



Lubinus SPII®

Anatomically Adapted Hip Prosthesis System



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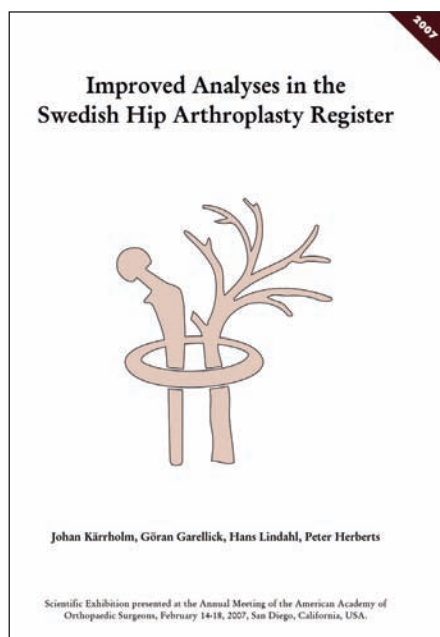
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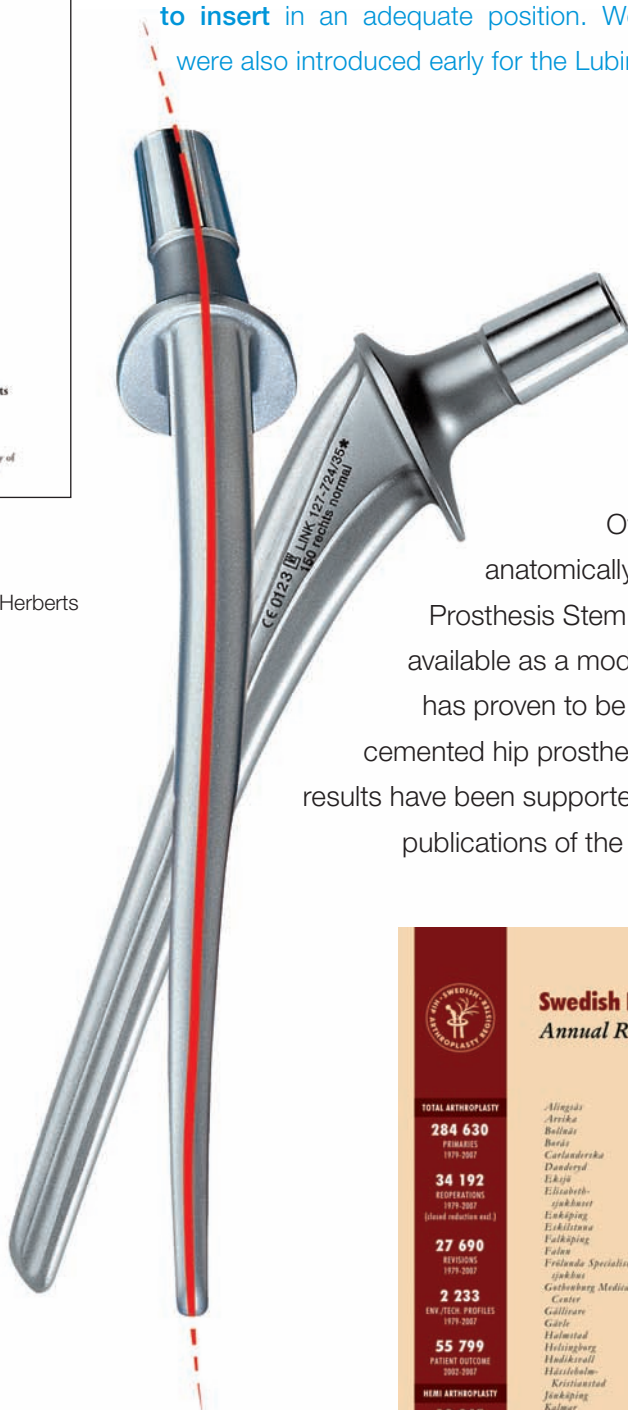
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■ Systembeschreibung



Latest News of the Swedish Hip
Arthroplasty Register 2007*.
J. Kärrholm, G.Garellick, H. Lindahl, P. Herberts
* www.iru.orthop.gu.se

“The 1990-2000 results for Lubinus SP do not significantly differ from the 1979-1989 cohort after 10 years. An explanation for this could be **that the SP stem is “forgiving” and less complicated to insert** in an adequate position. Well-designed instruments were also introduced early for the Lubinus system.”



Over the last 30 years the anatomically shaped **Lubinus SPII®** Prosthesis Stem, developed in 1978 and available as a modular system since 1984, has proven to be one of the most reliable cemented hip prosthesis stems. The excellent results have been supported time and again by the publications of the **Swedish Hip Registry**.

“The survival function for cemented implants shows that the Lubinus SPII® is still clearly the best...”***

**Annual Report 2002

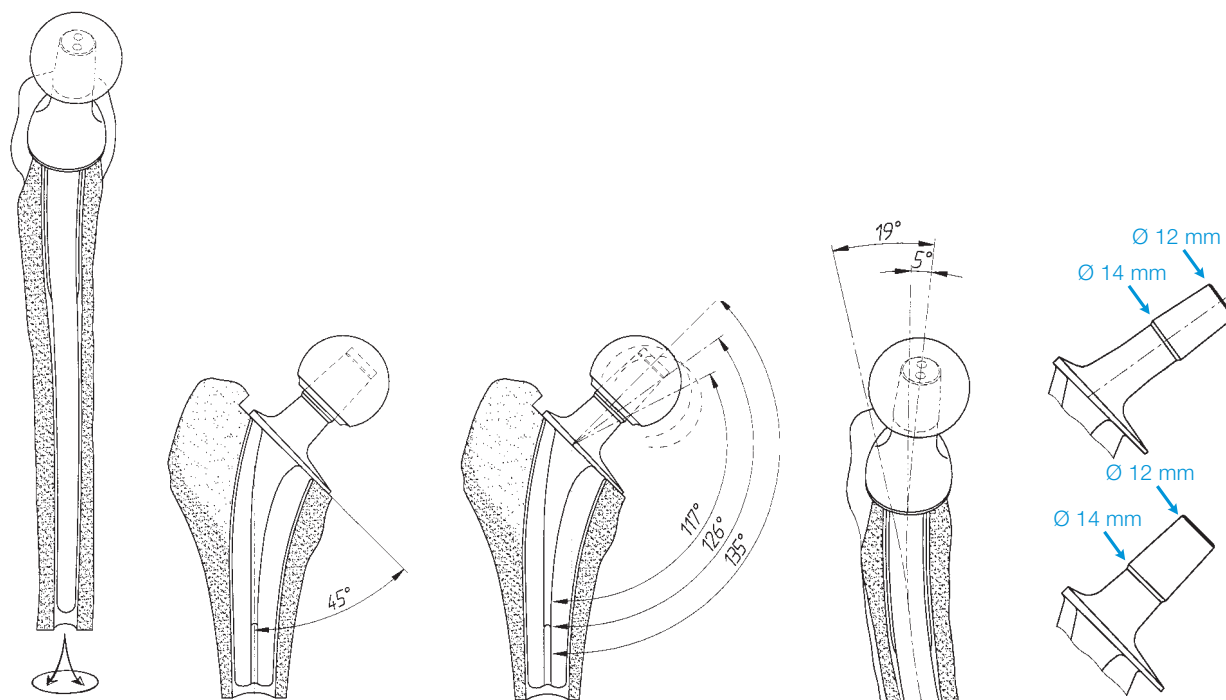
The Swedish National Hip Arthroplasty Register,
April 2003, page 20 (www.iru.orthop.gu.se)



■ System Description - Indications/Contraindications

Features and benefits of the SPII® hip stem:

- **Minimal bone resection**
- **Uniform cement mantle** around the whole stem
- **Anatomically shaped stem** resists rotational forces
- **Calcar collar** transfers physiological forces through the femur
- Built-in physiological **anteversion**
- **Reliable, easily reproduced surgical technique**
- **Modular system** allows adjustment to suit anatomical conditions:
 - Three standard and four additional stem lengths of 200 to 350 mm for revisions
 - Three CCD angles, one standard and one extra-long neck and up to four head-neck lengths for exact adjustment of lateralization and leg length



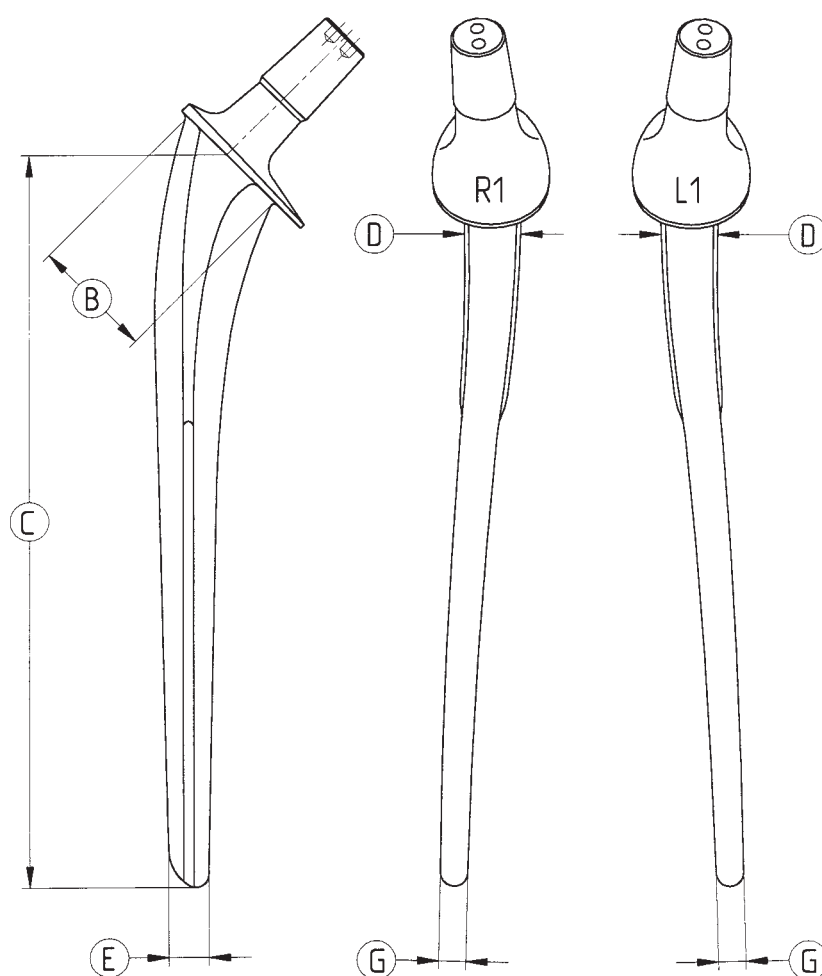
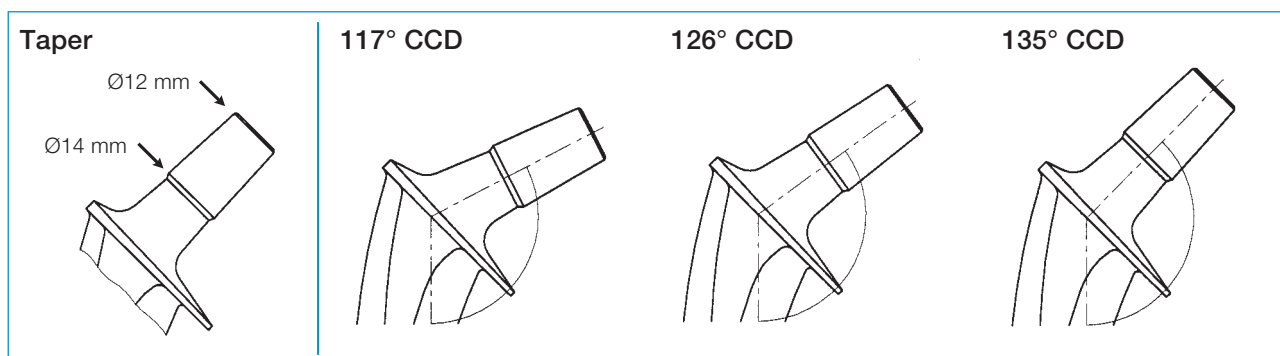
■ Indications/Contraindications

Note:

Indications/Contraindications see page 39.

SPII® Prosthesis Stems

Material: CoCrMo



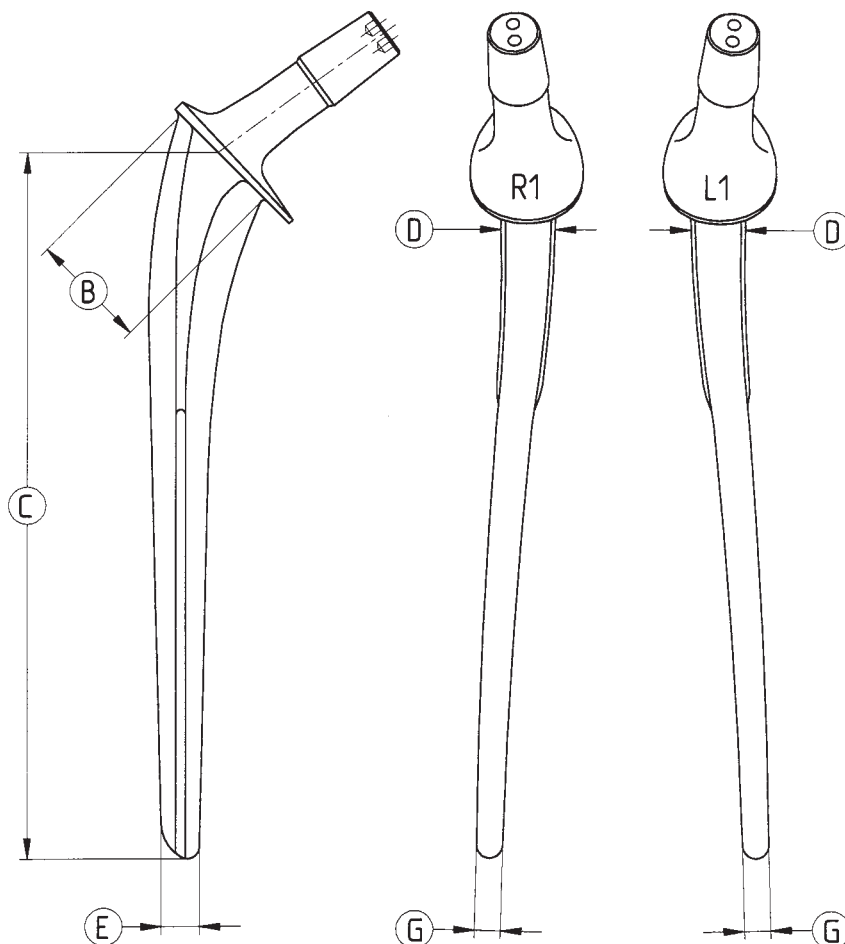
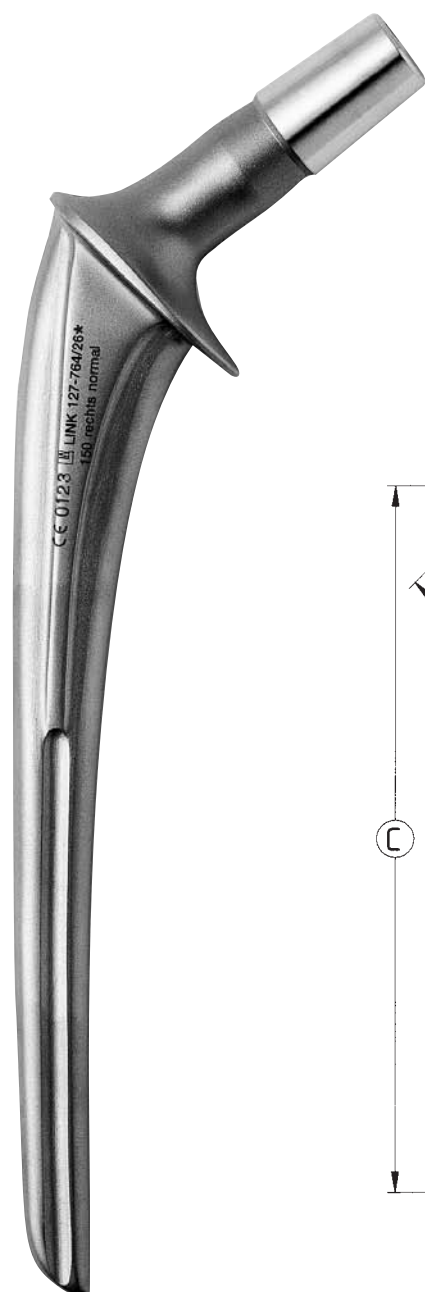
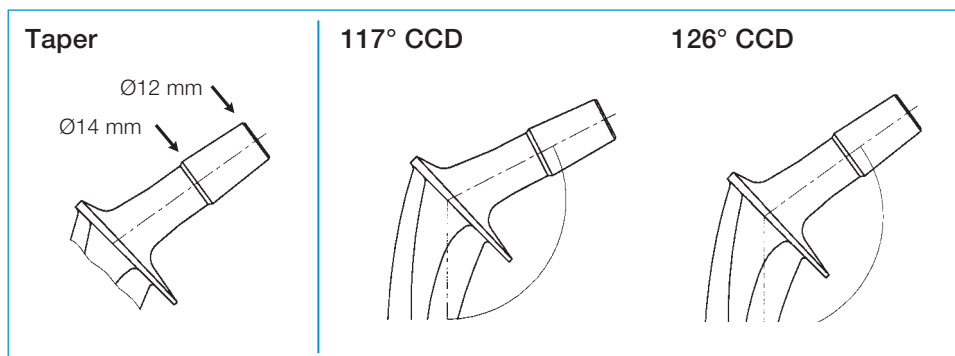
SPII® Prosthesis Stems

Material: CoCrMo

CCD 117°	CCD 126°	CCD 135°			Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓖ	Marking on collar
Item No.	Item No.	Item No.	Version	Stem width	mm	mm	mm	mm	mm	
127-610/17	127-610/26	127-610/35	right	extra narrow	23.5	130	11	8	6	R 01
127-612/17	127-612/26	127-612/35	right	narrow	25.5	130	13	9	6	R 1
127-614/17	127-614/26	127-614/35	right	medium	27.5	130	14	10	7.5	R 2
127-616/17	127-616/26	127-616/35	right	large	29.5	130	15	11	8	R 3
127-618/17	127-618/26	127-618/35	right	extra large	31.5	130	16	12	8.5	R 4
127-620/17	127-620/26	127-620/35	right	extra large plus	31.5	130	18	12.5	10	R 4 A
127-622/17	127-622/26	127-622/35	right	super large	31.5	130	22	13.5	12	R 5
127-720/17	127-720/26	127-720/35	right	extra narrow	23.5	150	11	7.5	5.5	R 01
127-722/17	127-722/26	127-722/35	right	narrow	25.5	150	13	8.5	5.5	R 1
127-724/17	127-724/26	127-724/35	right	medium	27.5	150	14	9.5	7	R 2
127-726/17	127-726/26	127-726/35	right	large	29.5	150	15	10.5	7.5	R 3
127-728/17	127-728/26	127-728/35	right	extra large	31.5	150	16	11.5	8	R 4
127-738/17	127-738/26	127-738/35	right	extra large plus	31.5	150	18	12	9	R 4 A
127-732/17	127-732/26	127-732/35	right	super large	31.5	150	22	13	11	R 5
127-710/17	127-710/26	127-710/35	right	extra narrow	23.5	170	11	7	5	R 01
127-712/17	127-712/26	127-712/35	right	narrow	25.5	170	13	8	5	R 1
127-714/17	127-714/26	127-714/35	right	medium	27.5	170	14	9	6	R 2
127-716/17	127-716/26	127-716/35	right	large	29.5	170	15	10	6.5	R 3
127-718/17	127-718/26	127-718/35	right	extra large	31.5	170	16	11	7.5	R 4
127-736/17	127-736/26	127-736/35	right	extra large plus	31.5	170	18	11.5	8.5	R 4 A
127-730/17	127-730/26	127-730/35	right	super large	31.5	170	22	12.5	10	R 5
127-624/17	127-624/26	127-624/35	left	extra narrow	23.5	130	11	8	6	L 01
127-626/17	127-626/26	127-626/35	left	narrow	25.5	130	13	9	6	L 1
127-628/17	127-628/26	127-628/35	left	medium	27.5	130	14	10	7.5	L 2
127-630/17	127-630/26	127-630/35	left	large	29.5	130	15	11	8	L 3
127-632/17	127-632/26	127-632/35	left	extra large	31.5	130	16	12	8.5	L 4
127-634/17	127-634/26	127-634/35	left	extra large plus	31.5	130	18	12.5	10	L 4 A
127-636/17	127-636/26	127-636/35	left	super large	31.5	130	22	13.5	12	L 5
127-721/17	127-721/26	127-721/35	left	extra narrow	23.5	150	11	7.5	5.5	L 01
127-723/17	127-723/26	127-723/35	left	narrow	25.5	150	13	8.5	5.5	L 1
127-725/17	127-725/26	127-725/35	left	medium	27.5	150	14	9.5	7	L 2
127-727/17	127-727/26	127-727/35	left	large	29.5	150	15	10.5	7.5	L 3
127-729/17	127-729/26	127-729/35	left	extra large	31.5	150	16	11.5	8	L 4
127-739/17	127-739/26	127-739/35	left	extra large plus	31.5	150	18	12	9	L 4 A
127-733/17	127-733/26	127-733/35	left	super large	31.5	150	22	13	11	L 5
127-711/17	127-711/26	127-711/35	left	extra narrow	23.5	170	11	7	5	L 01
127-713/17	127-713/26	127-713/35	left	narrow	25.5	170	13	8	5	L 1
127-715/17	127-715/26	127-715/35	left	medium	27.5	170	14	9	6	L 2
127-717/17	127-717/26	127-717/35	left	large	29.5	170	15	10	6.5	L 3
127-719/17	127-719/26	127-719/35	left	extra large	31.5	170	16	11	7.5	L 4
127-737/17	127-737/26	127-737/35	left	extra large plus	31.5	170	18	11.5	8.5	L 4 A
127-731/17	127-731/26	127-731/35	left	super large	31.5	170	22	12.5	10	L 5

■ **SPII® Prosthesis Stems XL with long neck**

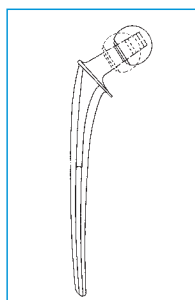
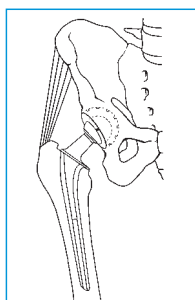
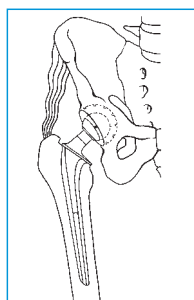
Material: CoCrMo



SPII® Prosthesis Stems XL with long neck

Material: CoCrMo

CCD 117°	CCD 126°			Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓖ	
Item No.	Item No.	Version	Stem width	mm	mm	mm	mm	mm	Marking on collar
127-740/17	127-740/26	right	extra narrow	23.5	170	11	7	5	R 01
127-742/17	127-742/26	right	narrow	25.5	170	13	8	5	R 1
127-744/17	127-744/26	right	medium	27.5	170	14	9	6	R 2
127-746/17	127-746/26	right	large	29.5	170	15	10	6.5	R 3
127-748/17	127-748/26	right	extra large	31.5	170	16	11	7.5	R 4
127-750/17	127-750/26	right	extra large plus	31.5	170	18	11.5	8.5	R 4 A
127-752/17	127-752/26	right	super large	31.5	170	22	12.5	10	R 5
127-760/17	127-760/26	right	extra narrow	23.5	150	11	7.5	5.5	R 01
127-762/17	127-762/26	right	narrow	25.5	150	13	8.5	5.5	R 1
127-764/17	127-764/26	right	medium	27.5	150	14	9.5	7	R 2
127-766/17	127-766/26	right	large	29.5	150	15	10.5	7.5	R 3
127-768/17	127-768/26	right	extra large	31.5	150	16	11.5	8	R 4
127-770/17	127-770/26	right	extra large plus	31.5	150	18	12	9	R 4 A
127-772/17	127-772/26	right	super large	31.5	150	22	13	11	R 5
127-741/17	127-741/26	left	extra narrow	23.5	170	11	7	5	L 01
127-743/17	127-743/26	left	narrow	25.5	170	13	8	5	L 1
127-745/17	127-745/26	left	medium	27.5	170	14	9	6	L 2
127-747/17	127-747/26	left	large	29.5	170	15	10	6.5	L 3
127-749/17	127-749/26	left	extra large	31.5	170	16	11	7.5	L 4
127-751/17	127-751/26	left	extra large plus	31.5	170	18	11.5	8.5	L 4 A
127-753/17	127-753/26	left	super large	31.5	170	22	12.5	10	L 5
127-761/17	127-761/26	left	extra narrow	23.5	150	11	7.5	5.5	L 01
127-763/17	127-763/26	left	narrow	25.5	150	13	8.5	5.5	L 1
127-765/17	127-765/26	left	medium	27.5	150	14	9.5	7	L 2
127-767/17	127-767/26	left	large	29.5	150	15	10.5	7.5	L 3
127-769/17	127-769/26	left	extra large	31.5	150	16	11.5	8	L 4
127-771/17	127-771/26	left	extra large plus	31.5	150	18	12	9	L 4 A
127-773/17	127-773/26	left	super large	31.5	150	22	13	11	L 5



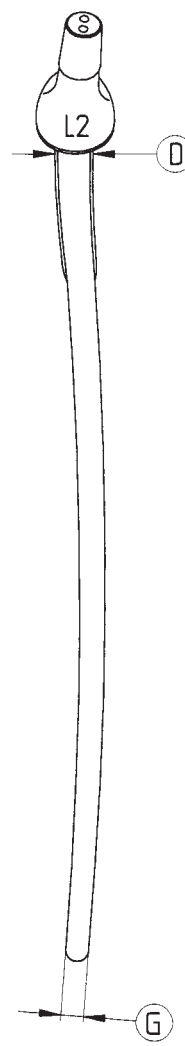
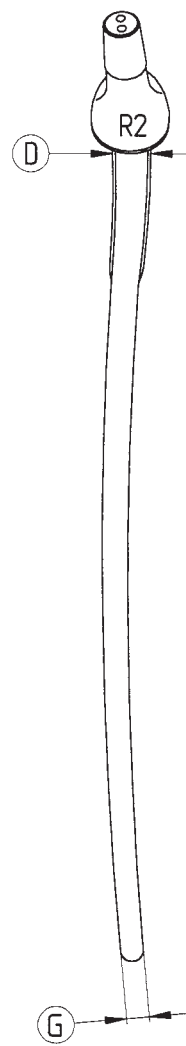
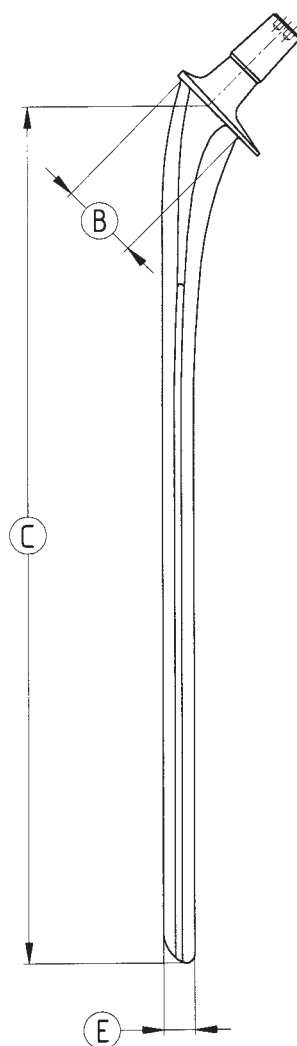
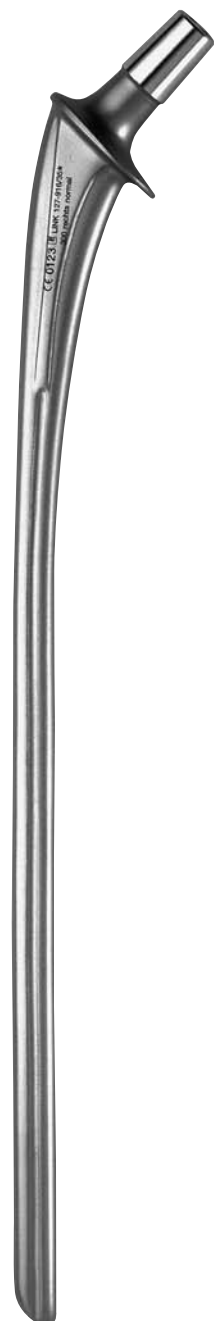
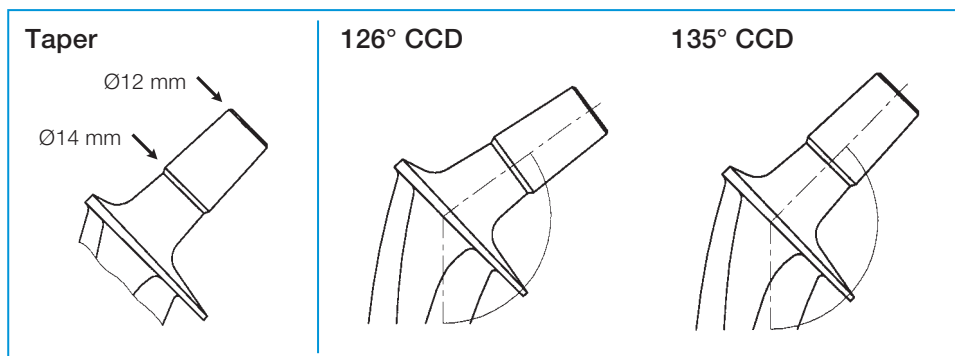
The neck section/trunnion of SPII® XL hip prostheses is 10.5 mm longer than the standard version.

When combined with standard prosthesis heads they give longer head-neck lengths. The XL version may be used in cases where anatomically correct lateralisation of the femur cannot be achieved with the standard SPII® stems.

For further information have a look into our catalogues of the ReOp-Protheses Endo-Model® and the SPII® Long Prosthesis Stems.

■ **SPII® Long Prosthesis Stems**

Material: CoCrMo



■ SPII® Long Prosthesis Stems

Material: CoCrMo

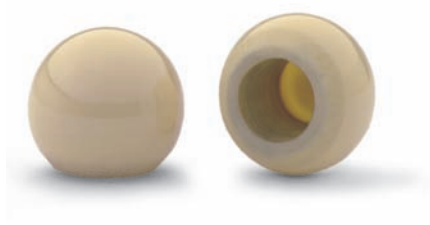
CCD 117° Item No.	CCD 126° Item No.	Version	Stem width	Ⓑ mm	Ⓒ mm	Ⓓ mm	Ⓔ mm	Ⓖ mm	Marking on collar
127-910/26	127-910/35	right	medium	27.5	350	14	11	8	R 2
127-912/26	127-912/35	right	large	29.5	350	15	12	9	R 3
127-914/26	127-914/35	right	extra large	31.5	350	16	13	10	R 4
127-916/26	127-916/35	right	medium	27.5	300	14	11	8	R 2
127-918/26	127-918/35	right	large	29.5	300	15	12	9	R 3
127-920/26	127-920/35	right	extra large	31.5	300	16	13	10	R 4
127-922/26	127-922/35	right	medium	27.5	250	14	11	8	R 2
127-924/26	127-924/35	right	large	29.5	250	15	12	9	R 3
127-926/26	127-926/35	right	extra large	31.5	250	16	13	10	R 4
127-928/26	127-928/35	right	medium	27.5	200	14	11	8	R 2
127-930/26	127-930/35	right	large	29.5	200	15	12	9	R 3
127-932/26	127-932/35	right	extra large	31.5	200	16	13	10	R 4
127-911/26	127-911/35	left	medium	27.5	350	14	11	8	L 2
127-913/26	127-913/35	left	large	29.5	350	15	12	9	L 3
127-915/26	127-915/35	left	extra large	31.5	350	16	13	10	L 4
127-917/26	127-917/35	left	medium	27.5	300	14	11	8	L 2
127-919/26	127-919/35	left	large	29.5	300	15	12	9	L 3
127-921/26	127-921/35	left	extra large	31.5	300	16	13	10	L 4
127-923/26	127-923/35	left	medium	27.5	250	14	11	8	L 2
127-925/26	127-925/35	left	large	29.5	250	15	12	9	L 3
127-927/26	127-927/35	left	extra large	31.5	250	16	13	10	L 4
127-929/26	127-929/35	left	medium	27.5	200	14	11	8	L 2
127-931/26	127-931/35	left	large	29.5	200	15	12	9	L 3
127-933/26	127-933/35	left	extra large	31.5	200	16	13	10	L 4

For further information have a look into our catalogues of the ReOp-Prostheses Endo-Model® and the SPII® Long Prosthesis Stems.

Prosthesis Heads

Prosthesis Heads A - Ceramic

Material: BIOLOX® forte*



Item No.	Head-Ø	Taper	Neck length mm
128-928/01	28	12/14	short (-3.5)
128-928/02	28	12/14	medium (0)
128-928/03	28	12/14	long (+3.5)
128-932/01	32	12/14	short (-4.0)
128-932/02	32	12/14	medium (0)
128-932/03	32	12/14	long (+4.0)
128-936/01	36	12/14	short (-4.0)
128-936/02	36	12/14	medium (0)
128-936/03	36	12/14	long (+4.0)

Prosthesis Heads A - Ceramic

Material: BIOLOX® delta*



All BIOLOX® forte* and BIOLOX® delta* components are compatible with each other.

Item No.	Head-Ø	Taper	Neck length mm
128-791/01	28	12/14	short (-3.5)
128-791/02	28	12/14	medium (0)
128-791/03	28	12/14	long (+3.5)
128-792/01	32	12/14	short (-4.0)
128-792/02	32	12/14	medium (0)
128-792/03	32	12/14	long (+4.0)
128-792/04**	32	12/14	extra long (+7.0)
128-793/01	36	12/14	short (-4.0)
128-793/02	36	12/14	medium (0)
128-793/03	36	12/14	long (+4.0)
128-793/04**	36	12/14	extra long (+8.0)

* BIOLOX® delta and BIOLOX® forte are made by CeramTec GmbH, Plochingen, Germany

Prosthesis Heads B

Material: CoCrMo Legierung

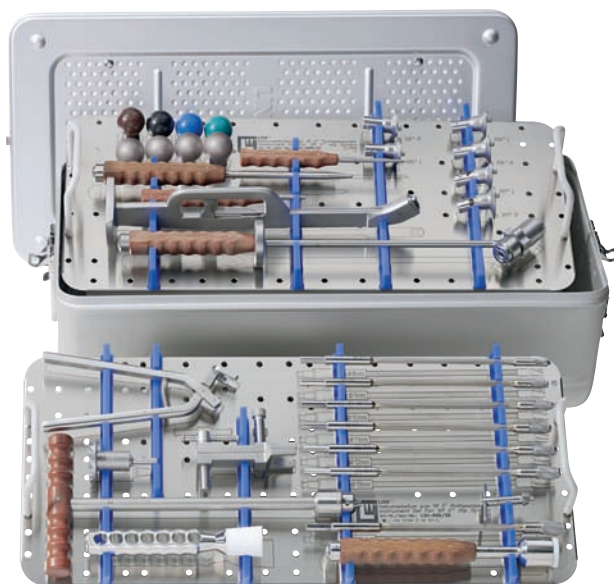


Item No.	Head-Ø	Taper	Neck length mm
128-826/01	26	12/14	short (-3.5)
128-826/02	26	12/14	medium (0)
128-826/03	26	12/14	long (+3.5)
128-828/01	28	12/14	short (-3.5)
128-828/02	28	12/14	medium (0)
128-828/03	28	12/14	long (+3.5)
128-828/04**	28	12/14	extra long (+10.5)
128-832/01	32	12/14	short (-4.0)
128-832/02	32	12/14	medium (0)
128-832/03	32	12/14	long (+4.0)
128-832/04**	32	12/14	extra long (+8.5)
128-836/01	36	12/14	kurz (-4.0)
128-836/02	36	12/14	mittel (0)
128-836/03	36	12/14	lang (+4.0)
128-836/04**	36	12/14	extra lang (+8.0)

** on request

■ Instrument Set, complete, for SPII® Prosthesis Stems

Container 1



Container 2



SP II® instrument set, complete

in 2 containers on 3 trays with storage inserts.

The content of the instrument sets depends on the choice of stem length and head diameter.

Item No.	Complete instrument set in 2 containers
130-899/06	Instrument set, complete, stem 150 mm, head Ø 28 mm
130-899/07	Instrument set, complete, stem 170 mm, head Ø 28 mm
130-899/08	Instrument set, complete, stem 150 mm, head Ø 32 mm
130-899/09	Instrument set, complete, stem 170 mm, head Ø 32 mm

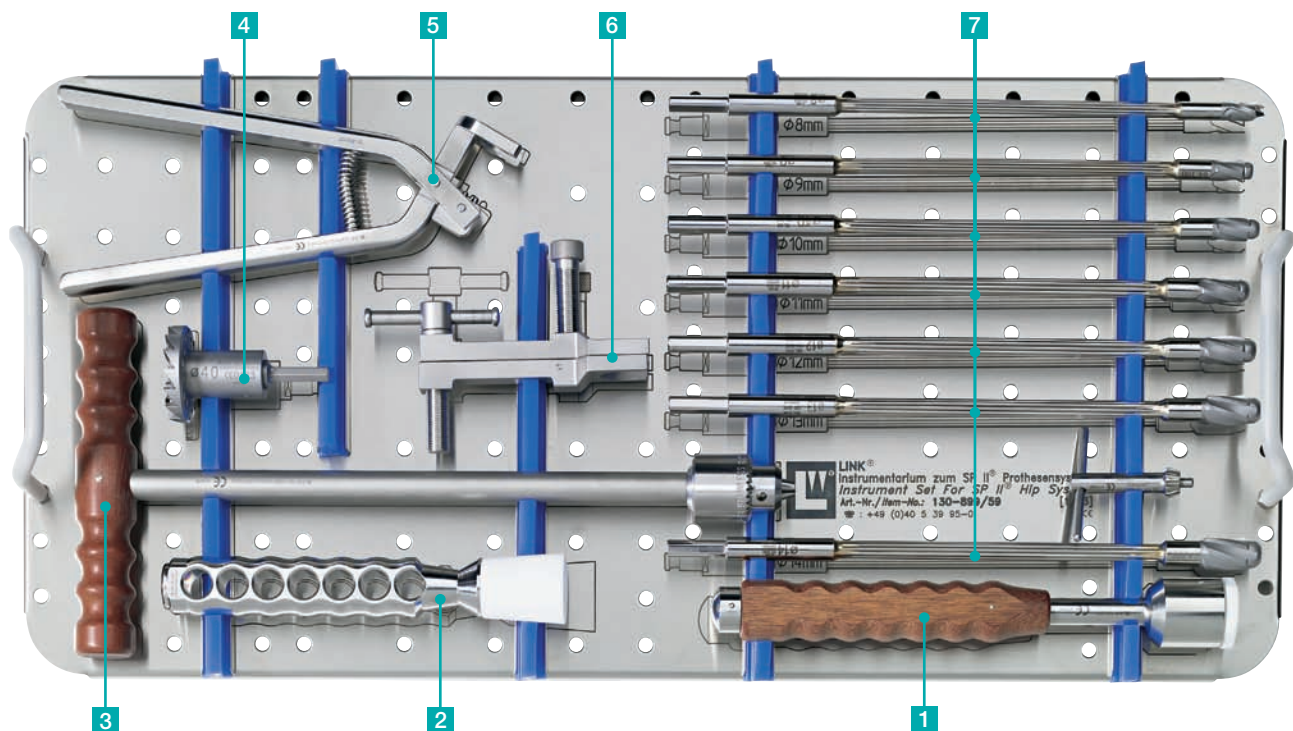
Item No.	Container, separate, complete
130-899/73	Container 1, complete, head Ø 28 mm
130-899/74	Container 1, complete, head Ø 32 mm
130-899/83	Container 2, complete, stem 150 mm
130-899/84	Container 2, complete, stem 170 mm

Optional fitting: Jacobs chuck A*, Hudson B, Harris C, AO D
(How to order: [130-899/06B](#) = with Hudson fitting)

Container 1		Qty	Container 2		Qty
consisting of:			consisting of:		
05-2003/03	N31 Standard Container 575 x 275 x 170 mm with aluminum lid and closed aluminum base, including set of 5 disposable filters and 10 disposable seals	1	05-2001/03	N11 Standard Container 575 x 275 x 100 mm	1
130-899/69	Lower tray, only 550 x 265 x 50 mm perforated stainless steel	1	130-899/68	Tray, only 550 x 265 x 50 mm perforated stainless steel	1
130-899/59	Upper tray, only 550 x 265 x 50 mm perforated stainless steel	1			

*Key for disassembly: Jacobs Chuck A, see page 24

■ 130-899/59 Upper tray, only, container 1

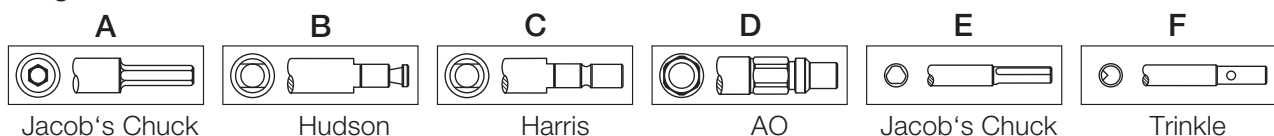


- | | | |
|----------|---|--|
| 1 | 131-597 | Impactor with replaceable plastic insert, 220 mm
(131-598 Replacement plastic insert) |
| 2 | 130-600 | Driver for prosthesis heads with exchangeable plastic tip, 170 mm |
| 3 | 130-408/05 | Handle for Calcar Reamer, 300 mm
Optional fitting: Jacob's Chuck A , Hudson B , Harris C , AO D
(How to order: 130-408/05B = with Hudson fitting) |
| 4 | 130-406/01
175-606/01* | Calcar Reamer to plane resection surface, Ø 40 mm
*Calcar Reamer, Ø 46 mm
Optional fitting: Jacob's Chuck A , Hudson B , Harris C , AO D
(How to order: 130-406/01D = with AO fitting) |
| 5 | 131-830/01 | Inserting Forceps for modular stems, 200 mm |
| 6 | 130-959 | Head Remover for pressing stuck-fast heads of the stem taper |
| 7 | | Femoral Reamers , flexible for medullary canal opening, 250 mm
Optional fitting: Hudson B , Harris C , AO D , Jacob's Chuck E , Trinkle F
(How to order: 130-408/05B = with Hudson fitting) |
| | 130-360 | Ø 8 mm front cutting |
| | 130-368 | Ø 9 mm side cutting |
| | 130-361 | Ø 10 mm side cutting |
| | 130-362 | Ø 11 mm side cutting |
| | 130-363 | Ø 12 mm side cutting |
| | 130-364 | Ø 13 mm side cutting |
| | 130-365 | Ø 14 mm side cutting |
| | 130-367* | Ø 16 mm side cutting |



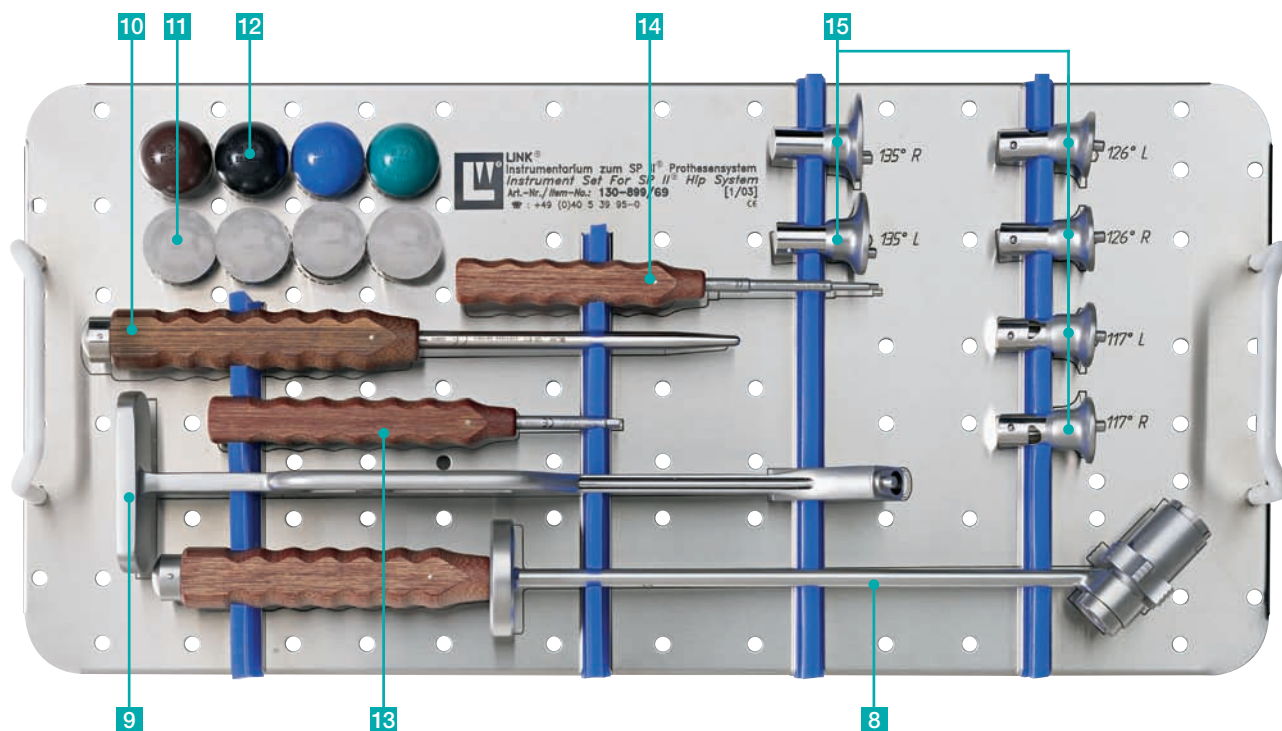
*not included in instrument set

Fittings:



Instruments

130-899/69 Lower tray, only, container 1



- 8** 130-608/01 **Stem Extractor** for prosthesis stems with narrow neck, 450 mm
- 9** 130-393/60 Quick-release **handle** for attachment to broaches, 330 mm
- 10** 130-611 **Impactor**, 280 mm
- 11** **Grey Trial heads** to fit neck sections, with guide pin
- 12** **Coloured plastic trial heads**, Taper 12/14 mm
- 13** 130-609 **Hex screwdriver** for stem extractor, size 4 mm, 175 mm
- 14** 10-5373 **Hex screwdriver**, size 2.5 mm, for handle 130-393/60, 180 mm
- 15** **Neck sections** with pin and snap-fit

SPII® prosthesis stems		optional	SPII® prosthesis stems XL with long neck	
131-520/17	CCD 117° right		131-520/17*	CCD 117° right
131-521/17	CCD 117° left		131-521/17*	CCD 117° left
131-520/26	CCD 126° right		131-520/26*	CCD 126° right
131-521/26	CCD 126° left		131-521/26*	CCD 126° left
131-520/35	CCD 135° right			
131-521/35	CCD 135° left			

- 11** **Grey Trial Heads**
(for further information, see next page)

- 12** **Coloured plastic trial heads**
(for further information, see next page)

* not included in instrument set
**on request

■ Grey Trial Heads for taper

11 Grey trial heads for rasp stems

Item No.	Head Ø	Neck length	Head-neck length mm	Qty
131-822/01*	22	short	-3.5	1
131-822/02*	22	medium	0	1
131-824/01*	24	short	-3.5	1
131-824/02*	24	medium	0	1
131-826/01*	26	short	-3.5	1
131-826/02*	26	medium	0	1
131-826/03*	26	long	+3.5	1
131-828/01	28	short	-3.5	1
131-828/02	28	medium	0	1
131-828/03	28	long	+3.5	1
131-828/04**	28	extra long	+10.5	1
131-832/01	32	short	-4	1
131-832/02	32	medium	0	1
131-832/03	32	long	+4	1
131-832/04**	32	extra long	+8.5	1
131-836/01*	36	short	-4	1
131-836/02*	36	medium	0	1
131-836/03*	36	long	+4	1
131-936/04**	36	long	+8	1

■ Coloured Plastic Trial Heads



12 Coloured plastic trial heads, taper 12/14 mm

Item No.	Head Ø	Neck length	Head-neck length mm	Colour	Qty
131-922/01*	22	short	-3.5	green	1
131-922/02*	22	medium	0	blue	1
131-924/01*	24	short	-3.5	green	1
131-924/02*	24	medium	0	blue	1
131-926/01*	26	short	-3.5	green	1
131-926/02*	26	medium	0	blue	1
131-926/03*	26	long	+3.5	black	1
131-928/01	28	short	-3.5	green	1
131-928/02	28	medium	0	blue	1
131-928/03	28	long	+3.5	black	1
131-928/04**	28	extra long	+10.5	brown	1
131-932/01	32	short	-4	green	1
131-932/02	32	medium	0	blue	1
131-932/03	32	long	+4	black	1
131-932/04**	32	extra long	+8.5	brown	1
131-936/01*	36	short	-4	green	1
131-936/02*	36	medium	0	blue	1
131-936/03*	36	long	+4	black	1
131-936/04**	36	extra long	+8	brown	1

* not included in instrument set, optional

** all XL-Trial heads only on request

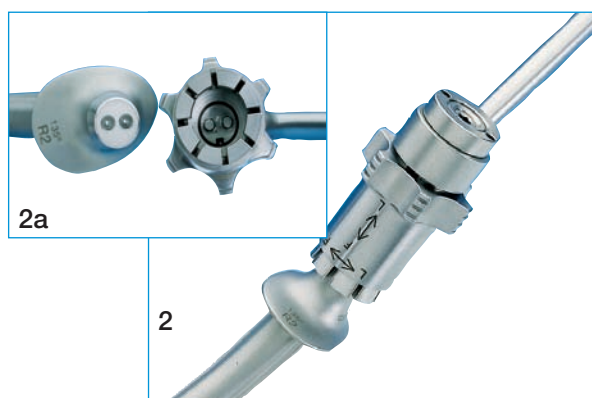
130-608/01 Stem Extractor, Description



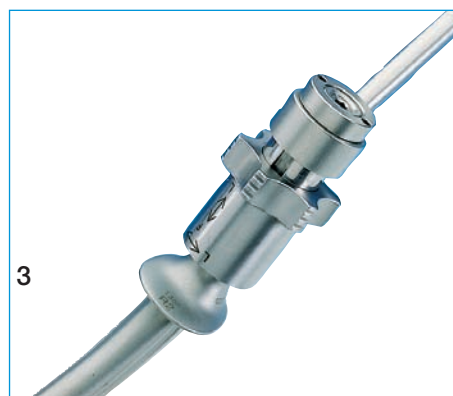
To connect the instrument to a prosthesis stem, the front jaws must first be opened by turning the threaded ring on the head of the extractor to the left (towards “L”) (Fig. 1).



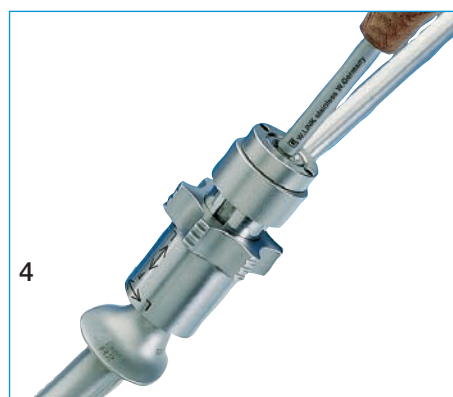
Then the head of the extractor is slid over the taper of the prosthesis stem, until the two pins inside the extractor head engage in the corresponding frontal holes on the stem taper (Fig. 2a and 2).



The jaws of the instrument head are tightened by turning the threaded ring to the right (towards “F”). The instrument head is now attached to the stem taper (Fig. 3).



To secure the connection between the extractor and stem, the hex screw at the upper end of the extractor head is tightened using the hex screwdriver 130-609 in a clockwise direction (Fig. 4).



To undo the extractor, the steps should be followed in reverse order.

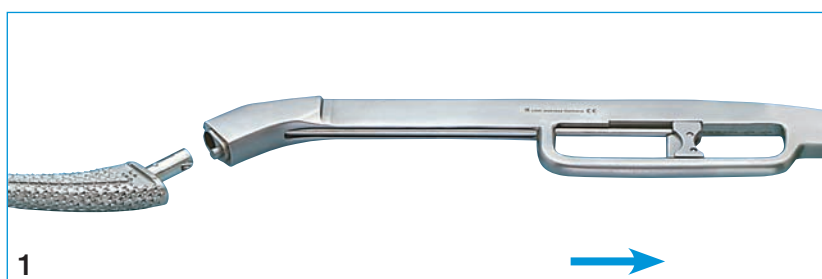
130-393/60 Handle for Rasp Stems

Quick-release handle for attachment to rasp stems, with impact plate, 330 mm

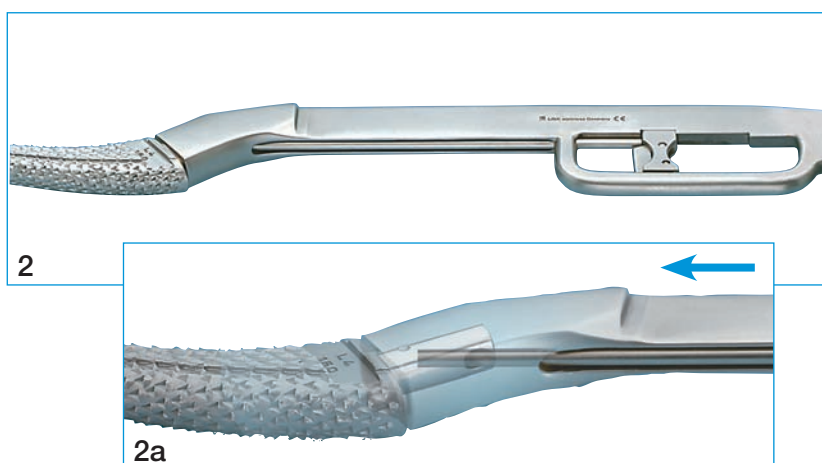


Hex key for disassembly: [Item no.: 10-5371](#)

To connect rasp and handle, the catch is retracted fully (arrow). Then, the rasp stem fitting is inserted into the mount on the front of the handle (Fig. 1).



To secure the connection between rasp stem and handle, the catch is pushed forwards (arrow) (Fig. 2).



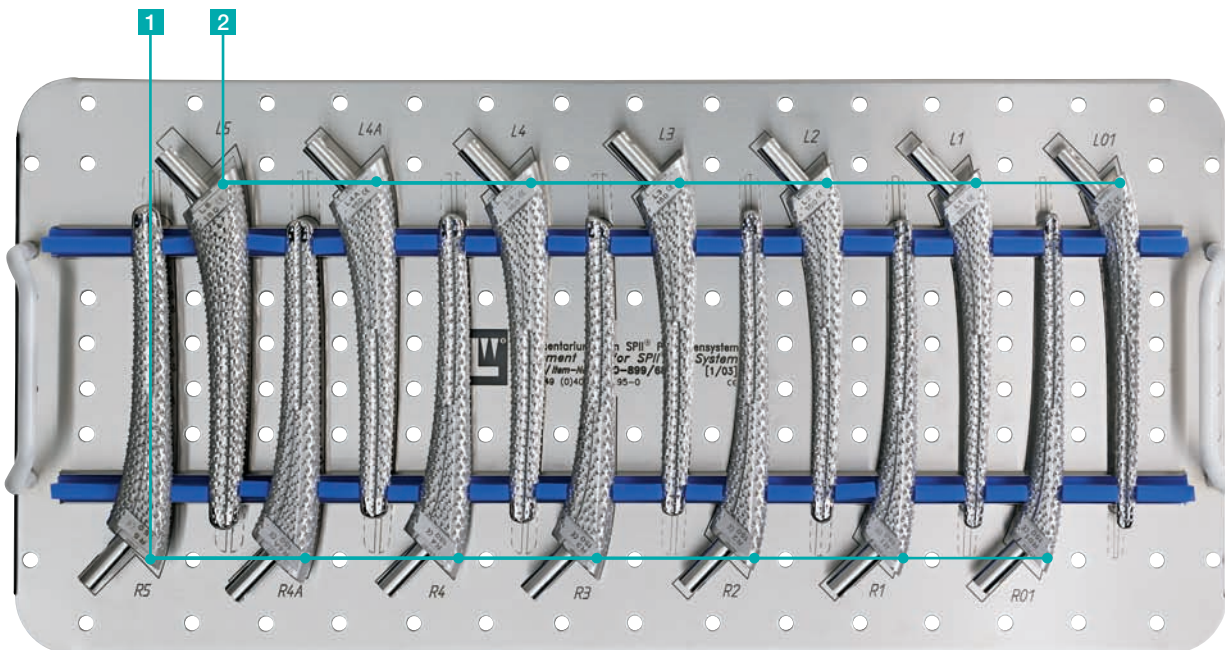
Rasp stem with secured handle (Fig. 2a).



To disengage the catch is pulled back fully (arrow) (Fig. 3). The handle can then be detached from the rasp stem.

■ Instruments

■ 130-899/68 Tray, only, container 2



1
Rasp stems - right, 130 mm long -
for CoCrMo stems

Rasp stems - right, 150 mm long -
for CoCrMo stems

Rasp stems - right, 170 mm long -
for CoCrMo stems

Rasp stems (Item no.) see page 18.

2
Rasp stems - left, 130 mm long -
for CoCrMo stems

Rasp stems - left, 150 mm long -
for CoCrMo stems

Rasp stems - left, 170 mm long -
for CoCrMo stems

optional:

optional:

■ Rasp Stems

Rasp stems with coupling mechanism

The rasp stems listed in the table correspond approximately to the prosthesis size indicated.
To create a cement mantle of 2 to 3 mm, the next largest rasp must be used.

Item no.	Version	Stem width	Stem length mm	for CoCrMo prosthesis stems
99-0039/70	right	extra narrow	130	127-610/17, /26, /35
99-0039/68	right	narrow	130	127-612/17, /26, /35
99-0039/72	right	medium	130	127-614/17, /26, /35
99-0039/74	right	large	130	127-616/17, /26, /35
99-0039/76	right	extra large	130	127-618/17, /26, /35
99-0039/80	right	extra large plus	130	127-620/17, /26, /35
99-0039/78	right	super large	130	127-622/17, /26, /35
130-957/65	right	extra narrow	150	127-720/17, /26, /35
130-957/60	right	narrow	150	127-722/17, /26, /35
130-952/60	right	medium	150	127-724/17, /26, /35
130-946/60	right	large	150	127-726/17, /26, /35
130-942/60	right	extra large	150	127-728/17, /26, /35
130-942/65	right	extra large plus	150	127-738/17, /26, /35
130-949/60	right	super large	150	127-732/17, /26, /35
130-955/65	right	extra narrow	170	127-710/17, /26, /35
130-955/60	right	narrow	170	127-712/17, /26, /35
130-950/60	right	medium	170	127-714/17, /26, /35
130-944/60	right	large	170	127-716/17, /26, /35
130-940/60	right	extra large	170	127-718/17, /26, /35
130-940/65	right	extra large plus	170	127-736/17, /26, /35
130-948/60	right	super large	170	127-730/17, /26, /35
99-0039/71	left	extra narrow	130	127-624/17, /26, /35
99-0039/69	left	narrow	130	127-626/17, /26, /35
99-0039/73	left	medium	130	127-628/17, /26, /35
99-0039/75	left	large	130	127-630/17, /26, /35
99-0039/77	left	extra large	130	127-632/17, /26, /35
99-0039/81	left	extra large plus	130	127-634/17, /26, /35
99-0039/79	left	super large	130	127-636/17, /26, /35
130-958/65	left	extra narrow	150	127-721/17, /26, /35
130-958/60	left	narrow	150	127-723/17, /26, /35
130-953/60	left	medium	150	127-725/17, /26, /35
130-947/60	left	large	150	127-727/17, /26, /35
130-943/60	left	extra large	150	127-729/17, /26, /35
130-943/65	left	extra large plus	150	127-739/17, /26, /35
130-949/61	left	super large	150	127-733/17, /26, /35
130-956/65	left	extra narrow	170	127-711/17, /26, /35
130-956/60	left	narrow	170	127-713/17, /26, /35
130-951/60	left	medium	170	127-715/17, /26, /35
130-945/60	left	large	170	127-717/17, /26, /35
130-941/60	left	extra large	170	127-719/17, /26, /35
130-941/65	left	extra large plus	170	127-737/17, /26, /35
130-948/61	left	super large	170	127-731/17, /26, /35

■ Additional Instruments for Implantation of Hip Prostheses

(not included in SPII® instrument set)

The angled rasp handles are designed to aid femoral preparation during minimally invasive surgery via the frontal approach.

130-393/15 Handle for rasp stems
right hip, angled



130-393/25 Handle for rasp stems
left hip, angled

Hohmann Retractor

Item No.	Version	Width	Length
130-100	small	10 mm	240 mm
130-105	medium	22 mm	260 mm
130-110	wide	43 mm	240 mm



■ **Additional Instruments for Implantation of Hip Prostheses**

(not included in SPII® instrument set)

Dederich Bone Lever with hollow handle
The design makes the instrument comfortable to hold over an extended period.

Item No.	Version	Width	Length
15-1032	medium	18 mm	150 mm
15-1033	wide	43 mm	195 mm



Soft Tissue Retractors
with retrograde bend

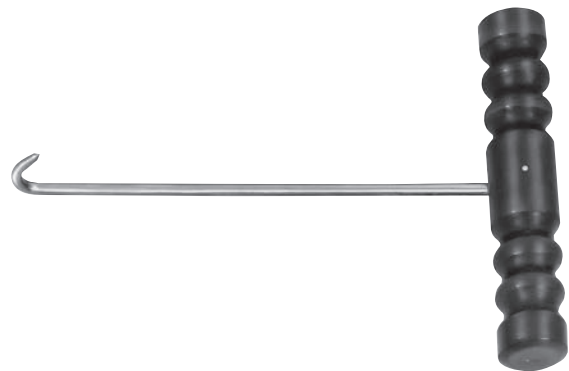
Item No.	Version	Width	Length
66-3470	small	22 mm	325 mm
66-3472	wide	43 mm	325 mm



[130-120](#)

Bone Hook

1 prong, with T-handle, 210 mm



[130-150](#)

Femoral Head Extractor, 270 mm



■ Additional Instruments for Implantation of Hip Prostheses

(not included in SPII® instrument set)

130-114

LINK® Bone Retractor

with fenestrated handle

30 mm wide, 260 mm

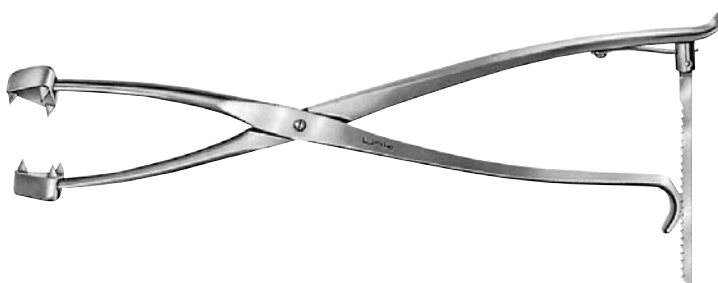


130-155

LINK® Femoral Head Grasping Forceps

285 mm

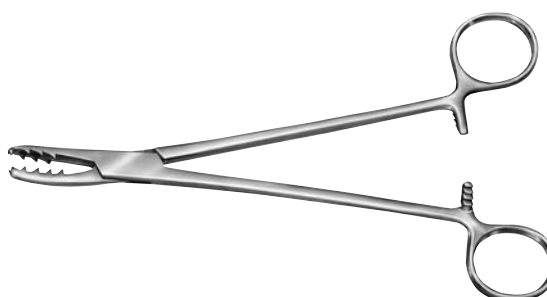
The forceps have triangular jaws, each with three sharp spikes placed at the corners, at the ends of the arms. The jaws are movable and snugly fit the femoral head contours. The handle has supports for the surgeon's hand. The fold-in lock means the instrument can be used with or without the locking mechanism. It is robust, and copes well with heavy tasks.



68-1475

Birchner Meniscus/Cartilage Clamp

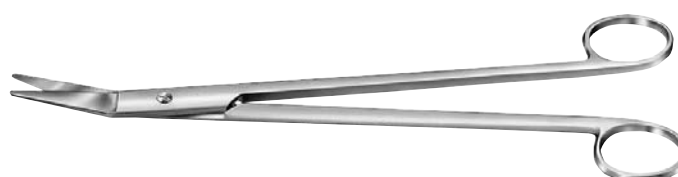
with teeth in jaws, 200 mm



130-139

Cartilage Scissors

250 mm



■ Additional Instruments for Implantation of Hip Prostheses

(not included in SPII® instrument set)

50-2562

Cartilage Scissors

straight, 220 mm



50-2564

Cartilage Scissors

curved, 220 mm



130-160

Lubinus Steinmann Pin

with impact head and extraction hole

Ø 5 mm, 185 mm



For use as a self-retaining retractor one pin is driven into the ischium and another one is driven in approximately 2 cm above the cranial edge of the acetabulum.

For removal, another pin is slid through the hole in the impact head and the Steinmann Pin is then easily un-screwed.

■ Instruments

■ Additional Instruments for Implantation of Hip Prostheses

(not included in SPII® instrument set)

130-686 Slotted Driver for handle (for Rasp stems) and stem extractor, 270 mm



130-165 Mallet
Ø 30 mm, 270 mm, 600 gramme

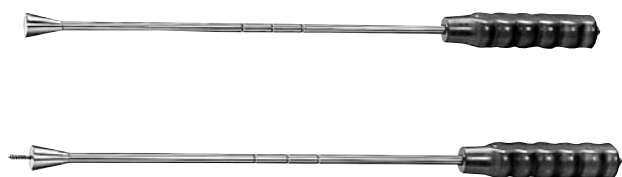


130-610 Cement Packer
Ø 10 mm, 300 mm



Bone Plug Impactor to insert bone plugs into the medullary cavity, 400 mm

Item No.	Ø
Unthreaded	
131-200	8 mm
131-202	10 mm
131-204	12 mm
131-206	14 mm
131-208	16 mm
131-210	18 mm
Threaded	
131-220	8 mm
131-222	10 mm
131-224	12 mm
131-226	14 mm
131-228	16 mm
131-230	18 mm



131-250/26 Inserter
for medullary plugs, graduated, 355 mm,
includes 2 inserter



■ Additional Instruments for Implantation of Hip Prostheses

(not included in SPII® instrument set)

Medullary Plugs

Item No.	Ø
109-130/12	12 mm
109-130/13	13 mm
109-130/14	14 mm
109-130/15	15 mm
109-130/16	16 mm
109-130/17	17 mm
109-130/18	18 mm
109-130/19	19 mm
109-130/20	20 mm



131-250/23 T-Handle for inserter 131-250/26



15-1078/08 Key for Jacob's Chuck A

■ Surgical Technique

■ Preoperative Planning

Preoperative planning is conducive towards optimal surgical outcomes by ensuring the most appropriate implants are selected for the patient. The key objectives involved are the correct positioning of the central rotational point of the hip, correct leg length and finally preservation or restoration of sufficient soft tissue tension by avoiding medialisation of the femur.

Achieving anatomically appropriate CCD or neck angle and head-neck length are of paramount importance. The Lubinus SPII® system offers CCD angles 117°, 126° and 135° and femoral heads with up to four head-neck lengths affording the surgeon great flexibility.

Planning should ideally be based on two X-rays: an AP film of the pelvis and a mediolateral X-ray of the hip in question. When performing the pelvic X-ray it is important to ensure that:

1. Both femurs are shown in their entirety.
2. The femurs are straight and parallel and, if possible, internally rotated approximately 5° in that position.
3. Key landmarks needed for planning are visible: the inferior margins of the obturator foramen and of the acetabular teardrop.

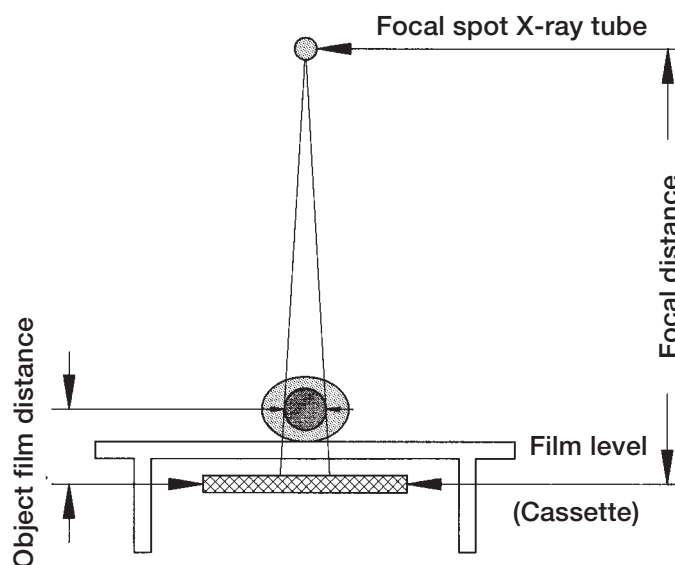
When evaluating the X-rays, it is important to factor in any magnification incurred. Two factors are decisive:

1) Focal distance

Focal spot X-ray tube | $\longleftrightarrow x \longleftrightarrow$ | Film cassette
A focal distance of 100 cm gives magnification of about 10%.

2) Object film distance

Femoral axis | $\longleftrightarrow x \longleftrightarrow$ | Film cassette



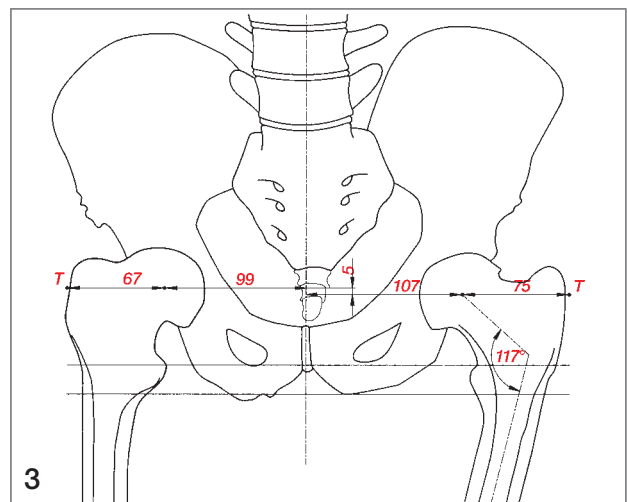
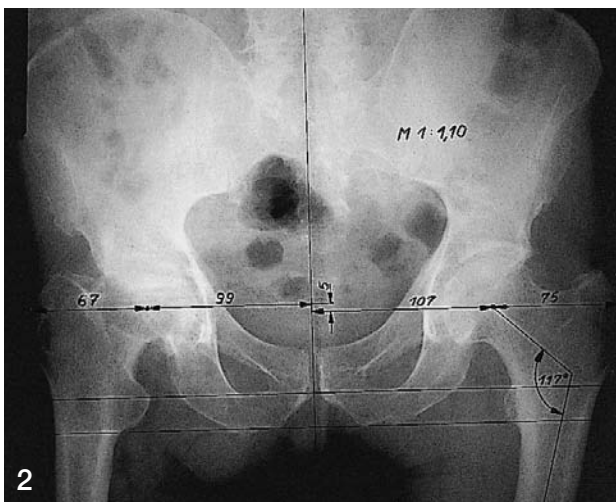
Practical steps

First, geometrical measurements are taken on the basis of the pelvic radiograph. This can be done on the X-ray directly (Fig. 2), but it is better to trace the skeletal contours onto tracing paper (Fig. 3).

A horizontal reference line is drawn along the inferior margins of the obturator foramen, followed by a vertical reference line along the sacral crest, ideally passing through the center of the pubic symphysis.

From these two lines, the center of rotation, difference in leg length, left/right femoral distance, distance between the left/right muscle T lever arms, etc. are defined and marked on the tracing paper.

This provides an overview and landmarks for orientation during surgery, e.g. transfer of dimensional reference to the bone. It must always be remembered that the measurements on the radiograph include a magnification effect that must be allowed for if the measurements are transferred to bone. If the magnification is 10%, measurements taken from the radiograph must be divided by 1.1. So, for example, 60 mm apparent $\div 1.1 = 54.5$ mm actual measurement. The same applies for other magnifications: e.g. at 15% magnification a 60 mm apparent measurement gives $60 \text{ mm} \div 1.15 = 52.2$ mm actual measurement.



Once the dimensions have been entered, the templates are used to select the best implant components for the particular case. The template is positioned on the radiograph such that the center of rotation coincides with the anatomical center of rotation as determined in the drawing. The implant components selected should correct any anatomical insufficiencies derived from the measurements.

In addition to pelvic radiograph, the mediolateral radiograph is used to determine the stem shape and size of the femoral prosthesis as seen from the lateral view.

The planned result becomes clearer when the transparent sheet with the outlined skeletal contours, measurements, and sketched-in position of the acetabular cup is placed on top of the radiograph and adjusted so that the femur in the radiograph is in the desired outcome position in relation to the drawing of the pelvis. This position is then traced onto the tracing paper, preferably in a different color (Fig. 4).

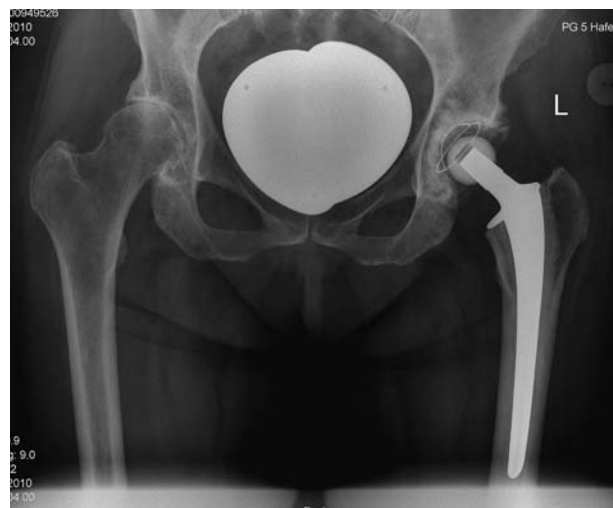
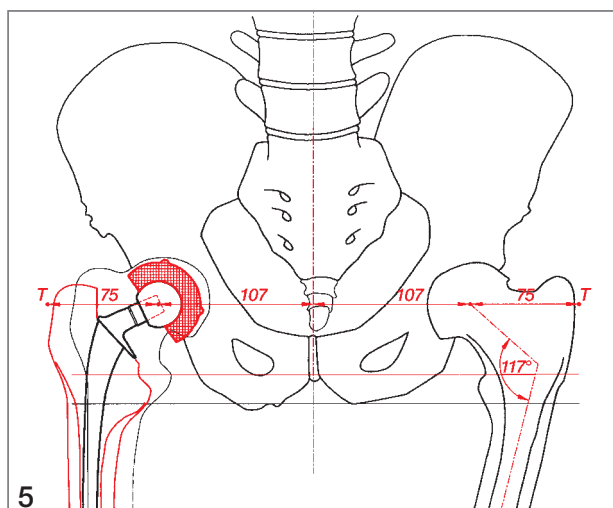
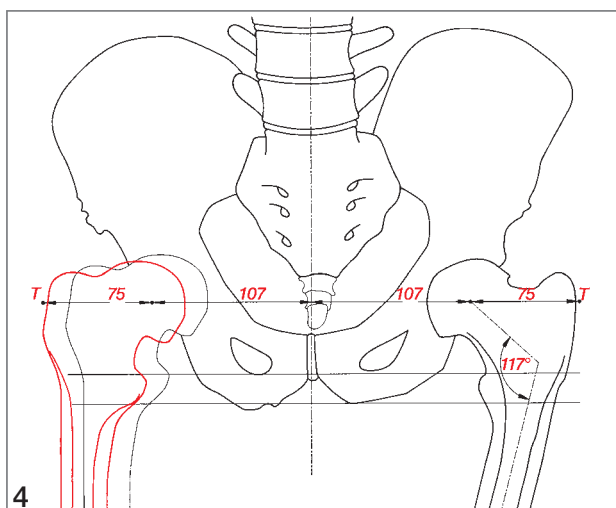
The differences on the tracing paper, e.g. actual and planned positions of the femur, provide the visual overview required for surgical planning and precise selection of the implant components using the X-ray templates or, if necessary, for custom-design implants (Fig. 5).

Materials required:

1. Tracing paper
2. Transparent ruler, 1:1
3. Transparent protractor
4. Transparent radius/hole template
Ø 24 to 58 mm, in 2 mm increments

Note:

Preoperative planning may be time-consuming but it provides intraoperative guidance and can enhance the final result.



■ Surgical Approaches

The choice depends on the surgeon's experience and his/her decision based on the individual situation.

The following approaches are usual:

- antero-lateral - **Watson Jones** (Fig. A)
- direct lateral - **Hardinge** (Fig. B)
- postero-lateral - **Moore** (Fig. C)

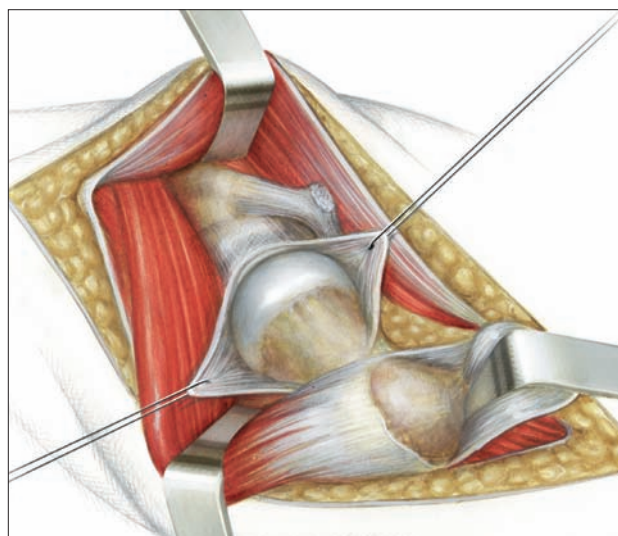


Fig. A: **Watson Jones**

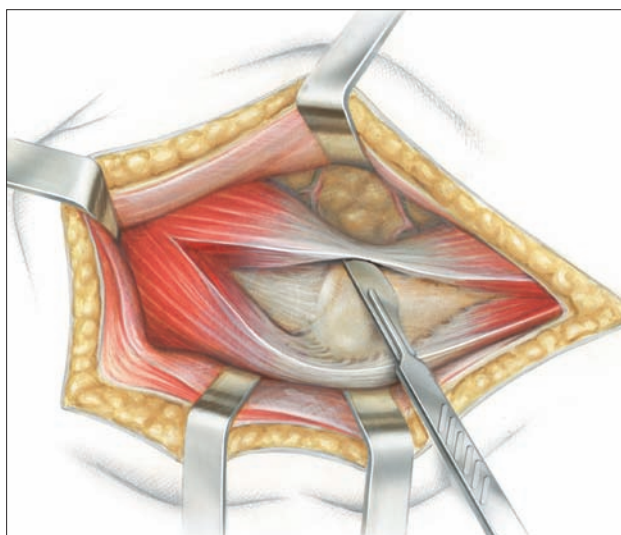


Fig. B: **Hardinge**

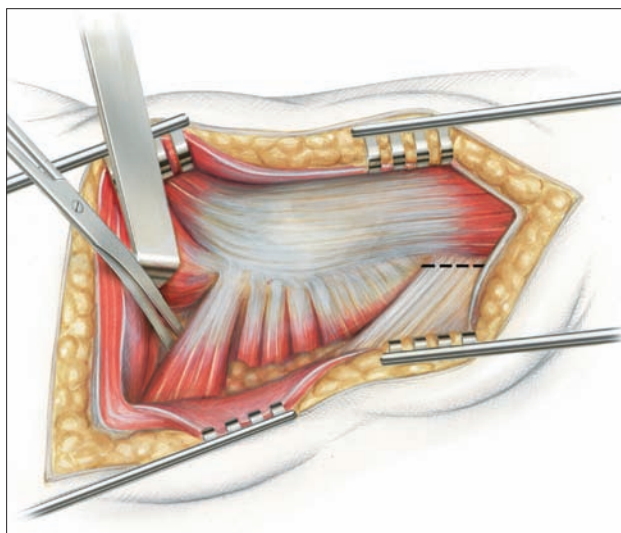
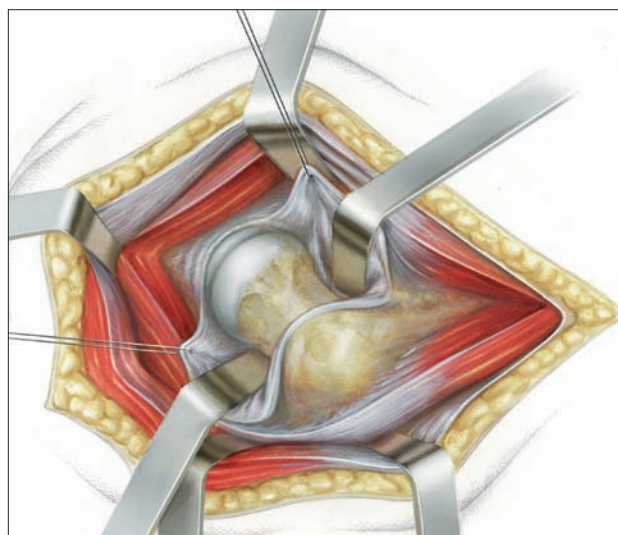


Fig. C: **Moore**

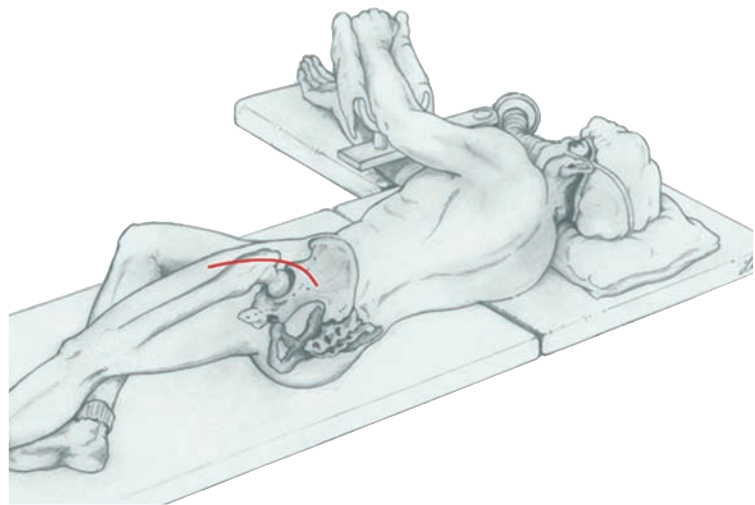


Fig. 1

The patient is placed in the lateral decubitus position. The recommended approach is dorsolateral. A different approach may be used depending on the surgeon's experience.



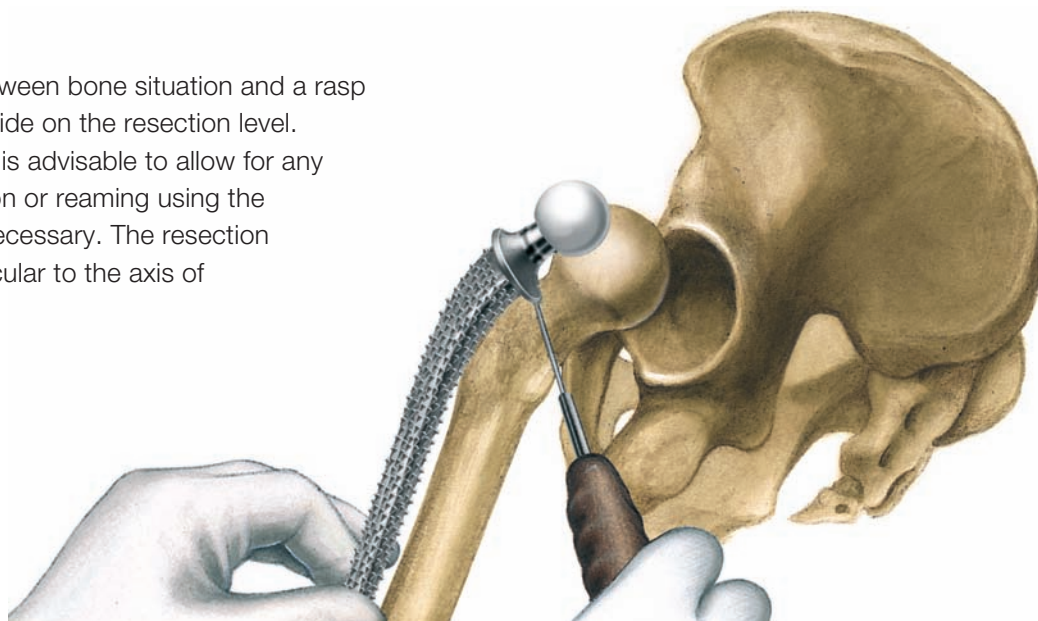
Fig. 2

The femoral head is luxated using internal rotation and 90° flexion of the femur.

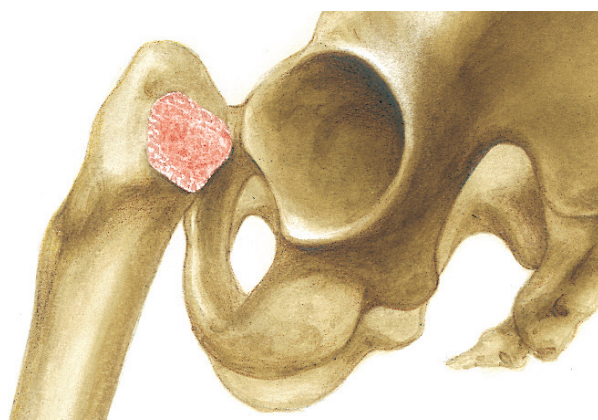
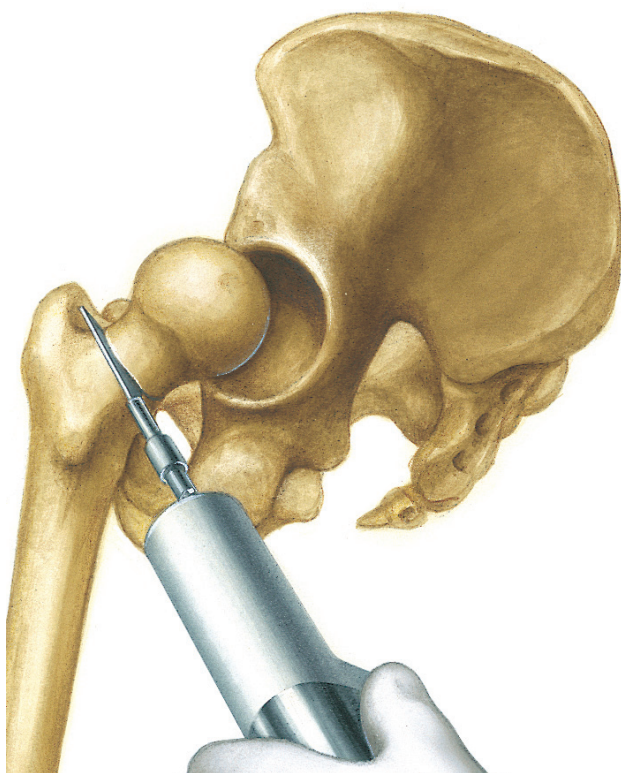


Fig. 3

A comparison between bone situation and a rasp stem helps to decide on the resection level. Sparing resection is advisable to allow for any additional resection or reaming using the calcar reamer if necessary. The resection angle is perpendicular to the axis of the femoral neck.


Fig. 4

Resection of the femoral head according to preoperative planning.


Fig. 5

The acetabulum is exposed after femoral head resection.

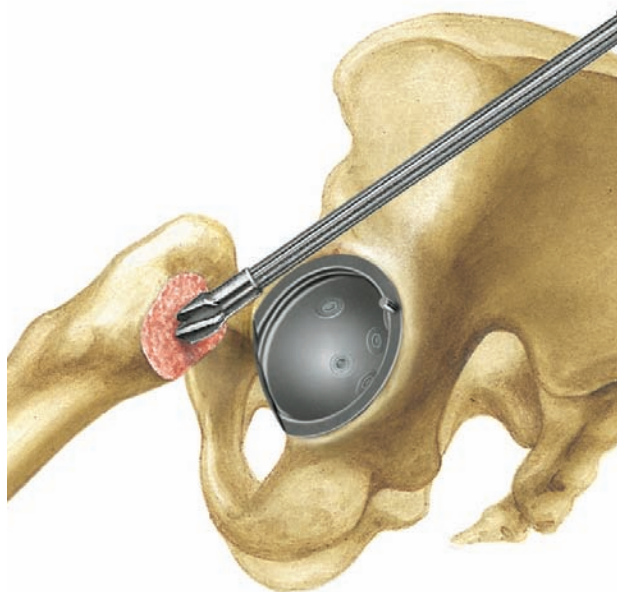


Fig. 7

The rasp stem is inserted with coupled rasp handle.

The femoral rasps roughly correspond to the respective size of the prosthesis stem. To create a cement mantle of approx. 2 to 3 mm the next smallest prosthesis stem must be used (e.g. rasp stem size R3 = prosthesis stem R2).

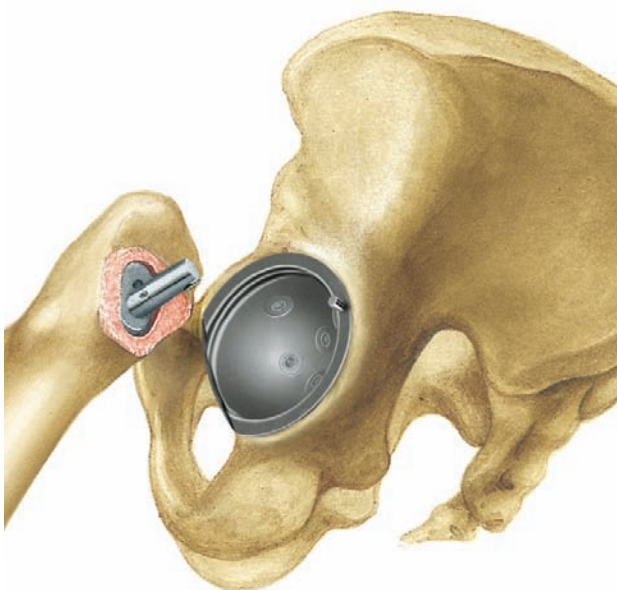


Abb. 6

The medullary canal is prepared for the prosthesis stem with flexible femoral reamers. The smallest reamer (8 mm) is used first and the canal is drilled millimeter by millimeter until distal circular contact is made with the cortical bone. In using a SPII® Long Prosthesis Stem the medullary canal has to be prepared with a corresponding reamer. In order to ensure a consistent cement application, the diameter of the reamer has to be larger than the top of the prosthesis.

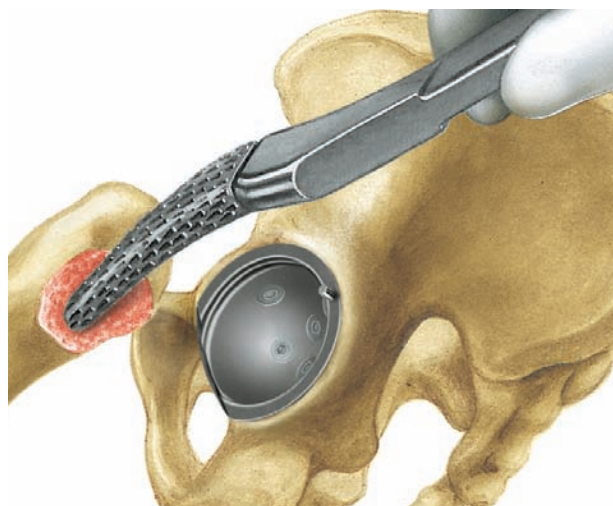


Fig. 8

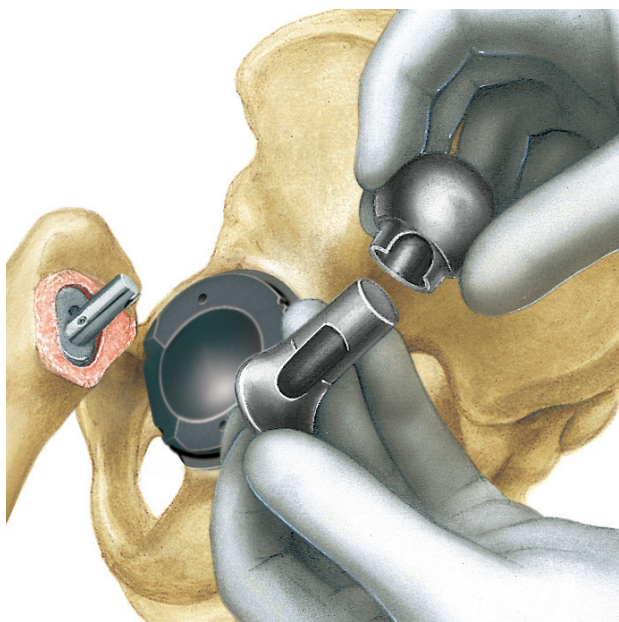
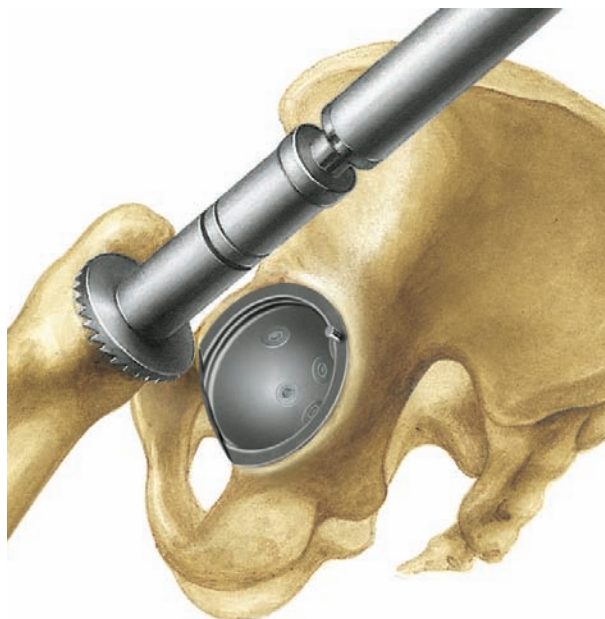
The rasp is then left in situ. The rasp stem sits slightly lower than the lowest point of the resection level.

Fig. 9

The calcar reamer is now used to create plane parallel seat on the proximal femur to allow for the collar.

Important!

To prevent reamer damage, put the reamer onto the guide pin as far as it will go before starting to ream.


Fig. 10

The plastic trial insert is seated in the metal casing. The rasp now serves as trial stem. A left or right neck is fitted on the rasp guide pin and, on top of that, a trial head. Trial heads are available in up to four neck lengths for CoCrMo femoral heads and three neck lengths for ceramic heads (BIOLOX® forte or BIOLOX® delta)*.

For special cases, 22 or 24 mm diameter heads are available in two neck lengths.

Up to three neck angles, one standard and one extra-long neck, and up to four head-neck lengths are available.

* BIOLOX® forte and BIOLOX® delta are a product made by CeramTec GmbH, Plochingen, Germany

Fig. 11

Rasp stems with neck sections and trial head prior to trial reduction.

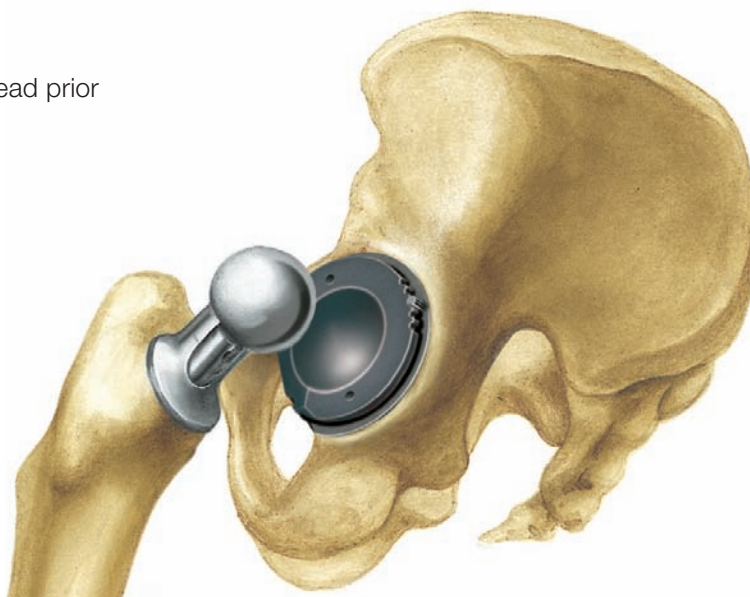


Fig. 12

Trial reduction.

The Trial reduction checks the stability and range of motion of the joint, which can be influenced by the choice of neck section (up to three CCD/neck angles) and trial head (various head-neck lengths). If necessary, the neck can be further resected using the calcar reamer.



Fig. 13

After the trialing the rasp is removed using the rasp handle.

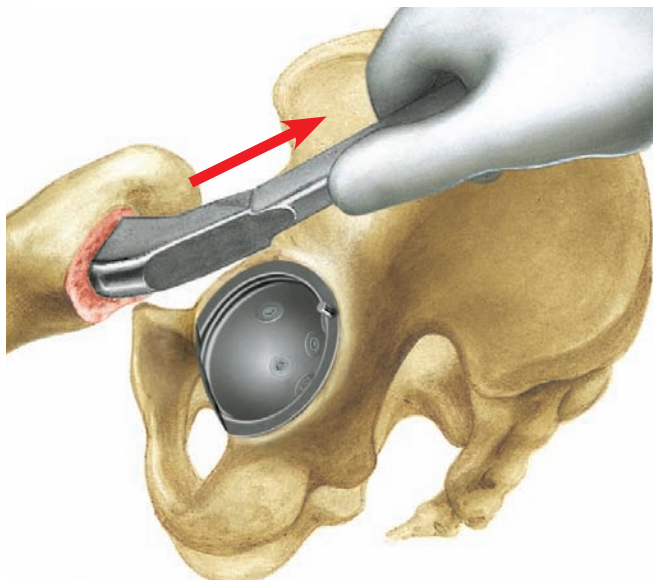
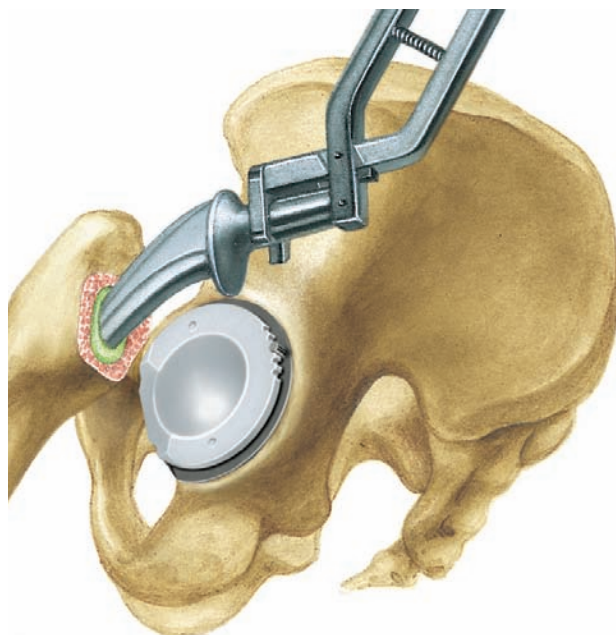


Fig. 14

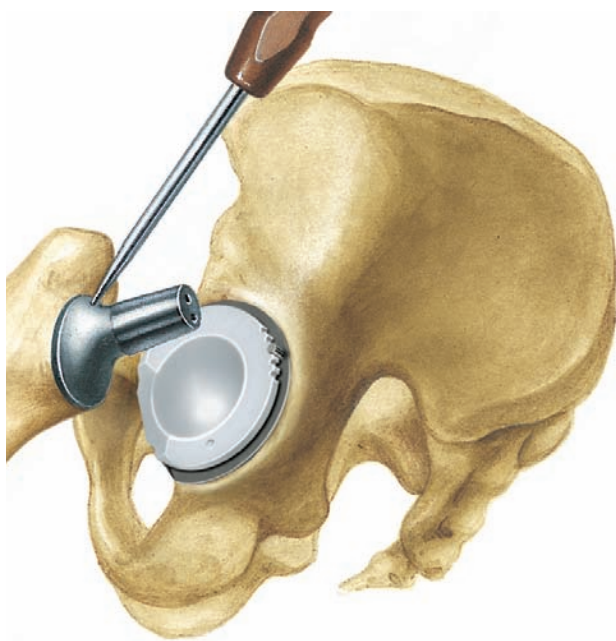
The medullary space is blocked a few centimeters below the planned position of the tip of the femoral stem using either a bone plug or a medullary cavity stopper made of polyethylene. After cement application, the SPII® stem is introduced into the femoral cavity as far as possible by using the insertion forceps.

Attention:

To prevent the reamer from being damaged it must always be pushed as far as possible onto the guide pin before starting to ream.


Fig. 15

The SPII® Stem is driven into its final position using the impactor. While the cement hardens, the stem is pressed firmly into the cement bed with the tip of the impactor located in the hemispherical depression on the lateral collar, thus avoiding transmission of the surgeon's movements to the stem.


Fig. 16

To be on the safe side, a final trial run is done using coloured plastic trial heads.



Fig.17

The femoral head is placed on the carefully cleaned taper of the stem and fixed with a light tap on the impactor.

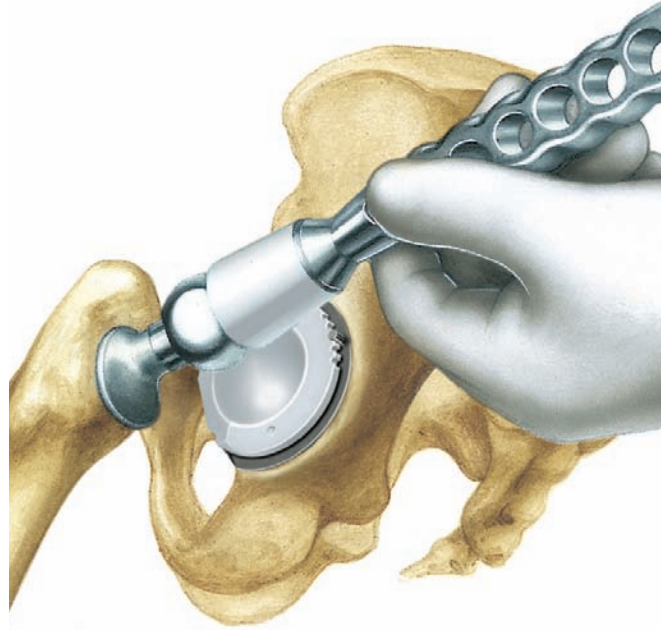


Fig. 18

The Lubinus SPII® Stem in situ.



X-ray Templates

X-ray templates for Lubinus SPII® Prosthesis Stems, standard

Material: CoCrMo, neutral head-neck length, taper 12/14 mm, 110 % actual size

Item No.	CCD angle	Head dia. mm	For stem length mm	Set of sheets
131-415/17	117°	28/32	130	7
131-415/26	126°	28/32	130	7
131-415/35	135°	28/32	130	7
131-416/17	117°	36	130	7
131-416/26	126°	36	130	7
131-416/35	135°	36	130	7

X-ray templates for Lubinus SPII® Prosthesis Stems, standard

Material: CoCrMo, neutral head-neck length, taper 12/14 mm, 110 % actual size

Item No.	CCD angle	Head dia. mm	For stem length mm	Set of sheets
131-417/17	117°	28/32	150/170	7
131-417/26	126°	28/32	150/170	7
131-417/35	135°	28/32	150/170	7
131-418/17	117°	36	150/170	7
131-418/26	126°	36	150/170	7
131-418/35	135°	36	150/170	7

X-ray templates for Lubinus SPII® Prosthesis Stems XL

Material: CoCrMo, neutral head-neck length, taper 12/14 mm, 110 % actual size

Item No.	CCD angle	Head dia. mm	For stem length mm	Set of sheets
131-419/17	117°	28/32	150/170	7
131-419/26	126°	28/32	150/170	7
131-420/17	117°	36	150/170	7
131-420/26	126°	36	150/170	7

X-ray templates for Lubinus SPII® Long Prosthesis Stems

Material: CoCrMo, taper 12/14 mm, 110 % actual size

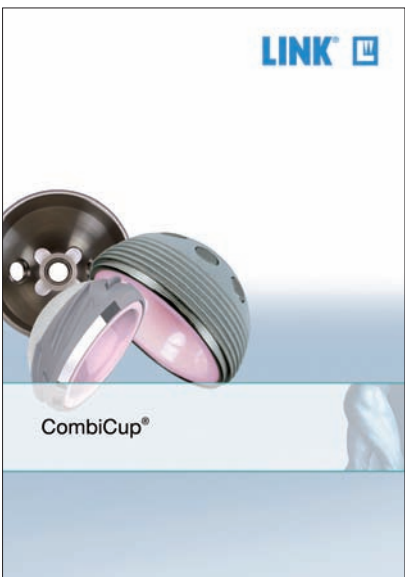
Item No.	CCD angle	Head dia. mm	For stem length mm	Set of sheets
131-423/26	126°	28/32	200, 250, 300, 350	4
131-423/35	135°	28/32	200, 250, 300, 350	4
131-424/26	126°	36	200, 250, 300, 350	4
131-424/35	135°	36	200, 250, 300, 350	4

Instructions for Cleaning and Maintenance

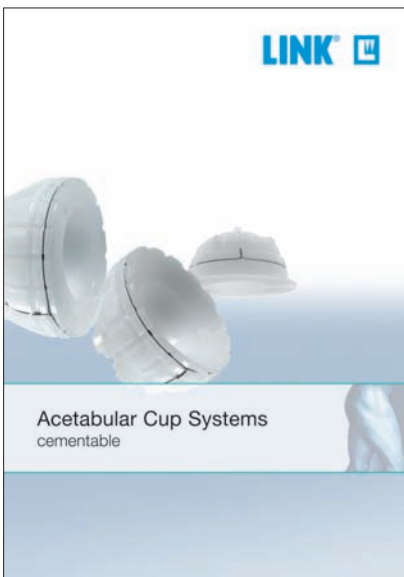
Specific instructions for instruments are available on request: E-mail customer@linkhh.de



603_BetaCup_Impl. Instr. OP_en



697_CombiCup_Impl. Instr. OP_en



609_Hüftpfannen zementierbar_Impl. Instr. OP_en



672_T.O.P._Impl. Instr. OP_en

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■ Indications/Contraindications

	Products	Hip stems	Prosthesis heads			
		Lubinus SPII®	BIOLOX® forte** + delta** Prosthesis heads	Prosthesis head B	Vario-Kopf Endoprosthesis system	Prosthesis head - large
General Indications						
Mobility-limiting diseases, fractures or defects which cannot be treated by conservative or osteosynthetic procedures		X	X	X	X	X
Indications						
Primary and secondary coxarthrosis		X	X	X		
Osteoarthritis		X	X	X		
Necrosis of the femoral head		X	X	X	X	X¹
Femoral neck fractures		X	X	X	X	X¹
Revision after implant loosening		X*	X	X		
Contraindications						
Poor general state of health		X	X	X	X	X
Acute and chronic infections, local and systemic		X	X	X	X	X
Allergies due to (implant) materials		X	X	X	X	X
Distinctive muscular, nerve, vascular or other diseases which put the affected limb at risk		X	X	X	X	X
Insufficient/inadequate bone mass which prevents a stable anchor of the prosthesis		X	X	X	X	X
Acetabulum fracture					X	X
Relative Contraindications						
Adiposity		X	X	X	X	X
Lacking or foreseeable not assured compliance		X	X	X	X	X
Foreseeable overload/overstressing of the joint prosthesis		X	X	X	X	X
Acetabular defects					X	X

Please note:

These indications/contraindications refer to standard cases. The ultimate decision on whether or not an implant is suitable for a patient must be made by the surgeon based on his/her individual analysis and his/her experience.

* Long stem prosthesis

** BIOLOX® delta and BIOLOX® forte are products made by CeramTec GmbH, Plochingen, Germany

¹ for older, less mobile up to immobile patients

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■ Important Information

Please note the following regarding the use of our implants:

1. Choosing the right implant is very important.

The size and shape of the human bone determine the size and shape of the implant and also limit the load capacity. Implants are not designed to withstand unlimited physical stress. Demands should not exceed normal functional loads.

2. Correct handling of the implant is very important.

Under no circumstances should the shape of a finished implant be altered, as this shortens its life span. Our implants must not be combined with implants from other manufacturers.

The instruments indicated in the Surgical Technique must be used to ensure safe implantation of the components.

3. Implants must not be reused.

Implants are supplied sterile and are intended for single use only. Used implants must not be reused.

4. After-treatment is also very important.

The patient must be informed of the limitations of the implant. The load capacity of an implant cannot compare with that of healthy bone!

5. Unless otherwise indicated, implants are supplied in sterile packaging.

Note the following conditions for storage of packaged implants:

- Avoid extreme or sudden changes in temperature.
- Sterile implants in their original, intact protective packaging may be stored in permanent buildings up until the "Use by" date indicated on the packaging.
- They must not be exposed to frost, dampness or direct sunlight, or mechanical damage.
- Implants may be stored in their original packaging for up to 5 years after the date of manufacture. The "Use by" date is indicated on the product label.
- Do not use an implant if the packaging is damaged.

6. Traceability is important.

Please use the documentation stickers provided to ensure traceability.

7. Further information on the material composition is available on request from the manufacturer.

Follow the instructions for use!

Waldemar Link GmbH & Co. KG, Hamburg

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The Surgical Technique described has been written to the best of our knowledge and belief, but it does not relieve the surgeon of his/her responsibility to duly consider the particularities of each individual case.

Unless otherwise indicated, all instruments are made of surgical stainless steel.



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