

ARTHROPLASTY / PRIMARY IMPLANTS

Hip joint head replacement



Beznoska[®]

MANUAL

Implant description

All heads supplied by BEZNOSKA, s.r.o. have a spherical shape and are equipped with a self-locking cone 12/14 (euro cone) of unequal depth, which determines the final length of the endoprosthesis neck. Heads designed to achieve a long neck have a conical extension that ensures a firm fit of the head on the stem of the endoprosthesis.

The heads are manufactured for cervico-capital (CEP) and total hip replacements (TEP).

The heads for CEP are metal in two designs:

- the CEP metal head has a diameter of 38 to 56 mm in 2 mm increments (10 sizes in total);
- the biarticular head has a diameter of 42 to 56 mm with 2 mm increments (8 sizes in total).

The heads are made of stainless steels (ISO 5832-1, ISO 5832-9). The bi-articular head has a lining of ultra-high molecular weight polyethylene (UHMWPE, ISO 5834-2) which is pressed in between the outer metal casing and the inner head. The heads are polished to a mirror finish.

Heads for TEP are metal or ceramic.

Metal heads are available in four diameters 22, 28, 32 and 36 mm with different cone depths for each size:

- head Ø22 mm – cone depth M, L;
- head Ø28 mm – cone depth S, M, L, XL, XXL;
- head Ø32 mm – cone depth S, M, L, XL, XXL;
- head Ø36 mm – cone depth S, M, L, XL, XXL.

The heads are made of wrought high nitrogen stainless steel (ISO 5832-9) and wrought cobalt-chromium-molybdenum alloy (ISO 5832-12). All heads are mirror polished.

Ceramic heads (BIOLOX® delta) are available in three diameters – 28, 32 and 36 mm. The cone depth for all diameters is S, M, L. This material has very low abrasion, excellent mechanical properties and does not cause allergic reactions. The heads are made of composite materials based on a high-purity alumina matrix with zirconia reinforcement (ISO 6474).

We recommend the use of all heads in combination with femoral stems from BEZNOSKA, s.r.o.

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Surgical technique

Extraction and measurement of the head:

Extirpate the head as far as possible in its entirety using a extractor. Carefully measure the extruded head in at least two planes perpendicular to each other. The correct size of the endoprosthesis head is extremely important. If a smaller head is chosen, premature protrusion of the acetabular base will occur; if a larger head is chosen, the head will not fit into the acetabulum, the joint will become unstable and the acetabular rim will be damaged. According to statistics, the most common head diameter is 44, 46 and 48 mm.

Templates for measuring the extracted head size

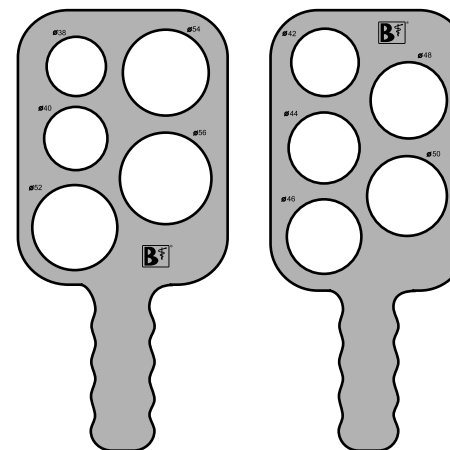
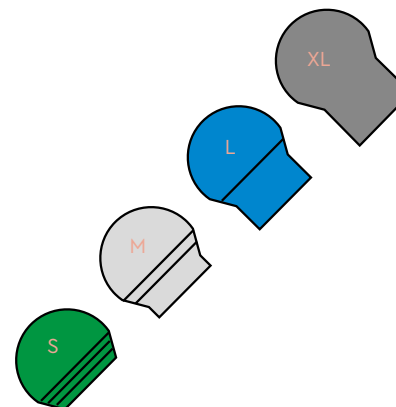


Fig. 1



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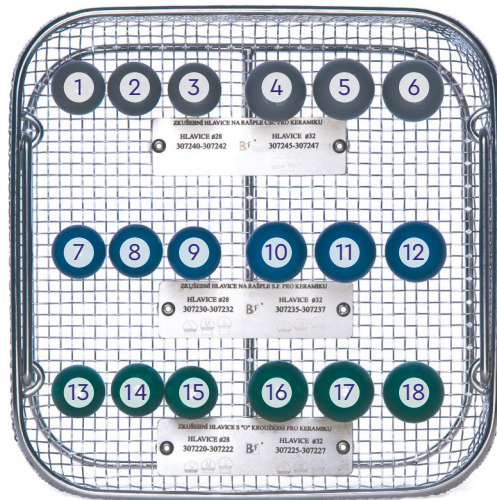
Instruments

During total hip replacement surgery, a preliminary trial articulation (on the rasp) and a final trial articulation (on the femoral stem) are performed. For these articulations, plastic trial heads are available in two designs – one head for the rasp and one head for the final stem.

These trial plastic heads are always part of the standard instrumentation supplied for the implantation of a specific type of femoral stem.

The ceramic head trial plastic heads are supplied in a separate tray with a container. They are available on request.

To determine the correct CEP or biarticular head size, the gauges of the extruded head (part numbers 301901 and 301902 – see Fig. 1) from the CSB – Set of instruments are used.



Trial ceramic heads - Set 300020			
	Denomination	Qty	Order number
1	CSC – Trial head for ceramics, D28/S, for rasp	1	307240
2	CSC – Trial head for ceramics, D28/M, for rasp	1	307241
3	CSC – Trial head for ceramics, D28/L, for rasp	1	307242
4	CSC – Trial head for ceramics, D32/S, for rasp	1	307245
5	CSC – Trial head for ceramics, D32/M, for rasp	1	307246
6	CSC – Trial head for ceramics, D32/L, for rasp	1	307247
7	Trial head, D28/S, for rasp type Beznoska, SF	1	307230
8	Trial head, D28/M, for rasp type Beznoska, SF	1	307231
9	Trial head, D28/L, for rasp type Beznoska, SF	1	307232
10	Trial head, D32/S, for rasp type Beznoska, SF	1	307235
11	Trial head, D32/M, for rasp type Beznoska, SF	1	307236
12	Trial head, D32/L, for rasp type Beznoska, SF	1	307237
13	Trial head for ceramics, 12/14, D28/S	1	307220
14	Trial head for ceramics, 12/14, D28/M	1	307221
15	Trial head for ceramics, 12/14, D28/L	1	307222
16	Trial head for ceramics, 12/14, D32/S	1	307225
17	Trial head for ceramics, 12/14, D32/M	1	307226
18	Trial head for ceramics, 12/14, D32/L	1	307227

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Metal head, Ak/Co

- Material:**
- (ISO 5832-9) Metal head Ak - Wrought high nitrogen stainless steel
 - (ISO 5832-12) Metal head Co - CoCrMo wrought alloy

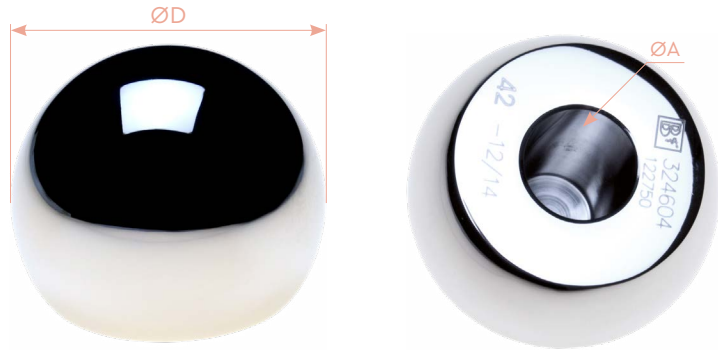


- The Metal heads Ak are made of wrought high nitrogen stainless steel (ISO 5832-9) with a specially treated surface polished to a mirror shine.
- The Metal heads Co („cobalt“) are made from a CoCrMo wrought alloy (ISO 5832-12) with a specially treated mirror-polished surface.

		Metal head Ak	Metal head Co
ØD [mm]	Neck length	Order number	Order number
22	M		326722
	L		326724
28	S	326560	326760
	M	326555	326755
	L	326550	326750
	XL	326547	326747
32	XXL	326545	326745
	S	326515	326770
	M	326510	326772
	L	326505	326774
36	XL	326502	326776
	XXL	326500	326778
	S	326520	326740
	M	326521	326741
36	L	326522	326742
	XL	326523	326743
	XXL	326524	326744

Metal head, 12/14

Material: • (ISO 5832-1) Wrought stainless steel



- The head is made of wrought stainless steel (ISO 5832-1), long used by the world's leading manufacturers. The surface of the head is polished to a mirror shine.

	ØD [mm]	Order number
Metal head, 12/14	38	324600
	40	324602
	42	324604
	44	324606
	46	324608
	48	324610
	50	324612
	52	324614
	54	324616
56	324618	

Bi-articular head

Material: • (ISO 5832-1) Outer head - Wrought stainless steel
 • (ISO 5832-9) Inner head - Wrought high nitrogen stainless steel
 • (ISO 5834-2) Head insert - UHMWPE

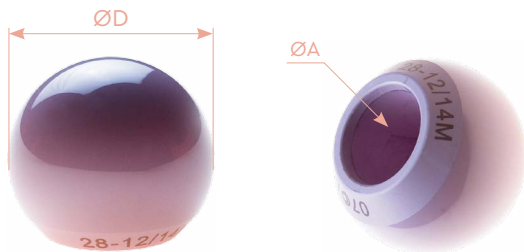


- The outer head is made of wrought stainless steel (ISO 5832-1) and the inner metal head is made of wrought high nitrogen stainless steel (ISO 5832-9), long used by the world's leading manufacturers. The outer surfaces of both elements are polished and in particular the surface of the inner head is polished to a mirror shine. The lining of the head is made of UHMWPE (ISO 5834-2).

	ØD [mm]	Order number
Bi-articular head	42	324915
	44	324920
	46	324925
	48	324930
	50	324935
	52	324940
	54	324945
56	324950	

Ceramic head

Material: • (ISO 6474-2) BIOLOX® delta ceramics



- BIOLOX®delta is a high purity aluminium oxide ceramic according to ISO 6474. The product is bioinert, biocompatible, abrasion resistant and does not cause any allergic reactions. A clinically proven advantage of BIOLOX®delta heads is the reduction in polyethylene abrasion compared to metal heads when combined with a UHMWPE cup or liner.

	ØD [mm]	Neck length	Order number
Hlavice keramická	28	S	380001
		M	380002
		L	380003
Hlavice keramická	32	S	380004
		M	380005
		L	380006
Hlavice keramická	36	S	380007
		M	380008
		L	380009

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Beznoska[®]

Sales and service

 Export

+420 312 811 221

+420 312 811 225

export@beznoska.cz



**back
in motion**

BEZNOSKA, s.r.o.

Dělnická 2727, Kročehlavy

272 01 Kladno

Czech Republic

+420 312 660 670

mailbox@beznoska.cz

www.beznoska.com

CE 1014