



**Endo-Model® Standard/ – M** Knee System  
with Segmental Bone Replacement Components  
and MIRETO® Instrument Set

Implants & Instruments

Presented by:



Waldemar Link GmbH & Co. KG

Barkhausenweg 10 · 22339 Hamburg, Germany  
Phone +49 40 53995-0 · info@linkhh.de  
[www.linkorthopaedics.com](http://www.linkorthopaedics.com)

# Endo-Model® Standard/ – M

## Knee System with Segmental Bone Replacement Components and MIRETO® Instrument Set

### System Description

- 02 Endo-Model® Knee Prosthesis System
- 06 Endo-Model® – M, Assembly: Modular Stems
- 07 LINK PorEx® Hypoallergenic Surface Modification
- 08 Endo-Model® Hinge Knee Prosthesis
- 08 Indications / Contraindications
- 09 MIRETO® Instrument Set

### Implants

#### **Rotational Knee Prosthesis Endo-Model®**

- 10 • with anti-luxation device
- 12 • with LINK PorEx® surface modification for metal-hypersensitive patients

#### **Hinge Knee Prosthesis Endo-Model®**

- 13 • with hinge axis

#### **Endo-Model® – M, Modular Knee Prosthesis System**

- 14 • Measurements: Joint Components
- Joint Components for Rotational Version – with anti-luxation device:
  - 15 • EndoDur™ (CoCrMo)
  - 16 • EndoDur™ (CoCrMo)/LINK PorEx®
- Joint Components for Hinged Version:
  - 17 • EndoDur™ (CoCrMo)
- 18 Modular Stems, cemented
- 19 Modular Stems, cementless

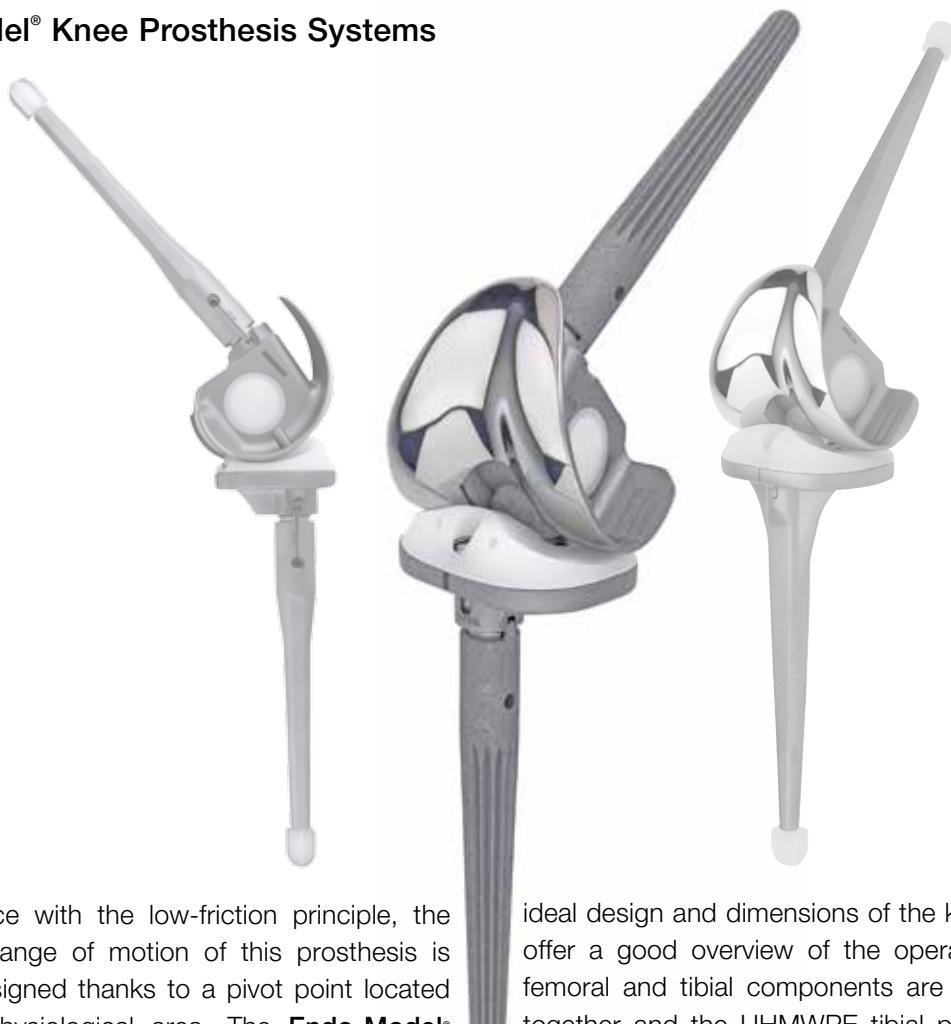
#### Femoral Segments for Rotational and Hinged Version Endo-Model®

- 20-23 • UHMWPE
- 21-25 • Tilastan® – S
- Proximal Tibial Spacers and Segments for Rotational and Hinged Version Endo-Model®
  - 26 • UHMWPE
  - 27+28 • Tilastan® – S
- 29 Centralizers, Patellar Components
- 30 Replacement Sets V02 for Rotational and Hinge Knee Prosthesis Endo-Model®

### Instruments

- 31 MIRETO® Instrument Set for Knee Joint Prosthesis Systems Endo-Model®, Case 1 – 7
- 32 Case 1 – General Instruments
- 33 Case 2 – Femoral Instruments (2 trays)
- 35 Case 3 – Tibial Instruments
- 36 Case 4 – Tapered Reamers conical & cylindrical
- 37 Case 5 – Trial Prostheses (2 trays)
- 39 Case 6 – Trial Prostheses cylindrical
- 40 Case 7 – Tapered Reamers conical
- 41 Case 8 – Instruments XS
- 42 Additional Instrument Set for Rotational Bushing Exchange V02
- 43 Accessories: X-ray Templates, Further Information
- 44 Literature
- Important Information

### Endo-Model® Knee Prosthesis Systems



In accordance with the low-friction principle, the kinematical range of motion of this prosthesis is optimally designed thanks to a pivot point located within the physiological area. The **Endo-Model® Standard/ – M** Rotational Knee Prosthesis enables flexion of the joint up to 142°. The joint kinematics also comprise physiological rotation which, given the special shape of the tibial contact surface, ensures elastic force transmission. The hinge knee prosthesis however permits flexion of the joint up to 142° without rotation.

With every step, and especially in the case of a fall, torsional stresses are transmitted to the prosthesis anchorage which impact negatively upon the lifespan of the anchorage. Constructively generated, elastic force transmission relieves stress at the prosthesis/bone cement and bone cement/bone interfaces. Because of the favorable dimensions of the **Endo-Model® Standard/ – M** Knee Prosthesis, only minimal resection of 14 mm is necessary in the tibia-femur joint plane. The medium-sized intracondylar component is only 30 mm wide. As a rule, there is thus less resection than with a primary total knee prosthesis. This is an advantageous factor with respect to subsequent revision surgery. The

ideal design and dimensions of the knee prosthesis offer a good overview of the operating field. The femoral and tibial components are simply pushed together and the UHMWPE tibial plateau is easily positioned using a special instrument. The two components are coupled by the plateau so as to prevent luxation and without reducing the range of motion or rotation. The hinge knee prosthesis is coupled by the axis mechanism.

Flexion and rotational movement of the rotational knee prosthesis are achieved by means of a cross joint. Hyperextension amounts to 2°. The compromise axis lies in the region of the physiological pivot point. Flexion up to 142° is possible. With standard knee replacement, advancement of the patella or of the patellar bearing surface is often seen. By moving the femoral component posteriorly relative to the tibial axis, physiological movement is also retained for the femoropatellar joint. This protects against progression of retropatellar arthrosis. Rotation of the prosthesis ends in extension by form closure, which ensures a secure standing position. Rotation increases continuously with greater flexion. This rotation is limited primarily by the capsular ligament apparatus. The shape of the surfaces which are in con-

### Endo-Model® Knee Prosthesis Systems

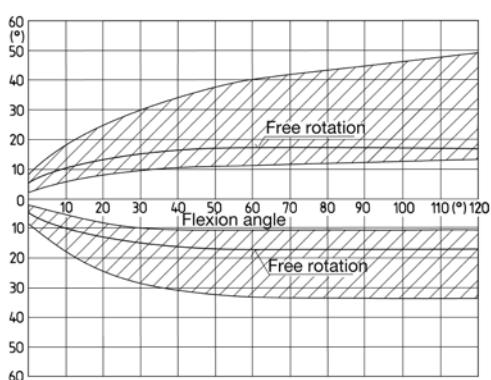
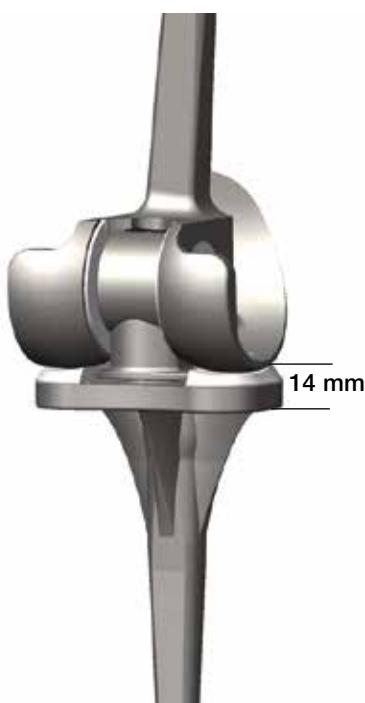
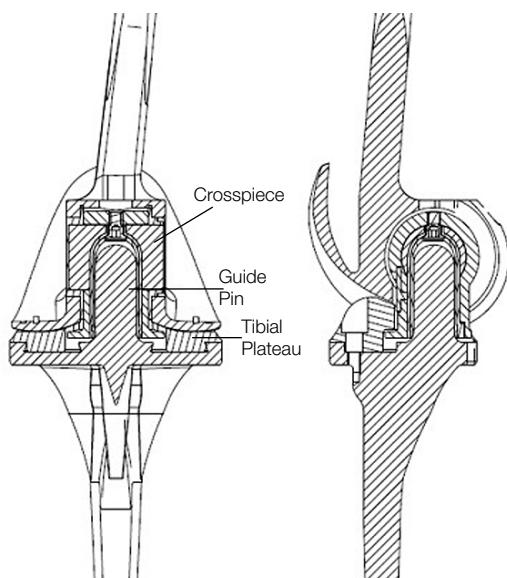
tact with each other means that further rotation is cushioned elastically by the body's weight bearing down on the joint. The femoral component of the **Endo-Model® Standard/- M** total knee prosthesis has a physiological valgus angle of 6°.

Both prosthesis components are broadly supported on their corresponding joint surfaces, such that the compressive strength of the cancellous bone vis-à-vis the femur and tibia is not exceeded. The majority of the femoral component (the box) is placed intracondylar and as such protected by the bone coverage, which in turn compensates the thin soft tissue cover in the knee joint partially. The sled runner-inspired shape of the femoral component is based on the anatomical conditions. The ventral depression provides a smooth transition to the bony patellar bearing surface.

The modular prosthesis stems are available for the **Endo-Model® – M** both as a cemented version, without structuring, and with longitudinal ribs and microporous surface for cementless implantation. To achieve a central position within the medullary cavity, the tips of the cemented stems are fitted with star shaped UHMWPE centralizers. Direct contact of the metal stems with the inner wall of the bone is thereby prevented, and a gradual stress translation between metal and bone achieved. The stems are supplied in lengths of 50 mm up to 280 mm. For revision surgery of total knee prostheses, special femoral and tibial segments and spacers made of UHMWPE and Tilastan® are available to reconstruct the condyles and the joint line as well as for tumor cases (segmental bone replacement). It must be noted here that these segments may only be used in combination with correspondingly longer stems.

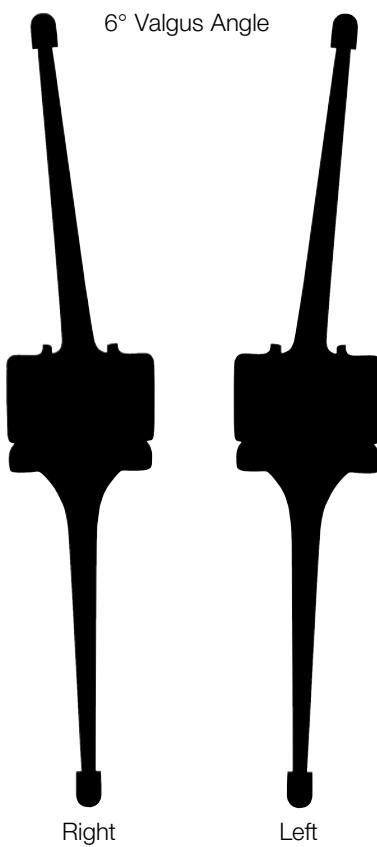
## Endo-Model® Knee Prosthesis Systems

In accordance with the low-friction principle, the kinematical range of motion of the rotational knee prosthesis is optimally designed thanks to a pivot point located within the physiological area. Flexion and rotational movement of the rotational knee prosthesis are achieved by means of a cross joint.



The extent of free rotation as a function of flexion and the constructively generated smooth cushioned slowed down rotation range are shown by the hatched area.

Engelbrecht, E.: Die Rotationsendoprothese des Kniegelenks (Rotational prosthesis for the knee joint), Springer-Verlag 1984, ISBN: 978-3-642-69819-4 (print), 978-3-642-69818-7 (online)

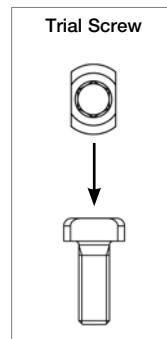


### Endo-Model® Knee Prosthesis Systems

Assembly: Plateau with anti-luxation device



After cementation of the tibial and femoral components, the UHMWPE plateau is removed from the tibial tray by loosening the trial screw. With the knee in flexion, the upper and lower components are assembled.

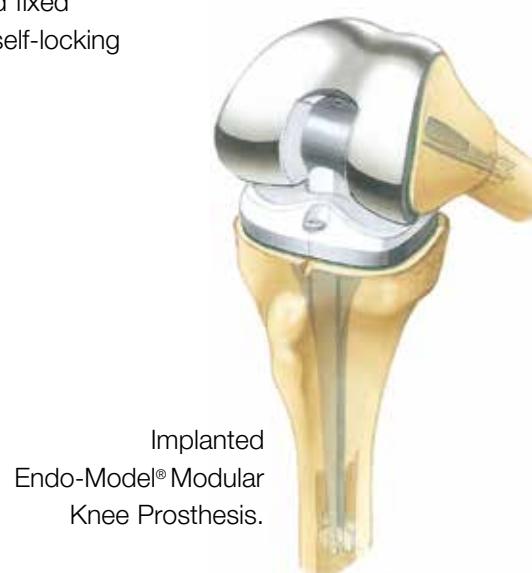
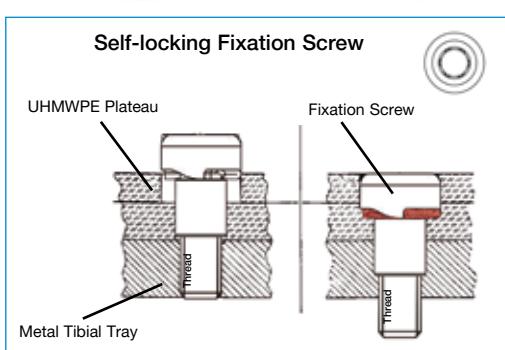


The tibial plateau is attached to the inserter and slid between the femoral and tibial components into the joint so that the plateau chamber grips over the flange.

It must be ensured that the dovetail-shaped incision (fig. A) on the bottom of the UHMWPE plateau locks into the peripheral groove on the metal tibial support.



The UHMWPE plateau is pressed down and fixed into place by the self-locking fixation screw.

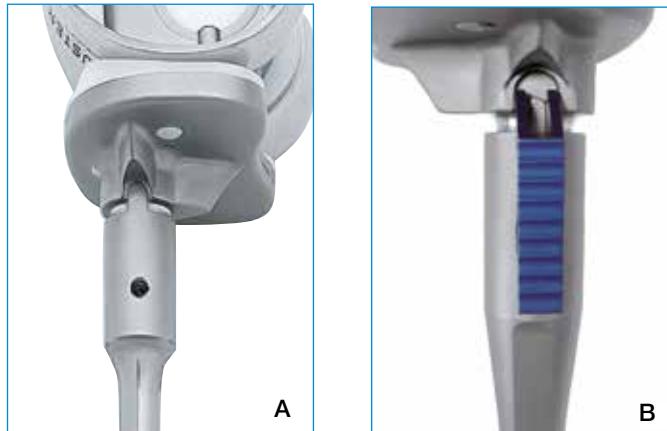


Implanted  
Endo-Model® Modular  
Knee Prosthesis.

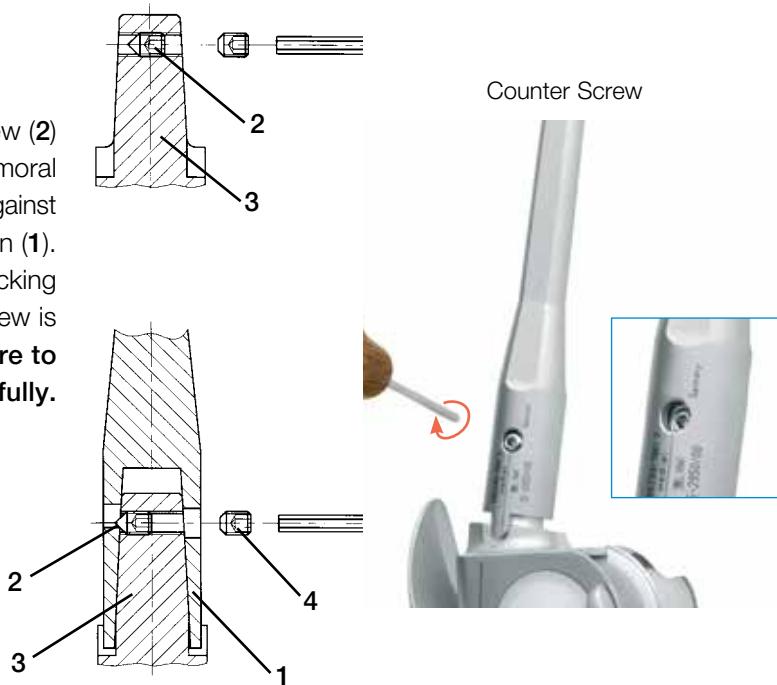
**Endo-Model® – M Assembly: Modular Stems**


The modular stems are secured by a tapered connection. To ensure rotational stability, the stem has two opposing flanges, which are inserted into the medial and lateral grooves on the femoral/tibial components.

The current version V02 features 6 mm grooves for attachment of modular stems with female taper and 3 mm or 6 mm flanges. When attaching modular stems with 3 mm flanges, the stem must be aligned on the taper so that the threaded hole for the counter screw is not obscured (**A**). To this end, the alignment aid (15-6096/00) for modular stems is used (**B**). Modular stems with 6 mm wide flanges cannot be combined with Endo-Model® implants having only 3 mm grooves.



The tapered tip of the locking screw (**2**) in the taper (**3**) of the tibial or femoral component pushes the stem firmly against the taper as it is screwed further in (**1**). A counter screw (**4**) prevents the locking screw from loosening. The screw is secured from medial. **Screws are to be tightened carefully.**



### LINK PorEx® Hypoallergenic Surface Modification

#### LINK PorEx® (TiNbN = Titanium-Niobium-Nitride) Surface Modification

The hypoallergenic LINK PorEx® surface modification results in aceramic-like surface, which significantly reduces ion release and potentially improves tolerance of chrome and nickel in the case of patients who are sensitive to metal.<sup>1</sup>

Thanks to its outstanding hardness, abrasion properties similar to ceramics and larger wetting angle, in contact with liquids the LINK PorEx® surface has a lower coefficient of friction compared to CoCrMo surfaces and thus reduces polyethylene wear.

<sup>1</sup> Internal Study of the influence of TiNbN coatings on ion release from CoCrMo alloys in an SBF buffer after the simulator test.

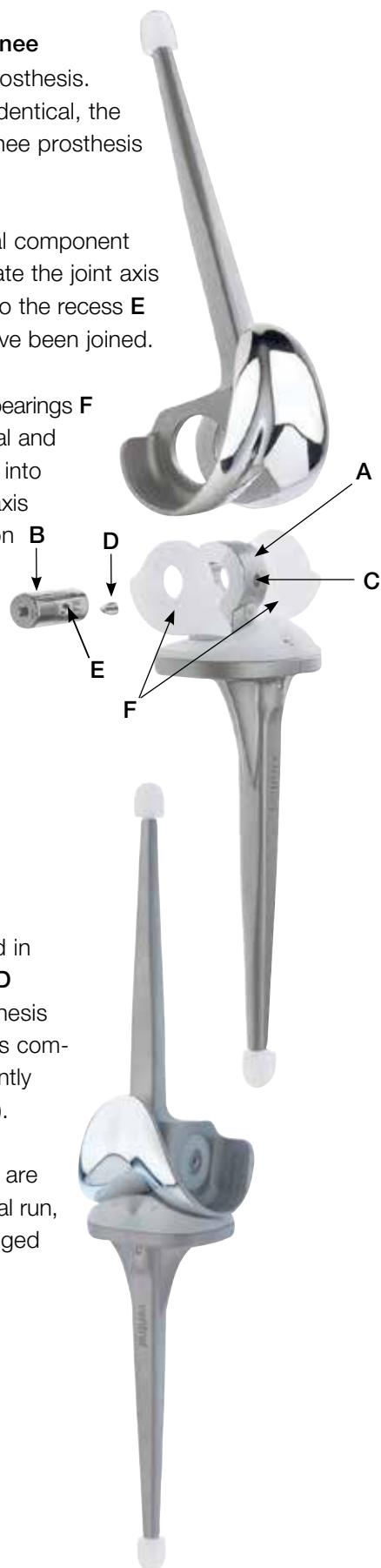


## Endo-Model® Hinge Knee Prosthesis

The external shape, dimensions and sizes of the **Endo-Model® Hinge Knee Prosthesis** correspond to those of the Endo-Model® Rotational Knee Prosthesis. As the implant beds required for the hinged and rotational versions are identical, the decision as to whether to use a rotational or a more stabilizing hinged knee prosthesis can be made intraoperatively.

The connecting piece **A**, which is fixed to the hinge knee prosthesis tibial component and links it to the femoral component, has a through-hole to accommodate the joint axis **B**. The ventral hole **C** is provided for the grub screw **D**, whose tip fits into the recess **E** on the axis and locks the latter once the upper and lower components have been joined.

From inside the intracondylar box of the femoral component, polyethylene bearings **F** for the prosthesis axis are pressed into medial and lateral holes. The femoral and tibial prosthesis components are joined by introducing the tibial coupling into the intracondylar box of the femoral component, such that the prosthesis axis can be inserted (always from the medial) using the threaded rod. Articulation **B**



The **Endo-Model® Hinge Knee Prosthesis** is delivered ready assembled in a sterile condition without centralizers. To disassemble, the grub screw **D** is turned counterclockwise. The threaded rod is screwed onto the prosthesis axis **B**, which is then pulled out. The bearings **F** of the femoral prosthesis component are pushed inward and removed (when the bearings are subsequently refitted, it must be ensured that the open bearing is positioned medially!).

The package contains two sterile trial bearings (not autoclavable). These are inserted into the femoral prosthesis component during surgery; after the trial run, they are exchanged for the definitive bearings. These too can be exchanged if necessary in a second intervention.

## Indications/Contraindications

### Note:

Specified indications/contraindications see catalog:  
719\_Endo-Model® Standard/-M, Surgical Technique

### MIRETO® Instrument-Set

The new **MIRETO® Instrument Set** allows users to perform implantation of the Endo-Model® knee prosthesis system in a safe, bone-conserving, reproducible and precise manner.

#### Advantages:

All intracondylar Endo-Model® standard and modular implants for primary and revision indications can be implanted using the **MIRETO® Instrument Set**.

- Reduction in bone resection thanks to the resurfacing technique in primary surgery.
- Minimal number of instrument trays combined with enhanced application modularity.
- Low investment and preparation costs.

**MIRETO® Instruments** were developed with a firm focus on ensuring optimal handling: from storage configuration through to hygienic preparation.

- Accelerated surgical sequence.
- Shorter learning curve.
- Simple hygienic preparation.

The **MIRETO® Instrument Set** is characterized by its simple handling, quick and easy assembly/disassembly as well as completely guided instrumentation.

- Reproducible, reliable and precise bone resection by the user.

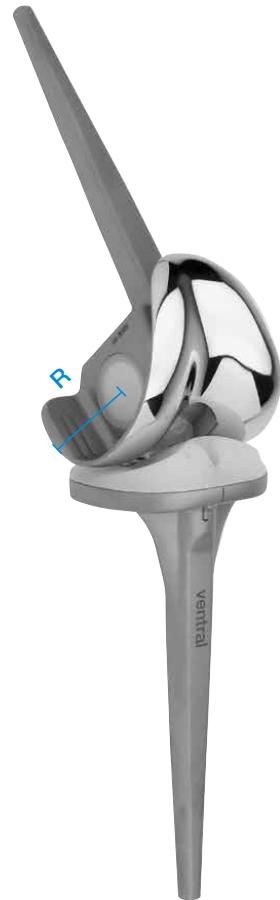


The MIRETO® Instrument Set primarily ensures a reduction in bone resection.

**Rotational Knee Prosthesis Endo-Model<sup>®</sup>, with anti-luxation device**

Item no.	with patella flange EndoDur™ (CoCrMo)	(R) Radius*
15-8020/11	x-small/right	17 mm
15-8020/12	x-small/left	17 mm
15-8022/11	small/right	20 mm
15-8022/12	small/left	20 mm
15-8024/11	medium/right	23 mm
15-8024/12	medium/left	23 mm
15-8030/11	large/right	25 mm
15-8030/12	large/left	25 mm

\* (R) Radius in the sagittal plane: Measured from the center of axis.


**Version V02**

- New coupling mechanism
- Centralizers are not included in prosthesis packing
- Tibial plateau anchoring screw and trial screw with hexagon socket size 3.5 mm

**Replacement Set for Version V02, with anti-luxation device**

Item no.	Side	Size
15-0027/10	right/left	x-small
15-0027/11	right/left	small
15-0027/12	right/left	medium
15-0027/13	right/left	large

**Version V02**

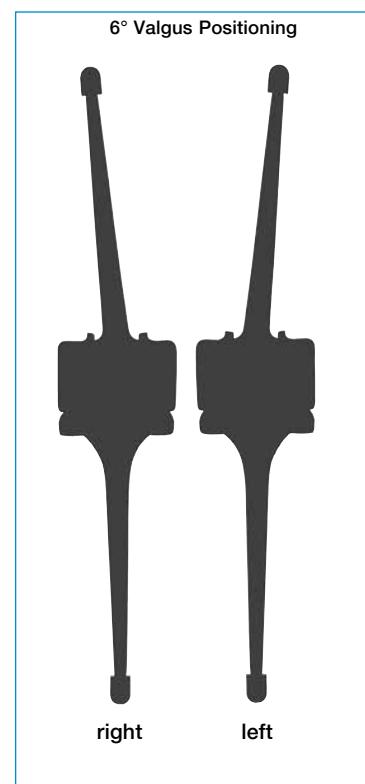
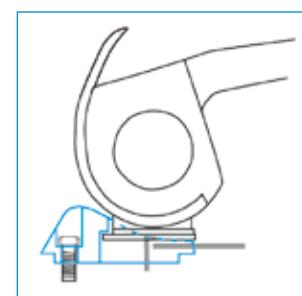
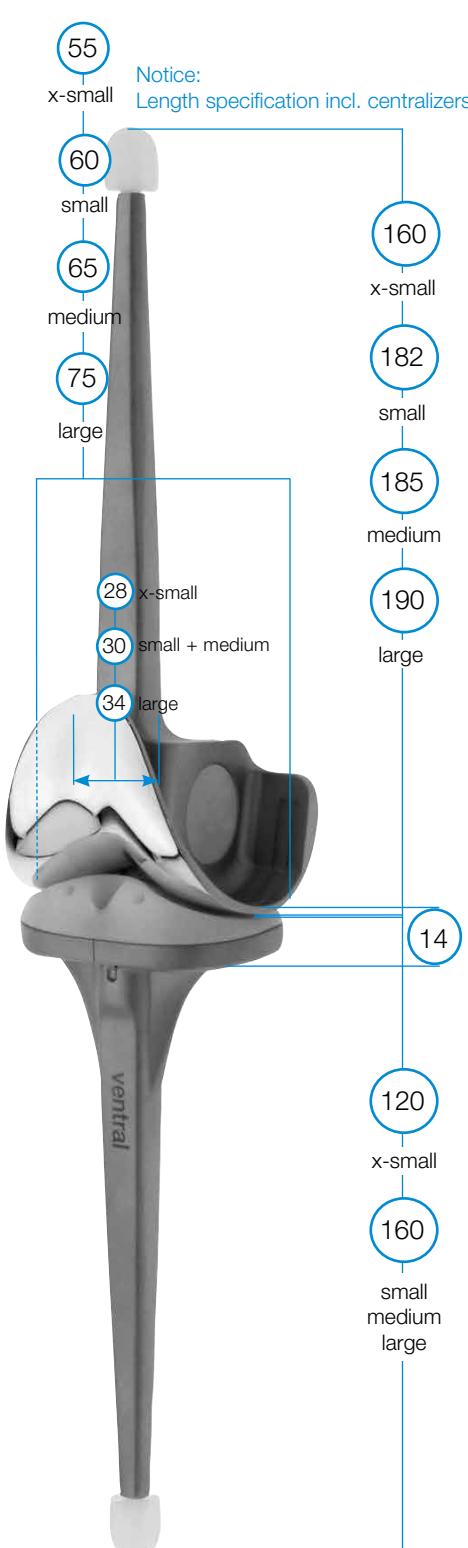
Each package contains:

- complete coupling mechanism,
- Bearing boxes,
- PE plateau and PE plateau anchoring screw.

Further replacement sets available on request.

Required: Instrument Set for rotational bushing replacement, incl. additional Instrument Set V02, see page 41.

**Rotational Knee Prosthesis Endo-Model<sup>®</sup>, with anti-luxation device**



\* Centralizers are not included in prosthesis packing

**Rotational Knee Prosthesis Endo-Model<sup>®</sup>, with anti-luxation device  
and LINK PorEx<sup>®</sup> surface modification\*** to prevent hypo-allergenic reactions

Item no.	with patella flange EndoDur™ (CoCrMo)/LINK PorEx®*	(R) Radius**
15-9020/11	x-small/right	17 mm
15-9020/12	x-small/left	17 mm
15-9022/11	small/right	20 mm
15-9022/12	small/left	20 mm
15-9024/11	medium/right	23 mm
15-9024/12	medium/left	23 mm
15-9030/11	large/right	25 mm
15-9030/12	large/left	25 mm

\*\* (R) Radius in the sagittal plane: Measured from the center of axis.



Same dimensions as models with anti-luxation device,  
see pages 10 and 11.

**Replacement Set, with anti-luxation device**

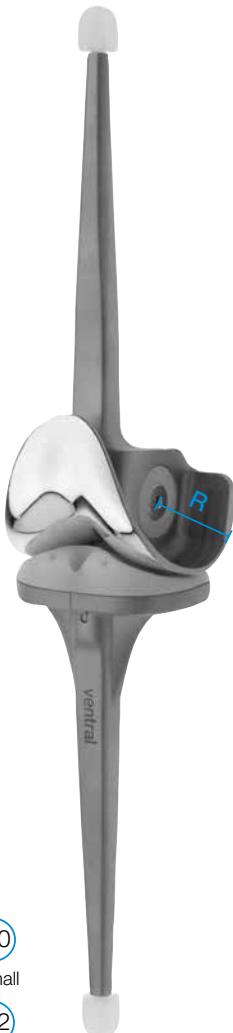
Item no.	EndoDur™ (CoCrMo)/LINK PorEx®*
15-3027/10	x-small
15-3027/11	small
15-3027/12	medium
15-3027/13	large

\* LINK PorEx<sup>®</sup>: TiNbN = Titanium Niobium Nitride; hypoallergenic coating (gold colour).

## Hinge Knee Prosthesis Endo-Model<sup>®</sup>, with hinge axis

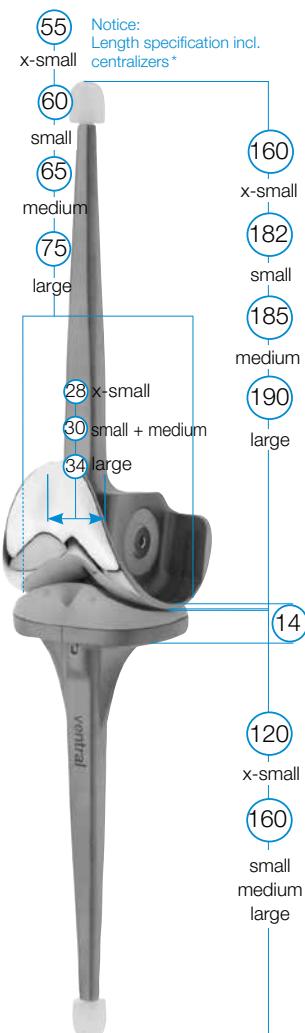
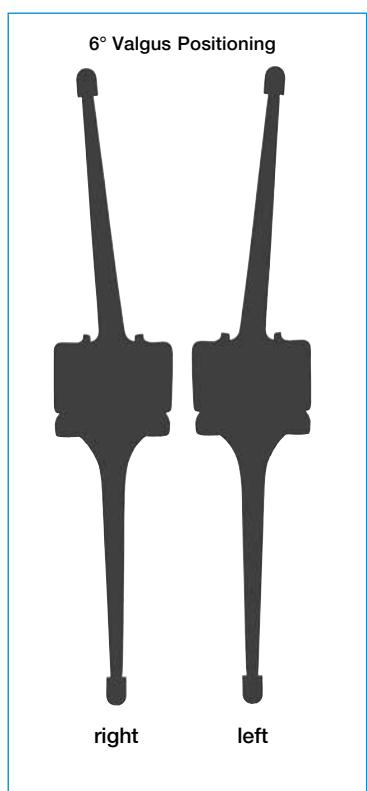
Item no.	with patella flange EndoDur™ (CoCrMo)	(R) Radius*
15-2459/11	x-small/right	17 mm
15-2459/12	x-small/left	17 mm
15-2460/11	small/right	20 mm
15-2460/12	small/left	20 mm
15-2461/11	medium/right	23 mm
15-2461/12	medium/left	23 mm
15-2462/11	large/right	25 mm
15-2462/12	large/left	25 mm

\* (R) Radius in the sagittal plane: Measured from the center of axis.



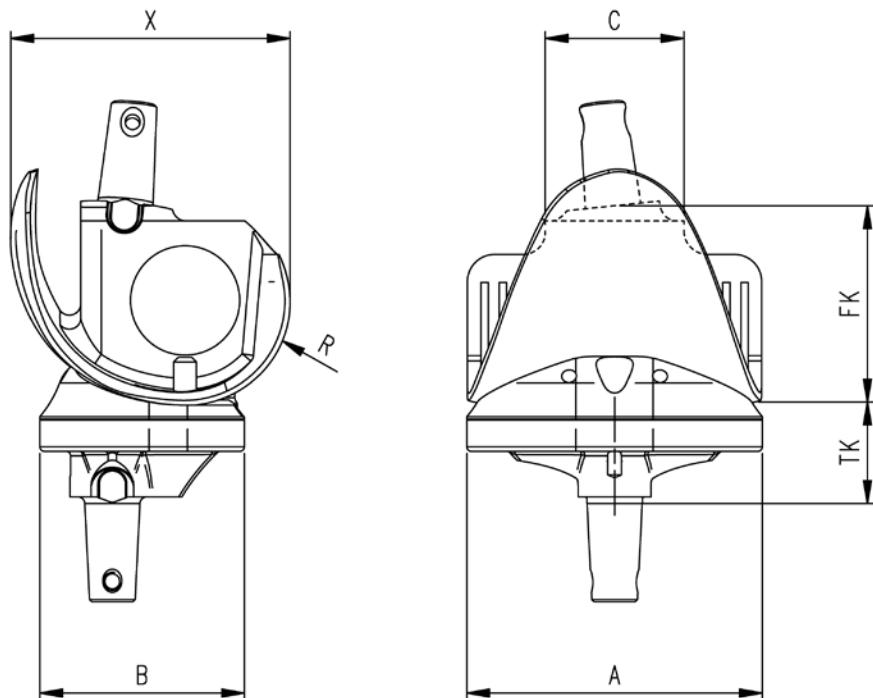
### Version V02

- Centralizers are not included in prosthesis packing
- Tibial plateau anchoring screw and trial screw with hexagon socket size 3.5 mm



\* Centralizers are not included in prosthesis packing

**Endo-Model® – M Modular Knee Prosthesis System,**  
Measurements: Joint Components



Size Version	A mm	B mm	C mm	FK mm	X mm	TK mm	R mm
x-small/right	55	42	28	39	50	22	17
x-small/left	55	42	28	39	50	22	17
small/right	60	45	30	42	57	22	20
small/left	60	45	30	42	57	22	20
medium/right	65	45	30	46	62	22	23
medium/left	65	45	30	46	62	22	23
large/right	75	48	35	50	65	22	25
large/left	75	48	35	50	65	22	25

**Endo-Model® – M Modular Knee Prosthesis System,**  
Joint Components Rotational Version – with anti-luxation device

**Rotational Version**



Material: EndoDur™ (CoCrMo), UHMWPE				Material: EndoDur™ (CoCrMo), UHMWPE consisting of:			
Modular Joint Component Units				Femoral Components:		Tibial Components:	
Item no.	Size	Version	Width mm	Item no.	Version	Item no.	Version
15-2815/11	x-small	right	55	15-2810/11	right	15-2814/01	neutral
15-2815/12	x-small	left	55	15-2810/12	left	15-2814/02	neutral
15-2816/11	small	right	60	15-2811/11	right	15-2814/03	neutral
15-2816/12	small	left	60	15-2811/12	left	15-2814/04	neutral
15-2817/11	medium	right	65	15-2812/11	right		
15-2817/12	medium	left	65	15-2812/12	left		
15-2818/11	large	right	75	15-2813/11	right		
15-2818/12	large	left	75	15-2813/12	left		

**Screws to secure the taper assembly between joint component and stem:**

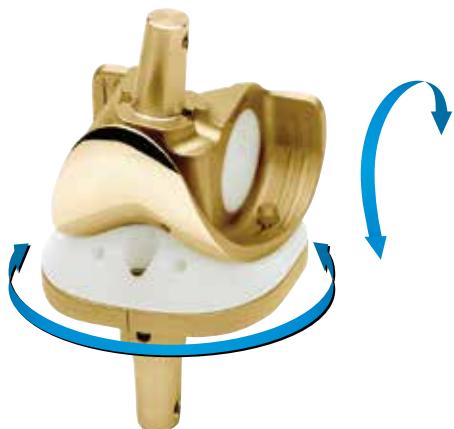
A pointed stem locking screw is already located inside the taper of each joint component (exception: single packed Tibial Components). The inside packing unit of each joint component includes a counter screw (+ replacement screw) to secure the stem locking screw.

**Version V02**

- New coupling mechanism
- Tibial plateau anchoring screw and tibial screw with hexagon socket size 3.5 mm
- 6 mm groove to allow use of modular stems with female taper and flanges of 3 mm or 6 mm

**Endo-Model®-M Modular Knee Prosthesis System,**  
Joint Components Rotational Version – with anti-luxation device

**LINK PorEx® Rotational Version**



Material: EndoDur™ (CoCrMo)/LINK PorEx®, UHMWPE

**Modular Joint Component Units**

Item no.	Size	Version	Width mm
15-3815/11	x-small	right	55
15-3815/12	x-small	left	55
15-3816/11	small	right	60
15-3816/12	small	left	60
15-3817/11	medium	right	65
15-3817/12	medium	left	65
15-3818/11	large	right	75
15-3818/12	large	left	75

\*LINK PorEx®: TiNbN = Titanium Niobium Nitride; hypoallergenic coating (gold colour).

**Screws to secure the taper assembly between joint component and stem:**

A pointed stem locking screw is already located inside the taper of each joint component. The inside packing unit of each joint component includes a counter screw (+ replacement screw) to secure the stem locking screw.

**Endo-Model®-M Modular Knee Prosthesis System,  
Joint Components Hinged Version**

**Hinged Version**

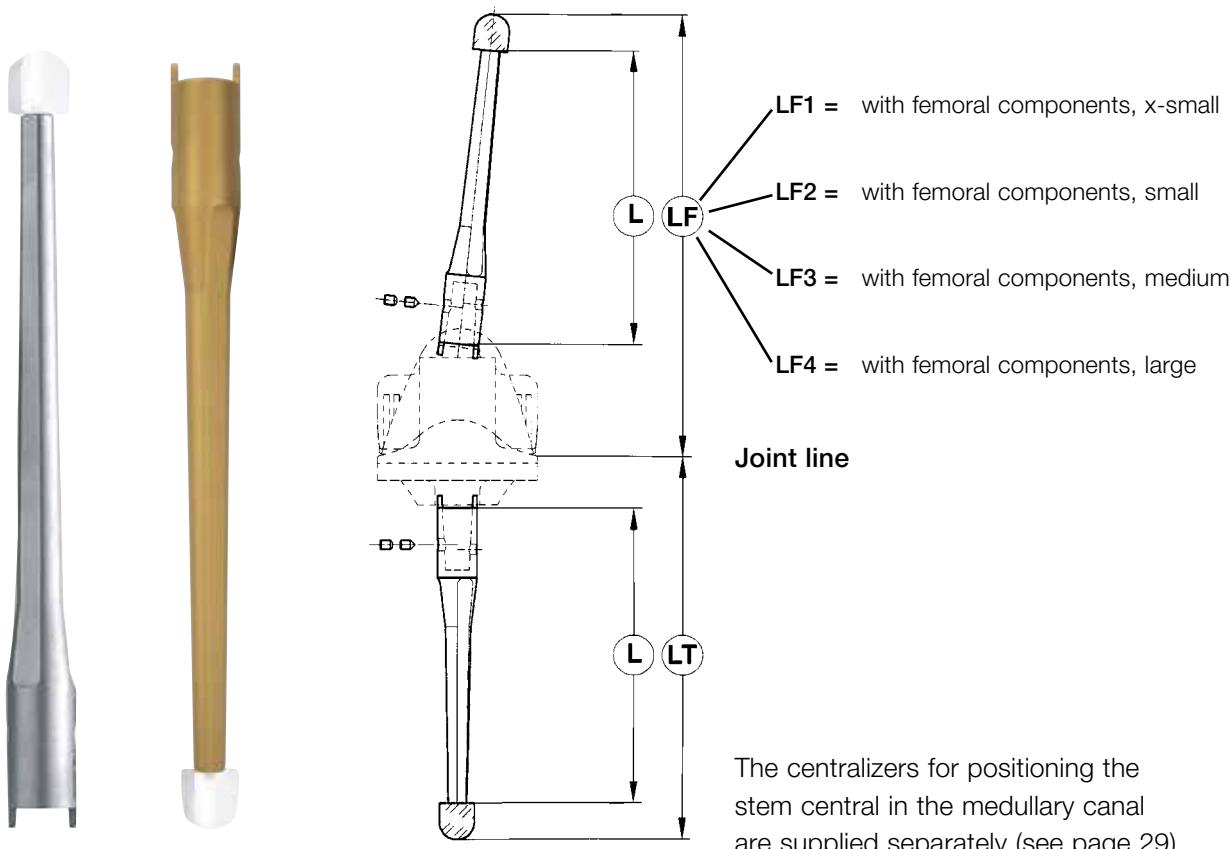
 <b>Modular Joint Component Units</b> →							
Material: EndoDur™ (CoCrMo), UHMWPE	Material: EndoDur™ (CoCrMo), UHMWPE						
consisting of:							
<b>Femoral Components:</b>	<b>Tibial Components:</b>						
Item no.	Size	Version	Width mm	Item no.	Version	Item no.	Version
15-2835/11	x-small	right	55	15-2830/11	right	15-2834/01	neutral
15-2835/12	x-small	left	55	15-2830/12	left		
15-2836/11	small	right	60	15-2831/11	right	15-2834/02	neutral
15-2836/12	small	left	60	15-2831/12	left		
15-2837/11	medium	right	65	15-2832/11	right	15-2834/03	neutral
15-2837/12	medium	left	65	15-2832/12	left		
15-2838/11	large	right	75	15-2833/11	right	15-2834/04	neutral
15-2838/12	large	left	75	15-2833/12	left		

**Screws to secure the taper assembly between joint component and stem:**

A pointed stem locking screw is already located inside the taper of each joint component (exception: single packed Tibial Components). The inside packing unit of each joint component includes a counter screw (+ replacement screw) to secure the stem locking screw.

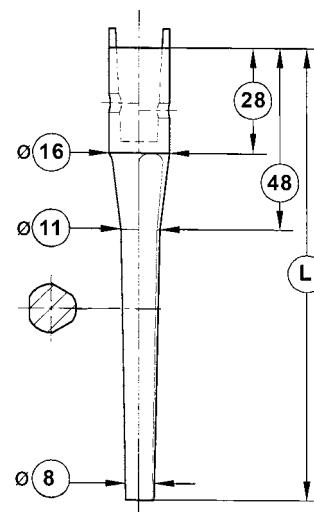
**Version V02**

- Tibial plateau anchoring screw and tibial screw with hexagon socket size 3.5 mm
- 6 mm groove to allow use of modular stems with female taper and flanges of 3 mm or 6 mm

**Endo-Model®–M Modular Stems, cemented**

**Modular Stems, cemented**

Material: EndoDur™–S (CoCrMo), EndoDur™–S (CoCrMo)/LINKPorEx®\*

Item no.	Item no.		Assembly length**				
			Tibia		Femur		
EndoDur™–S (CoCrMo)	EndoDur™–S (CoCrMo)/LINKPorEx®*	L mm	LT mm	LF1 mm	LF2 mm	LF3 mm	LF4 mm
15-2950/01	15-3950/01	50	87	104	107	111	114
15-2950/02	15-3950/02	80	117	134	137	141	144
15-2950/03	15-3950/03	95	132	149	152	156	159
15-2950/04	15-3950/04	120	157	174	177	181	184
15-2950/05	15-3950/05	135	172	189	192	196	199
15-2950/06	15-3950/06	160	197	214	217	221	224
15-2950/07	15-3950/07	200	237	254	257	261	264
15-2950/08	15-3950/08	240	277	294	297	301	304
15-2950/09	15-3950/09	280	317	334	337	341	344



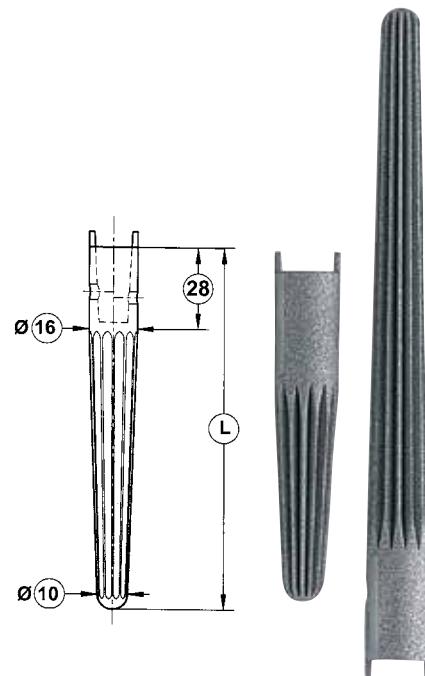
\* LINK PorEx®: TiNbN = Titanium Niobium Nitride; hypoallergenic coating (gold colour) available on request.

\*\* Assembly length incl. centering star unit joint line

**Endo-Model®–M Modular Stems, cementless****Modular Stems, cementless, conical**

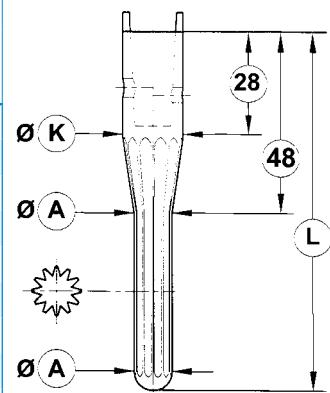
Material: Tilastan® – S

Item no.	L mm	Tibia LT mm	Assembly length**			
			Femur			
			LF1 mm	LF2 mm	LF3 mm	LF4 mm
15-2952/01	50	72	89	92	96	99
15-2952/02	80	102	119	122	126	129
15-2952/03	95	117	134	137	141	144
15-2952/04	120	142	159	162	166	169
15-2952/05	135	157	174	177	181	184
15-2952/06	160	182	199	202	206	209
15-2952/07	200	222	239	242	246	249
15-2952/08	240	262	279	282	286	289
15-2952/09	280	302	319	322	326	329

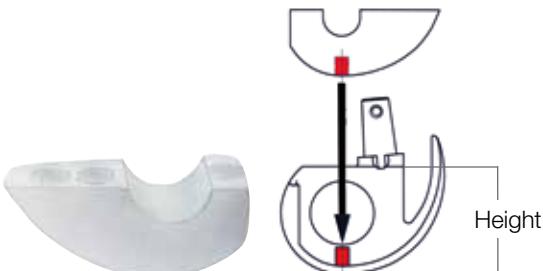
**Modular Stems, cementless, cylindrical**

Material: Tilastan® – S

Item no.	L mm	Ø A mm	Ø K mm	Assembly length**			
				Femur			
				Tibia LT mm	LF1 mm	LF2 mm	LF3 mm
15-2951/01	60	10	16	82	99	102	102
15-2951/02	60	12	16	82	99	102	102
15-2951/03	60	14	16	82	99	102	102
15-2951/04	60	16	16	82	99	102	102
15-2951/05	60	18	18	82	99	102	102
15-2951/06	120	12	16	142	159	162	162
15-2951/07	120	14	16	142	159	162	162
15-2951/08	120	16	16	142	159	162	162
15-2951/09	120	18	18	142	159	162	162
15-2951/10	160	12	16	182	199	202	202
15-2951/11	160	14	16	182	199	202	202
15-2951/12	160	16	16	182	199	202	202
15-2951/13	160	18	18	182	199	202	202
15-2951/14	200	12	16	222	239	242	242
15-2951/15	200	14	16	222	239	242	242
15-2951/16	200	16	16	222	239	242	242
15-2951/17	200	18	18	222	239	242	242
15-2951/18	240	12	16	262	279	282	282
15-2951/19	240	14	16	262	279	282	282
15-2951/20	240	16	16	262	279	282	282
15-2951/21	240	18	18	262	279	282	282
15-2951/22	280	12	16	302	319	322	322
15-2951/23	280	14	16	302	319	322	322
15-2951/24	280	16	16	302	319	322	322
15-2951/25	280	18	16	302	319	322	322



**Endo-Model®-M Femoral Segments UHMWPE,**  
for Rotational and Hinged Version Endo-Model®



**Femoral Segments**, for femoral components: Size 1 and 2

Material: UHMWPE

Item no.	For Femoral Components:		
	Size	Version	Width mm
<b>Set: Size 1 (Height 20 mm)</b>	<b>→</b>		
15-2965/01	x-small	right	55
15-2961/01	small	right	60
15-2961/02	medium	right	65
15-2961/03	large	right	75
15-2965/10	x-small	left	55
15-2961/10	small	left	60
15-2961/11	medium	left	65
15-2961/12	large	left	75

Item no.	Side	consisting of:	
		15-2965/02	medial
15-2965/03	lateral	15-2965/03	lateral
15-2961/04	medial	15-2961/04	medial
15-2961/05	lateral	15-2961/05	lateral
15-2961/06	medial	15-2961/06	medial
15-2961/07	lateral	15-2961/07	lateral
15-2961/08	medial	15-2961/08	medial
15-2961/09	lateral	15-2961/09	lateral
15-2965/12	medial	15-2965/12	medial
15-2965/13	lateral	15-2965/13	lateral
15-2961/14	medial	15-2961/14	medial
15-2961/15	lateral	15-2961/15	lateral
15-2961/16	medial	15-2961/16	medial
15-2961/17	lateral	15-2961/17	lateral
15-2961/18	medial	15-2961/18	medial
15-2961/19	lateral	15-2961/19	lateral

Item no.	For Femoral Components:		
	Size	Version	Width mm
<b>Set: Size 2 (Height 25 mm)</b>	<b>→</b>		
15-2966/01	x-small	right	55
15-2962/01	small	right	60
15-2962/02	medium	right	65
15-2962/03	large	right	75
15-2966/10	x-small	left	55
15-2962/10	small	left	60
15-2962/11	medium	left	65
15-2962/12	large	left	75

Item no.	Side	consisting of:	
		15-2966/02	medial
15-2966/03	lateral	15-2966/03	lateral
15-2962/04	medial	15-2962/04	medial
15-2962/05	lateral	15-2962/05	lateral
15-2962/06	medial	15-2962/06	medial
15-2962/07	lateral	15-2962/07	lateral
15-2962/08	medial	15-2962/08	medial
15-2962/09	lateral	15-2962/09	lateral
15-2966/12	medial	15-2966/12	medial
15-2966/13	lateral	15-2966/13	lateral
15-2962/14	medial	15-2962/14	medial
15-2962/15	lateral	15-2962/15	lateral
15-2962/16	medial	15-2962/16	medial
15-2962/17	lateral	15-2962/17	lateral
15-2962/18	medial	15-2962/18	medial
15-2962/19	lateral	15-2962/19	lateral

**Endo-Model®– M Femoral Segments Tilastan®,  
or Rotational and Hinged Version Endo-Model®**



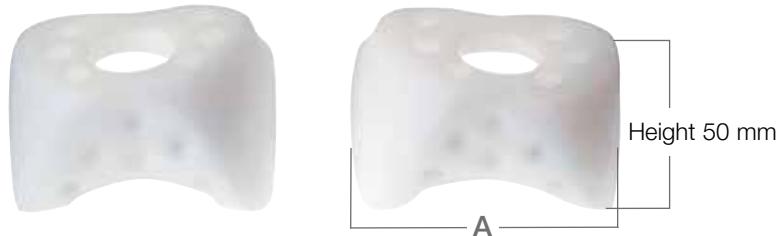
**Femoral Segments**, for femoral components: Size 1 and 2

Material: Tilastan®– S

Item no.	For Femoral Components:			Width mm
	Size	Version		
<b>Set: Size 1 (Height 20 mm)</b>	➡			
15-2971/00	x-small	right	55	
15-2971/01	small	right	60	
15-2971/02	medium	right	65	
15-2971/03	large	right	75	
15-2971/95	x-small	left	55	
15-2971/10	small	left	60	
15-2971/11	medium	left	65	
15-2971/12	large	left	75	
consisting of:				
15-2971/98		medial		
15-2971/99		lateral		
15-2971/04		medial		
15-2971/05		lateral		
15-2971/06		medial		
15-2971/07		lateral		
15-2971/08		medial		
15-2971/09		lateral		
15-2971/96		medial		
15-2971/97		lateral		
15-2971/14		medial		
15-2971/15		lateral		
15-2971/16		medial		
15-2971/17		lateral		
15-2971/18		medial		
15-2971/19		lateral		

Item no.	For Femoral Components:			Width mm
	Size	Version		
<b>Set: Size 2 (Height 25 mm)</b>	➡			
15-2972/00	x-small	right	55	
15-2972/01	small	right	60	
15-2972/02	medium	right	65	
15-2972/03	large	right	75	
15-2972/95	x-small	left	55	
15-2972/10	small	left	60	
15-2972/11	medium	left	65	
15-2972/12	large	left	75	
consisting of:				
15-2972/98		medial		
15-2972/99		lateral		
15-2972/04		medial		
15-2972/05		lateral		
15-2972/06		medial		
15-2972/07		lateral		
15-2972/08		medial		
15-2972/09		lateral		
15-2972/96		medial		
15-2972/97		lateral		
15-2972/14		medial		
15-2972/15		lateral		
15-2972/16		medial		
15-2972/17		lateral		
15-2972/18		medial		
15-2972/19		lateral		

**Endo-Model®-M Femoral Segments UHMWPE,**  
for Rotational and Hinged Version Endo-Model®

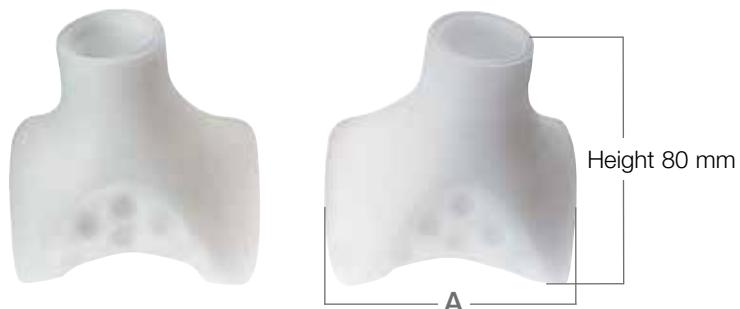


**Femoral Segments, size 3\***

Material: UHMWPE

Item no.	Version	A mm	For Femoral Components:		A mm	Version	Item no.
<b>Size 3* (Height 50 mm)</b>							
15-2967/01	right	55	x-small	55	55	left	15-2967/10
15-2963/01	right	60	small	60	60	left	15-2963/02
15-2963/03	right	65	medium	65	65	left	15-2963/04
15-2963/05	right	75	large	75	75	left	15-2963/06

\* only to be used in combination with longer stems (stem length above segments approx. 180 mm).



**Femoral Segments, size 4\***

Material: UHMWPE

Item no.	Version	A mm	For Femoral Components:		A mm	Version	Item no.
<b>Size 4* (Height 80 mm)</b>							
15-2964/99	right	55	x-small	55	55	left	15-2964/00
15-2964/01	right	60	small	60	60	left	15-2964/02
15-2964/03	right	65	medium	65	65	left	15-2964/04
15-2964/05	right	75	large	75	75	left	15-2964/06

\* only to be used in combination with longer stems (stem length above segments approx. 180 mm).

**Endo-Model®-M Femoral Segments UHMWPE,**  
for Rotational and Hinged Version Endo-Model®



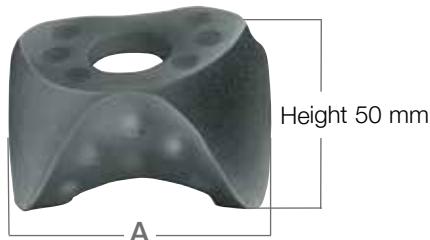
**Femoral Segments**

(only to be used in combination with size 4)

Material: UHMWPE

Item no.	Height mm	Size
15-2970/10	10	1
15-2970/20	20	2

**Endo-Model® – M Femoral Segments Tilastan®,  
for Rotational and Hinged Version Endo-Model®**

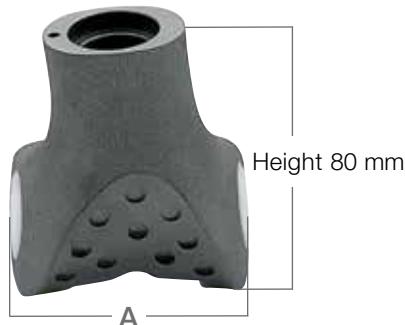


**Femoral Segments, Size 3\***

Material: Tilastan®

Item no.	Version	A mm	For Femoral Components:		A mm	Version	Item no.
<b>Size 3* (Height 50 mm)</b>							
15-2973/01	right	60	small	60	60	left	15-2973/02
15-2973/03	right	65	medium	65	65	left	15-2973/04
15-2973/05	right	75	large	75	75	left	15-2973/06

\* only to be used in combination with longer stems (stem length above segments approx. 180 mm).



**Femoral Segments, Size 4\***

Material: Tilastan®

Item no.	Version	A mm	For Femoral Components:		A mm	Version	Item no.
<b>Size 3* (Height 80 mm)</b>							
15-2977/01	right	60	small	60	60	left	15-2977/02
15-2978/01	right	65	medium	65	65	left	15-2978/02
15-2979/01	right	75	large	75	75	left	15-2979/02

\* only to be used in combination with longer stems (stem length above segments approx. 180 mm).

**Endo-Model® – M Femoral Segments Tilastan® – S,**  
for Rotational and Hinged Version Endo-Model®



**Distal Femoral Segments**

(only to be used in combination with size 4)

Material: Tilastan® – S

Item no.	Height mm	for size
15-2977/10	10	small
15-2977/20	20	small
15-2977/40	40	small
15-2977/60	60	small
15-2977/80	80	small
15-2978/10	10	medium
15-2978/20	20	medium
15-2978/40	40	medium
15-2978/60	60	medium
15-2978/80	80	medium
15-2979/10	10	large
15-2979/20	20	large
15-2979/40	40	large
15-2979/60	60	large
15-2979/80	80	large

**Endo-Model® – M Proximal Tibial Spacers UHMWPE,**  
for Rotational and Hinged Version Endo-Model®



**Proximal Tibial Spacers - straight -**

Material: UHMWPE

Item no.	Size
<b>Set:</b>	➡
15-2516/70	x-small
15-2516/29	small
15-2517/29	medium
15-2519/29	large

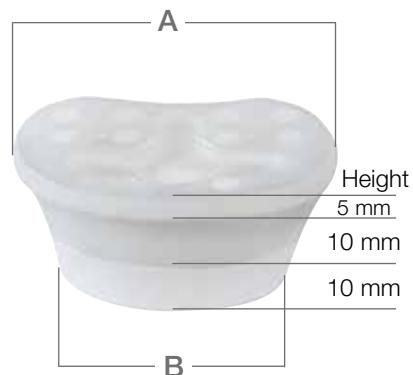
Item no.	Size	Height mm
consisting of:		
15-2516/55	x-small	5
15-2516/60	x-small	10
15-2516/65	x-small	15
15-2516/05	small	5
15-2516/10	small	10
15-2516/15	small	15
15-2517/05	medium	5
15-2517/10	medium	10
15-2517/15	medium	15
15-2519/05	large	5
15-2519/10	large	10
15-2519/15	large	15

\* **Important Information:**  
Proximal tibial spacers  
– straight – must not be  
combined with each other!

**Proximal Tibial Spacers - anatomical -**

Material: UHMWPE

Item no.	Size	A Width mm	B Width mm
15-2516/24	x-small	55	40
15-2516/25	small	60	40
15-2517/26	medium	65	45
15-2519/27	large	75	55



**Endo-Modell® – M Proximal Tibial Spacers Tilastan® – S,**  
for Rotational and Hinged Version Endo-Model®



**Proximal Tibial Spacers, full**

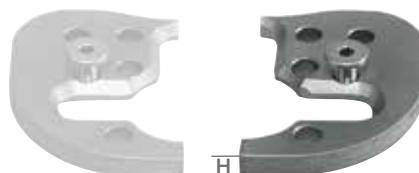
right and left, incl. 2 hexagon socket  
countersunks with flat head screw  
2.5 mm, for lateral and medial application,  
Material: Tilastan® – S

Item no.	Size	H Height mm
15-2615/05	x-small	5
15-2615/10	x-small	10
15-2615/15	x-small	15
15-2616/05	small	5
15-2616/10	small	10
15-2616/15	small	15
15-2617/05	medium	5
15-2617/10	medium	10
15-2617/15	medium	15
15-2618/05	large	5
15-2618/10	large	10
15-2618/15	large	15

**Attention!**

Fixation with screws only possible for Tibial Components  
Endo-Model® – M manufactured from 2011-10.

For Tibial Components manufactured before 2011-10  
a fixation with bone cement is mandatory.



**Proximal Tibial Spacers, half**

incl. hexagon socket countersunks with flat head  
screw 2.5 mm, for lateral and medial application,  
Material: Tilastan® – S

Item no.	Size	H Height mm
15-2990/11	x-small	5
15-2990/12	x-small	10
15-2990/13	x-small	15
15-2990/01	small	5
15-2990/04	small	10
15-2990/07	small	15
15-2990/02	medium	5
15-2990/05	medium	10
15-2990/08	medium	15
15-2990/03	large	5
15-2990/06	large	10
15-2990/09	large	15

**Important Information:**

Proximal tibial spacers of Tilastan®  
must not be combined with each other!

**Endo-Model® – M Proximal Tibial Spacers Tilastan® – S,**  
for Rotational and Hinged Version Endo-Model®

**Proximal Tibial Segments - anatomical -**

Material: Tilastan® – S

Item no.	Size	B Width mm	H Height mm
15-2981/01	x-small	55	50
15-2982/01	small	60	50
15-2983/01	medium	65	50
15-2984/01	large	75	50



**Proximal Tibial Spacers,**

Material: Tilastan® – S

Item no.	L Length mm	for Size
15-2981/10	10	x-small
15-2981/20	20	x-small
15-2981/40	40	x-small
15-2981/60	60	x-small
15-2982/10	10	small
15-2982/20	20	small
15-2982/40	40	small
15-2982/60	60	small
15-2983/10	10	medium
15-2983/20	20	medium
15-2983/40	40	medium
15-2983/60	60	medium
15-2984/10	10	large
15-2984/20	20	large
15-2984/40	40	large
15-2984/60	60	large



## Centralizers, Patellar Components

### Centralizers,

Material: UHMWPE

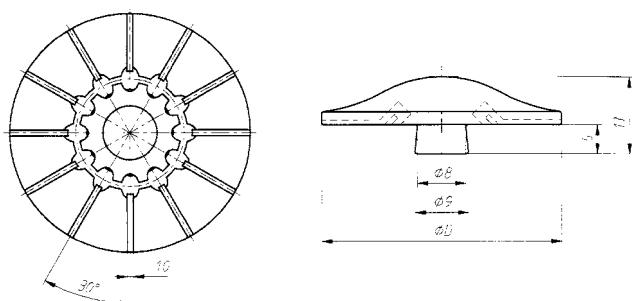
Item no.	Item no.	Size
<b>Set:</b> consisting of:		
15-2975/01	15-2975/12	small
	15-2975/14	medium
	15-2975/16	large



### Patellar Components, centrical, circular,

Material: UHMWPE

Item no.	Size	$\varnothing$ mm
15-2521/30	small	30
15-2521/35	medium	35
15-2521/40	large	40



## Replacement Sets V02 – for Rotational Version Endo-Model®

**Replacement Sets for Rotational Knee Prostheses V02,** with anti-luxation device,  
Material: CoCrMo

Item no.	Side	Size
15-0027/10	right/left	x-small
15-0027/11	right/left	small
15-0027/12	right/left	medium
15-0027/13	right/left	large

**Replacement Sets for Rotational Tibial Plateaus V02,** with security screw,  
Material: UHMWPE/CoCrMo

Item no.	Size
15-0027/17	x-small
15-0027/14	small
15-0027/15	medium
15-0027/16	large

### Version V02 (coupling mechanism)

Each package contains:

- complete coupling mechanism,
- bearing boxes,
- PE plateau and PE plateau anchoring screw.

Required: Additional Instrument Set V02, see page 41.

### Version V02 (coupling mechanism)

Each package contains:

PE plateau and PE plateau anchoring screw.

## Replacement Sets V02 – for Hinged Version Endo-Model®

**Replacement Sets for Hinge Knee Prostheses V02,**  
with security screw, Material: UHMWPE/CoCrMo

Item no.	Side	Size
15-0027/20	right	x-small
15-0027/21	right	small
15-0027/22	right	medium
15-0027/23	right	large
15-0027/30	left	x-small
15-0027/31	left	small
15-0027/32	left	medium
15-0027/33	left	large

### Version V02 (coupling mechanism)

Each package contains:

- complete coupling mechanism,
- bearing boxes,
- PE plateau and PE plateau anchoring screw.

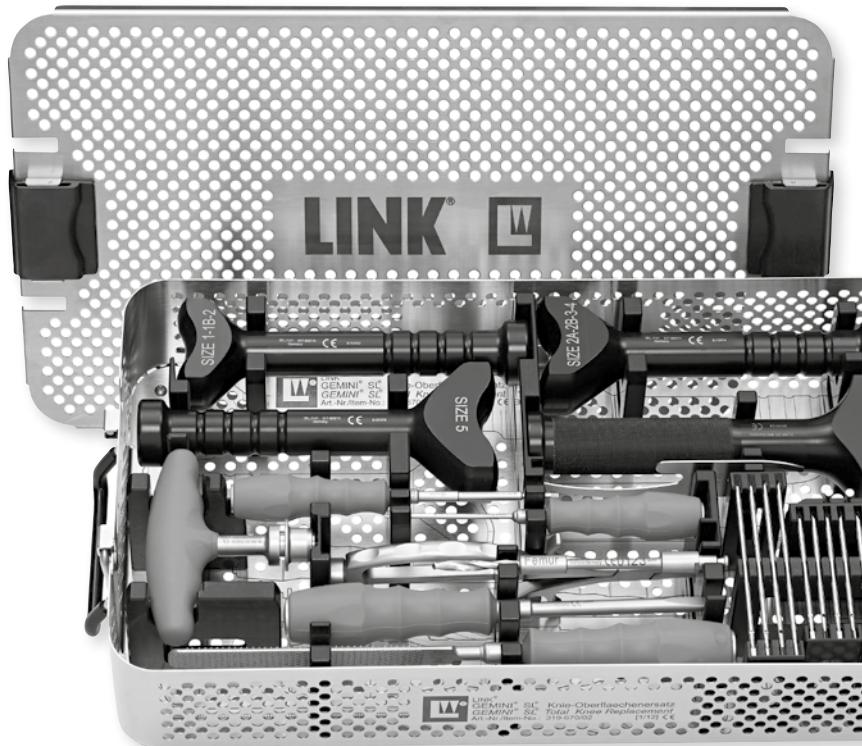
## MIRETO® Instrument Set for Endo-Model® Knee Prosthesis Systems

The **MIRETO® Instrument Set** comprises seven instrument trays. It was developed with the focus on the following objectives:

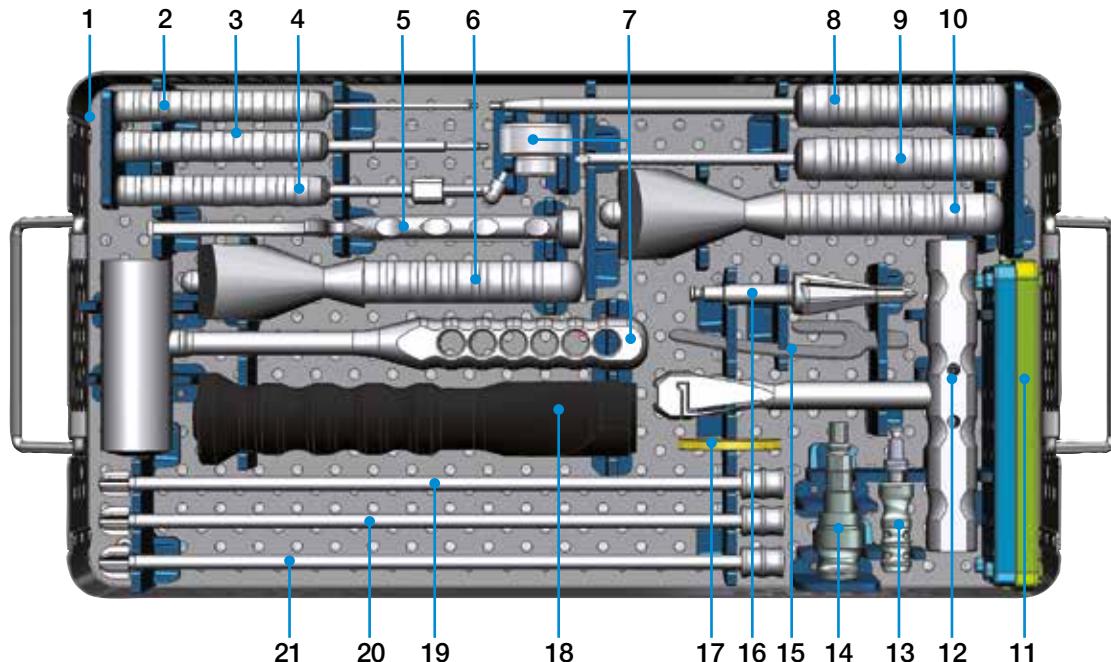
- Instruments are securely held in their respective positions in the tray
- Ergonomic arrangement means the instruments are easy to remove, ensuring that surgery proceeds smoothly
- Optimally organized individual trays facilitate the job of the instrument nurse during the surgical procedure
- Trays are clearly marked with a picture of each instrument to ensure they can be quickly equipped with the correct instruments

On request, pictorial templates for equipping the instrument trays can be supplied.

Cleaning instructions for all take-apart instruments are also available.

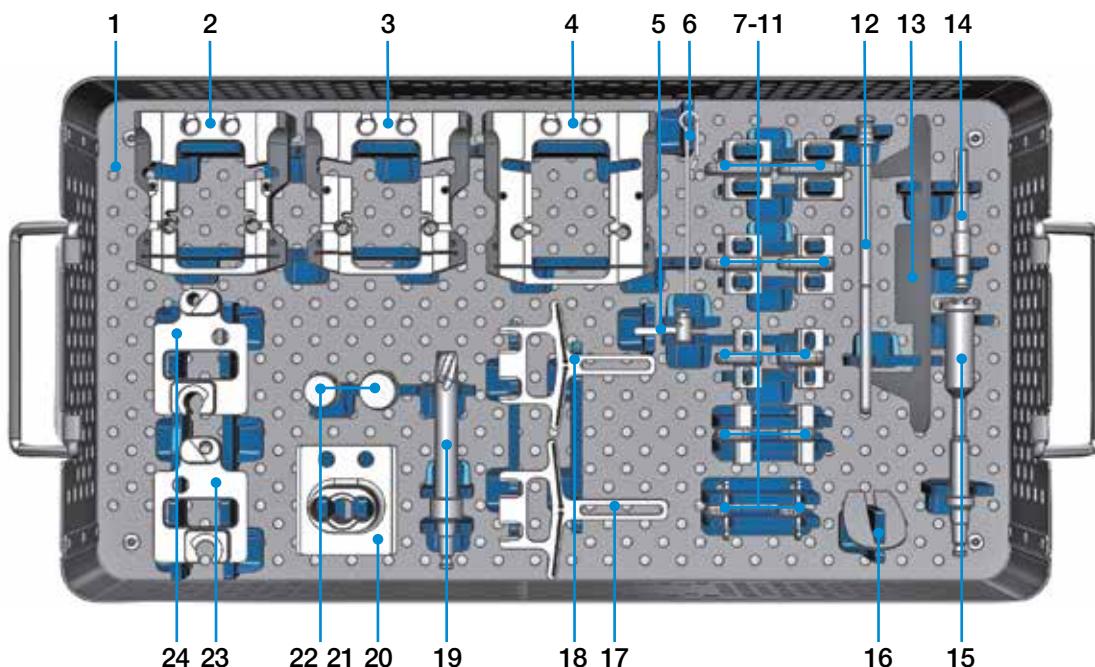


Item no.	MIRETO® Instrument Set for Endo-Model® Knee Joint Prostheses
15-6011/00	<a href="#">Case 1 – General Instruments</a>
15-6012/00	<a href="#">Case 2 – Femoral Instruments (2 trays)</a>
15-6013/00	<a href="#">Case 3 – Tibial Instruments</a>
15-6014/00	<a href="#">Case 4 – Tapered Reamers conical &amp; cylindrical</a>
15-6015/00	<a href="#">Case 5 – Trial Prostheses (2 trays)</a>
15-6016/00	<a href="#">Case 6 – Trial Prostheses cylindrical</a>
15-6017/00	<a href="#">Case 7 – Tapered Reamers conical</a>
15-6018/00	<a href="#">Case 8 – Instruments XS</a>

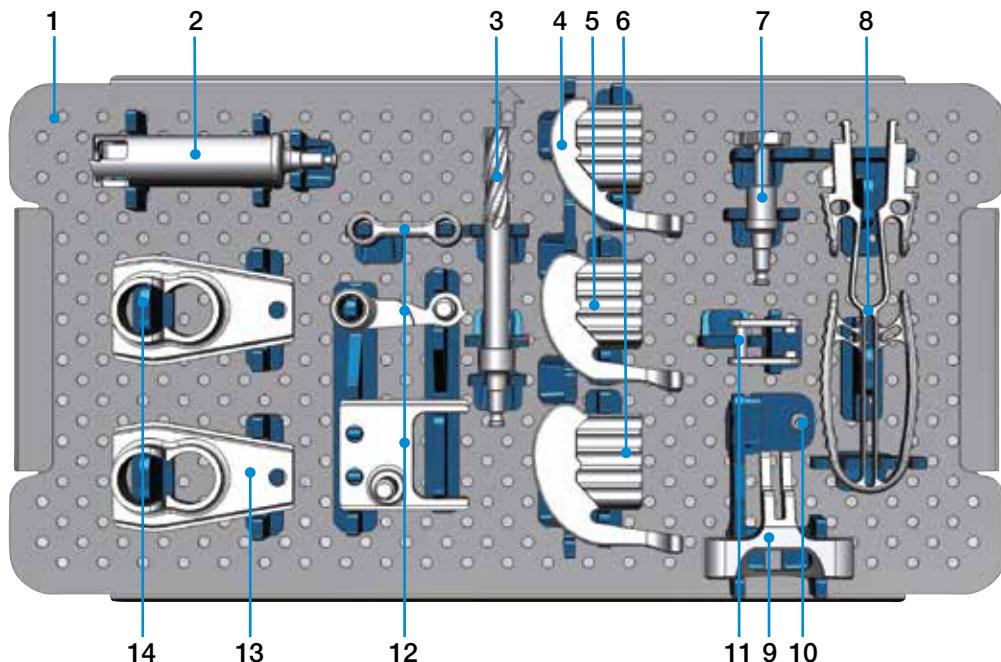
**15-6011/00 Case 1 – General Instruments**


1	15-6001/00	Instrument Tray, Case 1, empty, 485 x 253 x 80 mm
2	64-1181/16	Hex Screwdriver, with metal handle, hex. 2 mm
3	10-5373/01	Hex Screwdriver, with metal handle, hex. 2.5 mm
4	15-8035/02	Inserter Positioner for PE plateaus
5	317-586	Inserter/Extraction Forceps for fixation pins Ø 3 mm, 210 mm
6	15-2537	Impactor Handle, small/medium, for femoral components
7	16-0115/01	Mallet, blow-back proof, incl. Spare Part Polyethylene
8	64-8008/02	Hex Screwdriver, hex. 3.5 mm
9	317-658/01	Bone Awl with trocar point, 215 mm
10	15-2537/02	Impactor Handle, large, for femoral components
11	317-585/65 317-585/95	Wire Pins, Ø 3 mm, 65 mm (4 pieces) Wire Pins, Ø 3 mm, 95 mm (4 pieces) optional Drill Pins, Ø 3 mm, 65/80 mm (4 pieces) Drill Pins, Ø 3 mm, 95/110 mm (4 pieces)
12	15-6096/00	Alignment Device for modular stems with female taper (1 piece)
13	15-6053/00	T-Handle, with Hudson fitting
14	16-3287/00B 16-3283/00 16-3284/00 16-3285/00	Adapter, for LINK power tool snap locl adapter, with Hudson fitting optional with fitting: Hudson female/Jacobs male Hudson female/AO male Hudson female/Harris male
15	317-607/50	Cutting Template
16	15-6037/00	Drill, to open the femoral and tibial canal
17	16-3203/00	Impaction Plate for reamers
18	15-6098/00	Grooved Driver Tibia
19	15-6060/00	Stylus, for centralizer Ø 12 mm
20	15-6060/01	Stylus, for centralizer Ø 14 mm
21	15-6060/02	Stylus, for centralizer Ø 16 mm

## 15-6012/00 Case 2 – Femoral Instruments (Tray 1)

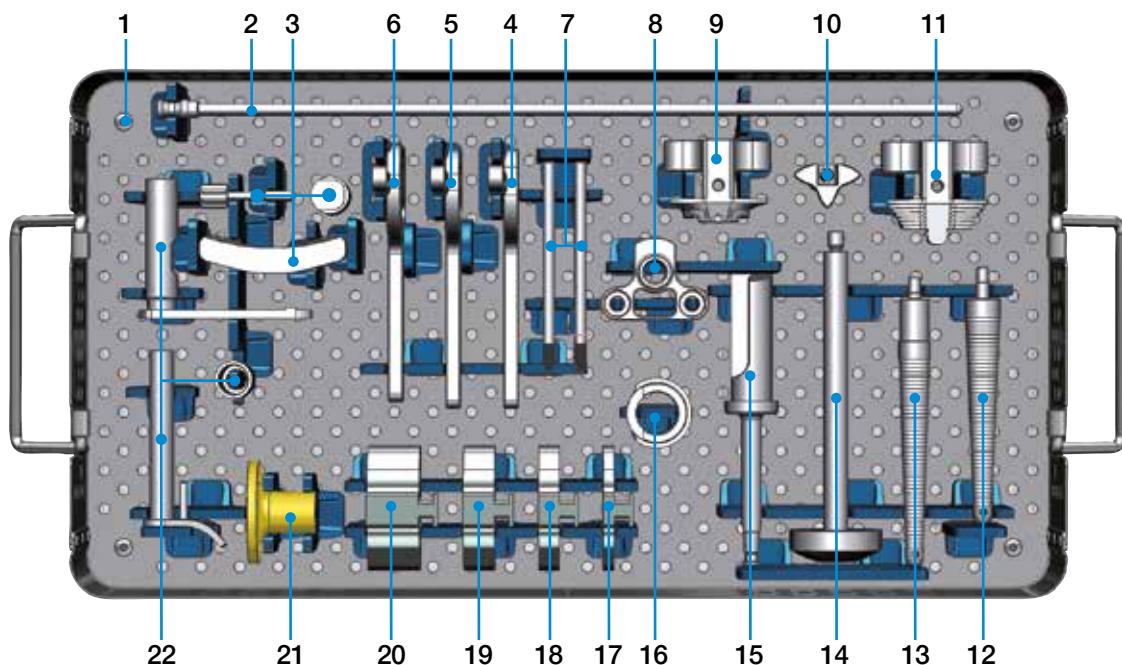


1	15-6002/00	Instrument Tray, Case 2 (Tray 1), empty below, 485 x 253 x 80 mm
		<b>Basic Frame</b>
2	15-6030/01	Size S
3	15-6030/02	Size M
4	15-6030/03	Size L
5	15-6111/00	<b>Interlocking Pin</b> for basic frame
6	15-6110/00	<b>Interlocking Spring</b> for basic frame
		<b>Spacer</b> , complete, 2 pieces
7	15-6045/00	Height 2 mm
8	15-6045/01	Height 10 mm
9	15-6045/02	Height 15 mm
10	15-6045/03	Height 20 mm
11	15-6045/04	Height 25 mm
12	15-6033/00	<b>Alignment Rod</b> , Ø 6 mm, 150 mm
13	15-6040/01	<b>Alignment Gauge</b> , for sizes S/M/L
14	15-6032/00	Drill for pin holes, Ø 6 mm
15	15-6038/00	<b>Depth Mill</b> for taper coupling
16	15-6049/00	<b>Stylus</b> , anterior
17	15-6039/01	<b>Saw Guide</b> , for ventral rim, size M/L
18	15-6039/00	<b>Saw Guide</b> , for ventral rim, size XS/S
19	15-6042/00	<b>Reamer</b> , for box profile milling, Ø 12 mm, 74 mm
20	15-6034/00	<b>Slide-In Module</b> , for ventral bone rim
21	15-6046/00	<b>Protective Cap</b> , Ø 12 mm, 54 mm
22	15-6046/01	<b>Protective Cap</b> , Ø 14 mm, 54 mm
23	15-6031/00	<b>Alignment Insert</b> , right
24	15-6031/01	<b>Alignment Insert</b> , left

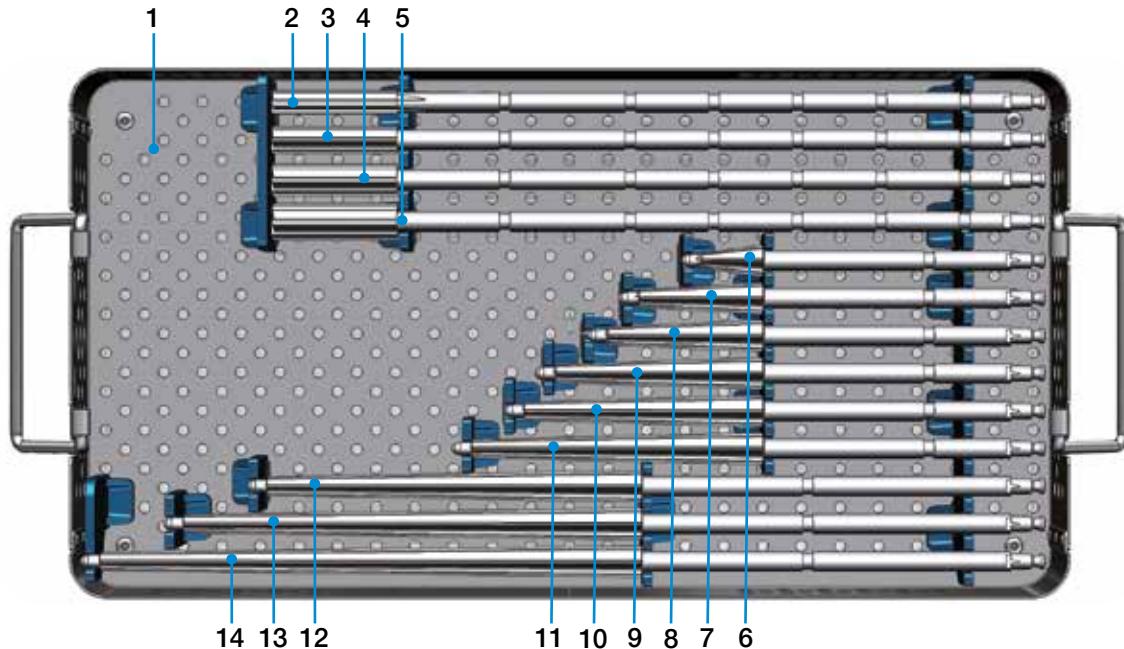
**15-6012/00 Case 2 – Femoral Instruments (Tray 2)**


<b>1</b>	<b>15-6002/00</b>	<b>Instrument Tray, Case 2 (Tray 2), empty above, 485 x 253 x 80 mm</b>
<b>2</b>	<b>15-6036/00</b>	<b>Reamer for box pre-milling, Ø 24 mm</b>
<b>3</b>	<b>15-6042/01</b>	<b>Reamer for box profile milling, Ø 12 mm, 100 mm</b>
		<b>Basic Milling Guidances for condyle milling, complete</b>
<b>4</b>	<b>15-6043/01</b>	<b>Size S</b>
<b>5</b>	<b>15-6043/02</b>	<b>Size M</b>
<b>6</b>	<b>15-6043/03</b>	<b>Size L</b>
<b>7</b>	<b>15-6044/02</b>	<b>Reamer for condyle milling, Ø 26 mm</b>
<b>8</b>	<b>15-6044/01</b>	<b>Inserting Forceps for condyle milling guidance</b>
<b>9</b>	<b>15-6044/00</b>	<b>Condyle Milling Guidance for condyle milling</b>
<b>10</b>	<b>15-6044/20</b>	<b>Screw for condyle milling guidance</b>
<b>11</b>	<b>15-6044/30</b>	<b>Lever for condyle milling guidance</b>
<b>12</b>	<b>15-6041/00</b>	<b>Slide-In Module for box profile milling (3 parts)</b>
<b>13</b>	<b>15-6035/00</b>	<b>Slide-In Module for box pre-milling Endo-W</b>
<b>14</b>	<b>15-6035/01</b>	<b>Slide-In Module for box pre-milling Endo-M Standard</b>

## 15-6013/00 Case 3 – Tibial Instruments

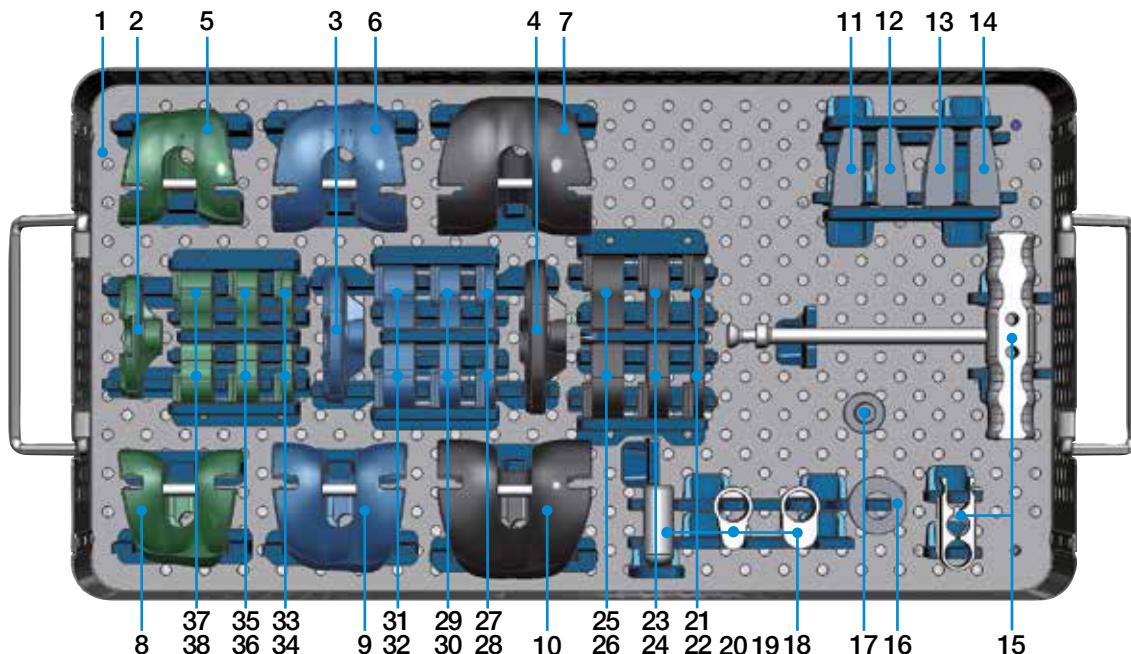


1	15-6003/00	Instrument Tray, Case 3, empty, 485 x 253 x 80 mm
2	16-3242/00	Alignment Rod Tibia
3	15-6058/00	Tibial Saw Guide, 3 parts Drill Templates Tibia
4	15-6050/01	Size S
5	15-6050/02	Size M
6	15-6050/03	Size L
7	16-3211/00	Guide Rod (2 pieces)
8	15-6051/00	Alignment Gauge
9	15-6054/01	Compressor, for Endo-Model®-M, size XS/S
10	15-6055/02	Compressor Extension, for Endo-Model®, size M/L
11	15-6054/02	Compressor, for Endo-Model®-M, size M/L
12	15-6056/02	Stem Compressor, size M/L
13	15-6056/01	Stem Compressor, size S
14	16-3197/00	T-Handle
15	15-6052/00	Drill, Ø 20 mm
16	16-3271/20	Drill Guide Spacer, Tibial Alignment, for sizes S/M/L
17	15-6059/00	Height 5 mm
18	15-6059/01	Height 10 mm
19	15-6059/02	Height 15 mm
20	15-6059/03	Height 25 mm
21	15-6062/00	Impaction Plate Tibia
22	15-6057/00	Alignment Gauge, for tibia resection (3 parts)

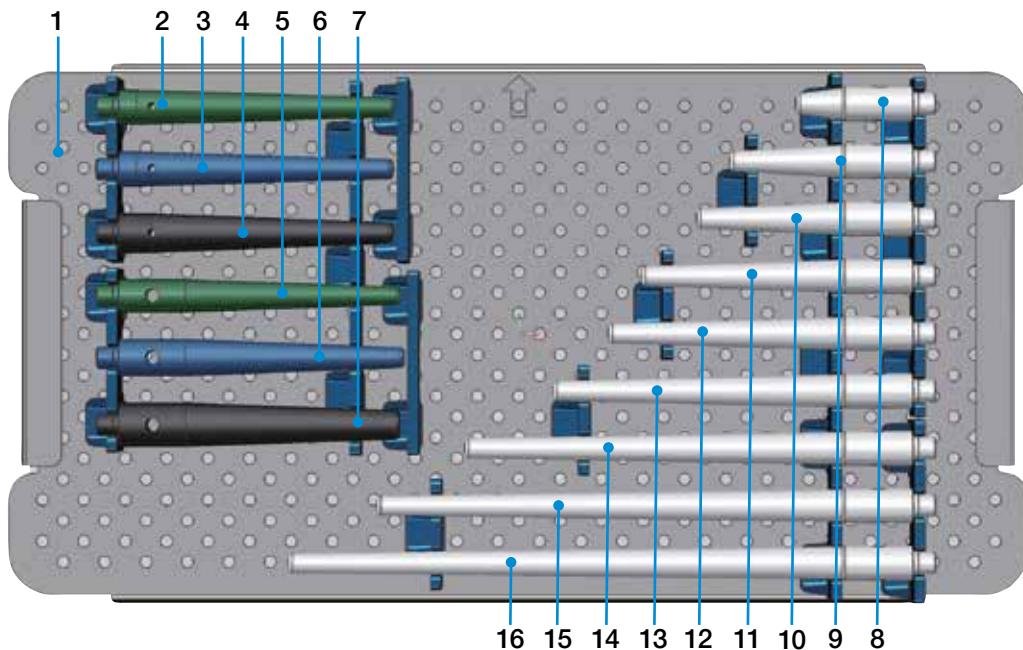
**15-6014/00 Case 4 – Tapered Reamers conical & cylindrical**


<b>1</b>	<b>15-6004/00</b>	<b>Instrument Tray, Case 4, empty, 485 x 253 x 80 mm</b>
<b>Tapered Reamers, cylindrical, with Hudson fitting B</b>		
<b>2</b>	<b>15-6048/00</b>	<b>Ø 12 mm</b>
<b>3</b>	<b>15-6048/01</b>	<b>Ø 14 mm</b>
<b>4</b>	<b>15-6048/02</b>	<b>Ø 16 mm</b>
<b>5</b>	<b>15-6048/03</b>	<b>Ø 18 mm</b>
<b>Tapered Reamers, conical, with Hudson fitting B</b>		
<b>6</b>	<b>15-6047/01</b>	<b>Ø 16 mm      50 mm</b>
<b>7</b>	<b>15-6047/02</b>	<b>Ø 16 mm      80 mm</b>
<b>8</b>	<b>15-6047/03</b>	<b>Ø 16 mm      95 mm</b>
<b>9</b>	<b>15-6047/04</b>	<b>Ø 16 mm      120 mm</b>
<b>10</b>	<b>15-6047/05</b>	<b>Ø 16 mm      135 mm</b>
<b>11</b>	<b>15-6047/06</b>	<b>Ø 16 mm      160 mm</b>
<b>12</b>	<b>15-6047/07</b>	<b>Ø 16 mm      200 mm</b>
<b>13</b>	<b>15-6047/08</b>	<b>Ø 16 mm      240 mm</b>
<b>14</b>	<b>15-6047/09</b>	<b>Ø 16 mm      280 mm</b>

## 15-6015/00 Case 5 – Trial Prostheses (Tray 1)

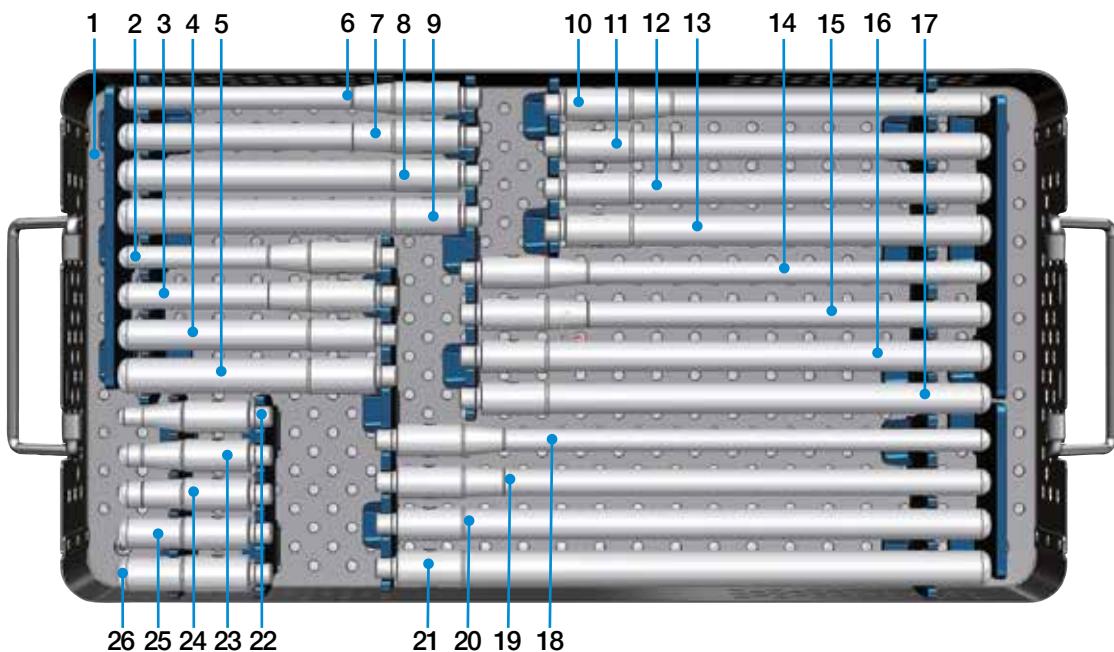


1	15-6005/00	Instrument Tray, Case 5 (Tray 1), empty below, 485 x 253 x 80 mm
2	15-6065/01	Tibia Trial Prostheses, intracondylar Size S
3	15-6065/02	Size M
4	15-6065/03	Size L
5	15-6067/01	Femur Trial Prostheses, intracondylar Size S left
6	15-6067/02	Size M left
7	15-6067/03	Size L left
8	15-6068/01	Size S right
9	15-6068/02	Size M right
10	15-6068/03	Size L right
11	15-6088/01	Femoral Trial Segments, universal Height 20 mm right
12	15-6088/02	Height 20 mm left
13	15-6093/01	Height 25 mm right
14	15-6093/02	Height 25 mm left
15	15-6061/00	Extraction Instrument for trial prostheses (2 parts)
16	15-6094/00	Trial Support Ring, height 10 mm, Ø 28 mm
17	15-6070/00	Femoral Trial Adapter, for modular stems M10/M12
18	15-6066/01	Trial Connection Component for hinged knee versions sizes S/M/L
19	15-6066/00	Trial Connection Component for rotational knee versions sizes S/M/L
20	15-6066/20	Trial Axis, for sizes S/M/L
		Trial Segments Tibia
21	15-6078/03	Height 5 mm Sizes L right
22	15-6079/03	Height 5 mm Sizes L left
23	15-6080/03	Height 10 mm Sizes L right
24	15-6081/03	Height 10 mm Sizes L left
25	15-6082/03	Height 15 mm Sizes L right
26	15-6083/03	Height 15 mm Sizes L left
27	15-6078/02	Height 5 mm Size M right
28	15-6079/02	Height 5 mm Size M left
29	15-6080/02	Height 10 mm Size M right
30	15-6081/02	Height 10 mm Size M left
31	15-6082/02	Height 15 mm Size M right
32	15-6083/02	Height 15 mm Size M left
33	15-6078/01	Height 5 mm Size S right
34	15-6079/01	Height 5 mm Size S left
35	15-6080/01	Height 10 mm Size S right
36	15-6081/01	Height 10 mm Size S left
37	15-6082/01	Height 15 mm Size S right
38	15-6083/01	Height 15 mm Size S left

**15-6015/00 Case 5 – Trial Prostheses (Tray 2)**


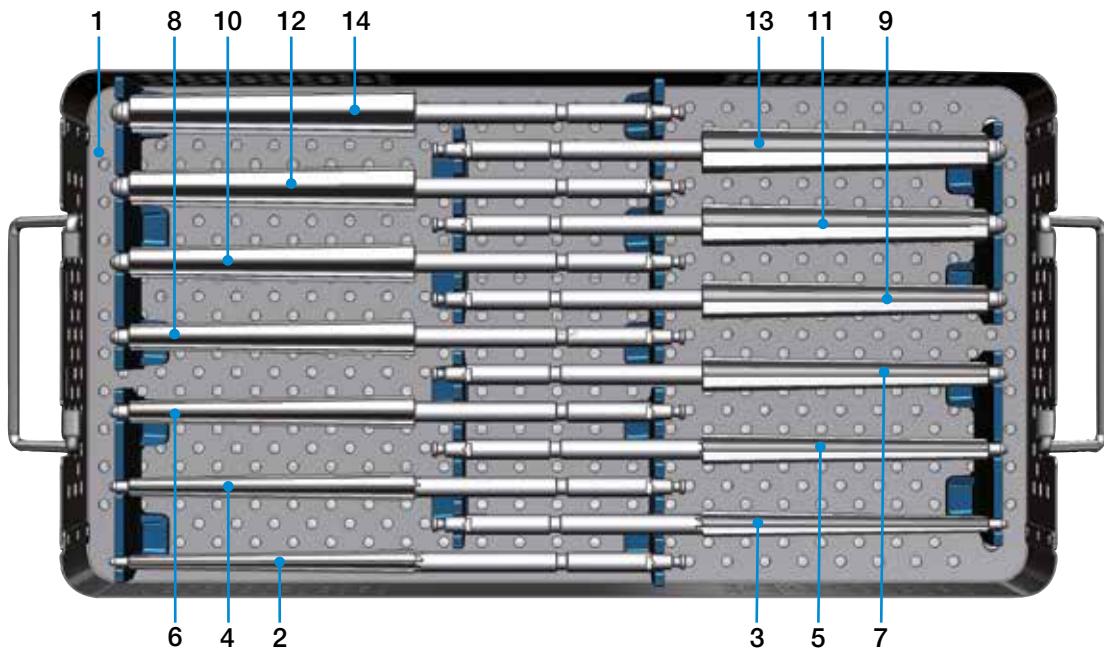
<b>1</b>	<b>15-6005/00</b>	Instrument Tray, Case 5 (Tray 2), empty, 485 x 253 x 80 mm
<b>2</b>	<b>15-6063/01</b>	Tibial Trial Stems, for Endo-Model® prosthesis stems Size S
<b>3</b>	<b>15-6063/02</b>	Size M
<b>4</b>	<b>15-6063/03</b>	Size L
		<b>Femoral Trial Stems</b> , for Endo-Model® prosthesis stems
<b>5</b>	<b>15-6064/01</b>	Size S
<b>6</b>	<b>15-6064/02</b>	Size M
<b>7</b>	<b>15-6064/03</b>	Size L
		<b>Trial Stems</b> , conical, for femoral and tibial components, cemented/cementless
<b>8</b>	<b>15-6071/01</b>	Length 50 mm
<b>9</b>	<b>15-6071/02</b>	Length 80 mm
<b>10</b>	<b>15-6071/03</b>	Length 95 mm
<b>11</b>	<b>15-6071/04</b>	Length 120 mm
<b>12</b>	<b>15-6071/05</b>	Length 135 mm
<b>13</b>	<b>15-6071/06</b>	Length 160 mm
<b>14</b>	<b>15-6071/07</b>	Length 200 mm
<b>15</b>	<b>15-6071/08</b>	Length 240 mm
<b>16</b>	<b>15-6071/09</b>	Length 280 mm

## 15-6016/00 Case 6 – Cylindrical Trial Stems



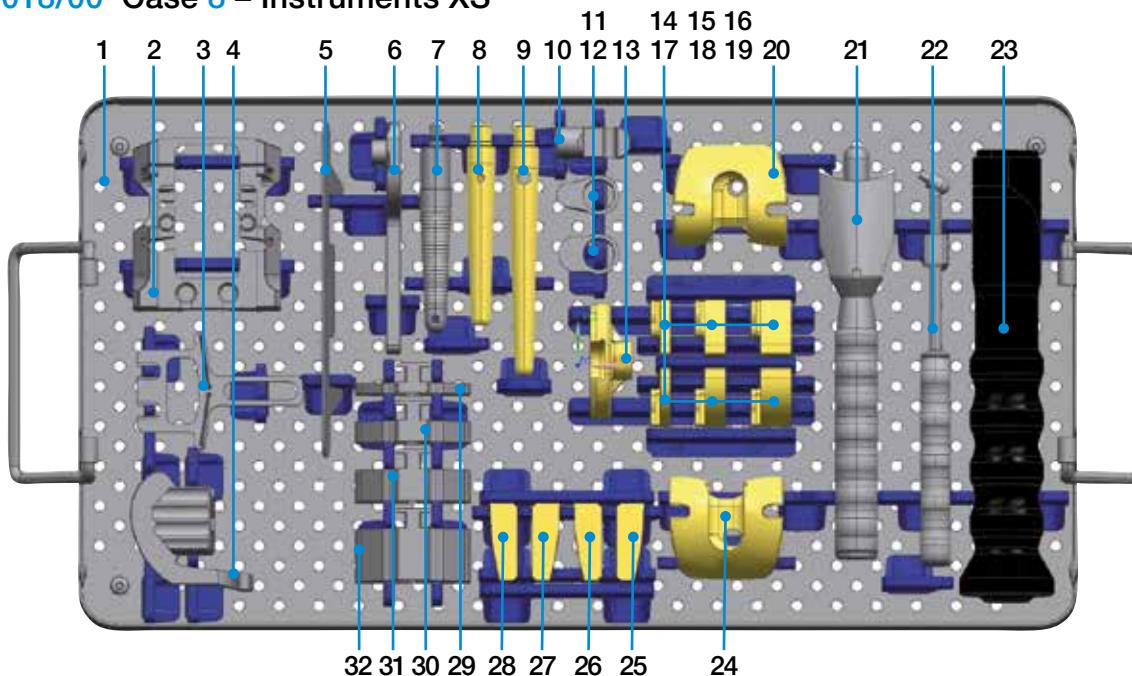
1	15-6006/00	Instrument Tray, Case 6, empty, 485 x 253 x 80 mm
Trial Stems, cylindrical, cementless		
2	15-6073/01	Ø 12 mm Length 120 mm
3	15-6073/02	Ø 14 mm Length 120 mm
4	15-6073/03	Ø 16 mm Length 120 mm
5	15-6073/04	Ø 18 mm Length 120 mm
6	15-6074/01	Ø 12 mm Length 160 mm
7	15-6074/02	Ø 14 mm Length 160 mm
8	15-6074/03	Ø 16 mm Length 160 mm
9	15-6074/04	Ø 18 mm Length 160 mm
10	15-6075/01	Ø 12 mm Length 200 mm
11	15-6075/02	Ø 14 mm Length 200 mm
12	15-6075/03	Ø 16 mm Length 200 mm
13	15-6075/04	Ø 18 mm Length 200 mm
14	15-6076/01	Ø 12 mm Length 240 mm
15	15-6076/02	Ø 14 mm Length 240 mm
16	15-6076/03	Ø 16 mm Length 240 mm
17	15-6076/04	Ø 18 mm Length 240 mm
18	15-6077/01	Ø 12 mm Length 280 mm
19	15-6077/02	Ø 14 mm Length 280 mm
20	15-6077/03	Ø 16 mm Length 280 mm
21	15-6077/04	Ø 18 mm Length 280 mm
22	15-6072/00	Ø 10 mm Length 60 mm
23	15-6072/01	Ø 12 mm Length 60 mm
24	15-6072/02	Ø 14 mm Length 60 mm
25	15-6072/03	Ø 16 mm Length 60 mm
26	15-6072/04	Ø 18 mm Length 60 mm

## 15-6017/00 Case 7 – Conical Tapered Reamers



1	15-6007/00	Instrument Tray, Case 7, empty, 485 x 253 x 80 mm
<b>Tapered Reamers:</b> conical, with fitting B: Hudson		
2	16-5130/12	Ø 12 mm Stem length 130 mm
3	16-5130/13	Ø 13 mm Stem length 130 mm
4	16-5130/14	Ø 14 mm Stem length 130 mm
5	16-5130/15	Ø 15 mm Stem length 130 mm
6	16-5130/16	Ø 16 mm Stem length 130 mm
7	16-5130/17	Ø 17 mm Stem length 130 mm
8	16-5130/18	Ø 18 mm Stem length 130 mm
9	16-5130/19	Ø 19 mm Stem length 130 mm
10	16-5130/20	Ø 20 mm Stem length 130 mm
11	16-5130/21	Ø 21 mm Stem length 130 mm
12	16-5130/22	Ø 22 mm Stem length 130 mm
13	16-5130/23	Ø 23 mm Stem length 130 mm
14	16-5130/24	Ø 24 mm Stem length 130 mm

## 15-6018/00 Case 8 – Instruments XS



1	15-6008/00	Instrumenten Tray, Case 8, empty, 485 x 253 x 80 mm
2	15-6030/00	Basic Frame, XS
3	15-6039/02	Saw Guide V-Cut XS
4	15-6043/00	Basic Milling Guidance XS
5	15-6040/00	Alignment Gauge, XS
6	15-6050/00	Drill Template XS
7	15-6056/00	Stem Compressor XS
8	15-6063/00	Tibia Trial Stem XS, standard
9	15-6064/00	Femur Trial Stem XS, standard
10	15-6066/30	Trial Axis for trial connection component XS
11	15-6066/40	Trial Connection Component XS, mobile bearing
12	15-6066/50	Trial Connection Component XS, hinged version
13	15-6065/00	Tibia Trial Prosthesis XS
14	15-6078/00	Tibia Trial Segment XS, Height 5 mm, right
15	15-6080/00	Tibia Trial Segment XS, Height 10 mm, right
16	15-6082/00	Tibia Trial Segment XS, Height 15 mm, right
17	15-6079/00	Tibia Trial Segment XS Height 5 mm, left
18	15-6081/00	Tibia Trial Segment XS Height 10 mm, left
19	15-6083/00	Tibia Trial Segment XS Height 10 mm, left
20	15-6067/00	Femur Trial Prosthesis XS, intracondylar, left
21	15-2537/03	Impactor Handle XS, for femoral components
22	15-8035/03	Inserter Positioner XS, for PE-Plateaus XS
23	15-6097/00	Tibia Grooved Driver XS
24	15-6068/00	Femur Trial Prosthesis XS, intracondylar, right
25	15-6092/02	Femoral Trial Segment XS, Height 25 mm, left
26	15-6092/01	Femoral Trial Segment XS, Height 25 mm, right
27	15-6087/02	Femoral Trial Segment XS, Height 20 mm, left
28	15-6087/01	Femoral Trial Segment XS, Height 20 mm, right
29	15-6095/00	Tibia Spacer XS, Height 5 mm
30	15-6095/01	Tibia Spacer XS, Height 10 mm
31	15-6095/02	Tibia Spacer XS, Height 15 mm
32	15-6095/03	Tibia Spacer XS, Height 25 mm

**Additional Instrument Set**

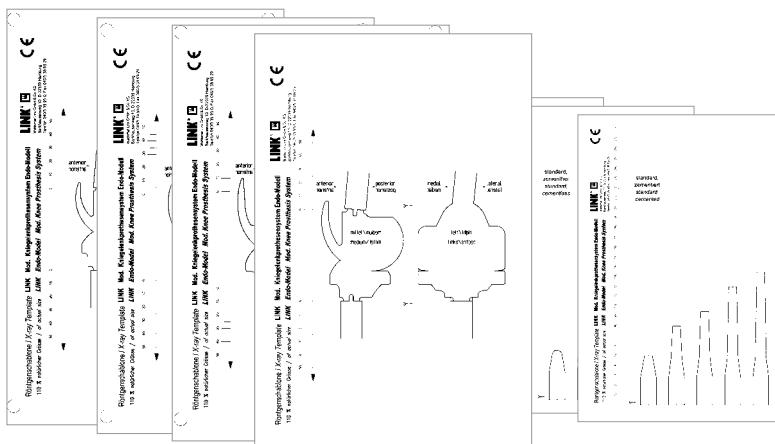
for Rotational for Rotational Bushing Exchange V02



Item no.	<b>for Rotational Knee Prostheses Endo-Model® and Endo-Model® – M</b> (with V02 coupling mechanism)
15-2529/90	<b>Set</b> , complete, in 1 small container K1, on 1 tray with storage racks
05-1000/01	<b>Small Container K1</b> , only, 460 x 190 x 92 mm
15-2529/91	<b>Tray</b> , empty, 405 x 165 x 50 mm
64-8008/02	<b>Hex Screwdriver</b> with metal handle, wrench size 3.5 mm, 250 mm
15-2544	<b>Separate Rod</b> for removal of the rotating bushing version V02, Ø M5, 210 mm
10-5373/01	<b>Hex Screwdriver</b> with metal handle, wrench size 2.5 mm, 180 mm
15-2545	<b>Torque Wrench</b> , wrench size 2.5 mm, 205 mm

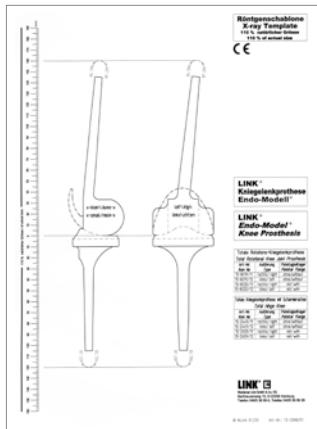
## 15-2599/05

**X-ray Templates** for Endo-Model® – M Modular Knee Prosthesis System, including modular stem extensions, 110% actual size, 1 set of 9 sheets



## 15-2599/01

**X-ray Templates** for  
Endo-Model® Total Knee Prosthesis  
(rotational and hinge version)  
110% actual size,  
1 set of: x-small, small, medium, large

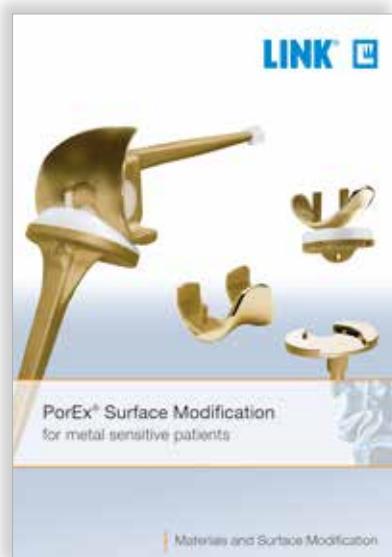


**Endo-Model® Standard/-M Knee System**  
with Segmental Bone Replacement Components  
and MIRETO® Instrument Set

### Surgical Technique – Primary & Revision

**LINK PorEx®**  
**Surface Modification** for  
metal sensitive patients

### Materials & Surface Modification



All catalogs available on request.



For more information please register at [mediathek.linkorthopaedics.com](http://mediathek.linkorthopaedics.com)

E. Engelbrecht, A. Siegel, J. Röttger, and Prof. H. W. Buchholz\*  
**Statistics of Total Knee Replacement: Partial and Total Knee Replacement, Design St. Georg**  
*Journal of Clinical Orthopaedics*, 1976, No. 120, pp 54-64 (K3)

E. Engelbrecht, E. Nieder, E. Strickle, A. Keller  
**Intrakondyläre Kniegelenkendoprothese mit Rotationsmöglichkeit – ENDO-MODELL®**  
*CHIRURG* 52: 368-375 (1981) (K1)

R. Dederich und L. Wolf  
**Kniegelenkprothesen-Nachuntersuchungsergebnisse**  
*Unfallheilkunde* (1982) 85:359-368 (K2)

J. Röttger, K. Heinert  
**Die Knieendoprothesensysteme (Schlitten- und Scharnierprinzip). Beobachtungen und Ergebnisse nach 10 Jahren Erfahrung mit über 3700 Operationen.**  
*Z. Orthop.* 122(1984) 818-826 (K17)

E. Nieder, E. Engelbrecht, A. Keller  
**Totale intrakondyläre Scharniergelegenkendoprothese mit Rotationsmöglichkeit – Endo-Modell®**  
*Sonderdruck aus Heft 5: Orthopädische Praxis*, 1987, 23. Jahrgang, Seite 402-412 (K34)

K. Heinert, E. Engelbrecht  
**Total Knee Replacement - Experience with a Surface and Total Knee Replacement: Further Development of the Model St. Georg®. 2400 Sledges and Hinges**  
*Proceedings of the International Symposium on Total Knee Replacement, May 19-20, 1987, Nagoya, Japan*  
*Springer Verlag*; Berlin Heidelberg, New York Tokyo (1987), pp 257-273 (K53)

E. Engelbrecht, M.D.  
**The Tibial Rotating Knee Prosthesis "Endo" Model: Surg. Technique**  
*The Journal of Orthopaedic Surgical Techniques, Volume 3, Number 2, 1987* (K36)

K. Heinert, E. Engelbrecht  
**Langzeitvergleich der Knie-Endoprothesensysteme St. Georg® 10-Jahres-Überlebensraten von 2236 Schlitten- und Scharnier-Endoprothesen**  
*Der Chirurg* (1988) 59:755-762 (K38)

F. Madsen, P. Kjarsgaard-Andersen, M. Juhl, O. Sneppen  
**A Custom-Made Prosthesis for the Treatment of Supracondylar Femoral Fractures after Total Knee Arthroplasty: Report of Four Cases**  
*Journal of Orthopaedic Trauma*, Vol. 3, No. 4, pp. 333-337, 1989 (K42)

E. Nieder  
**Schlittenprothese, Rotationsknie und Scharnierprothese Modell St. Georg® und Endo-Modell®. Differentialtherapie in der primären Kniegelenkalloarthroplastik**  
*Orthopäde* (1991) 20:170-180 (K45)

G. von Förster, D. Klüber und U. Käbler  
**Mittel- bis langfristige Ergebnisse nach Behandlung von 118 periprothetischen Infektionen nach Kniegelenkersatz durch einzeitige Austauschoperationen**  
*Orthopäde*(1991) 20: 244-252 (K46)

Adolph V. Lombardi, Jr, Thomas H. Mallory, Robert W. Eberle, and Joanne B. Adams  
**Results of Revision Total Knee Arthroplasty Using Constrained Prostheses**  
*Seminars in Arthroplasty*, Vol 7, No. 4 (October), 1996: pp 349-355

E. Engelbrecht, E. Nieder, D. Klüber  
**Reconstruction of the Knee - Ten to Twenty Years of Knee Arthroplasty at the Endo-Klinik: A Report on the Long-term Follow-up of the St. Georg® Hinge and the Medium-term Follow-up of the Rotating Knee Endo-Model®**  
*Springer Verlag*: Tokyo, Berlin, Heidelberg, New York (1997) (K57)

E. Nieder  
**Revisionsalloarthroplastik des Kniegelenks**  
*Sonderausgabe aus: Orthopädische Operationslehre, Band II/1: Becken und untere Extremität*  
*Herausgegeben von R. Bauer, F. Kerschbaumer und S. Poisel*

F. Alt, U. Sonnekalb, N. Walker  
**Unikondyläre Schlittenprothese versus scharniergeführte Totalendoprothesen des Kniegelenkes**  
*Orthopädische Praxis* 1/98, 34. Jahrgang, Seite 20-24, 1998 (K61)

A. V. Lombardi, T. H. Mallory, R. E. Eberle, J. B. Adams  
**Rotating Hinge Prosthesis in Revision Total Knee Arthroplasty: Indications and Results**  
*A Reprint from Surgical Technology International VI*, 1998 (K55)

E. Nieder, G.W. Baars, A. Keller  
**Totaler Tibia-Ersatz Endo-Modell®**  
*Orthopädie Aktuell*: Nr. 5/1998, *LINK News* (K60)

S. Schill, H. Thabe  
**Die prothetische Knieinfektion – Therapiekonzept, Wertigkeit und mittelfristige Ergebnisse**  
*Aktuelle Rheumatologie*, Heft 5, 24. Jahrgang, 1999, pp 153-160 (K70)

G.W. Baars  
**Knieendoprothetik: Das optimale Implantat für jeweilige Indikation finden**  
*Orthopäde 2000 (Suppl 1)* 29: S 1-2

M. Zinck, R. Sellkau  
**Rotationsknieprothese Endo-Modell®- Geführter Oberflächenersatz mit Sti(e)**  
*Orthopäde 2000 (Suppl 1)* 29: S 38-42

M. Crowa, E. Cenna, C. Olivero  
**Rotating knee prosthesis – Surface or hinge replacement?**  
*Orthopäde 2000 (Suppl 1)* 29: S 43-44

J-N. Argenson, J M. Aubaniac  
**Total Knee arthroplasty in femorotibial instability**  
*Orthopäde 2000.29.S 45-47*, Springer Verlag 2000 (K72)

M. von Knoch, R. Brocks, C. Siegmüller, G. Ribaric, L. Leupolt, G. von Förster  
**Knieflexion nach Rotationsknieendoprothese**  
*Z. Orthop* 2000; 138: 66-68 (K71)

R.E. Windsor, K. Steinbrink  
**Controversies in Total Knee Replacement Two-stage exchange is the optimal treatment for an infected total knee replacement**  
*Oxford University Press 2001* (K78)

A.Katzer, R.Selckau, W. Siemssen, G. von Foerster  
**ENDO-Modell Rotating Knee prosthesis: a functional analysis**  
*J Orthopaed Traumatol* (2002) 3:163-170

Thomas Nau, MD, E. Pflegerl, MD, J. Erhart, MD, and V. Vecsei, MD  
**Primary Total Knee Arthroplasty for Periarticular Fractures**  
*The Journal of Arthroplasty*, Vol 18, No 8, 2003 (K82)

G. Petrou, H. Petrou, C. Tilkeridis, T. Stavrakis, T. Kapetsis, N. Kremmidas, M. Gavras  
**Medium-term results with a primary cemented rotating-hinge total knee replacement A 7-YO 15-YEAR FOLLOW-UP**  
*J Bone Joint Surg (Br)*, 2004; 86-B :813-17 (K84)

M.R. Utting, J.H. Newman  
**Customised hinged knee replacement as a salvage procedure for failed total knee arthroplasty**  
*The Knee* 11 (2004) 475-479 (K86)

Nayana Joshi, Antonio Navarro-Quilis  
**Is There a Place for Rotating-Hinge Arthroplasty in Knee Revision Surgery for Aseptic Loosening?**  
*The Journal of Arthroplasty* 2008; 23(8):1204-1210 (K94)

M. Napp, M. Frank, M. Witt  
**Pathologische Fraktur des distalen Femurs bei Knie-TEP**  
*Der Orthopäde*, Band 38, Heft 10, Oktober 2009 (K96)

Dae Kyung Bae, Sang Jun Song, Kyoung Ho Yoon, Jung Ho Noh  
**Long-Term Outcome of Total Knee Arthroplasty in Charcot Joint: A 10- to 22- Year Follow-Up**  
*The Journal of Arthroplasty* 2009; 24(8):1152-1156 (K98)

# 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 determines the size and shape of the implant and also limits 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 used again.

**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, Germany

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  
Phone +49 40 53995-0 • [info@linkhh.de](mailto:info@linkhh.de)  
[www.linkorthopaedics.com](http://www.linkorthopaedics.com)

