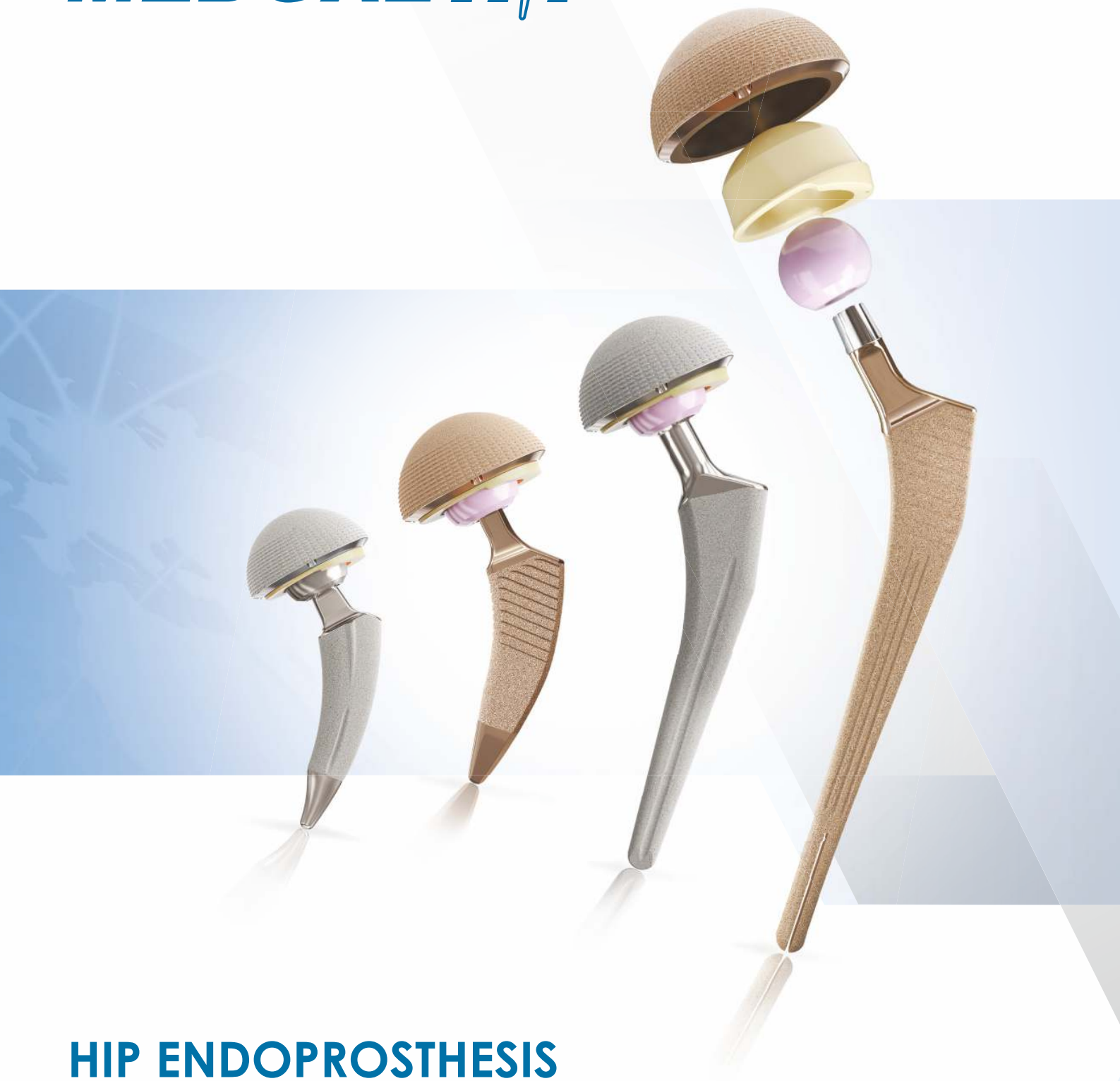
MEDGAL-HIP



HIP ENDOPROSTHESIS

TERAZ POLSKA

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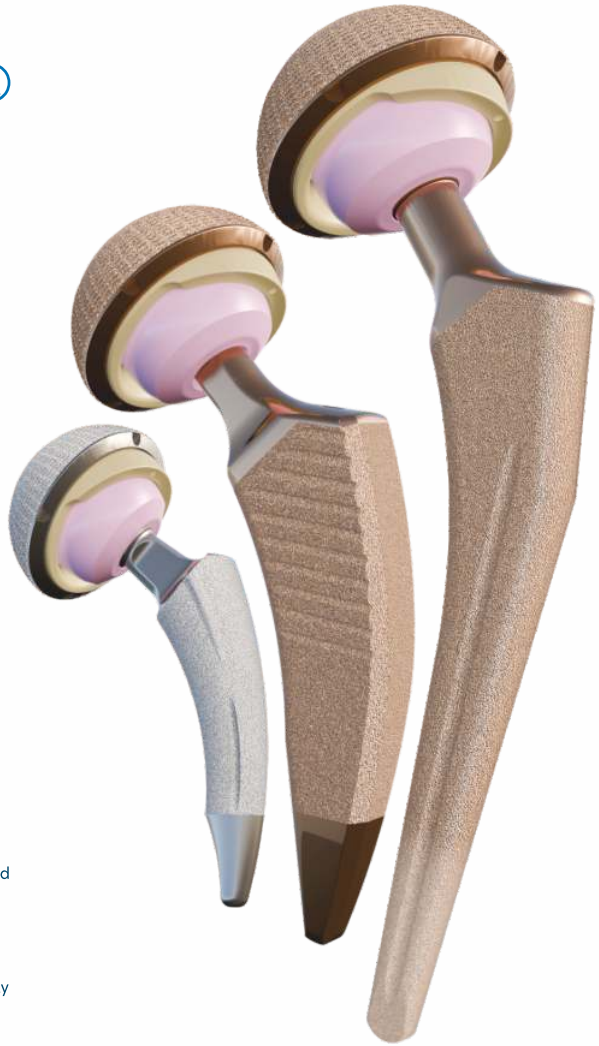
MEDGAL®

ORTHOPAEDIC IMPLANTS & INSTRUMENTS



Silicon-carbon coating

The Si-DLC coating inscreases the biocompatibility of the implants, creates better conditions for bone fusion and osseointegration.

Increased bacteriostaticity

Microstructural properties of the DLC coating are the main factor of the bacteriostatic mechanism [1-2].

Decreased ion migration

The Si-DLC coating prevents the migration of the element ions from the implant to the body, consequently reducing the possibility of allergic reactions [3-5]

Better osseointegration

The use of the silicon increases the bone formation on the implant by more than 12% compared to hydroxyapatite. Silicon also stimulates the synthesis of type I collagen [6-9].

Higher biocompatibility

The Si-DLC coating increases the biotolerance of the implant, intensifies the hemocompatibility and the adhesion of human cells, without causing the cytotoxicity [10-12].

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Publications Si-DLC:

[1] F.R. Marciano, L.F. Bonetti, L.V. Santos, N.S. Da-Silva, E.J. Corat, V.J. Trava-Airoldi (2009) Antibacterial activity of DLC and Ag-DLC films produced by PECVD technique. Diamond & Related Materials 18, 1010-1014.

[2] J.M. Gutiérrez B., K. Conceição, V. M. de Andrade, V.J. Trava-Airoldi, G. Capote (2019) High antibacterial properties of DLC film doped with nanodiamond. Surface & Coatings Technology 375, 395-401.

[3] A. Ordine, C. Achete, O. Mattos, I. C. Margarit, S. Camargo, & T. Hirsch (2000) Magnetron sputtered SiC coatings as corrosion protection barriers for steels. Surface and Coatings Technology, 133-134, 583-588.

[4] D. Batory, A. Jedrzejczak, W. Kaczorowski, L. Kolodziejczyk, B. Burnat (2016) The effect of Si incorporation on the corrosion resistance of a-C:H:SiOx coatings. Diam Relat Mater 67:1-7.

[5] DD. Rylska, J. Sokołowski, M. Łukomska, M. Pers, L. Klimek (2006) Influence of protective Al2O3 and SiC coatings on corrosion resistance of Wirobond C alloy

[6] D. M. Reffitt, N. Ogston, R. Jugdaohsingh, H. F. Cheung, B. A. Evans, R. P. Thompson, J. J. Powell & G. N. Hampson (2003) Orthosilicic acid stimulates collagen type 1 synthesis and osteoblastic differentiation in human osteoblast-like cells in vitro. Bone, 32(2), 127-135.

[7] G. Lehmann , I. Cacciotti, P. Palmero, L. Montanaro, A. Bianco, L. Campagnolo, & A. Camaioni (2012)Differentiation of osteoblast and osteoclast precursors on pure and silicon-substituted synthesized hydroxyapatites. Biomedical Materials 7(5), 055001.

[8] K. Koryszewski, D. Bociąga & R. Skowroński (2015) Results of peritrochanteric fracture treatment with carbon (DLC) and silicon-carbon (Si-DLC) coated Gamma nail - preliminary report

[9] M. Navarro, A. Michiardi, O. Castaño & J. A. Planell (2008) Biomaterials in orthopaedics. Journal of the Royal Society, Interface, 5(27), 1137-1158.

[10] A. Grill (2003) Diamond-like carbon coatings as biocompatible materials—an overview. Diamond and Related Materials, 12(2), 166-170.

[11] D. Bociaga & K. Mitura (2008) Biomedical effect of tissue contact with metallic material used for body piercing modified by DLC coatings. Diamond and Related Materials 17(7-10), 1410-1415.

[12] D. Bociąga, A.Olejnik, K.Jastrzębski, A. Jędrzejczak, L. Świątek, J. Grabarczyk, A. Sobczyk - Guzenda, M. Kamińska, W. Jakubowski, P.Komorowski, P.Niedzielski (2016) Control of the biological response to metallic biomaterials through application of the dlc coatings with dopants. ENGINEERING OF BIOMATERIALS 138 94.

TABLE OF CONTENTS

First part of the catalogue number	Materials
1 -XX-XX-XX	titanium alloy
4 -XX-XX-XX	implantation steel
9 -XX-XX-XX	UHMW-PE polyethylene with witamin E
21 -XX-XX-XX	titanium alloy coated with Si-DLC
41 -XX-XX-XX	titanium alloy coated with Ti + Hap
61 -XX-XX-XX	titanium alloy coated with Ti + Si-DLC
103 -XX-XX-XX	cobalt-chromium-molybdenum alloy
156 -XX-XX-XX	ceramics - Biolox® delta

MEDGAL-HIP Endoprosthesis

INTENDED TO USE

Endoprosthesis can be used in the following cases:

- degenerative changes or serious ailments in the course of hip rheumatoid disease,
- extensive hip damage that significantly reduces the efficiency of the musculoskeletal system,
- joint post-traumatic changes,
- femoral head necrosis,
- non-promising union of a hip fracture.

CONTRAINDICATIONS

- infection of a joint or joint area,
- bone defect that prevents the primary stability of the joint stem as a result of alloplasty,
- patient's allergic reactions to the implant's alloying components,
- body infection,
- cardiovascular disease,
- anticipated overload of the hip endoprosthesis (e.g. overweight or excessive physical activity of the patient),
- patients unable or willing to cooperate during treatment,
- limited patient's ability to understand doctor's recommendations and not to follow them in the postoperative period.

PRE-OPERATIONAL RECOMMENDATIONS

- The treatment should be carefully planned.
- The size of the endoprosthesis (stem and head) must be carefully selected for the anatomical structure of the hip, based on X-Ray tests using appropriate MEDGAL templates.
- In the pre-operative period, any existing infectious outbreaks in the body should be eradicated.
- The physician should carry out allergy tests of the patient's body on the components of the implants.
- The use of an endoprosthesis is not allowed if allergy tests show positive reactions.
- Please read the instructions for using the instruments and follow the recommendations contained therein.
- The physician is responsible for choosing the appropriate surgical technique for a particular clinical case.

Before the procedure, the doctor should make sure that:

- all implants to be implanted in the operating room,
- surgical instruments / tools are completed and functional.

PRE-OPERATIVE PLANNING

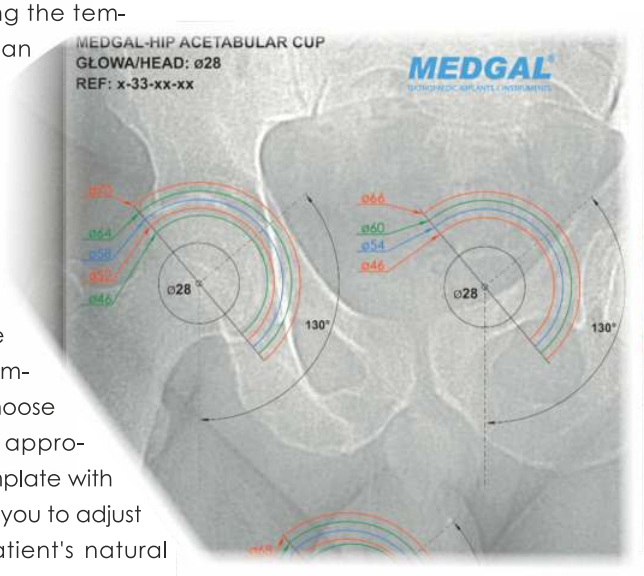
Preoperative planning is key stage to determining the appropriate stem size and bipolar head offset prior to alloplasty.

The template should define the resection area necessary to restore the anatomical center of rotation in the hip joint. The selection of the height and angle of the femoral head resection defines the length and angle of the head neck and the correct bipolar head offset.

Necessary to carry out preoperative planning are:

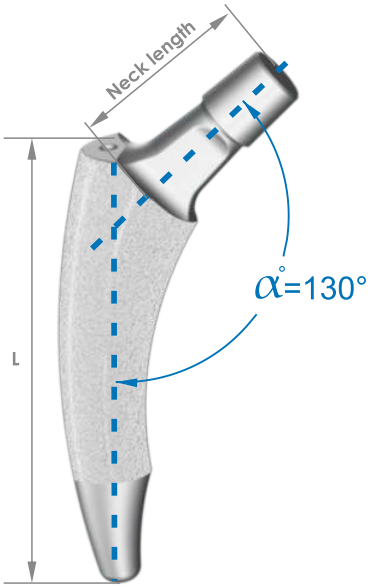
- x-ray machine;
- templates containing the contours of the stems, femoral heads and shell heads in various sizes;

The femur should be placed in the neutral rotation position so that its orientation on the x-ray image corresponds to the template plane. The developed x-ray scan should have sufficient femoral stem length to determine the steml length. An adequate stem size should be selected by applying the template to an X-ray scan and finding the optimal implant adaptation to anatomical structures - neck angle and stem length. The center of rotation of the femoral head determines which head to choose - by selecting the appropriate offset. The template with bipolar heads allows you to adjust the head to the patient's natural acetabulum. The coverage line is specified on each of the templates.



METHAFIT Femoral Neck Stem

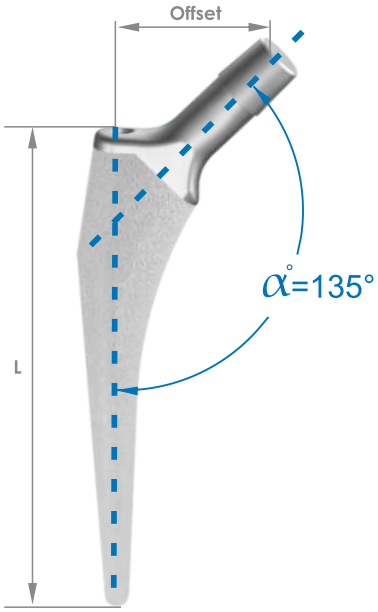
METHAFIT Stem



Neck length	Length L (mm)	REF No.	
		Titanium alloy+Ti+HAp	Titanium alloy+Ti+Si-DLC
29	79,3	41-38-01-01	61-38-01-01*
30	83,7	41-38-01-02	61-38-01-02*
31,5	88,5	41-38-01-03	61-38-01-03*
32,5	92,6	41-38-01-04	61-38-01-04*
33,5	97,1	41-38-01-05	61-38-01-05*
34,5	101,7	41-38-01-06	61-38-01-06*
35,5	106,3	41-38-01-07	61-38-01-07*
36,5	110,8	41-38-01-08	61-38-01-08*
37,5	115,5	41-38-01-09	61-38-01-09*
38,5	118,9	41-38-01-10*	61-38-01-10*
38,5	121,2	41-38-01-11*	61-38-01-11*
38,5	124,7	41-38-01-12*	61-38-01-12*

*available on request

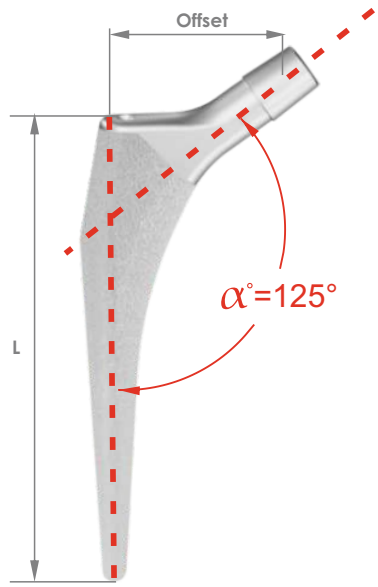
STANDARD Stem



ST 135

Offset (mm)	Length L (mm)	REF No.		
		Titanium alloy+Ti+HAp	Titanium alloy+Ti+Si-DLC	Titanium alloy-Cement
37,4	128	-	-	1-35-07-01*
37,8	130	41-35-07-01	61-35-07-01*	1-35-07-02*
38,3	133	41-35-07-02	61-35-07-02*	1-35-07-03*
39,0	136	41-35-07-03	61-35-07-03*	1-35-07-04*
39,5	139	41-35-07-04	61-35-07-04*	1-35-07-05*
40,0	143	41-35-07-05	61-35-07-05*	1-35-07-06*
40,7	146	41-35-07-06	61-35-07-06*	1-35-07-07*
41,2	150	41-35-07-07	61-35-07-07*	1-35-07-08*
41,8	155	41-35-07-08	61-35-07-08*	1-35-07-09*
42,5	160	41-35-07-09	61-35-07-09*	1-35-07-10*
43,2	165	41-35-07-10	61-35-07-10*	1-35-07-11*
43,9	170	41-35-07-11	61-35-07-11*	-

*available on request

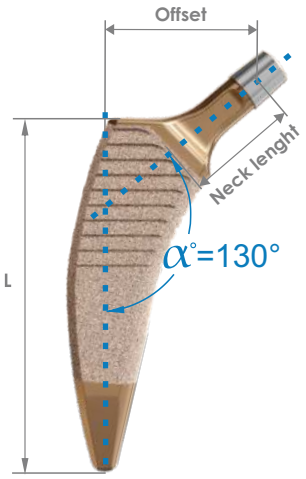


CV 125

Offset (mm)	Length L (mm)	REF No.		
		Titanium alloy+Ti+HAp	Titanium alloy+Ti+Si-DLC	Titanium alloy-Cement
43,1	128	-	-	1-35-08-01*
43,5	130	41-35-08-01	61-35-08-01*	1-35-08-02*
44,0	133	41-35-08-02	61-35-08-02*	1-35-08-03*
44,7	136	41-35-08-03	61-35-08-03*	1-35-08-04*
45,2	139	41-35-08-04	61-35-08-04*	1-35-08-05*
45,7	143	41-35-08-05	61-35-08-05*	1-35-08-06*
46,4	146	41-35-08-06	61-35-08-06*	1-35-08-07*
46,9	150	41-35-08-07	61-35-08-07*	1-35-08-08*
47,5	155	41-35-08-08	61-35-08-08*	1-35-08-09*
48,2	160	41-35-08-09	61-35-08-09*	1-35-08-10*
48,9	165	41-35-08-10	61-35-08-10*	1-35-08-11*
49,6	170	41-35-08-11	61-35-08-11*	-

*available on request

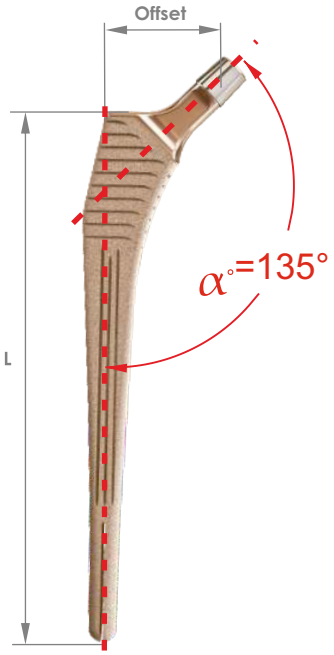
MEDGALIUS Stem



Offset (mm)	Neck length	Length L (mm)	REF No.	
			Titanium alloy+Ti+HAp	Titanium alloy+Ti+Si-DLC
34,54	27,5	83	41-35-13-130M.0*	61-35-13-130M.0
37,24	30	86	41-35-13-130M.1*	61-35-13-130M.1
38,03	30	89	41-35-13-130M.2*	61-35-13-130M.2
40,72	32,5	92	41-35-13-130M.3*	61-35-13-130M.3
41,50	32,5	95	41-35-13-130M.4*	61-35-13-130M.4
42,27	32,5	98	41-35-13-130M.5*	61-35-13-130M.5
45,50	35,5	101,5	41-35-13-130M.6*	61-35-13-130M.6
46,41	35,5	105	41-35-13-130M.7*	61-35-13-130M.7
48,85	37,5	108,5	41-35-13-130M.8*	61-35-13-130M.8
49,76	37,5	112	41-35-13-130M.9*	61-35-13-130M.9
51,42	38,5	115,5	41-35-13-130M.10*	61-35-13-130M.10
53,09	39,5	119	41-35-13-130M.11*	61-35-13-130M.11

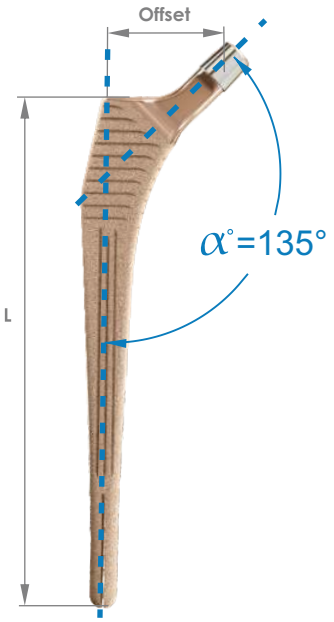
*available on request

REVISION Stem



STANDARD OFFSET

Offset (mm)	Length L (mm)	REF No.
39,4	180	61-35-13-R135.3
39,9	185	61-35-13-R135.4
40,7	190	61-35-13-R135.5
41,2	195	61-35-13-R135.6
41,9	200	61-35-13-R135.7
42,6	205	61-35-13-R135.8
43,4	210	61-35-13-R135.9
44,4	220	61-35-13-R135.10
45,4	230	61-35-13-R135.11

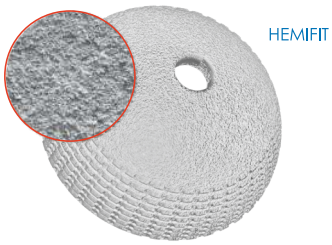


HIGH OFFSET

Offset (mm)	Length L (mm)	REF No.
44,4	180	61-35-13-R135H.3
44,9	185	61-35-13-R135H.4
45,6	190	61-35-13-R135H.5
46,2	195	61-35-13-R135H.6
46,9	200	61-35-13-R135H.7
47,6	205	61-35-13-R135H.8
48,4	210	61-35-13-R135H.9
49,4	220	61-35-13-R135H.10
50,4	230	61-35-13-R135H.11

MEDGAL-HIP Acetabular cup

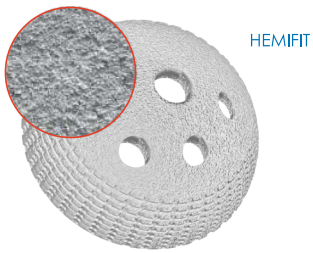
Cementless acetabular cup



Diameter Ø (mm)	REF No.	
	HEMIFIT (Ti+HAp)	HEMIFIT (Ti+SiDLC)
42	41-33-03-42*	61-33-03-42*
44	41-33-03-44*	61-33-03-44*
46	41-33-03-46*	61-33-03-46*
48	41-33-03-48*	61-33-03-48*
50	41-33-03-50*	61-33-03-50*
52	41-33-03-52*	61-33-03-52*
54	41-33-03-54*	61-33-03-54*
56	41-33-03-56*	61-33-03-56*
58	41-33-03-58*	61-33-03-58*
60	41-33-03-60*	61-33-03-60*
62	41-33-03-62*	61-33-03-62*
64	41-33-03-64*	61-33-03-64*
66	41-33-03-66*	61-33-03-66*
68	41-33-03-68*	61-33-03-68*
70	41-33-03-70*	61-33-03-70*

*available on request

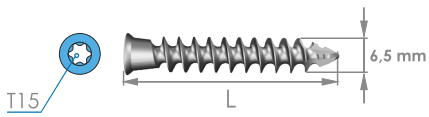
Cementless acetabular cup - **3 holes**



Diameter Ø (mm)	REF No.	
	HEMIFIT (Ti+HAp)	HEMIFIT (Ti+SiDLC)
42	41-33-04-42*	61-33-04-42*
44	**41-33-04-44**	61-33-04-44*
46	**41-33-04-46**	61-33-04-46*
48	**41-33-04-48**	61-33-04-48*
50	**41-33-04-50**	61-33-04-50*
52	**41-33-04-52**	61-33-04-52*
54	**41-33-04-54**	61-33-04-54*
56	**41-33-04-56**	61-33-04-56*
58	**41-33-04-58**	61-33-04-58*
60	**41-33-04-60**	61-33-04-60*
62	**41-33-04-62**	61-33-04-62*
64	**41-33-04-64**	61-33-04-64*
66	**41-33-04-66**	61-33-04-66*
68	**41-33-04-68**	61-33-04-68*
70	**41-33-04-70**	61-33-04-70*

*available on request

Acetabular screw



L(mm)	REF No.	
	Titanium alloy	Titanium alloy + Si-DLC
15-80 (every 5mm)	1-01-356-L	21-01-356-L

MEDGAL-HIP Acetabular cup

3D printed cementless acetabular cup - 3BioTi - multihole

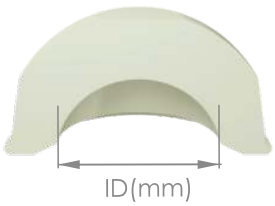
3BioTi - 3D printed lattice structure improving osseointegration

Diameter Ø (mm)	3 holes	7 holes
	SiDLC	SiDLC
40	21-33-23-3.40*	21-33-23-7.40*
42	21-33-23-3.42*	21-33-23-7.42*
44	**21-33-23-3.44**	**2**1-33-23-7.44*
46	**21-33-23-3.46**	**2**1-33-23-7.46*
48	**21-33-23-3.48**	**2**1-33-23-7.48*
50	**21-33-23-3.50**	**2**1-33-23-7.50*
52	**21-33-23-3.52**	**2**1-33-23-7.52*
54	**21-33-23-3.54**	**2**1-33-23-7.54*
56	**21-33-23-3.56**	**2**1-33-23-7.56*
58	**21-33-23-3.58**	**2**1-33-23-7.58*
60	**21-33-23-3.60**	**2**1-33-23-7.60*
62	**21-33-23-3.62**	**2**1-33-23-7.62*
64	**21-33-23-3.64**	**2**1-33-23-7.64*
66	**21-33-23-3.66**	**2**1-33-23-7.66*
68	**21-33-23-3.68**	**2**1-33-23-7.68*
70	**21-33-23-3.70**	**2**1-33-23-7.70*
72	21-33-23-3.72*	21-33-23-7.72*
74	21-33-23-3.74*	21-33-23-7.74*
76	21-33-23-3.76*	21-33-23-7.76*
78	21-33-23-3.78*	21-33-23-7.78*
80	21-33-23-3.80*	21-33-23-7.80*

*available on request

MEDGAL-HIP Cup liners

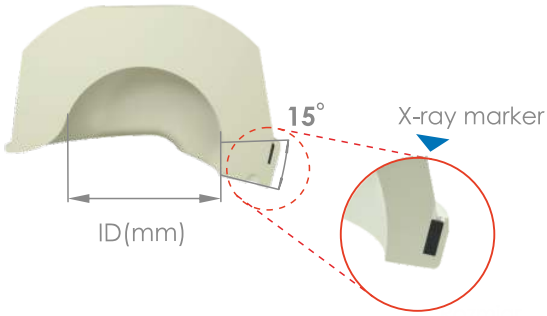
Cup liner (highly crosslinked UHMWPE with witamin E)



REF No.			Acetabular shell size
ID=28	ID=32	ID=36	
9-33-08-28.34*	-	-	40,42
9-33-08-28.36	-	-	**44**
9-33-08-28.37	-	-	**46**
9-33-08-28.38*	**9-33-08-32.38**	-	**48**
9-33-08-28.40*	**9-33-08-32.40**	-	**50**
9-33-08-28.42*	9-33-08-32.42*	**9-33-08-36.42**	**52**
9-33-08-28.44*	9-33-08-32.44*	**9-33-08-36.44**	**54**
9-33-08-28.46*	9-33-08-32.46*	**9-33-08-36.46**	**56, 58**
9-33-08-28.50*	9-33-08-32.50*	**9-33-08-36.50**	**60, 62**
9-33-08-28.54*	9-33-08-32.54*	**9-33-08-36.54**	**64, 66, 68, 70**

*available on request

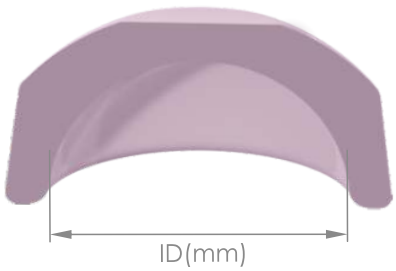
Anti-luxation cup liner (highly crosslinked UHMWPE with witamin E)



REF No.			Acetabular shell size
ID=28	ID=32	ID=36	
9-33-09-28.34*	-	-	40,42
9-33-09-28.36	-	-	**44**
9-33-09-28.37	-	-	**46**
9-33-09-28.38*	**9-33-09-32.38**	-	**48**
9-33-09-28.40*	**9-33-09-32.40**	-	**50**
9-33-09-28.42*	9-33-09-32.42*	**9-33-09-36.42**	**52**
9-33-09-28.44*	9-33-09-32.44*	**9-33-09-36.44**	**54**
9-33-09-28.46*	9-33-09-32.46*	**9-33-09-36.46**	**56, 58**
9-33-09-28.50*	9-33-09-32.50*	**9-33-09-36.50**	**60, 62**
9-33-09-28.54*	9-33-09-32.54*	**9-33-09-36.54**	**64, 66, 68, 70**

*available on request

Ceramic Cup Liner - Biolox® delta*



REF No.			Acetabular shell size
ID=28	ID=32	ID=36	
156-33-07-28.36*	-	-	44,46
156-33-07-28.38*	-	-	48
156-33-07-28.40*	156-33-07-32.40*	-	50
-	156-33-07-32.42*	-	52
-	156-33-07-32.44*	156-33-07-36.44*	54
-	-	156-33-07-36.46*	56, 58
-	-	156-33-07-36.50*	60, 62
-	-	156-33-07-36.54*	64, 66, 68, 70

*The product is available only on request.
Delivery time is determined individually and it may take up to 12 weeks.

Dual Mobility MEDGAL-HIP

Acetabular shell size	Liner	Dual mobility head	Femoral head (CoCrMo)	Femoral head (ceramic)
40, 42	103-33-19-32.34*	**9-33-20-222.32**	**103-33-10-222.M/L/XL**	-
44, 46	**103-33-19-32.36**	**9-33-20-222.32**	**103-33-10-222.M/L/XL**	-
48	**103-33-19-36.38**	**9-33-20-222.36**	**103-33-10-222.M/L/XL**	-
50	**103-33-19-36.40**	**9-33-20-222.36**	**103-33-10-222.M/L/XL**	-
52	**103-33-19-40.42**	**9-33-20-28.40**	**103-33-10-28.S/M/L/XL/XXL**	**156-33-06-28.S/M/L**
54	**103-33-19-40.44**	**9-33-20-28.40**	**103-33-10-28.S/M/L/XL/XXL**	**156-33-06-28.S/M/L**
56, 58	**103-33-19-40.46**	**9-33-20-28.40**	**103-33-10-28.S/M/L/XL/XXL**	**156-33-06-28.S/M/L**
60, 62	**103-33-19-44.50**	**9-33-20-32.44**	**103-33-10-32.S/M/L/XL/XXL**	**156-33-06-32.S/M/L/XL**
64, 66, 68, 70	**103-33-19-50.54**	**9-33-20-32.50**	**103-33-10-32.S/M/L/XL/XXL**	**156-33-06-32.S/M/L/XL**
72, 74	103-33-19-56.60*	9-33-20-32.56*	**103-33-10-32.S/M/L/XL/XXL**	**156-33-06-32.S/M/L/XL**
76, 78, 80	103-33-19-56.62*	9-33-20-32.56*	**103-33-10-32.S/M/L/XL/XXL**	**156-33-06-32.S/M/L/XL**

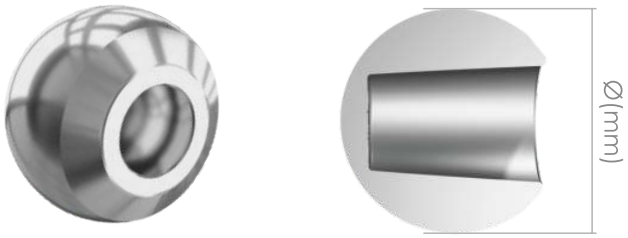
*available on request

MEDGAL-HIP Heads

Ceramic Femoral Head - Biolox® delta

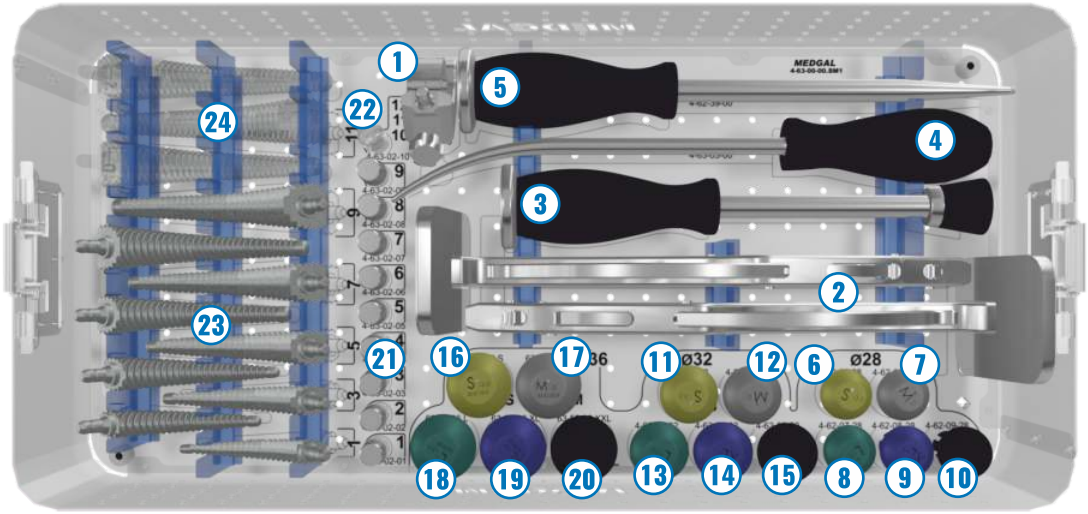
Size	REF No.		
	Ø=28	Ø=32	Ø=36
S	156-33-06-28.S	156-33-06-32.S	156-33-06-36.S
M	156-33-06-28.M	156-33-06-32.M	156-33-06-36.M
L	156-33-06-28.L	156-33-06-32.L	156-33-06-36.L
XL	-	156-33-06-32.XL	156-33-06-36.XL

Femoral Head (CoCrMo)



Size	Offset	REF No.		
		Ø=28	Ø=32	Ø=36
S	-3,5	103-33-10-28.S	103-33-10-32.S	103-33-10-36.S
M	0	103-33-10-28.M	103-33-10-32.M	103-33-10-36.M
L	3,5	103-33-10-28.L	103-33-10-32.L	103-33-10-36.L
XL	7	103-33-10-28.XL	103-33-10-32.XL	103-33-10-36.XL
XXL	10,5	103-33-10-28.XXL	103-33-10-32.XXL	103-33-10-36.XXL

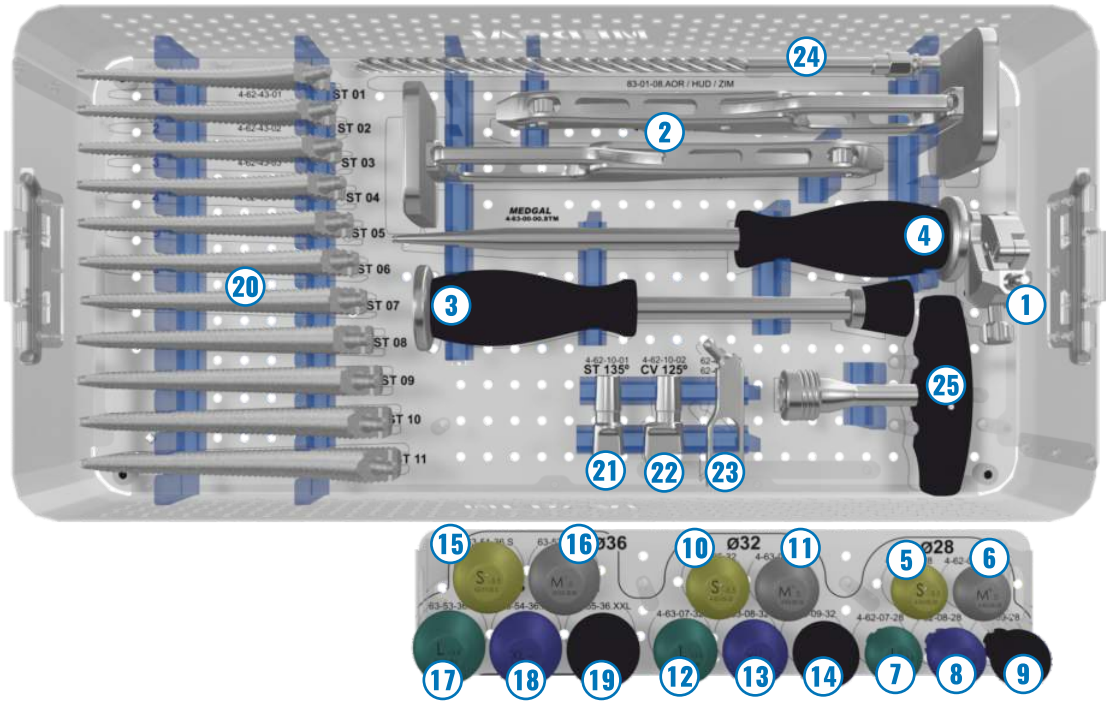
INSTRUMENT SET - METHAFIT STEM
4-63-00-00.SM1



1	Extractor	63-56-0
2	Rasp handle	4-62-01-01
3	Femoral head impactor	4-62-02-00
4	Opening broach curved	4-63-03-00
5	Stem impactor	4-62-39-00
6	Trial head 28 mm S	4-62-05-28
7	Trial head 28 mm M	4-62-06-28
8	Trial head 28 mm L	4-62-07-28
9	Trial head 28 mm XL	4-62-08-28
10	Trial head 28 mm XXL	4-62-09-28
11	Trial head 32 mm S	4-63-05-32
12	Trial head 32 mm M	4-63-06-32
13	Trial head 32 mm L	4-63-07-32
14	Trial head 32 mm XL	4-63-08-32
15	Trial head 32 mm XXL	4-63-09-32
16	Trial head 36 mm S	63-51-36.S
17	Trial head 36 mm M	63-52-36.M
18	Trial head 36 mm L	63-53-36.L
19	Trial head 36 mm XL	63-54-36.XL
20	Trial head 36 mm XXL	63-55-36.XXL
21	Trial neck S**1 - 9**	4-63-02-**01—09**
22	Trial neck S**10 - 12**	4-63-02-**10—12** *(optional)*
23	Rasp **1 - 9**	4-63-01-**01—09**
24	Rasp **10 - 12**	4-63-01-**10—12** *(optional)*

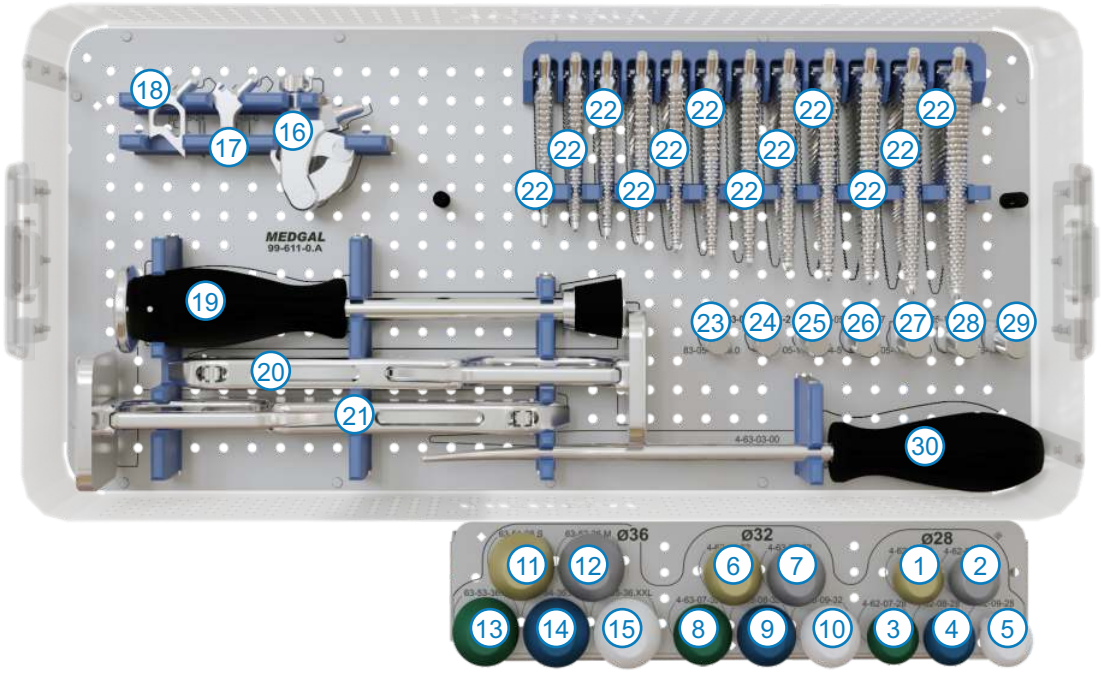
INSTRUMENT SET - STANDARD STEM

4-63-00-00.STM.AOR.1.OL/HUD.1.OL/ZIM.1.OL



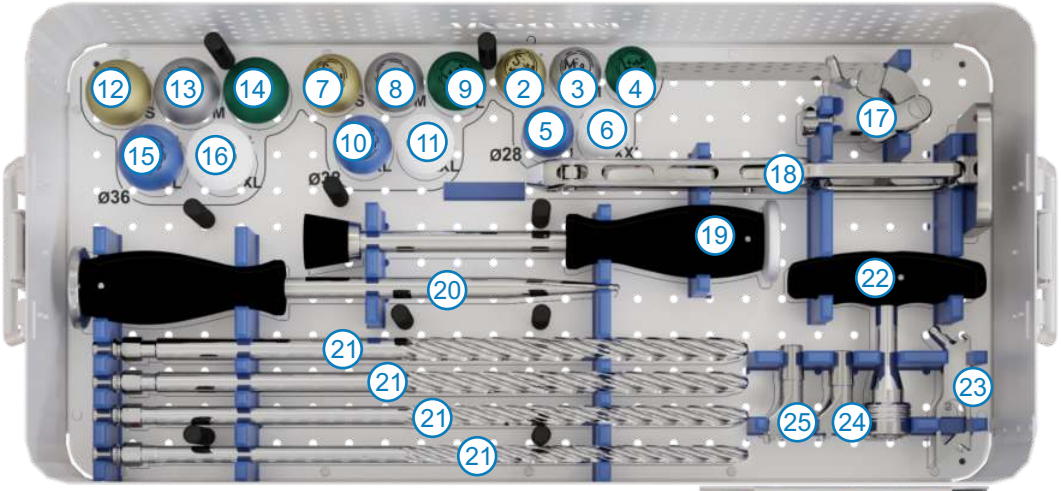
1	Extractor	63-56-0	
2	Rasp handle	4-62-01-01	
3	Femoral head impactor	4-62-02-00	
4	Stem impactor	4-62-39-00	
5	Trial head 28 mm S	4-62-05-28	
6	Trial head 28 mm M	4-62-06-28	
7	Trial head 28 mm L	4-62-07-28	
8	Trial head 28 mm XL	4-62-08-28	
9	Trial head 28 mm XXL	4-62-09-28	
10	Trial head 32 mm S	4-63-05-32	
11	Trial head 32 mm M	4-63-06-32	
12	Trial head 32 mm L	4-63-07-32	
13	Trial head 32 mm XL	4-63-08-32	
14	Trial head 32 mm XXL	4-63-09-32	
15	Trial head 36 mm S	63-51-36.S	
16	Trial head 36 mm M	63-52-36.M	
17	Trial head 36 mm L	63-53-36.L	
18	Trial head 36 mm XL	63-54-36.XL	
19	Trial head 36 mm XXL	63-55-36.XXL	
20	Rasp ST **1 - 11**	4-62-43-**01—11**	
21	Trial **neck** ST 135	4-62-10-01	
22	Trial **neck** CV 125	4-62-10-02	
23	Osteostarter 56 mm	62-46-56	
24	6-flute cutter:		Instrumentation REF:
	- chuck AO Reamer	83-01-08.AOR	4-63-00-00.STM.AOR.1.OL
	- chuck Hudson *(optional)*	83-01-08.HUD	4-63-00-00.STM.HUD.1.OL (optional)
	- chuck Zimmer *(optional)*	83-01-08.ZIM	4-63-00-00.STM.ZIM.1.OL (optional)
25	T-Handle:		
	- chuck AO Reamer	43-281-0	4-63-00-00.STM.AOR
	- chuck Hudson *(optional)*	43-282-0	4-63-00-00.STM.HUD (optional)
	- chuck Zimmer *(optional)*	43-273-0	4-63-00-00.STM.ZIM (optional)

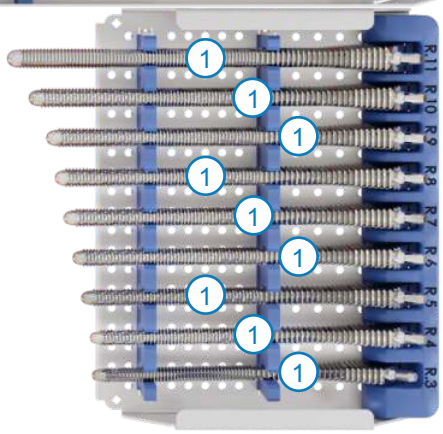
INSTRUMENT SET - MEDGALIUS STEM
99-611-0



1	Trial head 28 mm S	4-62-05-28
2	Trial head 28 mm M	4-62-06-28
3	Trial head 28 mm L	4-62-07-28
4	Trial head 28 mm XL	4-62-08-28
5	Trial head 28 mm XXL	4-62-09-28
6	Trial head 32 mm S	4-63-05-32
7	Trial head 32 mm M	4-63-06-32
8	Trial head 32 mm L	4-63-07-32
9	Trial head 32 mm XL	4-63-08-32
10	Trial head 32 mm XXL	4-63-09-32
11	Trial head 36 mm S	63-51-36.S
12	Trial head 36 mm M	63-52-36.M.
13	Trial head 36 mm L	63-53-36.L
14	Trial head 36 mm XL	63-54-36.XL
15	Trial head 36 mm XXL	63-55-36.XXL
16	Extractor	63-56-0
17	Stem impactor	83-06-0
18	Osteostarter 24mm	62-46-24
19	Head impactor	4-62-02-00
20	Rasp handle with offset	4-62-38-00
21	Rasp handle	4-62-01-01
22	Rasp Medgalius **0 - 11**	83-04-130M.**0—11**
23	Trial neck	83-05-130M.0
24	Trial neck	83-05-130M.1-2
25	Trial neck	83-05-130M.3-4-5
26	Trial neck	83-05-130M.6-7
27	Trial neck	83-05-130M.8-9
28	Trial neck	83-05-130M.10
29	Trial neck	83-05-130M.11
30	Opening broach curved	4-63-03-00

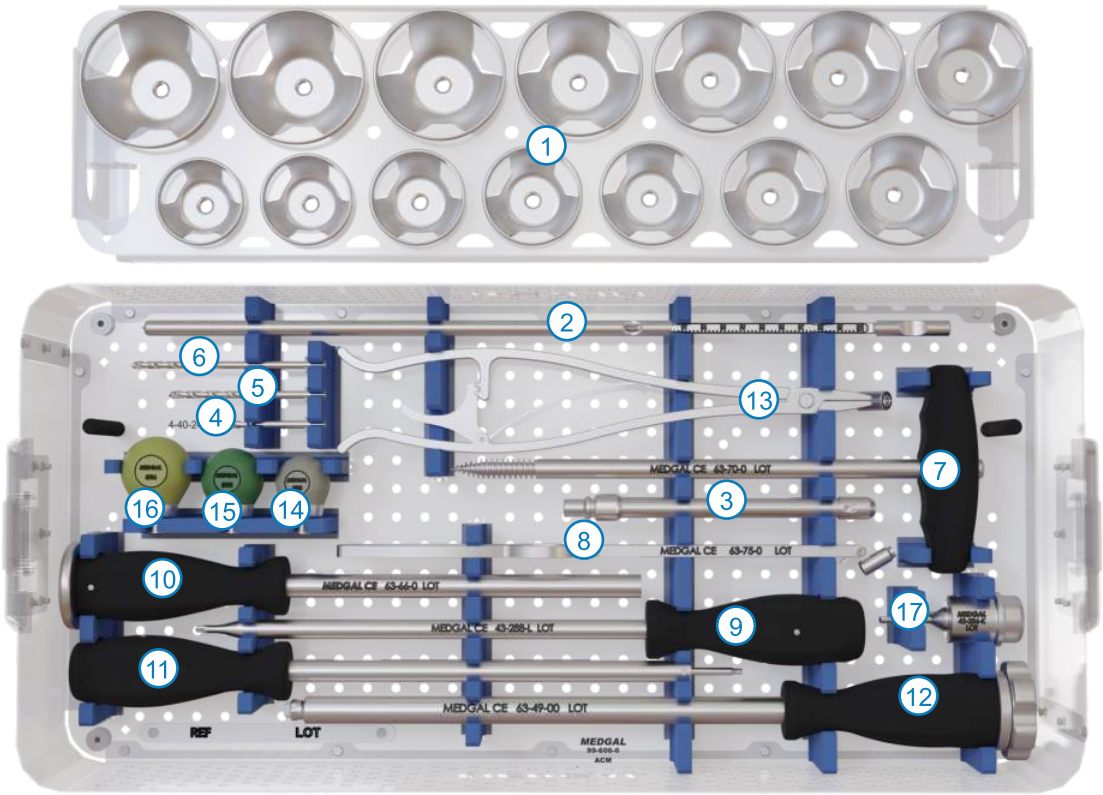
INSTRUMENT SET - REVISION STEM
99-599-0





1	Rasp SIMPLE **3 - 11**	83-2-R.**3—11**
2	Trial head 28 mm S	4-62-05-28
3	Trial head 28 mm M	4-62-06-28
4	Trial head 28 mm L	4-62-07-28
5	Trial head 28 mm XL	4-62-08-28
6	Trial head 28 mm XXL	4-62-09-28
7	Trial head 32 mm S	4-63-05-32
8	Trial head 32 mm M	4-63-06-32
9	Trial head 32 mm L	4-63-07-32
10	Trial head 32 mm XL	4-63-08-32
11	Trial head 32 mm XXL	4-63-09-32
12	Trial head 36 mm S	63-51-36.S
13	Trial head 36 mm M	63-52-36.M
14	Trial head 36 mm L	63-53-36.L
15	Trial head 36 mm XL	63-54-36.XL
16	Trial head 36 mm XXL	63-55-36.XXL
17	Extractor	63-56-0
18	Rasp handle	4-62-01-01
19	Head impactor	4-62-02-00
20	Stem impactor	4-62-39-00
21	6-flute cutter Ø **10 - 13**	83-01-**10—13**.AOR
22	T handle (AO)	43-281-0.C
23	Osteostarter 56mm	62-46-56
24	Trial neck High Offset	83-03-135
25	Trial neck Standard Offset	83-03-135H

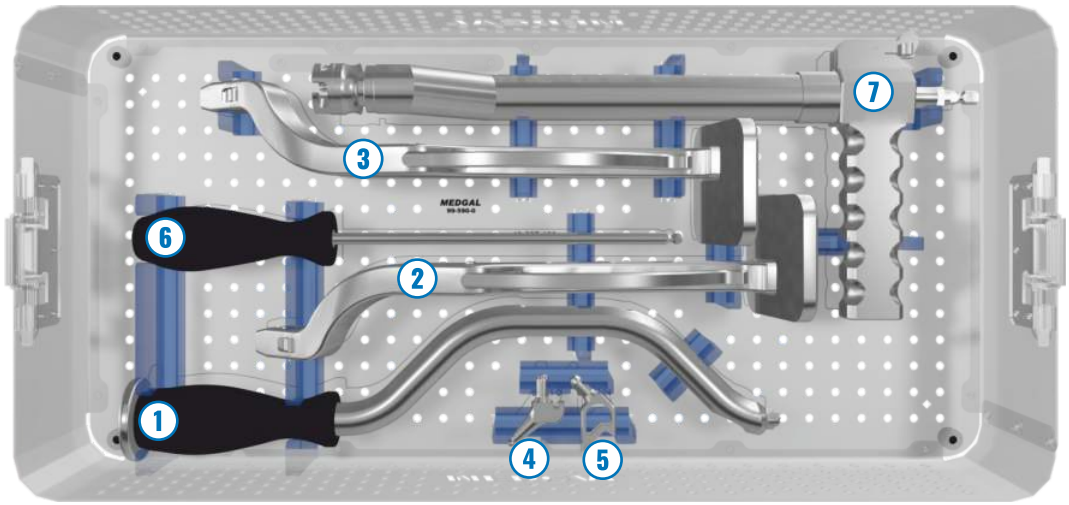
INSTRUMENT SET - CEMENTLESS ACETABULAR CUP
99-606-0



1	Trial Acetabular Cups **44 - 70**	4-63-15-**44—70**
2	Holes depth gauge	63-48-00
3	Flexible drill handle	4-63-36-00
4	Drill L=60 mm	4-40-24-04.40
5	Drill L=80 mm	4-40-24-04.60
6	Drill L=100 mm	4-40-24-04.80
7	Femoral Head Extractor	63-70-0
8	VA drill guide	63-75-0
9	TORX screwdriver T15	43-288-230
10	Impactor handle	63-66-0
11	Flexible TORX screwdriver	43-296-0
12	Acetabular cup impator	63-49-00
13	Screw Holding Forceps	63-74-0
14	Liner Impactor 28mm Head	63-67-28
15	Liner Impactor 32mm Head	63-67-32
16	Liner Impactor 36mm Head	63-67-36
17	AOreamer adapter chuck:	
	- chuck DIN	43-286.DIN *(optional)*
	- chuck AO Jacobs	43-286.AOJ *(optional)*
	- chuck Harris	43-286.HAR *(optional)*
	- chuck Hudson	43-286.HUD *(optional)*
	- chuck Zimmer	43-286.ZIM *(optional)*

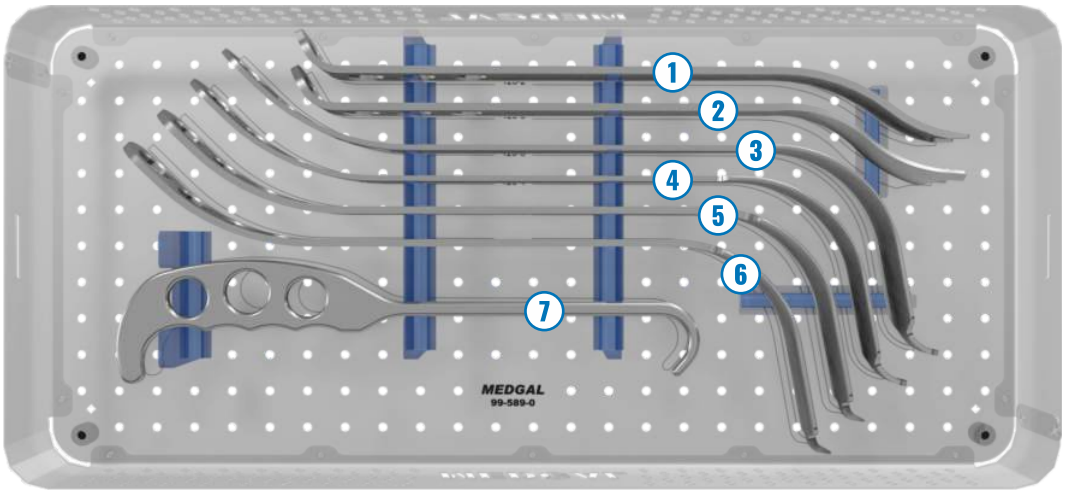
MIS - MINIMAL INVASIVE SET - MEDGAL-HIP

99-590-AOR/AOJ/HUD/ZIM



1	Offset acetabular cup impactor	63-68-0	
2	Rasp handle - right	4-63-06-02	
3	Rasp handle - left	4-63-06-01	
4	MIS stem impactor	63-61-0	
5	MIS box osteostarter	62-46-24	
6	Acetabular cup impactor screwdriver	43-287-190	
7	Offset Reamer Handle:		Instrumentation REF:
	- chuck AO Reamer	63-57-00.AOR	99-590-AOR
	- chuck AO Jacobs	63-57-00.AOJ	99-590-AOJ *(optional)*
	- chuck Hudson	63-57-00.HUD	99-590-HUD *(optional)*
	- chuck Zimmer	63-57-00.ZIM	99-590-ZIM *(optional)*

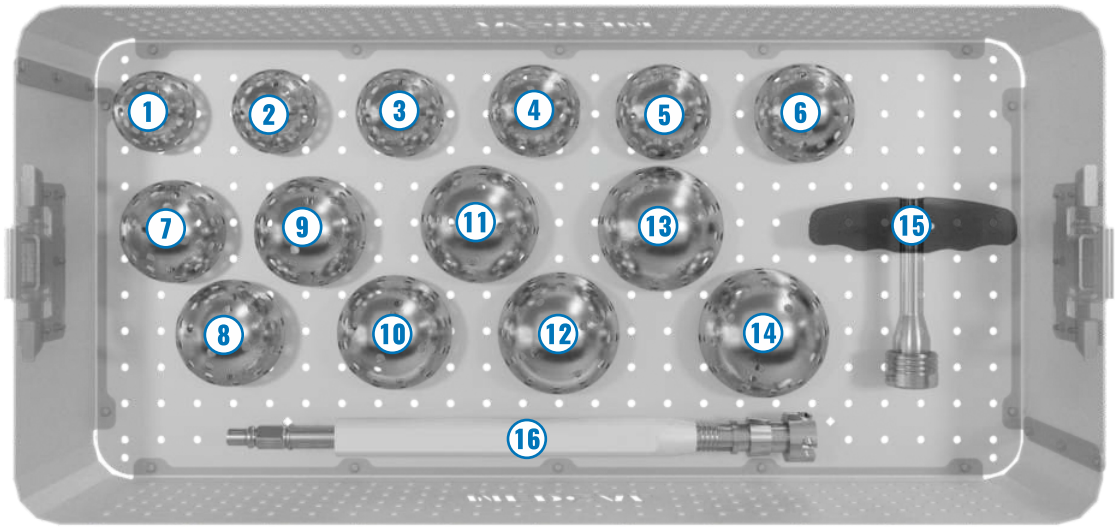
INSTRUMENT SET - DAA RETRACTORS
99-589-0



1	MUELLER RETRACTOR (width 20)	120-2
2	CURVED MURLLER RETRACTOR (width 20)	120-3
3	NARROW COBRA RETRACTOR (width 37)	120-5
4	WIDE COBRA RETRACTOR (width 30)	120-4
5	NARROW HOHMANN RETRACTOR (width 35)	120-6
6	WIDE HOHMANN RETRACTOR (width 30)	120-1
7	Hip Dislocation Hook	63-64-2

ACETABULAR REAMER SET

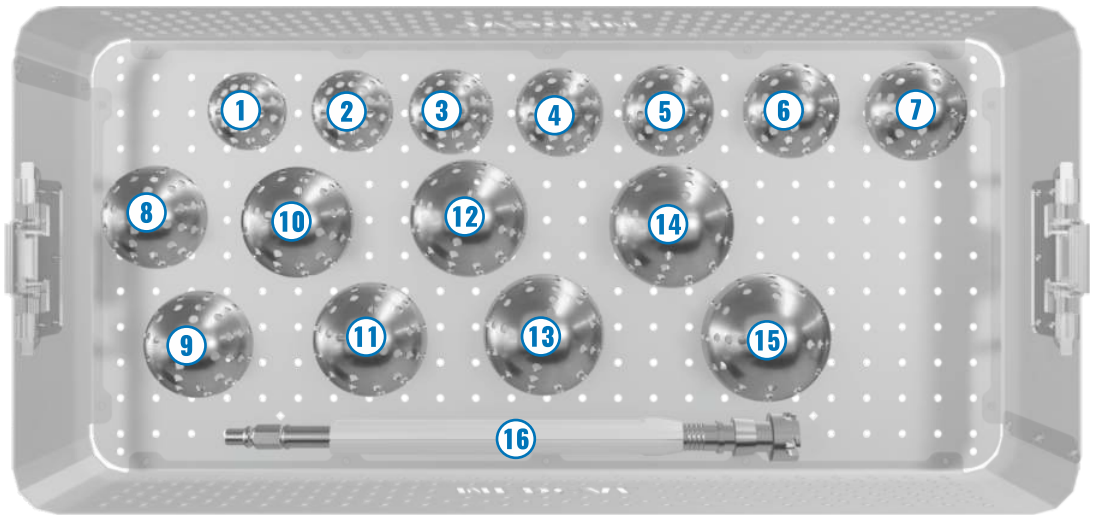
4-63-00-00.AR.AO/HAR/HUD/ZIM



1	Acetabular Reamer 44	63-05-44	
2	Acetabular Reamer 46	63-05-46	
3	Acetabular Reamer 48	63-05-48	
4	Acetabular Reamer 50	63-05-50	
5	Acetabular Reamer 52	63-05-52	
6	Acetabular Reamer 54	63-05-54	
7	Acetabular Reamer 56	63-05-56	
8	Acetabular Reamer 58	63-05-58	
9	Acetabular Reamer 60	63-05-60	
10	Acetabular Reamer 62	63-05-62	
11	Acetabular Reamer 64	63-05-64	
12	Acetabular Reamer 66	63-05-66	
13	Acetabular Reamer 68	63-05-68	
14	Acetabular Reamer 70	63-05-70	
15	T-Handle		Instrumentation REF:
	- chuck AO Reamer	43-281-0	4-63-00-00.AR.AO
	- chuck Hudson	43-273-0	4-63-00-00.AR.HUD *(optional)*
	- chuck Zimmer	43-282-0	4-63-00-00.AR.ZIM *(optional)*
16	Reamer Handle:		
	- chuck AO Reamer	4-63-27-00.AO	4-63-00-00.AR.AO
	- chuck Harris	4-63-27-00.HAR	4-63-00-00.AR.HAR *(optional)*
	- chuck Hudson	4-63-27-00.HUD	4-63-00-00.AR.HUD *(optional)*
	- chuck Zimmer	4-63-27-00.ZIM	4-63-00-00.AR.ZIM *(optional)*

ACETABULAR REAMER SET

4-63-00-00.ARN.AO/HAR/HUD/ZIM

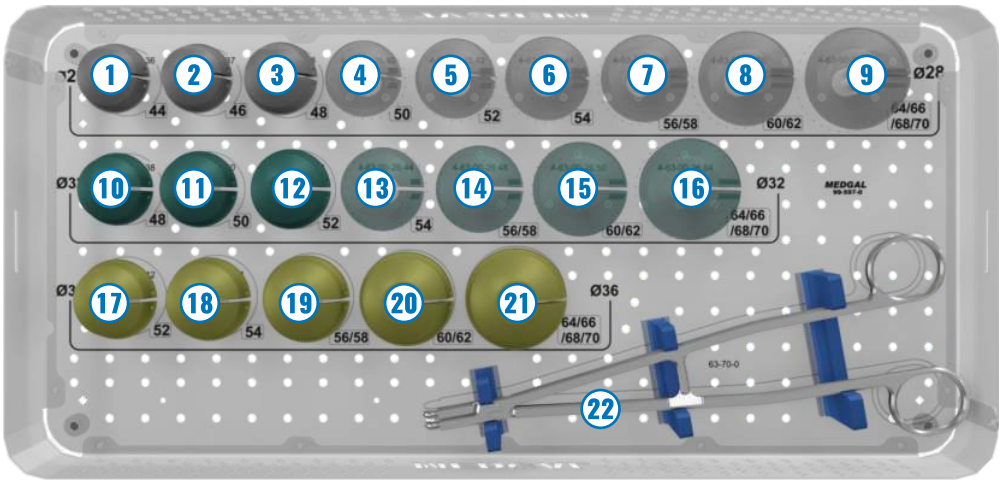


1	Acetabular Reamer 43	63-05-43	
2	Acetabular Reamer 45	63-05-45	
3	Acetabular Reamer 47	63-05-47	
4	Acetabular Reamer 49	63-05-49	
5	Acetabular Reamer 51	63-05-51	
6	Acetabular Reamer 53	63-05-53	
7	Acetabular Reamer 55	63-05-55	
8	Acetabular Reamer 57	63-05-57	
9	Acetabular Reamer 59	63-05-59	
10	Acetabular Reamer 61	63-05-61	
11	Acetabular Reamer 63	63-05-63	
12	Acetabular Reamer 65	63-05-65	
13	Acetabular Reamer 67	63-05-67	
14	Acetabular Reamer 69	63-05-69	
15	Acetabular Reamer 71	63-05-71	
16	Reamer Handle:		Instrumentation REF:
	- chuck AO Reamer	4-63-27-00.AO	4-63-00-00.ARN.AO
	- chuck Harris	4-63-27-00.HAR	4-63-00-00.ARN.HAR *(optional)*
	- chuck Hudson	4-63-27-00.HUD	4-63-00-00.ARN.HUD *(optional)*
	- chuck Zimmer	4-63-27-00.ZIM	4-63-00-00.ARN.ZIM *(optional)*

INSTRUMENT SET - LINER TRIALS

(An optional set for the instrument set "INSTRUMENT SET - CEMENTLESS ACETABULAR CUP - 4-63-00-00.ACM")

99-597-0

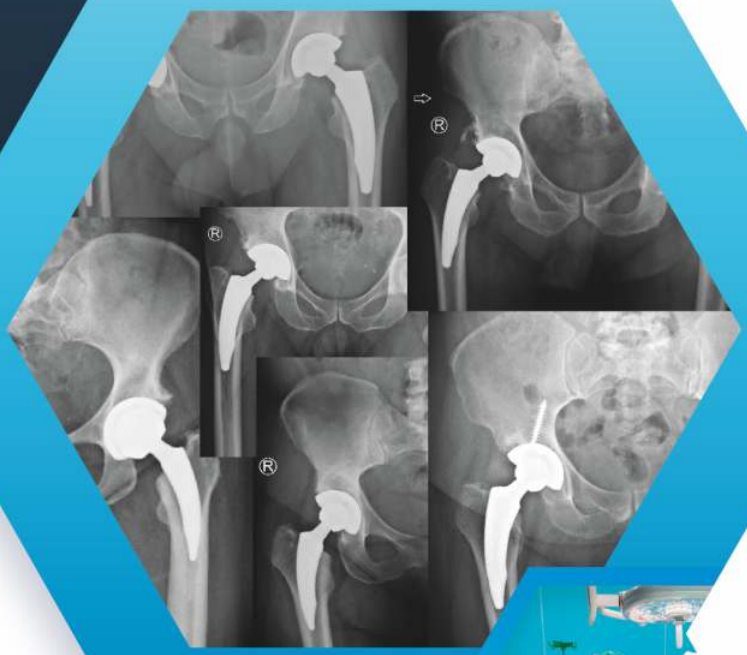


1	Trial insert 44	4-63-00-25.36
2	Trial insert 46	4-63-00-25.37
3	Trial insert 48	4-63-00-25.38
4	Trial insert 50	4-63-00-25.40 *(optional)*
5	Trial insert 52	4-63-00-25.42 *(optional)*
6	Trial insert 54	4-63-00-25.44 *(optional)*
7	Trial insert 56/58	4-63-00-25.46 *(optional)*
8	Trial insert 60/62	4-63-00-25.50 *(optional)*
9	Trial insert 64/66/68/70	4-63-00-25.54 *(optional)*
10	Trial insert 48	4-63-00-26.38
11	Trial insert 50	4-63-00-26.40
12	Trial insert 52	4-63-00-26.42
13	Trial insert 54	4-63-00-26.44 *(optional)*
14	Trial insert 56/58	4-63-00-26.46 *(optional)*
15	Trial insert 60/62	4-63-00-26.50 *(optional)*
16	Trial insert 64/66/68/70	4-63-00-26.54 *(optional)*
18	Trial insert 52	4-63-00-27.42
19	Trial insert 54	4-63-00-27.44
20	Trial insert 56/58	4-63-00-27.46
21	Trial insert 60/62	4-63-00-27.50
22	Trial insert 64/66/68/70	4-63-00-27.54
23	Trial insert forceps	63-73-0

MEDGAL-HIP

POLISH PRODUCT

FIRST POLISH BIPOLAR AND REVISION
ENDOPROSTHESIS SYSTEM
USED IN ALLOPLASTY
OF THE HIP JOINT



WE PROVIDE

- cementless acetabular cups coated with porous titanium with hydroxyapatite or Si-DLC layer
- polyethylene cup liners with vitamin E or ceramic (BIOLOX®delta)
- ceramic (BIOLOX®delta) and metal (CoCr) heads
- uniquely shaped or standard epiphyseal stems coated with porous titanium with hydroxyapatite or Si-DLC layer
- intuitive instrument set adapted to the individual needs of the operator

Innovative Si-DLC carbon-silicon layer coating.

SILICON stimulates the proliferation of osteoblasts, increases the expression of genes responsible for formation of callus through GMP-2 and can stimulate type I collagen synthesis.

CARBON is a basic and essential element included in all organic compounds. It make up approximately 18,5% of a healthy person's body weight.

Benefits of use

- increased biotolerance of the implant (V, VI, VII)
- prevention of migration of metal ions into the peri-implant area - no metallosis phenomenon (VIII, IX, X)
- very high corrosion resistance of the implanted implant in the body's tissue and its fluid environment (VIII, IX, X)
- minimisation of adverse toxic and allergic reactions to the organism and thus a significant reduction in post-operative complications (VIII, IX, X)

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(+48) 85 6632 344
medgal.com.pl
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info@medgal.com.pl
export@medgal.com.pl

CENTRAL
tel.:+48 85 663 23 44
fax +48 85 663 26 22

medgal.com.pl

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