Surgical Technique

smith&nephew

SL-PLUS◇ MIA

Cementless Femoral Hip System

Contents

N.B.

The surgical technique described in this brochure is the procedure suggested by the authors for uncomplicated surgery. The surgeon must, however, decide which procedure is the most suitable and effective for each individual patient.

Indications/contraindications

Indications

All femur types can be treated with the SL-PLUS MIA prosthesis, with the exception of those with extreme curvature, e.g. after angulation osteotomies. In these cases, a corrective osteotomy beforehand may be appropriate.

- Advanced hip joint wear due to degenerative, post-traumatic or rheumatoid arthritis
- Fracture or avascular necrosis of the femoral head
- Follow-on conditions after previous surgery such as osteosynthesis, joint reconstruction, arthrodesis, hemiarthroplasty or total hip replacement

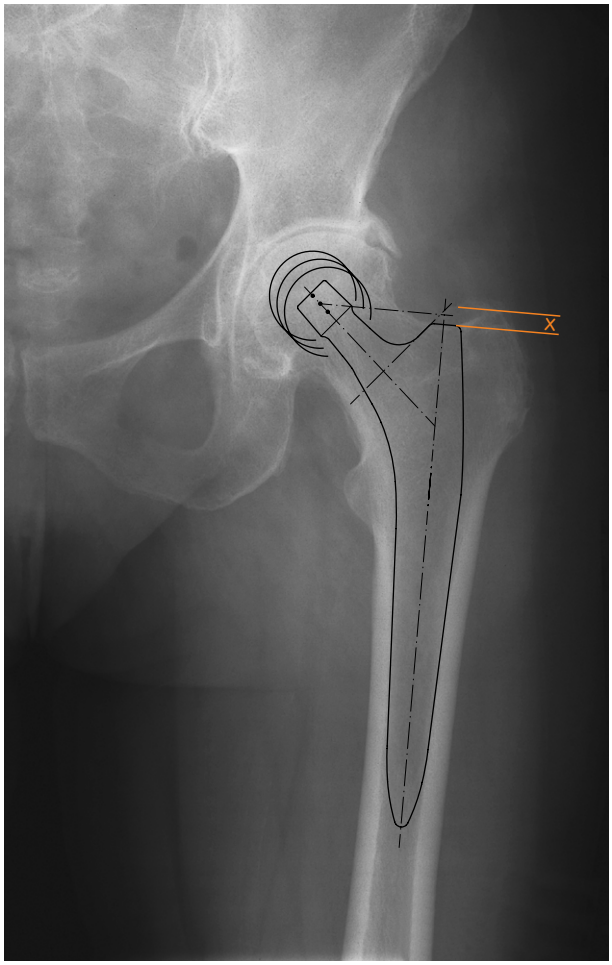
Contraindications

- Infections, acute or chronic, local or systemic
- Severe muscle, nerve or vascular diseases that endanger the respective limb
- Lack of bone substance or defective bone quality that jeopardizes the stable seating of the prosthesis
- Any concomitant disease that may jeopardize implant function
  - Any allergies to the implant materials
  - Renal insufficiency
  - Cardiac insufficiency (e.g. as a result of increased metal ion levels in the blood)
- Revision with extensive bone defects

SL-PLUS◇ MIA Lateral

The SL-PLUS MIA Lateral has a much greater offset (see Dimensions on p. 16) and, at 123°, a much smaller CCD angle than the standard stem (131°).
In the case of coxa vara, the CCD angle is smaller than normal (126°). Implanting a stem prosthesis with a CCD angle of 131° or more can result in a medialization and/or lengthening of the leg. By implanting a lateralizing stem, the lever arms can be reconstructed in such a way that the strength of the pelvic-trochanter muscles is restored. At the same time, an optimal soft tissue tension is achieved. This minimizes the risk of an inadequate gait and the risk of luxation, if required by the preoperative planning.

Preoperative planning



Preoperative planning is needed to determine the correct orientation and size of implant. AP and axial x-rays are required for this purpose. The offset and neck length to be achieved with the SL-PLUS® MIA prosthesis are determined with the aid of x-ray templates for the SL-PLUS MIA stem, Lit. No. 2202, (enlarged by 15 %).

To determine the entry point in the medullary canal, the surgeon is advised to draw the femoral axis on the AP radiograph and extend this proximally. This line indicates how far laterally the box chisel needs to be placed to open up the medullary canal, thus facilitating identification of the lateral entry point at operation.

It is also helpful to define the position of the SL-PLUS MIA stem within the canal. The distance x from the shoulder of the SL-PLUS MIA stem to the greater and lesser trochanter is measured and can serve as an additional leg length check.

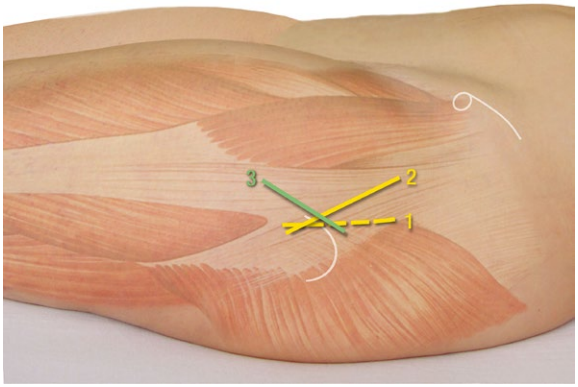
The following instrument sets are required for the implantation of an SL-PLUS MIA stem:

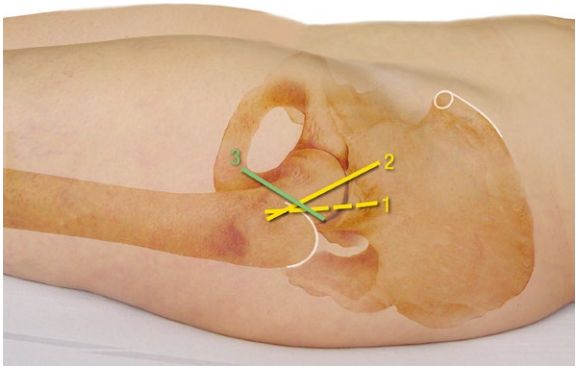
- Basic set 75200838/0942010
- Trial rasp set 75200199/0943030.

Note

This technique is based on the anterolateral, minimally invasive approach performed in the supine position as modified by Professor G. Pflüger and his colleagues at the Evangelisches Krankenhaus in Vienna. Surgeons using other (minimally invasive) approaches are advised to consult the following surgical instructions: posterolateral approach (Lit. No 1426); anterior approach (Lit. No. 1494).

Skin incision

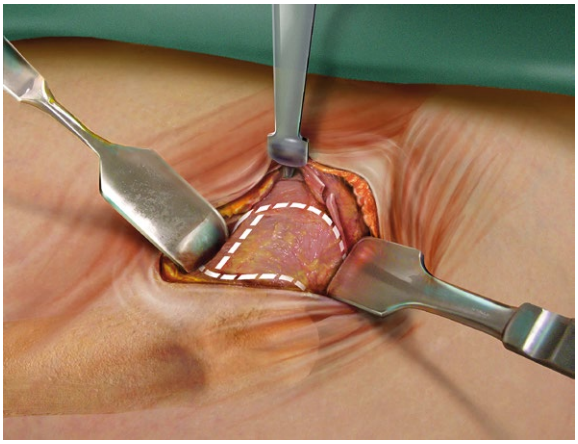




Previous clinical experience has shown that the SL-PLUS® MIA stem can be implanted via various skin incisions, including:

- Straight skin incision along the anterior edge of the greater trochanter, ⅔ proximal to the tip of the trochanter, ⅓ distal to the tip of the trochanter (line 1).
- Oblique skin incision from the anterior edge of the greater trochanter in the direction of the anterior superior iliac spine (line 2).
- Reverse skin incision roughly following the intertrochanteric line (line 3).
- The fascial incision then extends from the upper edge of the tip of the trochanter in the direction of the anterior superior iliac spine. Posterior incision of the iliotibial band is optional.

Capsular incision and dissection

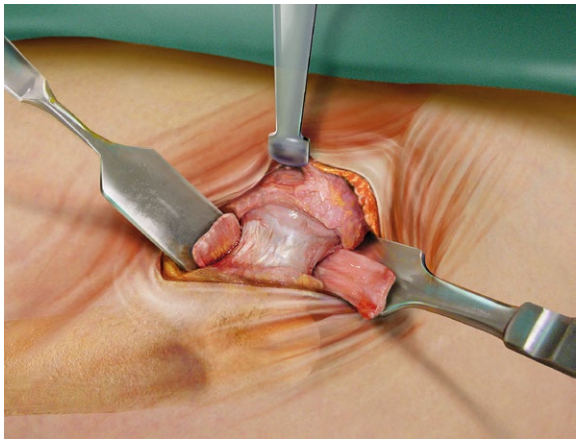


Perform a blunt dissection between the tensor fasciae latae and the gluteus medius/minimus from the lateral side to expose the femoral neck.

One sharp and one blunt Hohmann retractor are placed laterally and medially respectively. The curved rectus tendon is exposed, undermined, divided and released from its attachment to the capsule.

The femoral neck is then exposed via an H-shaped incision of the joint capsule:

- longitudinal incision, as far medially as possible, from the acetabular rim to the intertrochanteric line
- proximal transverse incision of the acetabular labrum from approx. the nine o'clock to the three o'clock position
- distal transverse incision extending along the intertrochanteric line

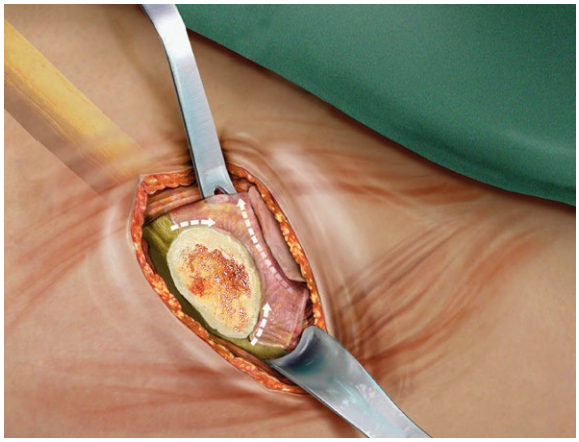


After the wing-like opening of the joint capsule, the dissection of the capsule can be continued by extending the distal incision along the intertrochanteric line in the direction of the lesser trochanter and the proximal incision medially and/or laterally.

Two blunt Hohmann retractors are positioned inside the joint. Problematic osteophytes on the acetabular rim are removed.

The technique selected by the operator for the neck resection (single or double osteotomy) depends on the patient (coxa vara/valga).

Capsular release



In order to facilitate alignment of the cup, the operator switches the leg to the "Figure 4" position and performs an additional release of the posterior capsule.

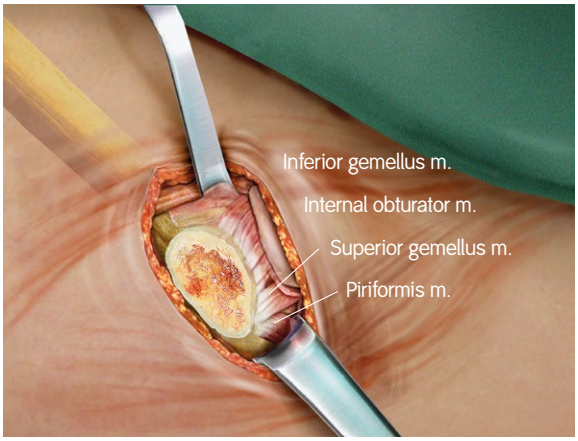
The leg is hyperextended, adducted approximately 30–40° and externally rotated by 90°. The leg being operated on is placed under the other leg in a “figure of 4” position. Alternatively, the other leg is lowered and the leg being operated on is placed on top.

The proximal femur is mobilized with two retractors, a lateral trochanter retractor and a second retractor on the medial side of the femoral neck.

Capsular releases must be performed in the direction of both the lesser trochanter and the trochanteric fossa to the tip of the trochanter. Optionally, it can also be performed on the caudal rim of the acetabulum.

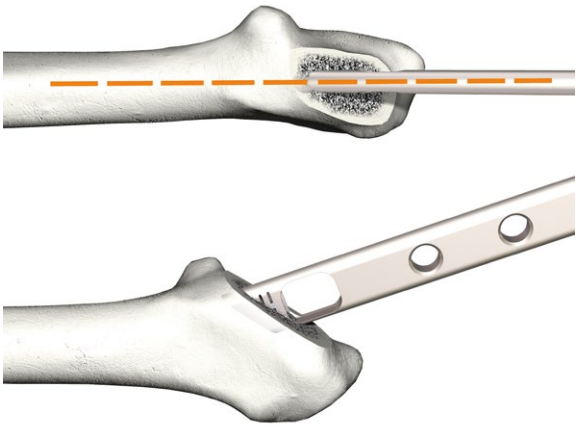
The cup is first implanted according to the corresponding surgical technique.

Shaft preparation



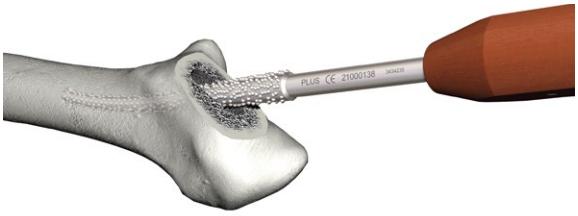
In very muscular or obese patients, patients with a valgus femoral neck, or in cases where the proximal femur sits deep to the skin surface, further release of the posterior capsule or release of the piriformis tendon may be necessary to allow adequate mobilization of the femur prior to preparation of the implantation site.

Access to the medullary canal



The box chisel is placed close to the posterior cortex at the resection level. The box chisel is introduced in alignment with the femoral axis and a small square block of bone is removed. If, after the neck resection, the box chisel is not used to expose the canal, splitting of the trochanter may occur during rasp insertion.

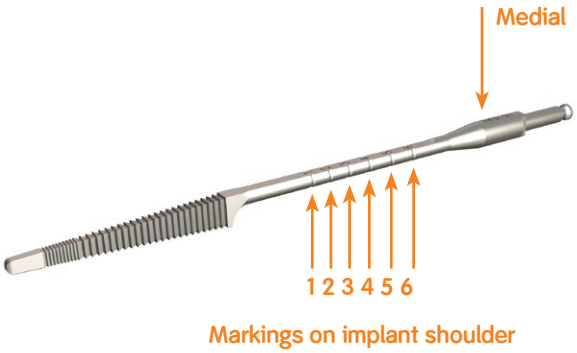
Do not impact the box chisel too deeply.



The MIA curved rasp facilitates opening of the diaphyseal medullary cavity.

Further opening of the diaphyseal medullary cavity and probing of the diaphysis with a corresponding awl are recommended.

Use of the MIA guide rasp

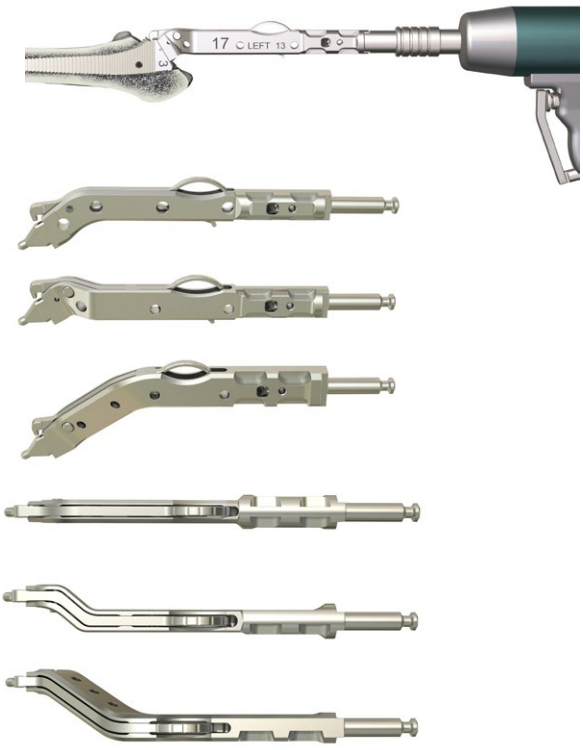


The aim of the MIA guide rasps is to ensure easier alignment of the rasping bed, thereby preventing a varus implant seating. The MIA guide rasp should be introduced with the desired degree of anteversion, matching the planned rotation of the stem.

The rasp depth can be checked by means of the line markings on the shaft. These markings correspond to the shoulder level of the respective implant size. During the rasping operation, care should be taken to restrict the depth of insertion of the MIA guide rasp to around one or two sizes smaller than the planned implant size. As soon as cortical contact is achieved the guide rasp should not be driven any further. An optional MIA guide rasp, size 01-3, is available for small stem sizes of 01 or 0.

When mounting the rasp on the slap hammer or rasping machine, ensure that the side marked "MEDIAL" is correctly oriented. If the medial and lateral sides are inadvertently reversed, the rasp handle may strike the medial aspect of the greater trochanter, forcing the rasp out of its planned neutral alignment.

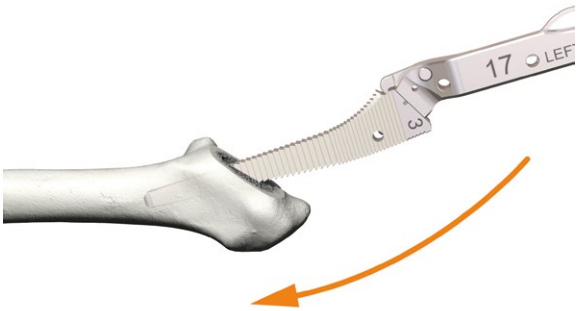
For correct alignment, the rasp is inserted along the anatomical axis of the shaft. If the operator deviates from this axis there is a risk of subsequent varus positioning of the stem in the femur.



After the MIA guide rasp has been inserted to the desired depth, the mountable MIA trial rasps are used to create an implantation site of the correct size and alignment for the femoral implant, as described below.

Adapters with differing offsets are available to accommodate the selected surgical approach and/or patient size. Please refer to the instrument sets as of page 20.

All adapters can be used with the slap hammer, the IMT WOODPECKER rasping machine or the modular knock plate (75000642/21000378).

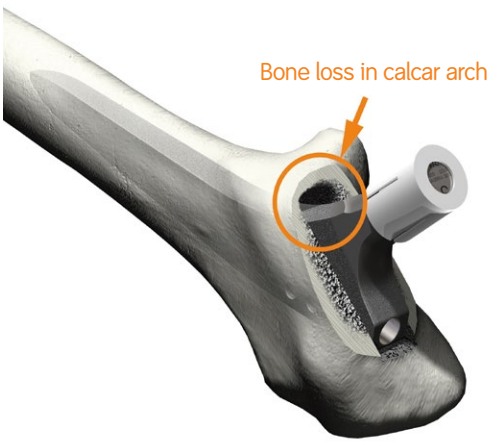


The rasp cuts longitudinal grooves in the femoral cortex. The goal is to achieve extensive surface area contact to provide cortical support for the implant. By gradually increasing the depth of rasping within the medullary cavity, the area of cortical contact increases, along with the resistance to the advance of the rasp. As soon as the rasp is fully engaged within cortical bone, the pitch of the hammer blows rises. The critical resource for checking the correct size is the x-ray recorded during the preoperative planning.

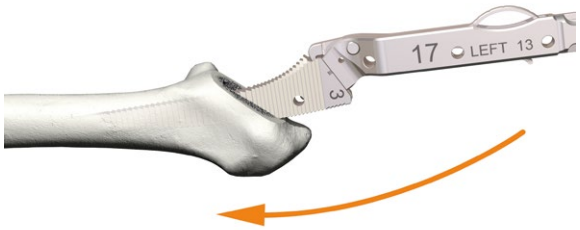
Preparation of the bone bed up to implants of size 4 starts with a size 01 rasp. For implants of size 5 and above, a size 1 rasp can be used initially.

Important

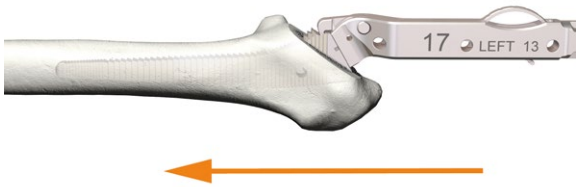
Since the first rasp determines the position of all the following rasps, its orientation is critical for exact positioning of the stem.



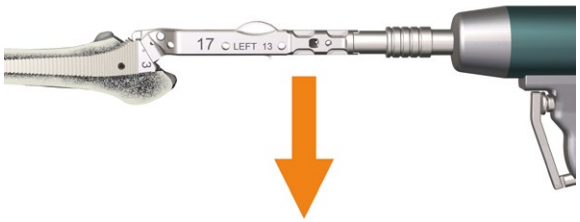
At the start of the rasping process, the depth of the rasp must be checked to ensure that it is not inserted too deeply. It is extremely important to understand that the osteotomy is unrelated to the final position of the implant. Because of the initially reduced rasp resistance, there is a tendency for surgeons to insert the smaller rasps too deeply into the femur. This will result in excessive enlargement of the implantation site and lead to gaps on the medial aspect between the bone and the final implant.



The subsequent rasp is introduced into the cavity along a slightly arc-shaped path until resistance is felt. The rasp is then driven laterally and distally into the femur using the slap hammer or the rasping machine. This process is repeated with sequential rasp sizes until an adequate depth is achieved for the desired implant size. If the MIA double offset adapters are used (Art. No. 600923/600924), care should be taken to ensure that these instruments are used on the corresponding side of the patient.

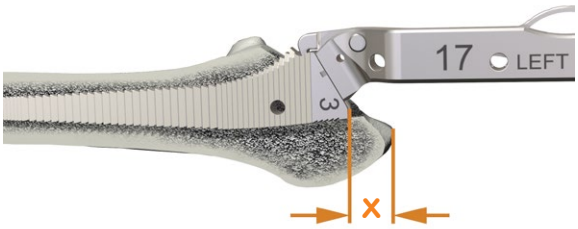


Attention should be paid to the anteversion and varus/valgus alignment of the rasping machine with respect to the femoral axis. Insertion of the rasps in a varus inclination involves the risk of perforation and/or fracture of the lateral cortex of the femur.



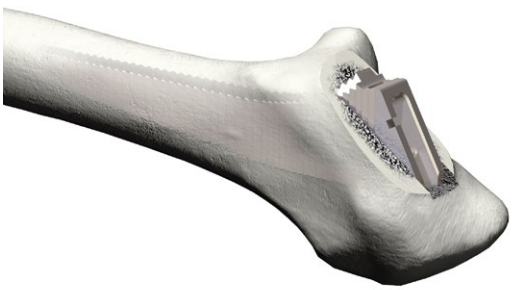
Rasping is carried out using the slap hammer or the rasping machine. The weight of these instruments helps ensure the precise longitudinal alignment of the rasp within the femur. It is important that lateral pressure is continuously applied to the rasping machine to ensure that the rasp moves in line with the axis of the canal and does not seat in a varus position.

Unlike the SL-PLUS◇ stem, the SL-PLUS MIA rasp does not enter and exit the canal along the femoral axis, but rather along a curved arc.



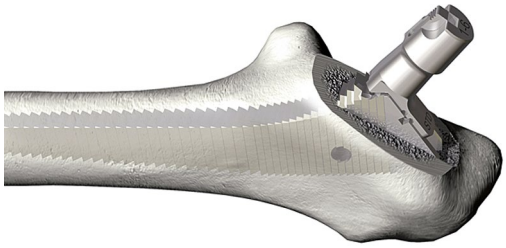
The shoulder of the rasp corresponds to the shoulder height of the implant and should correspond to the preoperatively determined distance to the greater trochanter (marked x).

Only in rare cases does the planned prosthesis size not correspond to the size rasped at operation. If there is a discrepancy of two or more sizes, the rasp may not have reached the necessary depth because of incorrect angulation or the presence of an obstacle in the canal. In these cases the prosthesis would be too small and stable cortical anchorage would not be ensured in the long term. If doubt exists, intraoperative radiography or fluoroscopy is necessary so that the obstruction can be assessed.



The offset adapter is removed from the mounted MIA trial rasp.

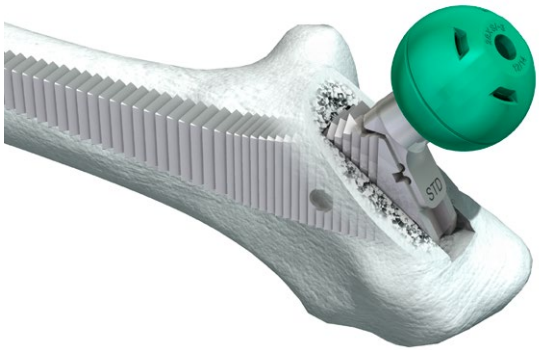
Repositioning the trial



The neck module is attached to the trial rasp by hand.

Standard neck modules are available for MIA trial rasp sizes 01–0, 1–6 and 7–12. Matching "lateral" neck modules are available for trial rasp sizes 1–6 and 7–12.

It is important to ensure that the neck module fits flush with the MIA trial rasp and that it clicks into position.



The selected trial ball head can either be fitted to the neck module in advance or in situ.

The joint is reduced and the leg length, soft tissue tension and range of motion are checked. During the initial operations, it is recommended that the surgeon obtain AP and lateral intraoperative radiographs (image intensifier) to verify the position and size of the rasp in both planes.

If necessary the trial ball head and/or the neck module (standard or lateral) should be replaced until a satisfactory result is achieved.

The neck module can either be removed manually from the MIA trial rasp or with a Kocher retractor.

The offset adapter is connected to the MIA trial rasp. The connected rasping machine or the slap hammer is used to remove the MIA trial rasp. **Removal of the rasp, as with its introduction, must be performed along a curved arc to minimize disturbance of the bone bed and to avoid fractures in the vicinity of the trochanter.**

Implantation of the stem

The SL-PLUS® MIA stem of the correct size is introduced manually as deep as possible into the canal, and is then seated with the impactor, using appropriately measured strokes to minimize the risk of femoral fractures.

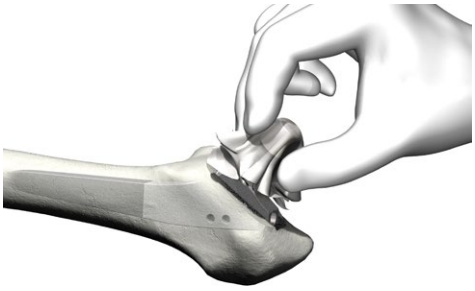
The Ti/HA coating leads to a total oversize of 0.7 mm and, particularly if hard bone is present, can prevent the implant from being inserted as deeply as the rasp. In this case, it is advisable to recheck the leg length, soft tissue tension and range of motion with the trial ball head. This oversize is not usually relevant for clinical purposes and can be offset with a shorter ball head. Otherwise, the implant bed must be enlarged accordingly with the last rasp.

The protective cap remains mounted on the cone during impaction.

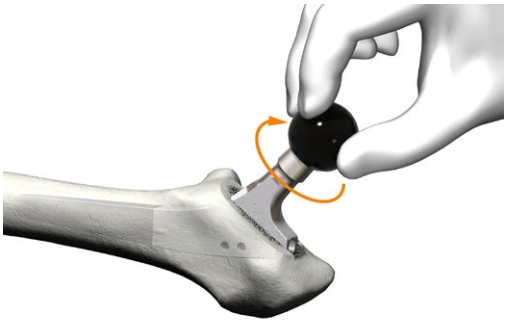
Please note

It is not sufficient to press the stem in solely by hand.

It is not permitted to impact the stem deeper than the prepared bony bed or to correct the position once the stem is in the cone bed as this would inevitably split the femoral shaft. If necessary, the leg length, soft tissue tension and range of motion can now be rechecked with the trial ball head.



Before positioning the ball head, carefully wash the stem cone with water and then dry.



The ball head is then fitted by screwing it lightly into place.

The ball head is carefully impacted using the head impactor (75002160/110242). The joint is then reduced, manipulated and retested to ensure proper functioning.

Important

It is not sufficient to press the ball head in solely by hand. Implant heads must never be impacted directly with metal tools.

Each femoral stem has a standard 12/14 cone for coupling with OXINIUM®, ceramic or metal ball heads supplied by Smith & Nephew Orthopaedics AG or Smith & Nephew Inc.

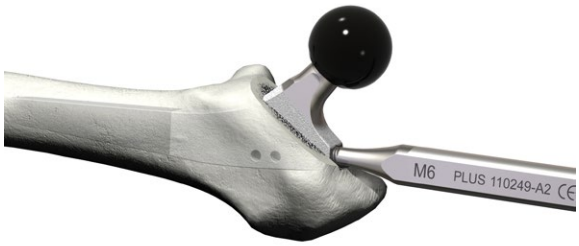
Wound closure

Insert Redon drains and close the wound. Position the leg in slight abduction.

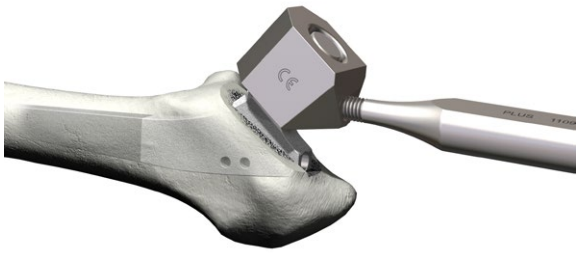
Postoperative treatment

Postoperative rehabilitation should be provided in accordance with the standard procedures of the respective hospital. Like the SL-PLUS stem, immediate weight bearing is also possible with the SL-PLUS® MIA stem. Definitive osseointegration is not achieved until 3 months postoperatively.

Explantation of the SL-PLUS◇ MIA stem



The SL-PLUS MIA stem can be extracted using the M6 extraction screw (75002165/110249).



In case of difficulty, an extraction block secured with the M8 extraction screw is also available.

Both extraction screws, M6 and M8, can be used in connection with either the slap hammer or the rasping machine.

Please note

Ensure that the extraction screw is inserted axially.

Dimensions

All dimensions in mm

Specifications

Size	Stem length I	Stem length II	M/L width	CCD angle Standard	CCD angle Lateral
01	128	109	26	131	
0	132	113	27	131	
1	137	117	28	131	123
2	141	121	29	131	123
3	145	124	30	131	123
4	150	128	32	131	123
5	154	132	33	131	123
6	159	136	34	131	123
7	163	140	35	131	123
8	168	144	37	131	123
9	173	148	39	131	123
10	178	152	40	131	123
11	183	157	42	131	123
12	188	162	44	131	123

Neck height

Size	XS/–3	S/+0	M/+4	L/+8	XL/+12	XXL/+16
01	17	19	21	24	27	32
0	18	19	22	25	27	33
1	18	20	23	25	28	33
2	19	21	23	26	29	34
3	20	21	24	27	29	35
4	20	22	25	27	30	35
5	21	23	26	28	31	36
6	22	24	26	29	32	37
7	23	25	27	30	32	38
8	24	25	28	31	33	39
9	24	26	29	32	34	39
10	25	27	30	33	35	40
11	26	28	31	34	36	41
12	27	29	32	35	37	42

Offset

Standard

Size	XS/–3	S/+0	M/+4	L/+8	XL/+12	XXL/+16
01	28	30	33	36	39	42
0	29	31	34	37	40	43
1	30	32	35	38	41	44
2	31	33	36	39	42	45
3	32	34	37	40	43	46
4	33	35	38	41	44	47
5	34	37	40	43	46	49
6	36	38	41	44	47	50
7	37	39	42	45	48	51
8	38	41	44	47	50	53
9	40	42	45	48	51	54
10	41	43	46	49	53	56
11	43	45	48	51	54	57
12	44	46	50	53	56	59

Lateral

Size	XS/–3	S/+0	M/+4	L/+8	XL/+12	XXL/+16
01						
0						
1	35	38	41	44	48	51
2	37	39	42	46	49	52
3	38	40	44	47	50	54
4	39	42	45	48	52	55
5	41	43	47	50	53	57
6	42	45	48	51	55	58
7	44	46	50	53	56	60
8	45	48	51	55	58	61
9	47	50	53	56	60	63
10	49	51	55	58	61	65
11	51	53	56	60	63	66
12	52	55	58	61	65	68

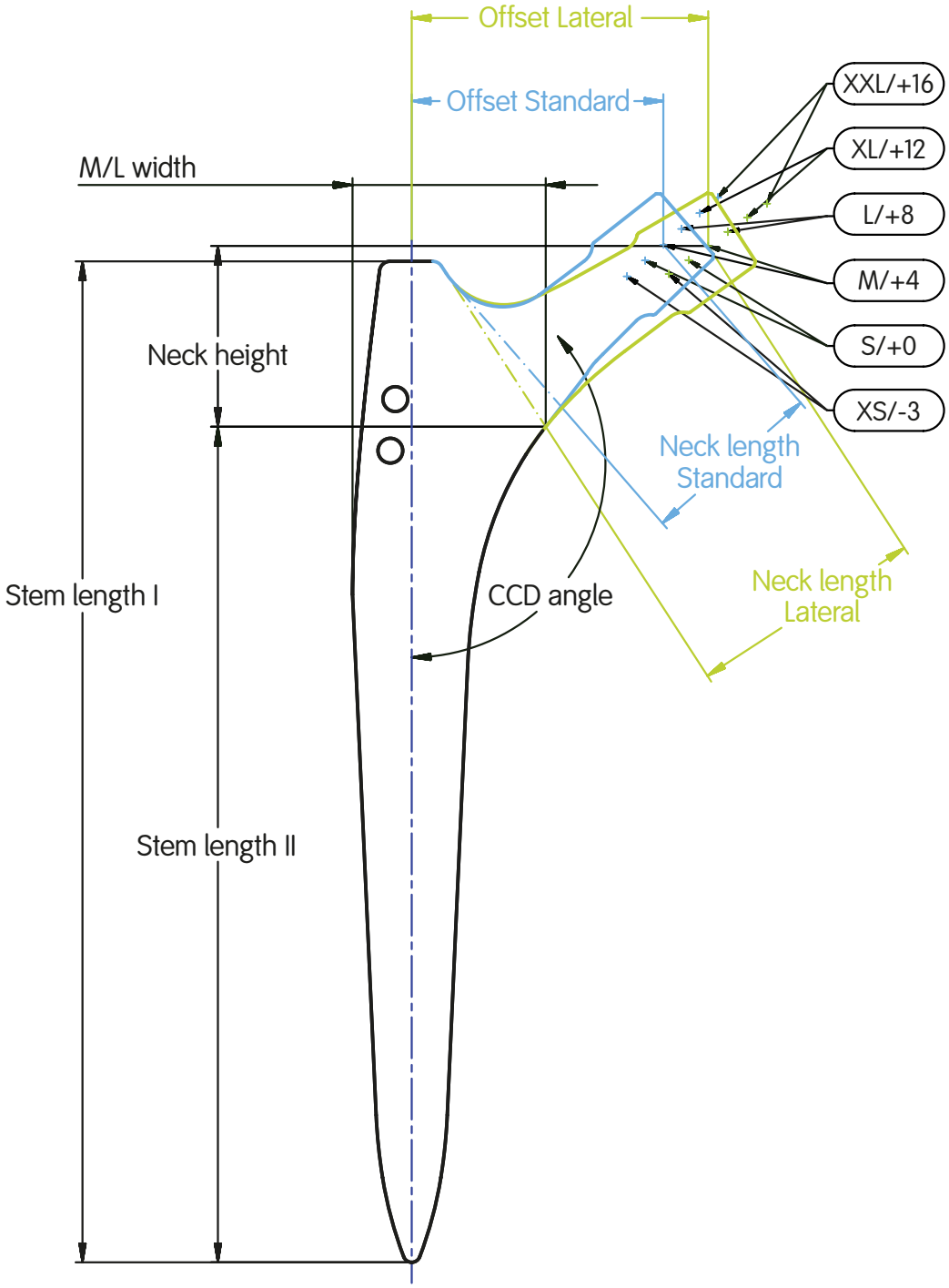
Neck length

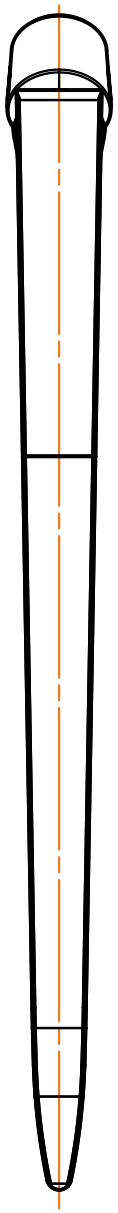
Standard

Size	XS/–3	S/+0	M/+4	L/+8	XL/+12	XXL/+16
01	17	20	24	28	32	36
0	18	21	25	29	33	37
1	19	22	26	30	34	38
2	20	23	27	31	35	39
3	21	23	27	31	35	39
4	22	24	28	32	36	40
5	22	25	29	33	37	41
6	23	26	30	34	38	42
7	24	27	31	35	39	43
8	25	28	32	36	40	44
9	26	29	33	37	41	45
10	27	30	34	38	42	46
11	29	31	35	39	43	47
12	30	33	37	41	45	49

Lateral

Size	XS/–3	S/+0	M/+4	L/+8	XL/+12	XXL/+16
01						
0						
1	26	29	33	37	41	45
2	27	30	34	38	42	46
3	28	31	35	39	43	47
4	29	32	36	40	44	48
5	30	33	37	41	45	49
6	32	34	38	42	46	50
7	33	36	40	44	48	52
8	34	37	41	45	49	53
9	35	38	42	46	50	54
10	37	40	44	47	52	56
11	38	41	45	49	53	57
12	39	42	46	50	54	58


Offset Lateral
Offset Standard
M/L width
XXL/+16
XL/+12
L/+8
M/+4
S/+0
XS/-3
Neck height
Neck length
Standard
Neck length
Lateral
Stem length I
CCD angle
Stem length II

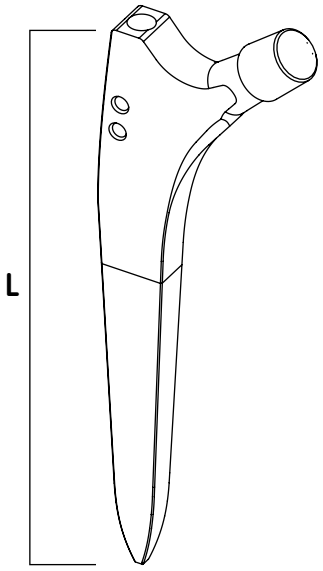


Standard implants

SL-PLUS MIA INTEGRATION-PLUS◇
With Ti-plasma/hydroxyapatite coating proximally:

SAP No.	Art. No.	Size	Length (L)
75000172	11000422	01	128 mm
75000173	11000423	0	132 mm
75000174	11000424	1	136 mm
75000175	11000425	2	140 mm
75000176	11000426	3	145 mm
75000177	11000427	4	150 mm
75000178	11000428	5	154 mm
75000179	11000429	6	158 mm
75000180	11000430	7	163 mm
75000181	11000431	8	168 mm
75000182	11000432	9	173 mm
75000183	11000433	10	178 mm
75000184*	11000434	11	183 mm
75000185*	11000435	12	188 mm

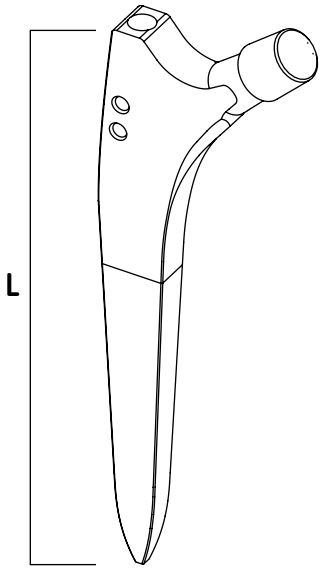
*Special size (optional)



SL-PLUS MIA INTEGRATION-PLUS◇
With Ti-plasma/hydroxyapatite coating proximally:

SAP No.	Art. No.	Size	Length (L)
75000186	11000436	1	136 mm
75000187	11000437	2	140 mm
75000188	11000438	3	145 mm
75000189	11000439	4	150 mm
75000190	11000440	5	154 mm
75000191	11000441	6	158 mm
75000192	11000442	7	163 mm
75000193	11000443	8	168 mm
75000194	11000444	9	173 mm
75000195	11000445	10	178 mm
75000196*	11000446	11	183 mm
75000197*	11000447	12	188 mm

*Special size (optional)



Instrument Set

SL-PLUS◇ MIA Basic Set

Set No. SAP/Art.
75200838/0942010

	SAP No.	Art. No.	Description	Size	
	75002198	110450	Case Basic Instruments		
❶	75002319	110901	Slap Hammer		
❷	75002320	110902	Extraction Block		
❸	75002325	110911	Extraction Screw M8		
❹	75002165	110249	Extraction Screw M6		
❺	75002160	110242	Head Impactor		
❻	75100839*	75100839	Trial Ball Head	22	S/+0
	75100840	75100840	Trial Ball Head	22	M/+4
	75100841	75100841	Trial Ball Head	22	L/+8
	75100842*	75100842	Trial Ball Head	22	XL/+12
	75100843*	75100843	Trial Ball Head	28	XS/-3
	75100844	75100844	Trial Ball Head	28	S/+0
	75100845	75100845	Trial Ball Head	28	M/+4
	75100846	75100846	Trial Ball Head	28	L/+8
	75100847	75100847	Trial Ball Head	28	XL/+12
	75100848	75100848	Trial Ball Head	28	XXL/+16
	75100849*	75100849	Trial Ball Head	32	XS/-3
	75100850	75100850	Trial Ball Head	32	S/+0
	75100851	75100851	Trial Ball Head	32	M/+4
	75100852	75100852	Trial Ball Head	32	L/+8
	75100853	75100853	Trial Ball Head	32	XL/+12
	75100854	75100854	Trial Ball Head	32	XXL/+16
	75100855*	75100855	Trial Ball Head	36	XS/-3
	75100856	75100856	Trial Ball Head	36	S/+0
	75100857	75100857	Trial Ball Head	36	M/+4
	75100858	75100858	Trial Ball Head	36	L/+8
	75100859	75100859	Trial Ball Head	36	XL/+12
❼	75007255	600621	MIA Stem Impactor		
❽	75004495	21000138	MIA Curved Rasp		
❾	75006420	41000030	SL-PLUS MIA Guide Rasp	1-6	

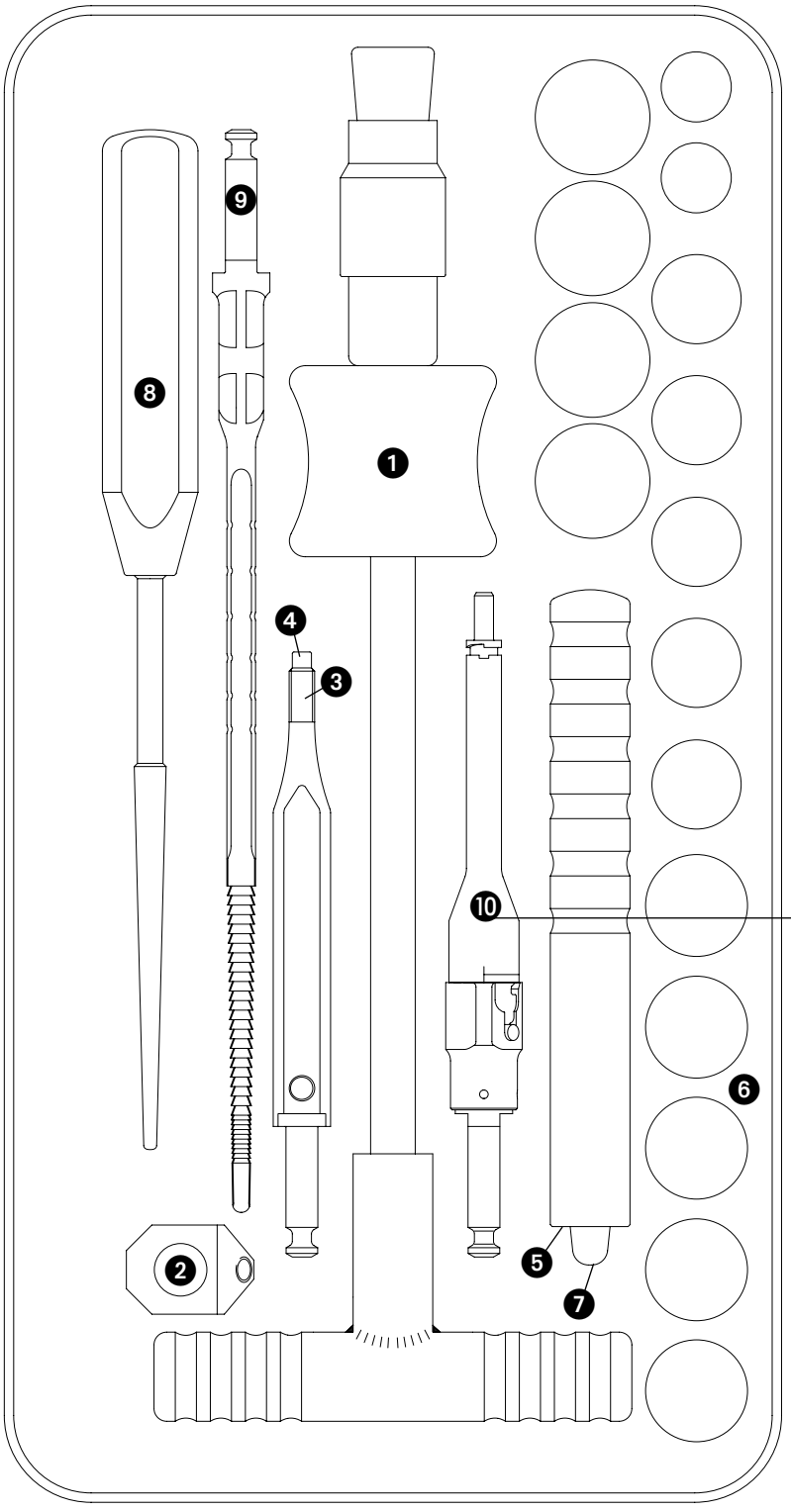
*Special size (optional)

Optional:

SAP No.	Art. No.	Description	Size
75210292	75210292	SET 40 mm Trial Ball Head	XS/-4 to L/+8
75210293	75210293	SET 44 mm Trial Ball Head	XS/ 1-6 to L/+8
75018153	21000594	SL-PLUS MIA Guide Rasp	01-3

Optionally for users of the SL-PLUS MIA and SL-PLUS stems:

	SAP No.	Art. No.	Description
❿	75002203	110500	Adapter for trial rasp (SL-PLUS standard)


9
8
1
4
3
10
OPTIONAL
6
5
7
2

Instrument Set

SL-PLUS® MIA Trial Rasps with 10 mm Adapter

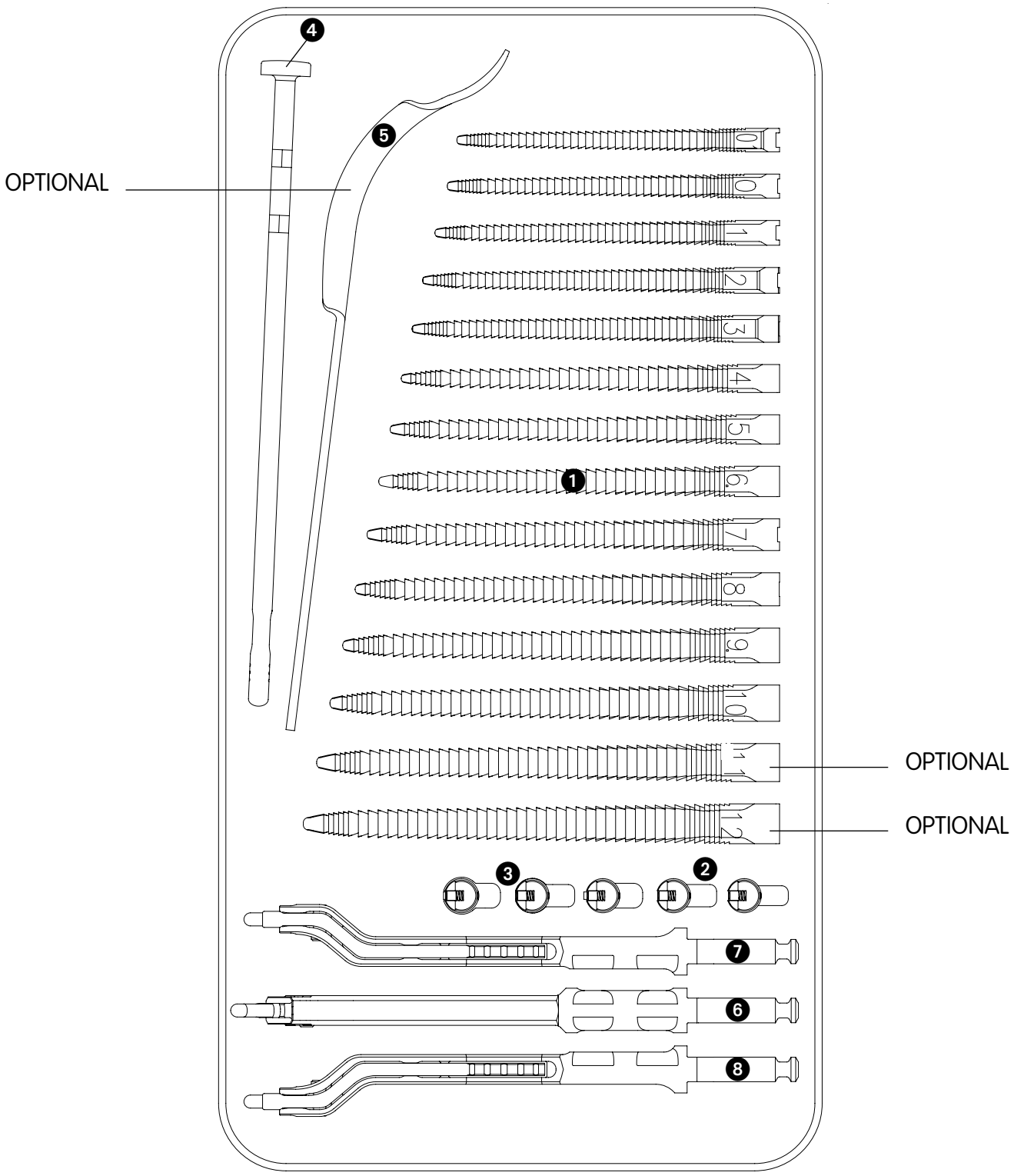
Set No. SAP/Art.
75200199/0943030

	SAP No.	Art. No.	Description	Size
	75007661	990019	Lid	
	75007312	600930	MIA Instrument Case for SL	
❶	75004481	21000123	MIA Trial Rasp	01
	75004482	21000124	MIA Trial Rasp	0
	75004483	21000125	MIA Trial Rasp	1
	75004484	21000126	MIA Trial Rasp	2
	75004485	21000127	MIA Trial Rasp	3
	75004486	21000128	MIA Trial Rasp	4
	75004487	21000129	MIA Trial Rasp	5
	75004488	21000130	MIA Trial Rasp	6
	75004489	21000131	MIA Trial Rasp	7
	75004490	21000132	MIA Trial Rasp	8
	75004491	21000133	MIA Trial Rasp	9
	75004492	21000134	MIA Trial Rasp	10
❷	75004603	21000253	MIA modular neck/trial rasp stand.	01–0 Std.
	75004604	21000254	MIA modular neck/trial rasp stand.	1-6 Std.
	75004605	21000255	MIA modular neck/trial rasp stand.	7-12 Std.
❸	75004606	21000256	MIA modular neck/trial rasp lat.	1–6 Lat.
	75004607	21000257	MIA modular neck/trial rasp lat.	7-12 Lat.
❹	75006419	41000029	MIA Box Chisel	
❻	75007309	600922	MIA Offset Adapter	10 mm
❼	75007310	600923	MIA Double Offset Adapter left	17/13 mm
❽	75007311	600924	MIA Double Offset Adapter right	17/13 mm

SL-PLUS MIA optional instruments (Set No. 0942011):

	SAP No.	Art. No.	Description	Size
	75004493	21000135	MIA Trial Rasp	11
	75004494	21000136	MIA Trial Rasp	12
❺	75009352	SYS251374	Trochanter Retractor	

	SAP No.	Art. No.	Description	Size
	75000642	21000378	Modular Knock Plate	
	75007307	600920	Offset Adapter	25 mm
	75200836	0943032	SET SL-PLUS MIA Trial Rasp with Offset Adapter	25 mm
	75007308	600921	Offset Adapter	40 mm
	75200837	0943033	SET SL-PLUS MIA Trial Rasp with Offset Adapter	40 mm


4
5
OPTIONAL
01
0
1
2
3
4
5
1
6
7
8
9
10
11
12
OPTIONAL
OPTIONAL
3
2
7
6
8

Sterilization

Implants

All the implants described in this Surgical Technique are sterile when they are delivered by the manufacturer. Resterilization is not allowed.

Instruments

System components and instruments are not sterile when they are delivered. Before use they must be cleaned by the usual methods in accordance with internal hospital regulations and sterilized in an autoclave in accordance with the legal regulations and guidelines applicable in the relevant country. (For detailed information please refer to leaflet Lit. No. 1363).

The correct settings are given in the instructions for use issued by the autoclave manufacturer. Instrument manufacturers and dealers accept no responsibility for sterilization of products by the customer.

Notes

Manufacturer
Smith & Nephew Orthopaedics AG
Oberneuhofstrasse 10d
CH-6340 Baar
Switzerland

Contact

00884-en (1524) V4 01/15

CE 0123