



# Patella Components

for LINK<sup>®</sup> Knee Prosthesis Systems

Presented by:



**CE0482**

Waldemar Link GmbH & Co. KG

Barkhausenweg 10 · 22339 Hamburg, Germany

P.O. Box 63 05 52 · 22315 Hamburg, Germany

Tel.: +49 40 53995-0 · Fax: +49 40 5386929

E-mail: [info@linkhh.de](mailto:info@linkhh.de) · [www.linkorthopaedics.com](http://www.linkorthopaedics.com)

# Patella Components

## for LINK<sup>®</sup> Knee Prosthesis Systems

### 02 System Description

#### Implants

- 03 Patella Components, 3-peg
- 03 Patella Components, 1-peg

#### Instruments

- 04 Instrument Set for Patella Components, 3-peg
- 06 Instrument Set for Patella Components, 1-peg
- 08 Accessories: Adapter, Saw Blades

### 09 Indications / Contraindications

#### Surgical Technique

- 10 Sizing
- 11 Preparation and Reaming
- 13 Saw Blade Resection Option
- 14 Fixation Hole Drilling
- 15 Implantation
  
- 16 Further Literature
- 16 Numerical Index

#### Important Information

■ **LINK® Patella Components** for LINK® Knee Prosthesis Systems



Anatomically-designed prosthetic components that offer long-term anchoring and a reproducible implantation technique are essential for good results in knee arthroplasty.

Patella Components are part of the LINK Knee Prosthesis Systems. The components geometry is carefully adapted to ensure a high level of congruency with the patellofemoral joint.

The two versions of Patella Components (3-peg and 1-peg) are offered exclusively for cemented fixation and are usable with the following LINK products:

**Applications of the 3-peg version**

- GEMINI® SL® Total Knee Replacement System
- Endo-Model® SL® Rotational and Hinge Knee Prosthesis

The 3-peg Patella Component is available in four sizes with different heights.

**Applications of the 1-peg version**

- Endo-Model® Rotational and Hinge Knee Prosthesis

The 1-peg Patella Component is available in three sizes.

**Instrument Set**

Instruments designed to fit the implants are available, allowing the surgeon to work easily and reliably.

The patella component can be prepared by resection using an oscillating saw or by reaming with a patella reamer. In either case the tool is guided with precision, ensuring an exact fit of the implant.

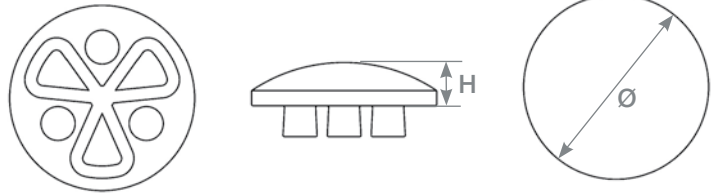
The design and simple function enable safe cleaning and maintenance.



## ■ Implants

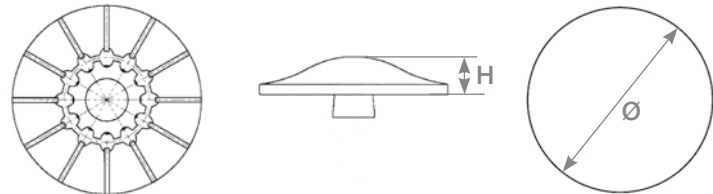
### Patella components, 3-peg

Material: UHMWPE			
Item no.	Size	Outer Ø mm	Height mm
318-401/25	1	25	7
318-401/28	2	28	8
318-401/31	3	31	9
318-401/34	4	34	10



### Patella components, 1-peg

Material: UHMWPE			
Item no.	Size	Outer Ø mm	Height mm
15-2521/30	small (1)	30	8
15-2521/35	medium (2)	35	8
15-2521/40	large (3)	40	8

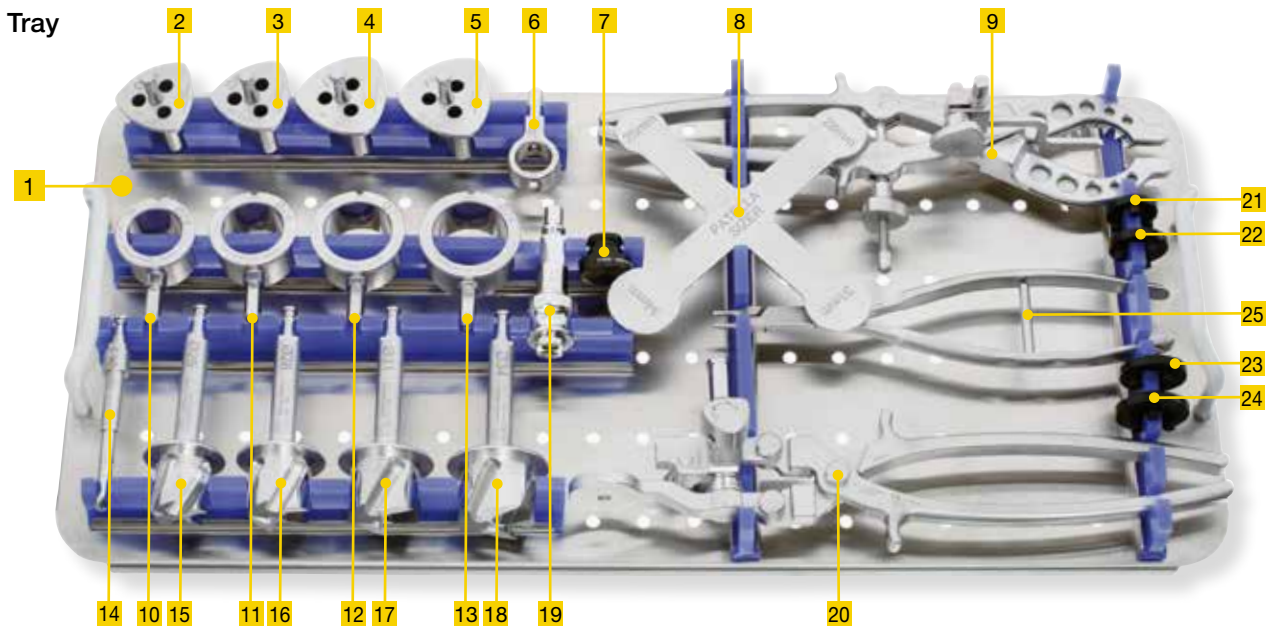


■ **Instrument Set**  
for Patella Components, 3-peg



Item no.	Instrument Set for Patella Components, 3-peg, complete	
340-200	<b>Set</b> in 1 standard container on 1 tray, with products and storage racks. <u>consisting of:</u>	
05-2002/03	<b>Standard container N21</b> , only, stainless steel, 575 x 275 x 140 mm	1 ea.
340-015	<b>Tray</b> , empty, 550 x 265 x 50 mm, stainless steel	1 ea.

## ■ Instruments



<b>1</b>	<b>340-015</b>	<b>Tray</b> , empty, 550 x 265 x 50 mm
		<b>Patella drill guides</b> for patella holding clamp, Patella Component, 3-peg
<b>2</b>	<b>340-225</b>	Size 25 for 318-401/25
<b>3</b>	<b>340-228</b>	Size 28 for 318-401/28
<b>4</b>	<b>340-231</b>	Size 31 for 318-401/31
<b>5</b>	<b>340-234</b>	Size 34 for 318-401/34
<b>6</b>	<b>340-007</b>	<b>Patella pusher attachment</b>
<b>7</b>	<b>340-009</b>	<b>Patella pusher inserter</b>
<b>8</b>	<b>340-010</b>	<b>Patella sizing template</b>
<b>9</b>	<b>340-006</b>	<b>Patella resection clamp</b>
		<b>Patella reaming guides</b> for patella holding clamp, Patella Component, 3-peg
<b>10</b>	<b>340-025</b>	Size 25 for 318-401/25
<b>11</b>	<b>340-028</b>	Size 28 for 318-401/28
<b>12</b>	<b>340-031</b>	Size 31 for 318-401/31
<b>13</b>	<b>340-034</b>	Size 34 for 318-401/34
<b>14</b>	<b>340-306B</b>	<b>Patella drill</b> , Ø 6.3 mm, with Hudson fitting, for Patella Component, 3-peg
		<b>Patella reamers</b> for patella reaming guides, Patella Component, 3-peg, with Hudson fitting
<b>15</b>	<b>340-125B</b>	Size 25 for 318-401/25
<b>16</b>	<b>340-128B</b>	Size 28 for 318-401/28
<b>17</b>	<b>340-131B</b>	Size 31 for 318-401/31
<b>18</b>	<b>340-134B</b>	Size 34 for 318-401/34
<b>19</b>		<b>Adapter for snap lock chuck</b> , optional (see page 08)
<b>20</b>	<b>340-005</b>	<b>Patella holding clamp</b>
		<b>Patella trial prostheses</b> for Patella Component, 3-peg
<b>21</b>	<b>340-325</b>	Size 25 for 318-401/25
<b>22</b>	<b>340-328</b>	Size 28 for 318-401/28
<b>23</b>	<b>340-331</b>	Size 31 for 318-401/31
<b>24</b>	<b>340-334</b>	Size 34 for 318-401/34
<b>25</b>	<b>15-2042</b>	<b>Inserting forceps</b> for inserting the manipulating bearings, 215 mm



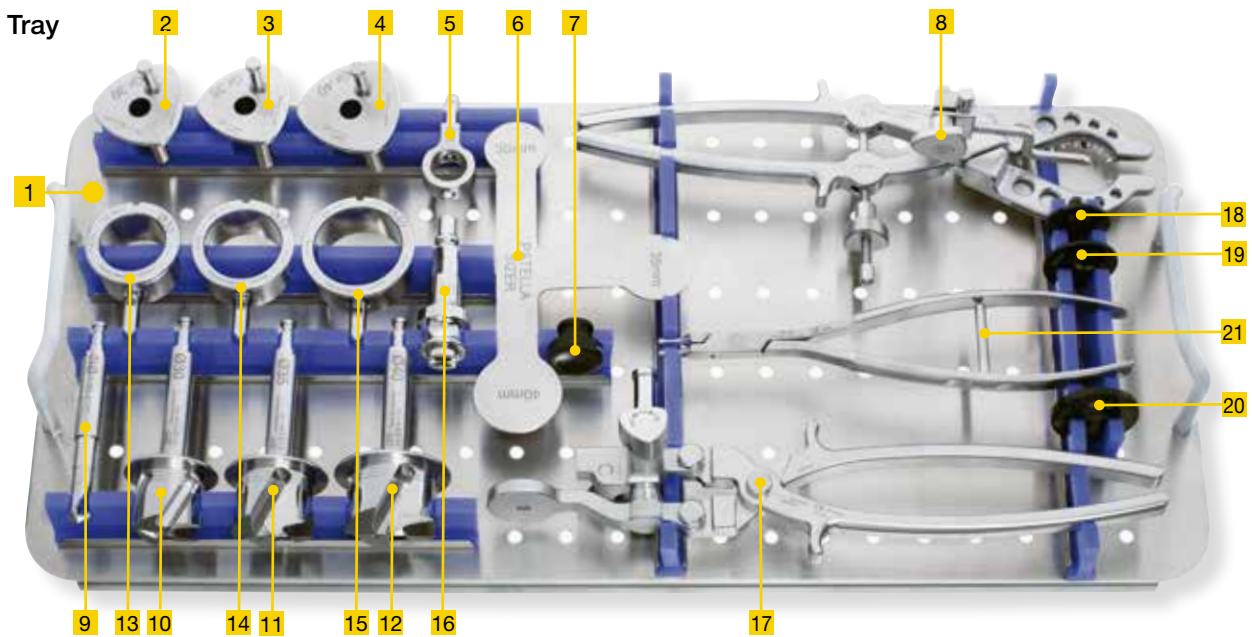
■ **Instrument Set**  
for Patella Components, 1-peg



Item no.	Instrument Set for Patella Components, 1-peg, complete	
340-100	<b>Set</b> in 1 standard container on 1 tray, with products and storage racks. <u>consisting of:</u>	
05-2002/03	<b>Standard container N21</b> , only, stainless steel, 575 x 275 x 140 mm	1 ea.
340-016	<b>Tray</b> , empty, 550 x 265 x 50 mm, stainless steel	1 ea.



## ■ Instruments

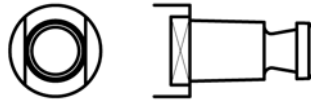


<b>1</b>	<b>340-016</b>	<b>Tray</b> , empty, 550 x 265 x 50 mm
		<b>Patell drill guides</b> for patella holding clamp, Patella Component, 1-peg
<b>2</b>	<b>340-230</b>	Size 30 for 15-2521/30
<b>3</b>	<b>340-235</b>	Size 35 for 15-2521/35
<b>4</b>	<b>340-240</b>	Size 40 for 15-2521/40
<b>5</b>	<b>340-007</b>	<b>Patella pusher attachment</b>
<b>6</b>	<b>340-011</b>	<b>Patella sizing template</b>
<b>7</b>	<b>340-008</b>	<b>Patella pusher inserter</b>
<b>8</b>	<b>340-006</b>	<b>Patella resection clamp</b>
<b>9</b>	<b>340-310B</b>	<b>Patella drill</b> , Ø 10 mm, with Hudson fitting, for Patella Component, 1-peg
		<b>Patella reamers</b> for patella reaming guides, Patella Component, 1-peg, with Hudson fitting
<b>10</b>	<b>340-130B</b>	Size 30 for 15-2521/30
<b>11</b>	<b>340-135B</b>	Size 35 for 15-2521/35
<b>12</b>	<b>340-140B</b>	Size 40 for 15-2521/40
		<b>Patella reaming guides</b> for patella holding clamp, Patella Component, 1-peg
<b>13</b>	<b>340-030</b>	Size 30 for 15-2521/30
<b>14</b>	<b>340-035</b>	Size 35 for 15-2521/35
<b>15</b>	<b>340-040</b>	Size 40 for 15-2521/40
<b>16</b>		<b>Adapter for snap lock chuck</b> , optional (see page 08)
<b>17</b>	<b>340-005</b>	<b>Patella holding clamp</b>
		<b>Patella trial prostheses</b> for Patella Component, 1-peg
<b>18</b>	<b>15-2600/30</b>	Size 30 for 15-2521/30
<b>19</b>	<b>15-2600/35</b>	Size 35 for 15-2521/35
<b>20</b>	<b>15-2600/40</b>	Size 40 for 15-2521/40
<b>21</b>	<b>15-2042</b>	<b>Inserting forceps</b> for inserting the manipulating bearings, 215 mm

■ **Adapter**




**Hudson fitting**

Basic tool connection for patella instruments



**Adapter for Snap Lock Chuck**

Various adapters to enable compatibility with other equipment connections.

Item no.	Fitting
16-3283/00	Jacobs Fitting (E) 
16-3284/00	AO Fitting (D) 
16-3285/00	Harris Fitting (C) 

■ **Saw Blades**



**Saw blade**, without offset teeth, 1.24 mm thick

Item no. wide	Item no. small	Fitting
317-654/10	317-656/10	Synthes
317-654/11	317-656/11	Aesculap combi
317-654/12	317-656/12	3M
317-654/13	317-656/13	Zimmer/Hall combi
317-654/14	317-656/14	Stryker system 4

## ■ Indications / Contraindications

---

Patella Resurfacing is not a necessary part of the method for implantation of a total knee replacement. It is an optional procedure carried out if femoropatellar syndrome is present.

### **Contraindication**

The specific contraindications for the knee system being used must always be observed.

### **Account must also be taken of the following:**

- Degree of retropatellar arthrosis
- Patient's height and weight
- Pre-existing anterior knee pain

■ Procedure for **LINK**® Patella Components

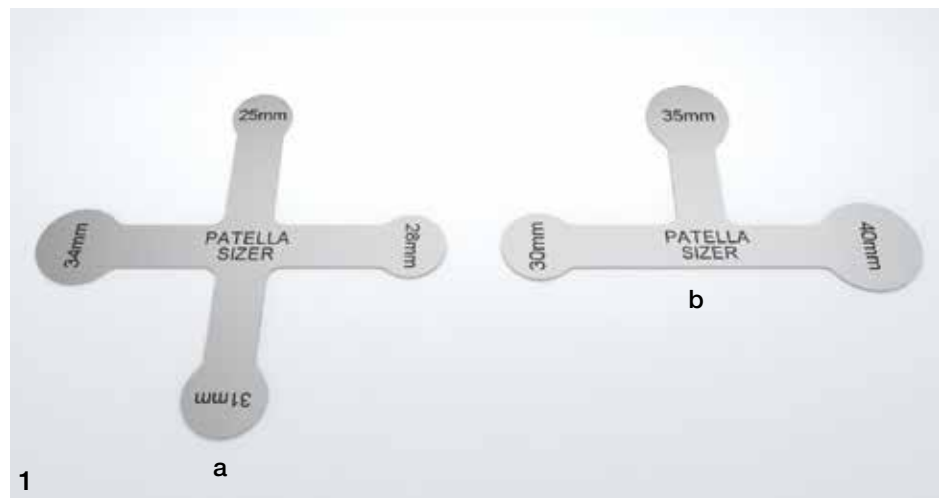
The following operating instructions describe the use of the LINK® Patella Component and assume the use of the instrument set available for this procedure. Both the “reaming of the patella surface” technique and the “resection of the patella surface” technique are shown.

The description relates to the **3-peg version** of the knee implants:

- GEMINI® SL® Total Knee Replacement System
- Endo-Model® SL® Rotational and Hinge Knee Prosthesis

The technique for the **1-peg version** for the following knee implant is also described:

- Endo-Model® Rotational and Hinge Knee Prosthesis



**Sizing**

A patella sizing template corresponding to the implants is available (1).

3-peg size template (a)

1-peg size template (b)

The size of implant to choose is determined by placing the size template centrally on the patella surface (2).



## ■ Surgical Technique

### Preparation for patella component

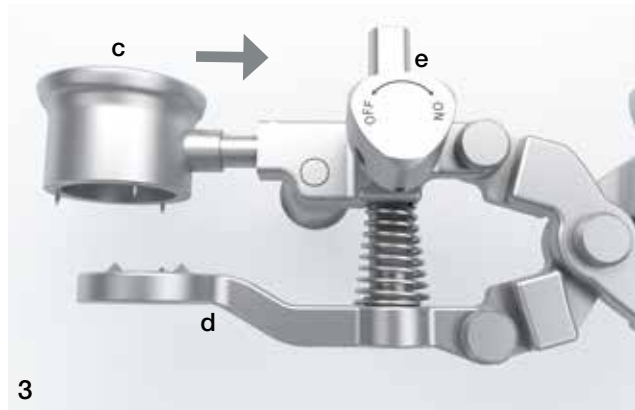
The patella surface can be prepared using the onlay technique with the aid of the patella reamer (as described here) or by resecting with an oscillating saw (see page 13).

### Onlay reaming option

#### Reaming preparation

The reaming guide (c) of the appropriate size is inserted (3) into the patella clamp (d).

Note: Press the button on the side to insert and remove the guide.



A ratchet can be activated on the clamp with the retaining screw (e). By turning the screw to "ON" the clamp is held shut (4). By turning the screw to "OFF", the ratchet is released.



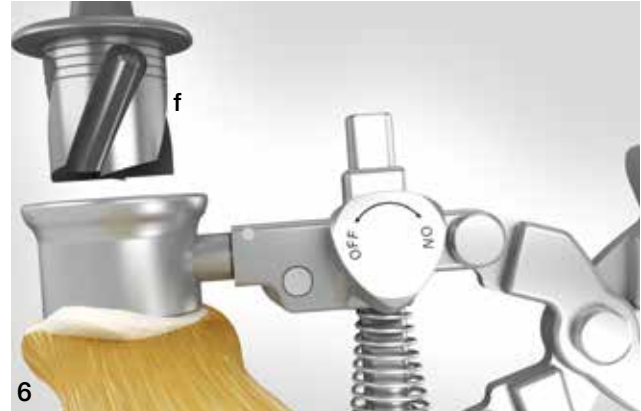
Following removal of the peripheral osteophytes, the patella is clamped with the patella holding clamp, aiming at the most central position possible (5). Good fixation is achieved when the spikes on the guide grip into the bone.



■ Procedure for **LINK**<sup>®</sup> Patella Components

**Reaming**

The patella reamer is selected (6) to match the implant size which was previously determined and the corresponding reaming guide. The patella reamer has a Hudson drill connection for direct fixation with corresponding power tool connection. It is compatible with other machine systems by using an adapter for snap lock chuck (see page 08).



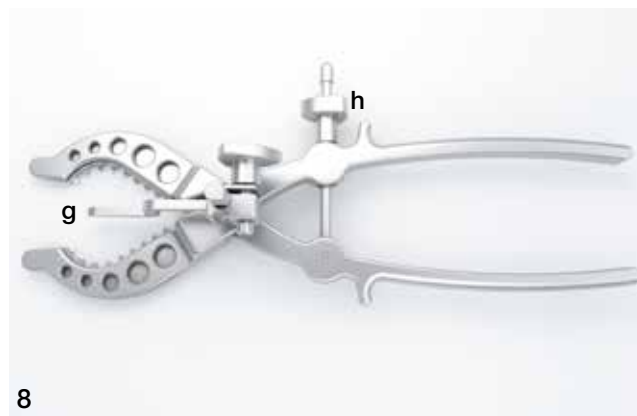
The patella surface is prepared using the patella reamer (f). Reaming depth is verified by means of the mechanical stop on the reamer. In addition, there are marking grooves at 2 mm intervals. The maximum reaming depth is reached when the reamer collar makes contact with the reaming guide (7).



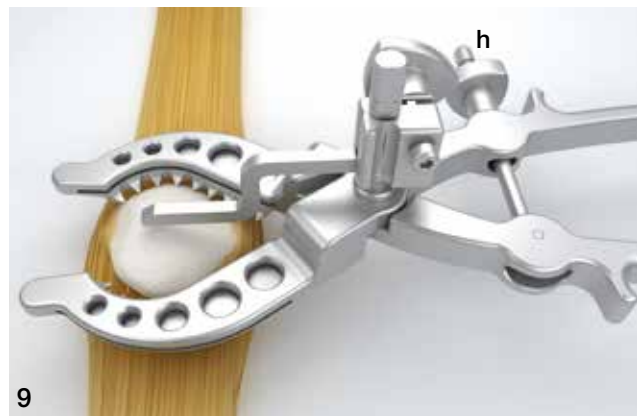
## ■ Surgical Technique

### Saw blade resection option

The height of the bone to be resected can be adjusted using the height calliper (g) on the resection clamp (8).



In doing this, it is important to ensure that the remaining patella is sufficiently thick. The patella is held using the toothed jaws. The sectional plane must lie parallel to the extended patellar tendon and the height calliper must lie on the bone. In order to clamp the patella firmly, the clamp is compressed firmly and fixed using the lateral setting screw (h) (9).



The resection is carried out using an oscillating saw with a 1.27 mm or 1.24 mm thick saw blade. The saw is guided using the saw slots of the resection clamp (10).





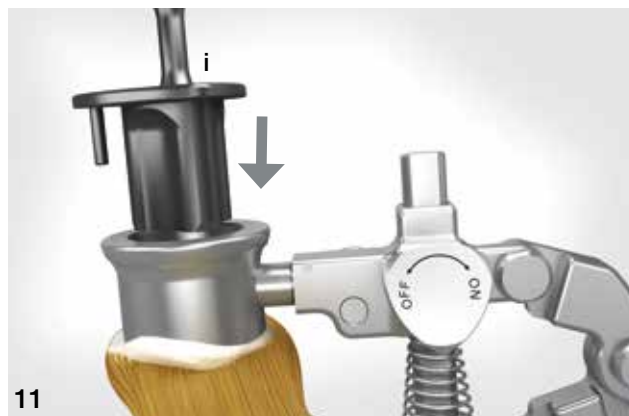
■ Procedure for **LINK® Patella Resurfacing**

**Fixation hole drilling**

If the saw blade resection option is selected, the patella is to be fixed with the patella holding clamp as follows:

- Insert the patella reaming guide into the patella holding clamp
- Ratchet function “ON”
- Clamp the patella firmly

Insert the drilling guide (i) for the anchoring holes which corresponds to the chosen implant size into the reaming guide (11).



11

In doing so, ensure that the guide pin on the drilling guide lies in the opening made for it in the reaming guide. Using the appropriately-sized patella drill (k), drill through the drilling guide until stopped by the depth stop with the appropriately-sized patella drill (12).



12

**Note**

3-peg patella	<ul style="list-style-type: none"> <li>• Drill guide with <b>three</b> pre-drilled guide holes</li> <li>• Patella drill <b>6.5 mm diameter</b></li> </ul>
1-peg patella	<ul style="list-style-type: none"> <li>• Drill guide with <b>one</b> pre-drilled guide hole</li> <li>• Patella drill <b>10 mm diameter</b></li> </ul>

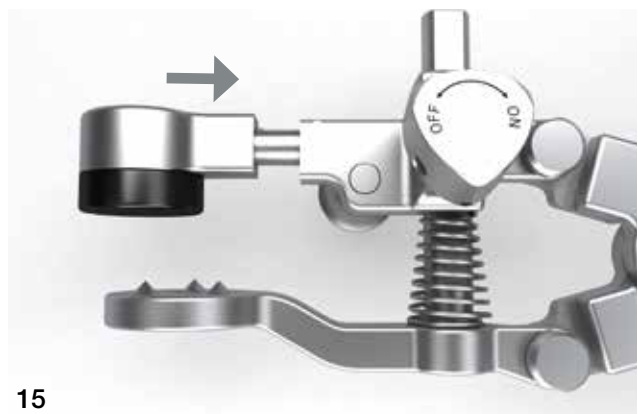
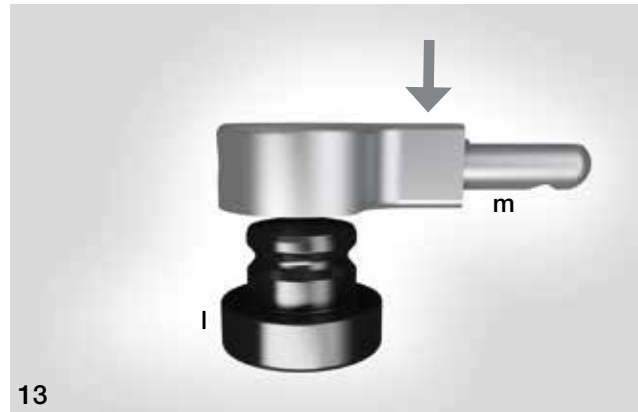
## ■ Surgical Technique

### Implantation

The reaming guide is removed from the patella clamp. The polyethylene insert\* (l) is pressed into the patella pusher inserter (m) (13 +14) and the pusher inserter is then inserted into the patellar clamp (15).

\* 3-peg patella = 27.0 mm radius

1-peg patella = 21.5 mm radius



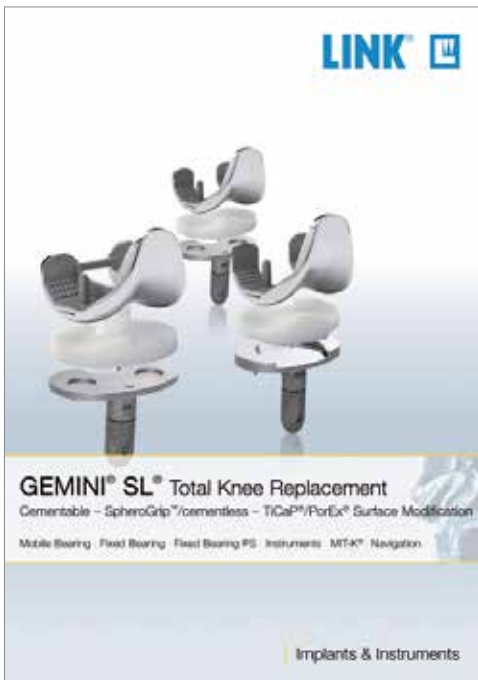
Following extensive rinsing and removal of all impeding soft tissue, the bone cement is applied to the back of the implant, and the implant is placed by hand and pressed on using the patella clamp with the pusher inserter (16).

### Caution!

Prepare the bone cement according to the manufacturer's instructions.

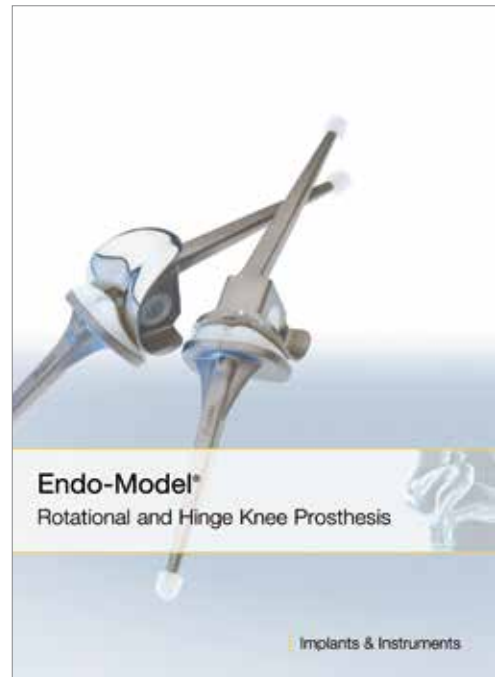
Ensure that excess bone cement is completely removed and that no loose particles of bone cement remain in the joint.





**GEMINI® SL® Total Knee Replacement,**  
Implants & Instruments, cementable/cementless,  
with TiCaP®/PorEx® Surface Modification  
Catalog: 737en\_Impl.Instr.

available on request



**Endo-Model® Rotational and  
Hinge Knee Prosthesis,**  
Implants & Instruments  
Catalog: 711en/Impl.Instr.

available on request

■ Numerical Index

05-2002/03 .....	04,06	340-010 .....	05
15-2042 .....	05,07	340-011 .....	07
15-2521/30 .....	07	340-016 .....	06
15-2521/35 .....	07	340-025 .....	05
15-2600/40 .....	07	340-028 .....	05
15-2600/30 .....	03	340-030 .....	07
15-2600/35 .....	03	340-031 .....	05
15-2521/40 .....	03	340-034 .....	05
16-3283/00, 16-3284/00, 16-3285/00 .....	08	340-035 .....	07
317-654/10 to 317-654/14 .....	08	340-040 .....	07
317-656/10 to 317-656/14.....	08	340-100 .....	06
318-401/25 .....	03	340-125B, 340-128B, 340-131B, 340-134B .....	05
318-401/28 .....	03	340-130B, 340-135B, 340-140B .....	07
318-401/31 .....	03	340-200 .....	04
318-401/34 .....	03	340-225, 340-228 .....	05
340-015 .....	04	340-231, 340-234 .....	05
340-005 .....	05,07	340-230, 340-235, 340-240 .....	07
340-006 .....	05,07	340-306B .....	05
340-007 .....	05,07	340-310B .....	07
340-008 .....	07	340-325, 340-328 .....	05
340-009 .....	05	340-331, 340-334 .....	05

## ■ 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

All content in this catalog, including text, pictures and data, is protected by law. Every instance of use, whether in part or in whole and which is not permitted by law, is subject to our prior consent. In particular, this applies to the reproduction, editing, translation, publishing, saving, processing, or passing on of content stored in databases or other electronic media and systems, in any manner or form. The information in the catalogs is solely intended to describe the products and does not constitute a guarantee.

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.



## Waldemar Link GmbH & Co. KG

Barkhausenweg 10 · 22339 Hamburg, Germany  
P.O. Box 63 05 52 · 22315 Hamburg, Germany  
Tel.: +49 40 53995-0 · Fax: +49 40 5386929  
E-mail: [info@linkhh.de](mailto:info@linkhh.de) · [www.linkorthopaedics.com](http://www.linkorthopaedics.com)

**LINK**<sup>®</sup>

