-2029-0574	Ø 74mm / Inlay: 29
031-2029-0576	Ø 76mm / Inlay: 29

**Revision Modular Acetabular Inlay Ø22 mm
UHMWPE**

022-2323-2022	20 / 22mm, high-wall
022-2323-2122	21 / 22mm, high-wall

**Revision Modular Acetabular Inlay Ø28 mm
UHMWPE**

022-2323-2128	21 / 28mm, high-wall
022-2323-2228	22 / 28mm, high-wall
022-2323-2328	23 / 28mm, high-wall
022-2323-2428	24 / 28mm, high-wall
022-2323-2528	25 / 28mm, high-wall
022-2323-2628	26 / 28mm, high-wall
022-2323-2728	27 / 28mm, high-wall
022-2323-2828	28 / 28mm, high-wall
022-2323-2928	29 / 28mm, high-wall

**Revision Modular Acetabular Inlay Ø32 mm
UHMWPE**

022-2323-2132	21 / 32mm, high-wall
022-2323-2232	22 / 32mm, high-wall
022-2323-2332	23 / 32mm, high-wall
022-2323-2432	24 / 32mm, high-wall
022-2323-2532	25 / 32mm, high-wall
022-2323-2632	26 / 32mm, high-wall
022-2323-2732	27 / 32mm, high-wall
022-2323-2832	28 / 32mm, high-wall
022-2323-2932	29 / 32mm, high-wall

**Revision Modular Acetabular Inlay Ø36 mm
UHMWPE**

022-2323-2136	21 / 36mm, high-wall
022-2323-2236	22 / 36mm, high-wall
022-2323-2336	23 / 36mm, high-wall
022-2323-2436	24 / 36mm, high-wall
022-2323-2536	25 / 36mm, high-wall
022-2323-2636	26 / 36mm, high-wall
022-2323-2736	27 / 36mm, high-wall
022-2323-2836	28 / 36mm, high-wall
022-2323-2936	29 / 36mm, high-wall

**Müller Acetabular Cup for Revision Ø28 mm
UHMWPE**

021-0301-4428	Ø 44mm / 28mm
021-0301-4628	Ø 46mm / 28mm
021-0301-4828	Ø 48mm / 28mm
021-0301-5028	Ø 50mm / 28mm
021-0301-5228	Ø 52mm / 28mm
021-0301-5428	Ø 54mm / 28mm
021-0301-5628	Ø 56mm / 28mm
021-0301-5828	Ø 58mm / 28mm
021-0301-6028	Ø 60mm / 28mm
021-0301-6228	Ø 62mm / 28mm
021-0301-6428	Ø 64mm / 28mm
021-0301-6628	Ø 66mm / 28mm
021-0301-6828	Ø 68mm / 28mm
021-0301-7028	Ø 70mm / 28mm

**Müller Acetabular Cup for Revision Ø32 mm
UHMWPE**

021-0301-4432	Ø 44mm / 32mm
021-0301-4632	Ø 46mm / 32mm
021-0301-4832	Ø 48mm / 32mm
021-0301-5032	Ø 50mm / 32mm
021-0301-5232	Ø 52mm / 32mm
021-0301-5432	Ø 54mm / 32mm
021-0301-5632	Ø 56mm / 32mm
021-0301-5832	Ø 58mm / 32mm
021-0301-6032	Ø 60mm / 32mm
021-0301-6232	Ø 62mm / 32mm
021-0301-6432	Ø 64mm / 32mm
021-0301-6632	Ø 66mm / 32mm
021-0301-6832	Ø 68mm / 32mm
021-0301-7032	Ø 70mm / 32mm

**Müller Acetabular Cup for Revision Ø36 mm
UHMWPE**

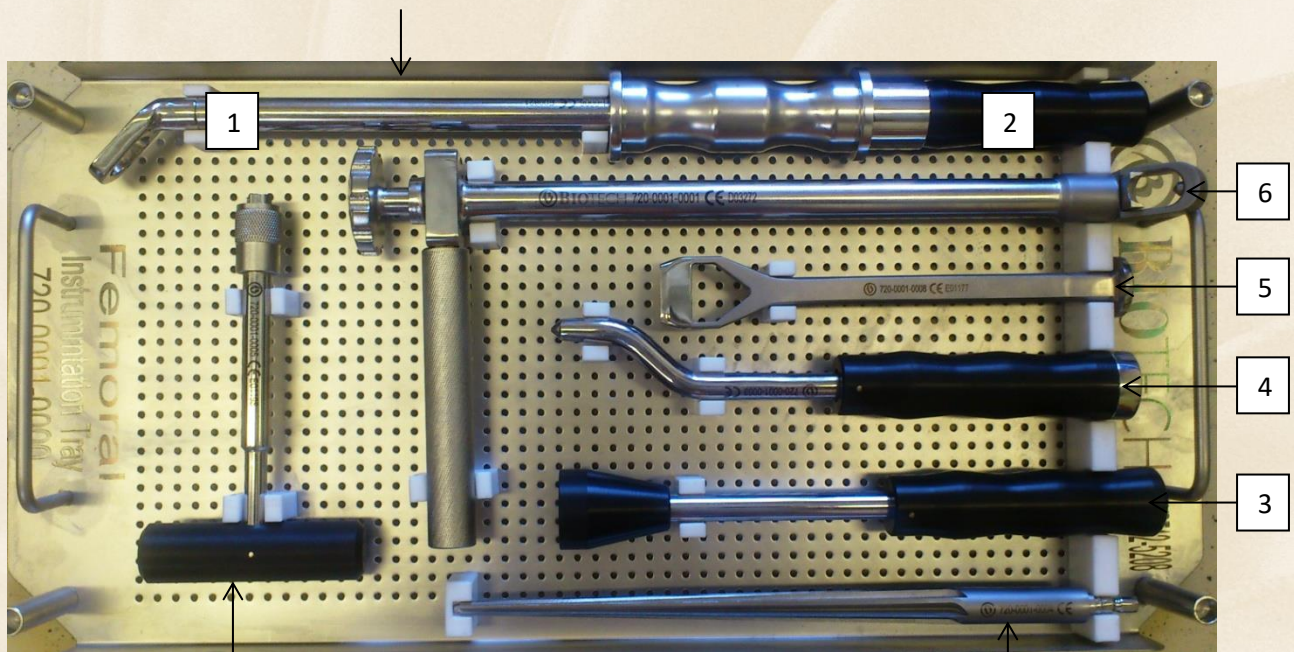
021-0301-4436	Ø 44mm / 36mm
021-0301-4636	Ø 46mm / 36mm
021-0301-4836	Ø 48mm / 36mm
021-0301-5036	Ø 50mm / 36mm
021-0301-5236	Ø 52mm / 36mm
021-0301-5436	Ø 54mm / 36mm
021-0301-5636	Ø 56mm / 36mm
021-0301-5836	Ø 58mm / 36mm
021-0301-6036	Ø 60mm / 36mm
021-0301-6236	Ø 62mm / 36mm
021-0301-6436	Ø 64mm / 36mm
021-0301-6636	Ø 66mm / 36mm
021-0301-6836	Ø 68mm / 36mm
021-0301-7036	Ø 70mm / 36mm

Instruments:

Cemented and uncemented prostheses can be operated with the same set of instruments. Cemented and uncemented hip prostheses are compatible with each other, so a hybrid solution is also possible. The elements of our hip prosthesis system can be implanted with minimally invasive technique.

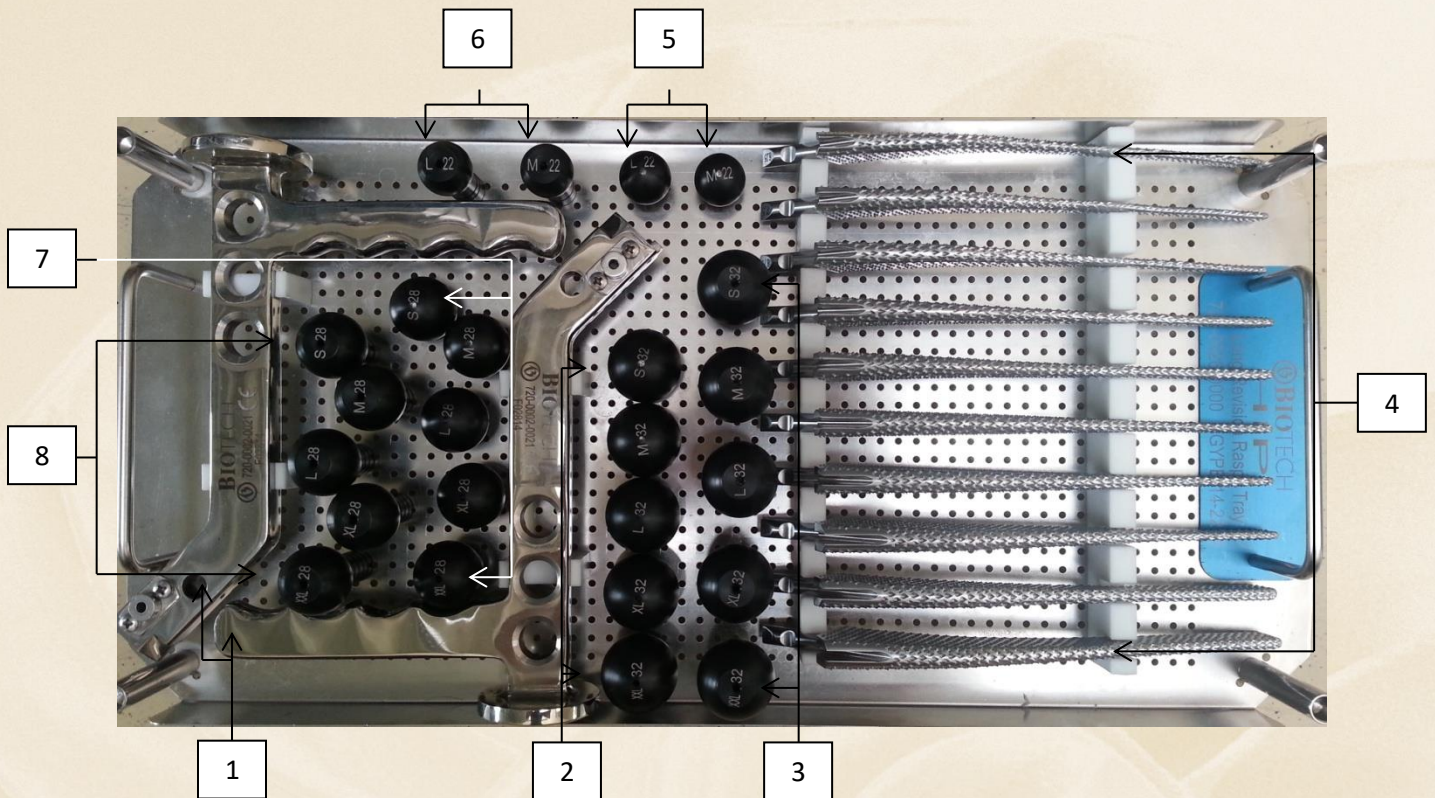
The instrument set is available in a wear-resistant, easy-to-handle, high-dimensional accuracy and proper packaging (sterilizable, lockable, easy-to-transport instrument tray and container). The instrument set can be handled by a variety of sterilization procedures.

BA Femur Instrument Set - 720-0001-0000



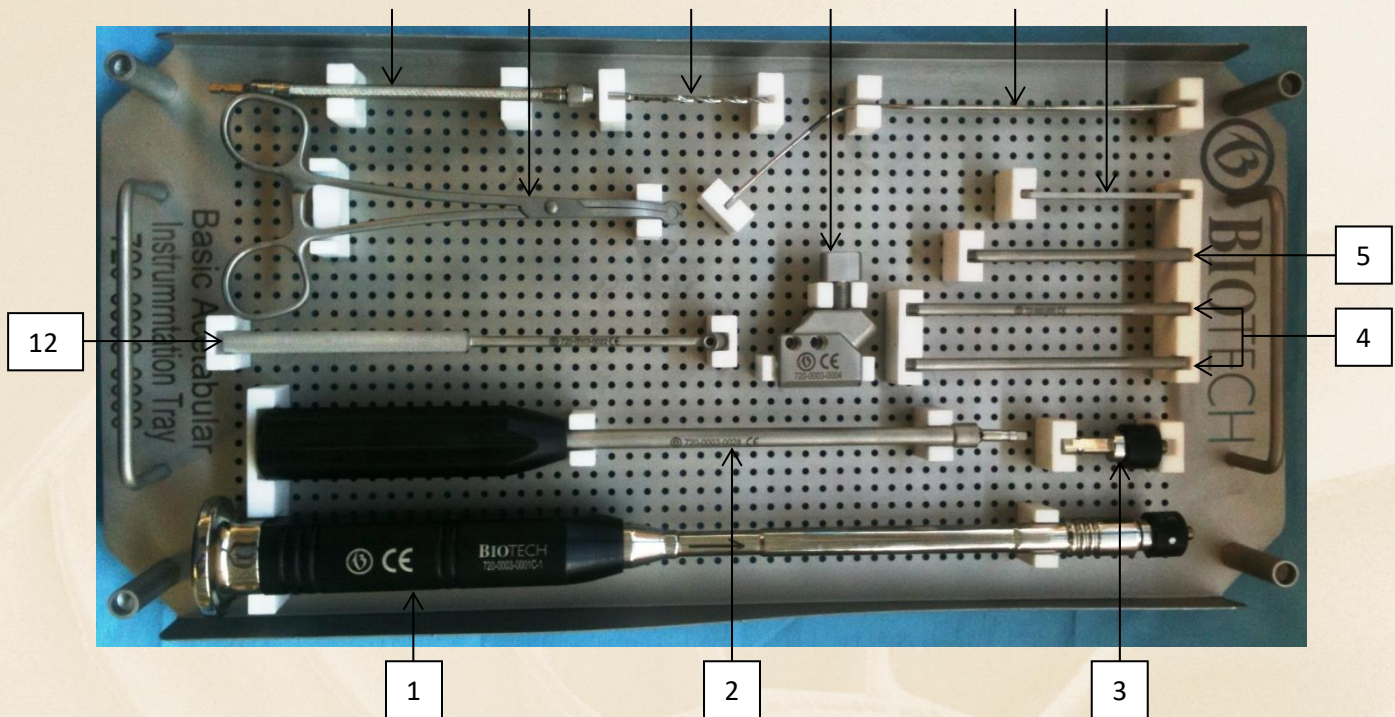
Biotech art.nr.	description	Qty/set	
1.	720-0001-0005	T-handle for 0004	1 pc
2.	720-0001-0004	Tapered reamer	1 pc
3.	720-0001-0002	Modular head impactor	1 pc
4.	720-0001-0003	Conical impactor	1 pc
5.	720-0001-0008	Box chisel	1 pc
6.	720-0001-0001	Stem impactor	1 pc
7.	720-0001-0006	Extractor with head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

BA Long Revision Rasps Tray - 720-0026-0000



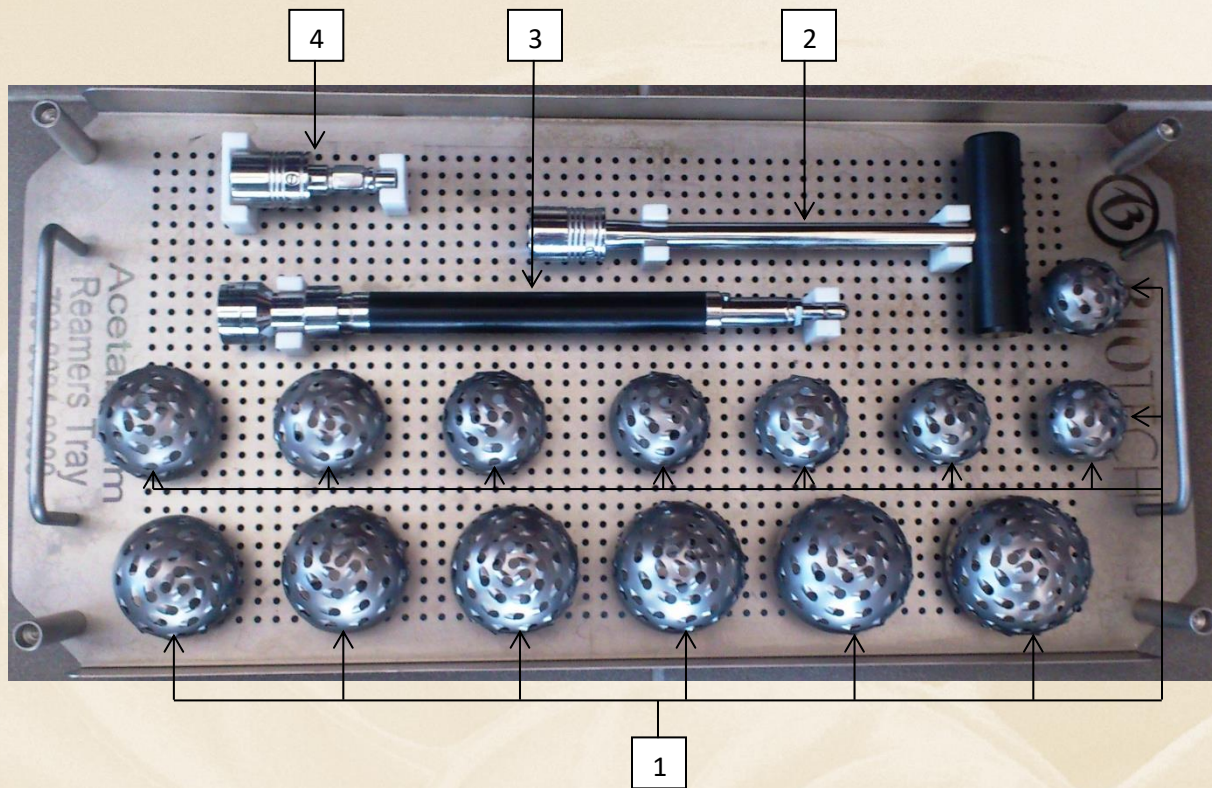
Biotech art.nr.	description	Qty/set
1.	720-0002-0021 Rasp handle	2 pc
2.	720-0002-3206...0010 Trial modular head 32mm (S-XXL)*	5 pc
3.	720-0002-3201...0005 Trial modular head for rasp 32mm *	5 pc
4.2	720-0026-0012 Revision Stem Rasp 7,50x200mm	1 pc
4.4	720-0026-0014 Revision Stem Rasp 10,00x200mm	1 pc
4.6	720-0026-0016 Revisipn Stem Rasp 12,50x200mm	1 pc
4.8	720-0026-0018 Revision Stem Rasp 15,00x200mm	1 pc
4.10.	720-0026-0019 Revision Stem Rasp 17,50x200mm	1 pc
7.	720-0002-0006...0010 Trial modular head 28mm (S-XXL)	5 pc
8.	720-0002-0001...0005 Trial modular head for rasp 28mm (S-XXL)	5 pc

Basis Acetabular Instrument Tray - 720-0003-0000



Biotech art.nr.	description	Qty/set	
1.	720-0003-0001C-1	Cup impactor shaft with changeable head	1 pc
2.	720-0003-0028	Screwdriver (for fixation screw)	1 pc
3.	720-0003-0001C-4	Reserve head for Cup impactor	1 pc
4.	720-0003-0005	Rod for angle guide, Long	2 pc
5.	720-0003-0006	Rod for angle guide, Short	1 pc
6.	720-0003-0025	Screwdriver plate for 0004	1 pc
7.	720-0003-0023	Depth Gauge	1 pc
8.	720-0003-0004	Angle Guide	1 pc
9.	720-0003-0029	Drill 3,2x40	1 pc
10.	720-0003-0021	Screw forceps	1 pc
11.	720-0003-0003	Flexible drill shaft A. (quick connect)	1 pc
12.	720-0003-0022	Drill guide 3,2	1 pc

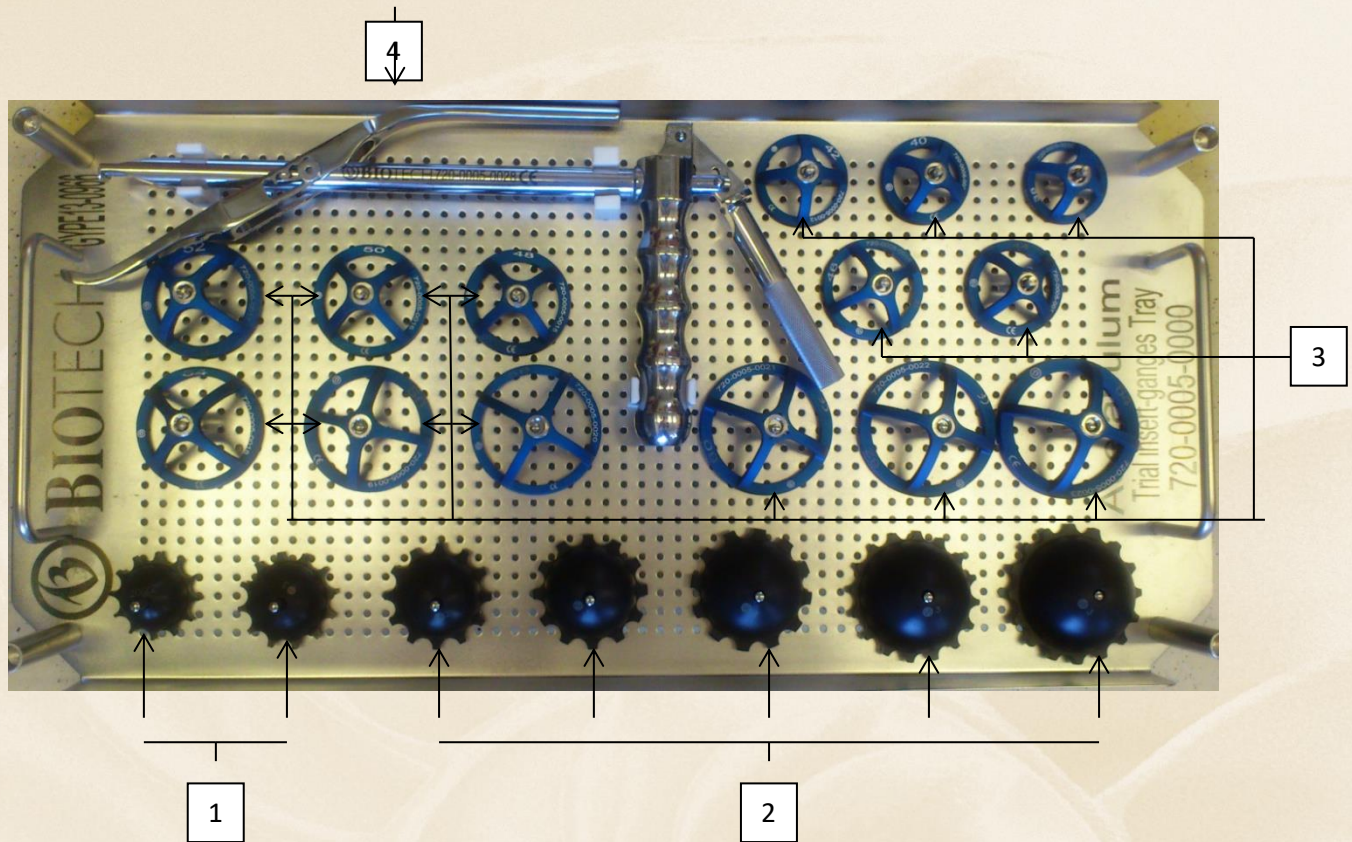
Acetabulum Reamers Tray - 720-0004-0000



Biotech art.nr.	description	Qty/set	
1.	720-0004-0004...0020	Acetabulum reamer 38...64mm	1 pc/size
2.	720-0004-0002	T-handle for reamer shaft	1 pc
3.	720-0004-0003	Reamer shaft (Aesculap connection)	1 pc
4.	720-0004-0023	Adapter for reamer shaft (A.E.S)	1 pc

optional: 66...70mm

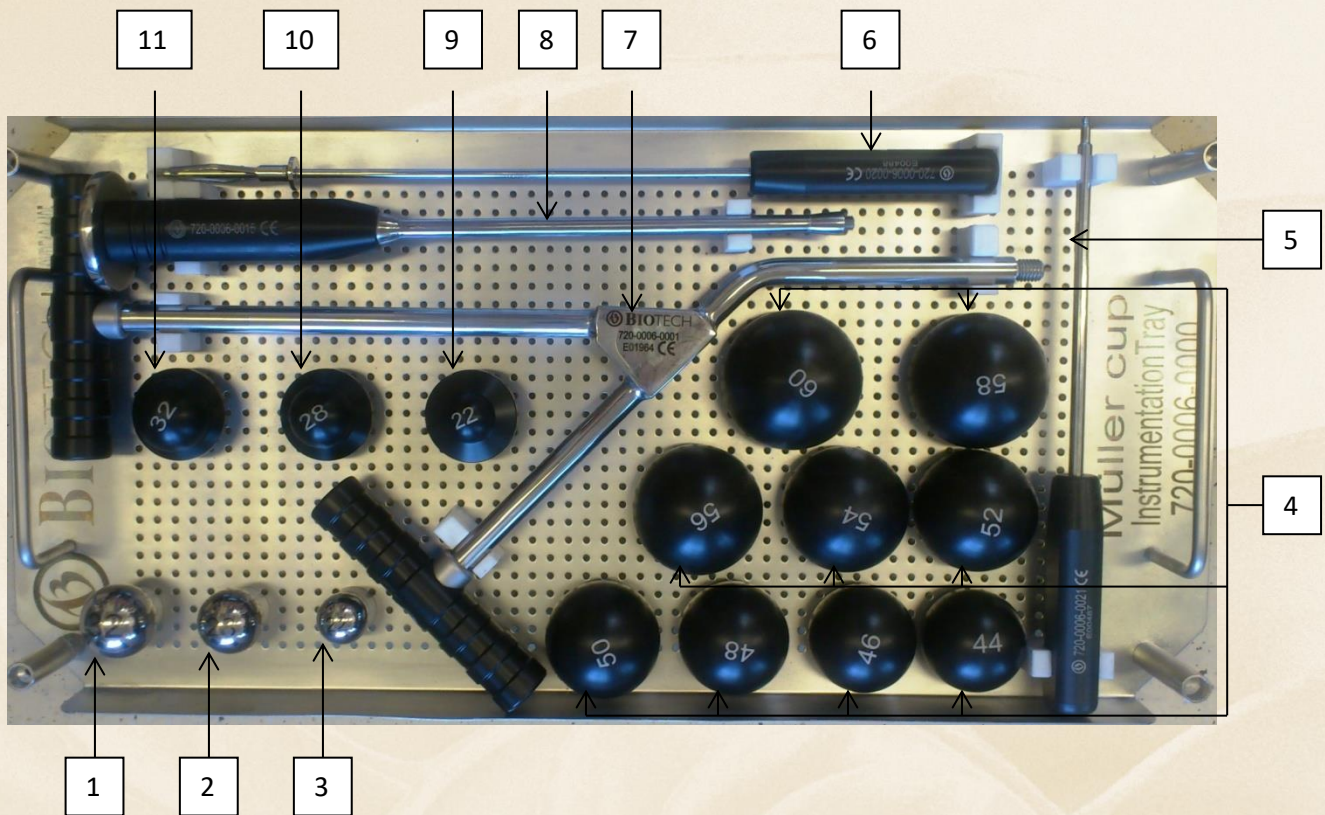
Acetabular Trial Insert and Gauges Tray - 720-0005-0000



Biotech art.nr.	description	Qty/set
1. 720-0005-0001...0002	Acetabular trial insert 22mm (20,21)	1 pc / size
2. 720-0005-0003...0007	Acetabular trial insert 28mm (22,23,24,25,26)	1 pc / size
3. 720-0005-0010...0023	Acetabular shell gauge (38mm 64mm)	1 pc / size
4. 720-0005-0028	Cup insert extractor	1 pc

optional: 66-72mm

Müller Cup Instrumentation Tray - 720-0006-0000



Biotech art.nr.	description	Qty/set	
1.	720-0003-0031	Insert pusher fej 32mm	1 pc
2.	720-0003-0019	Insert pusher fej 28mm	1 pc
3.	720-0003-0020	Insert pusher fej 22mm	1 pc
4.	720-0006-0003 ..0011	Trial cup (44-60mm)	1 pc/size
5.	720-0006-0021	Inserter for Additional Support Müller Cup	1 pc
6.	720-0006-0020	Screwdriver Hexa 1,5 with Holder	1 pc
7.	720-0006-0001	Müllercup inserter	1 pc
8.	720-0006-0015	Trial cup inserter	1 pc
9.	720-0006-0013	Inserter adapter for 22mm	1 pc
10.	720-0006-0002	Inserter adapter for 28mm	1 pc
11.	720-0006-0014	Inserter adapter for 32mm	1 pc