







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

CE 0482

Explanation of Pictograms			
	Manufacturer		Article number
	Material number		Product meets the applicable requirements, which are regulated in the EU harmonization legislation for the affixing of the CE marking.

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

Endo-Model Rotational Knee Prosthesis

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

Endo-Model Hinge Knee Prosthesis

- 13 • with hinge axis

Endo-Model – M: Modular Knee Prosthesis System

- 14 • Measurements: Joint Components

Joint Components for Rotational Version:

- 15 • EndoDur (CoCrMo)
- 16 • EndoDur (CoCrMo)/LINK PorEx

Joint Components for Hinged Version:

- 17 • EndoDur (CoCrMo)

- 18 LINK Endo-Model EVO – W: Modular Joint Components

- Condylar Replacement (Rotating Hinge and Pure Hinge)

- 19 LINK MEGASYSTEM-C – Endo-Model Modular Joint Components with female taper

- Intracondylar Version (Rotational Version and Hinge Knee Version)

- 20 Modular Stems, cemented

- 21 Modular Stems, cementless

Femoral Segments for Endo-Model Rotational and Hinged Version

- 22-25 • UHMWPE

- 23-27 • Tilastan – S

Proximal Tibial Spacers and Segments for Endo-Model Rotational and Hinged Version

- 28 • UHMWPE

- 29+30 • Tilastan – S

- 31 Centralizers, Patellar Components

- 32 Replacement Sets for Endo-Model Rotational and Hinge Knee Prosthesis

Instruments

- 33 MIRETO Instrument Set for Endo-Model Knee Joint Prosthesis Systems, Case 1 – 7

- 34 Case 1 – General Instruments

- 35 Case 2 – Femoral Instruments (2 trays)

- 37 Case 3 – Tibial Instruments

- 38 Case 4 – Tapered Reamers conical & cylindrical

- 39 Case 5 – Trial Prostheses (2 trays)

- 41 Case 6 – Trial Prostheses cylindrical

- 42 Case 7 – Tapered Reamers conical

- 43 Case 8 – Instruments XS

- 44 Additional Instrument Set for Rotational Bushing Exchange V02

- 45 Additional Instruments

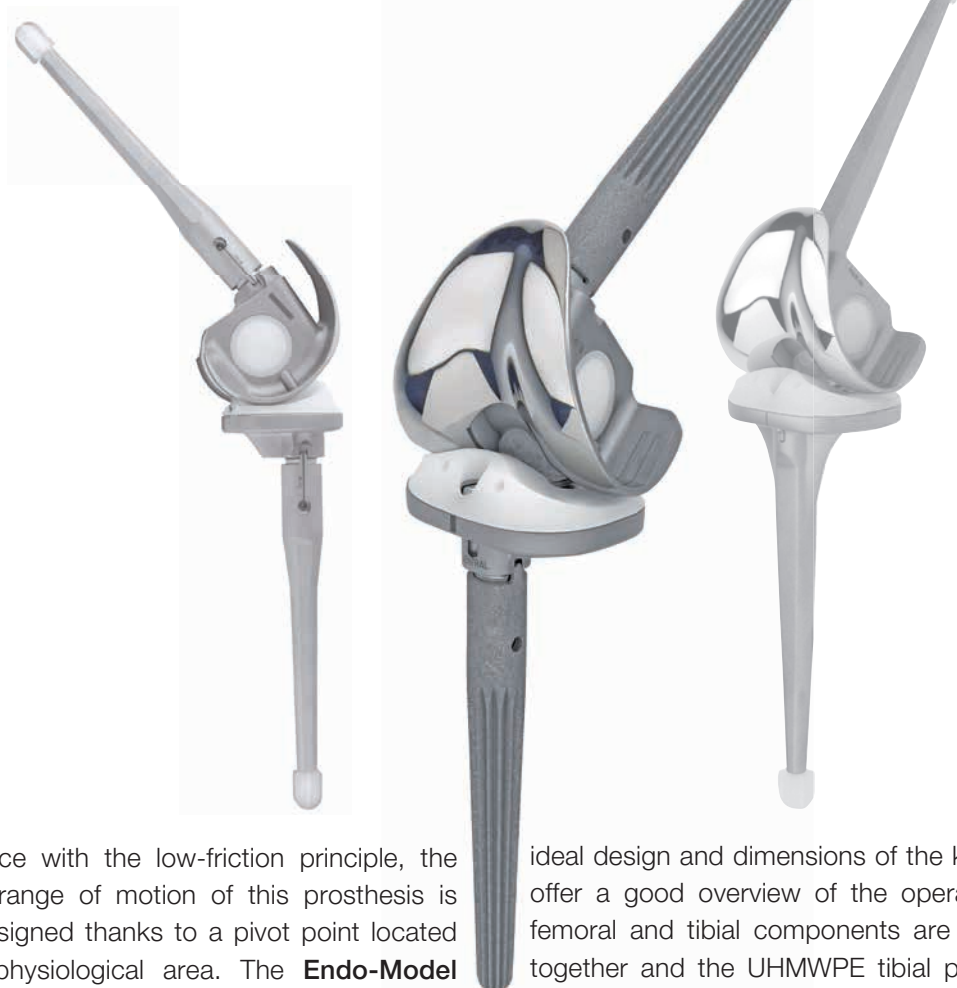
- 46 Accessories: X-ray Templates

- 47 Literature

- 48 Further Information

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 intra-condylar 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.

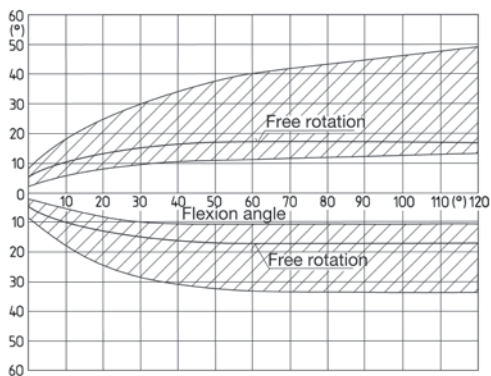
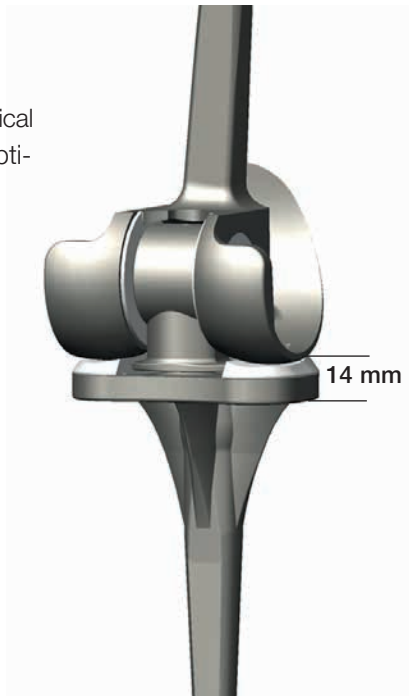
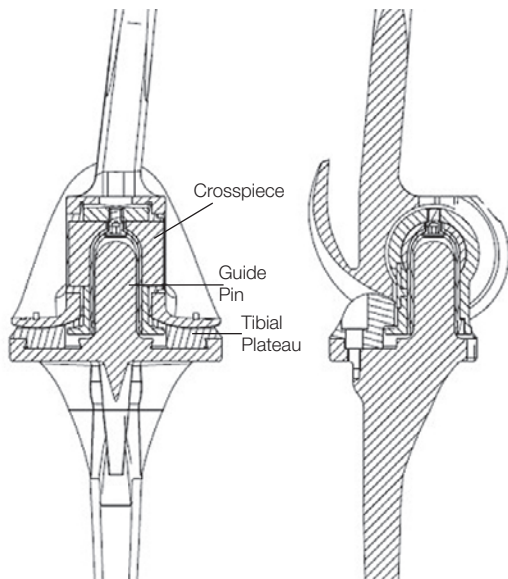
Flexion and rotational movement of the rotational knee prosthesis are achieved by means of a cross joint. Hyperextension amounts to 2°. The compromise axis lies in the region of the physiological pivot point. Flexion up to 142° is possible. With standard knee replacement, advancement of the patella or 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-

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.

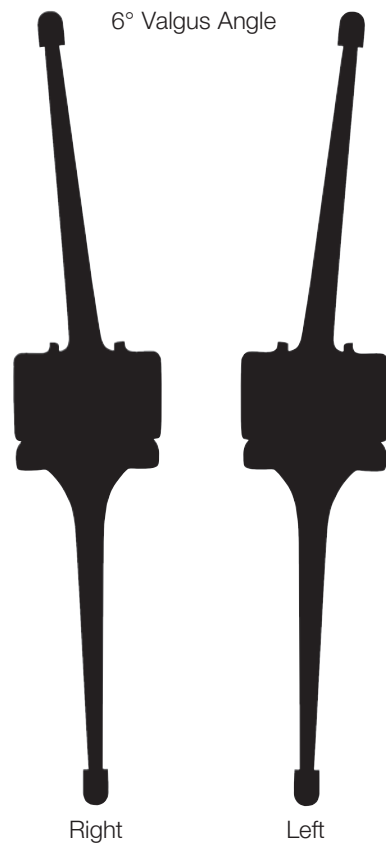
The modular prosthesis stems are available for the **Endo-Model – M** both as a cemented version, without structuring, and with longitudinal ribs and microporous surface for cementless implantation. To achieve a central position within the medullary cavity, the tips of the cemented stems are fitted with 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.

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)

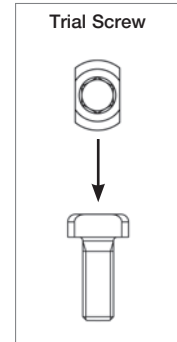


Endo-Model Knee Prosthesis Systems

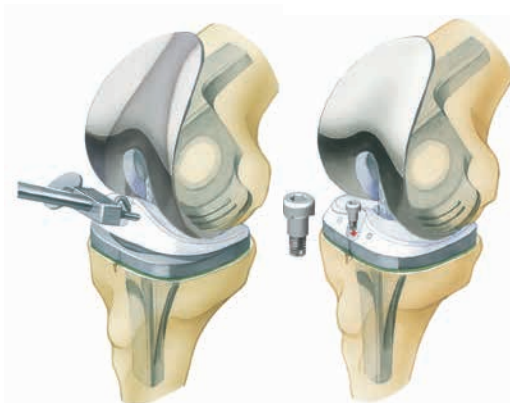
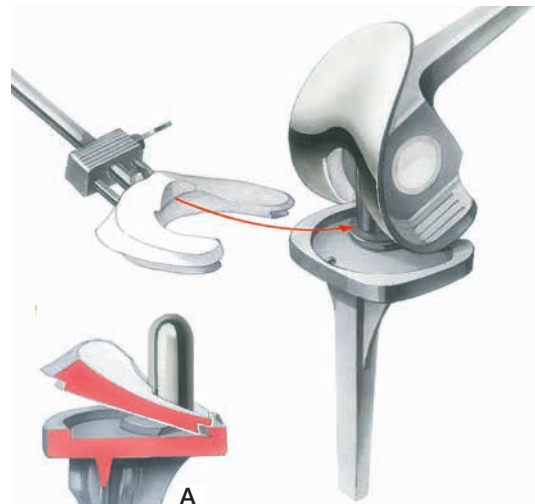
Assembly: Plateau with anti-luxation device



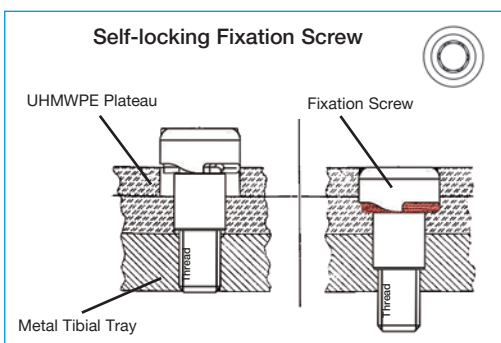
After cementation of the tibial and femoral components, the UHMWPE plateau is removed from the tibial tray by loosening the trial screw. With the knee in flexion, the upper and lower components are assembled.



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

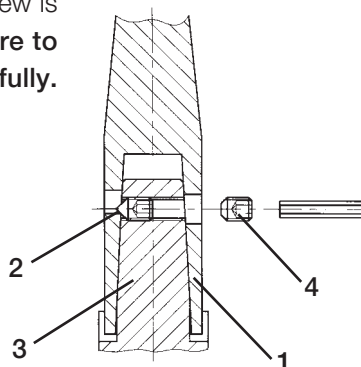
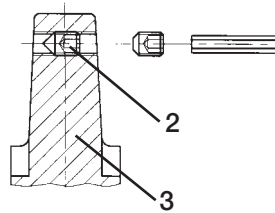


The modular stems are secured by a tapered connection. To ensure rotational stability, the stem has two opposing flanges, which are inserted into the medial and lateral grooves on the femoral/tibial components.

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.**



Counter Screw



LINK PorEx Surface Modification

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

The LINK PorEx surface modification results in a ceramic-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.¹

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.

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

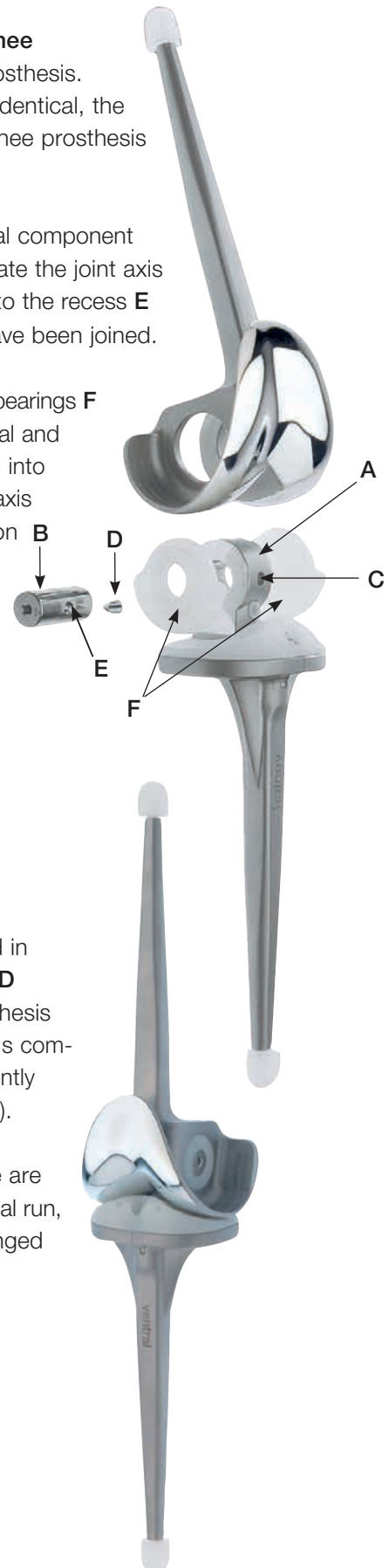


Endo-Model Hinge Knee Prosthesis

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 takes place between the prosthesis axis and the two bearings.



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**.

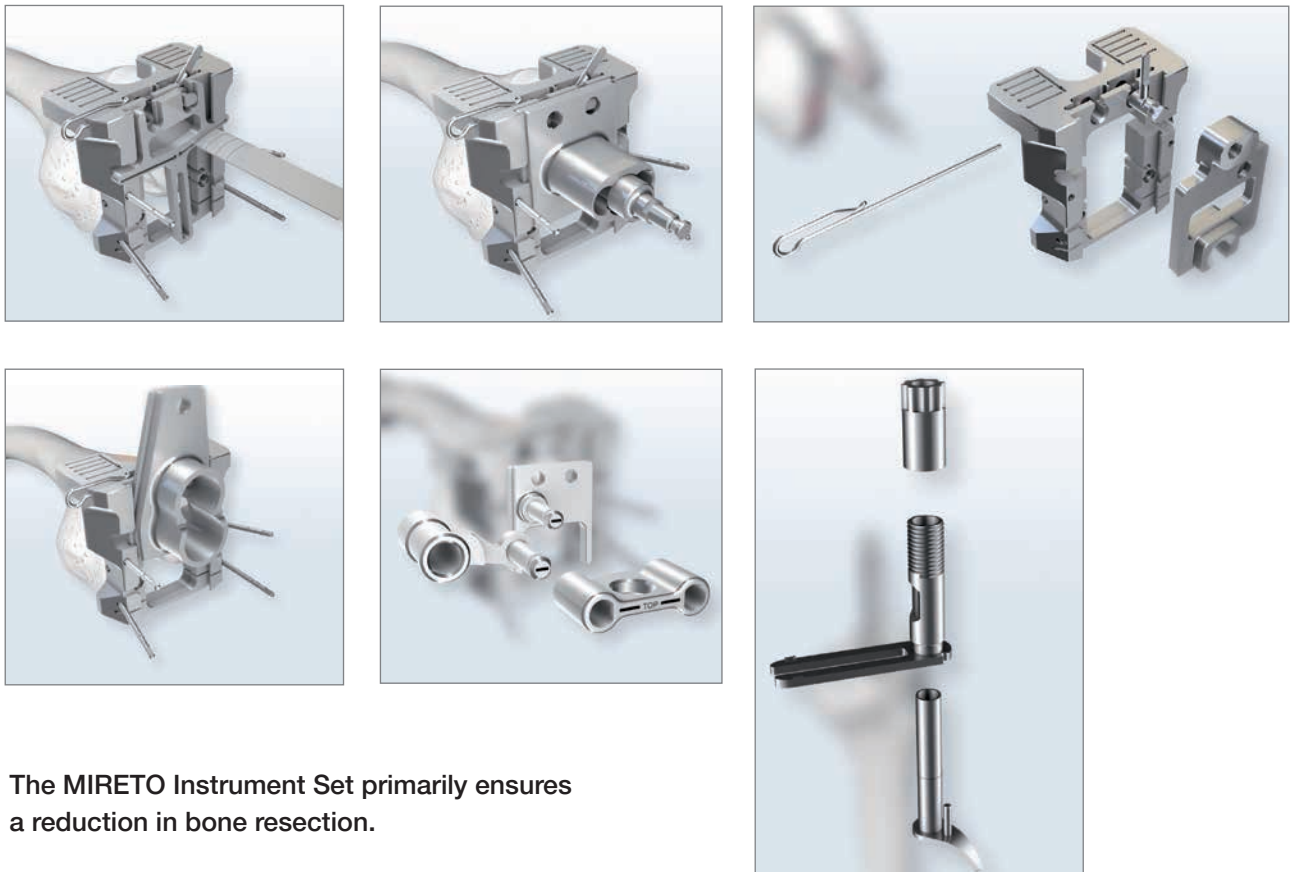
- Reduction in bone resection thanks to the resurfacing technique in primary surgery.
- Minimal number of instrument trays combined with enhanced application modularity.
- Low investment and preparation costs.

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.

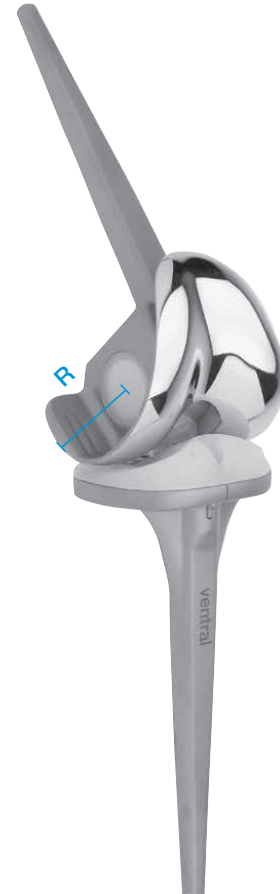


The **MIRETO Instrument Set** primarily ensures a reduction in bone resection.

Endo-Model Rotational Knee Prosthesis, with patella flange

MAT EndoDur (CoCrMo), EndoDur – S (CoCrMo), UHMWPE		
REF	Size, version	(R) Radius* mm
15-8020/11	x-small/right	17
15-8020/12	x-small/left	17
15-8022/11	small/right	20
15-8022/12	small/left	20
15-8024/11	medium/right	23
15-8024/12	medium/left	23
15-8030/11	large/right	25
15-8030/12	large/left	25

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



Replacement Sets

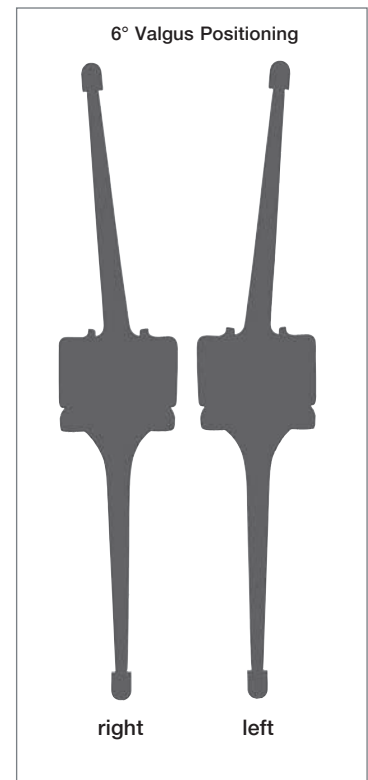
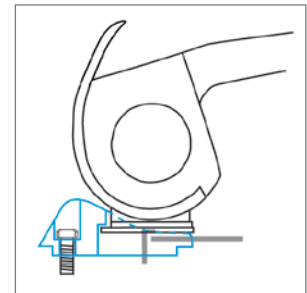
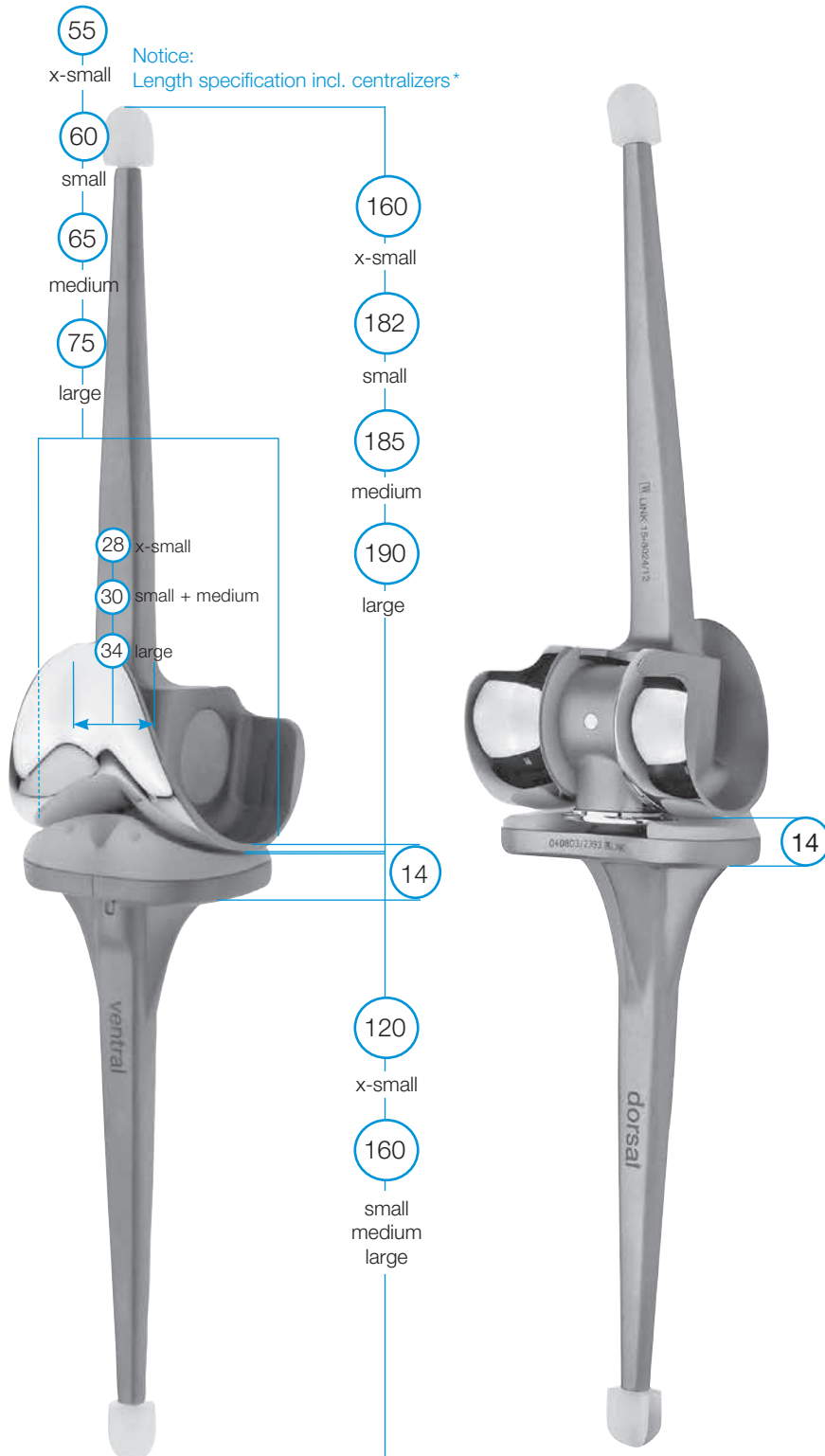
MAT EndoDur – S (CoCrMo), UHMWPE		
REF	Version	Size
15-0027/10	right/left	x-small
15-0027/11	right/left	small
15-0027/12	right/left	medium
15-0027/13	right/left	large

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 44.

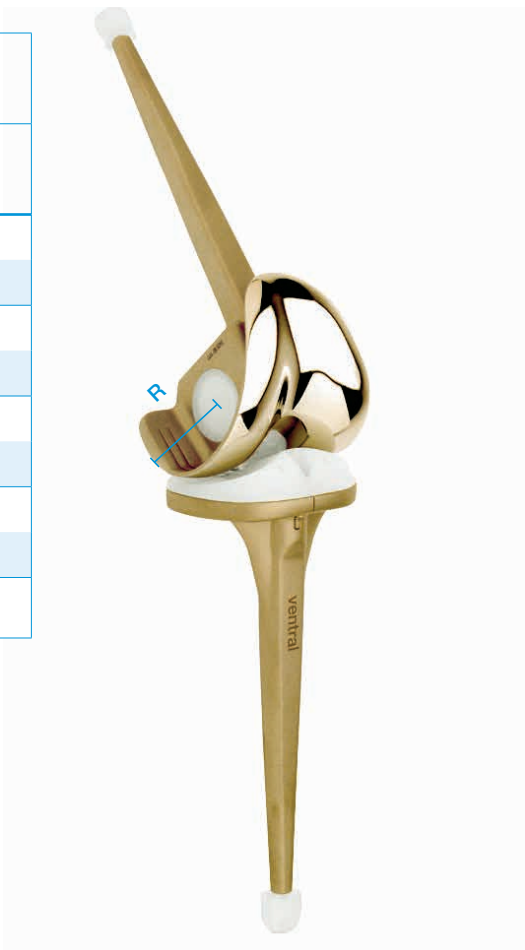


* Centralizers are not included in prosthesis packing

Endo-Model Rotational Knee Prosthesis, with LINK PorEx* surface modification

MAT EndoDur (CoCrMo), EndoDur-S (CoCrMo)/LINK PorEx*, UHMWPE		
REF	Size, version	(R) Radius** mm
15-9020/11	x-small/right	17
15-9020/12	x-small/left	17
15-9022/11	small/right	20
15-9022/12	small/left	20
15-9024/11	medium/right	23
15-9024/12	medium/left	23
15-9030/11	large/right	25
15-9030/12	large/left	25

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



Same dimensions as models with anti-luxation device, see page 11.

Required: Additional Instrument Set V02, see page 44.

Replacement Sets, for Rotational Tibia Plateaus, with security screw,

MAT CoCrMo/LINK PorEx*, UHMWPE	
REF	Size
15-0037/17	x-small
15-0037/14	small
15-0037/15	medium
15-0037/16	large

Each package contains:

- PE plateau and PE plateau anchoring screw

Replacement Sets

MAT EndoDur-S (CoCrMo)/LINK PorEx*, UHMWPE	
REF	Size
15-3027/10	x-small
15-3027/11	small
15-3027/12	medium
15-3027/13	large

Each package contains:

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

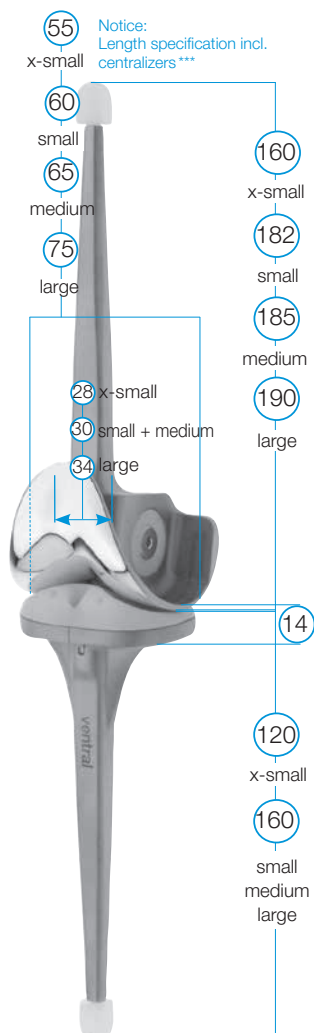
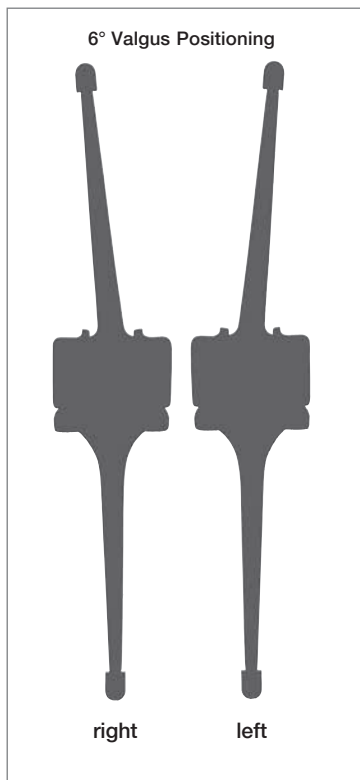
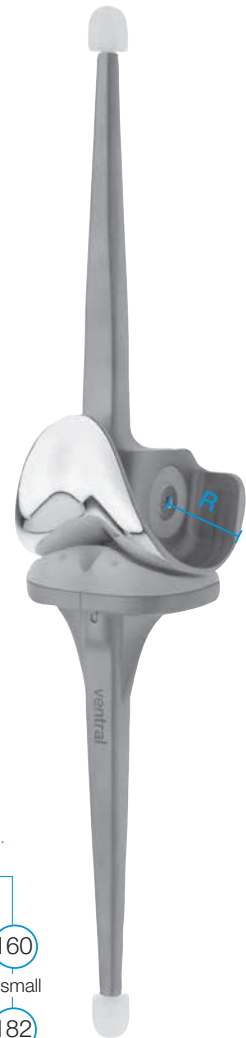
Required: Additional Instrument Set V02, see page 44.

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

Endo-Model Hinge Knee Prosthesis, with patella flange and hinge axis

[MAT] EndoDur (CoCrMo), EndoDur-S (CoCrMo), UHMWPE		
[REF]	Size, version	(R) Radius** mm
15-2459/11	x-small/right	17
15-2459/12	x-small/left	17
15-2460/11	small/right	20
15-2460/12	small/left	20
15-2461/11	medium/right	23
15-2461/12	medium/left	23
15-2462/11	large/right	25
15-2462/12	large/left	25

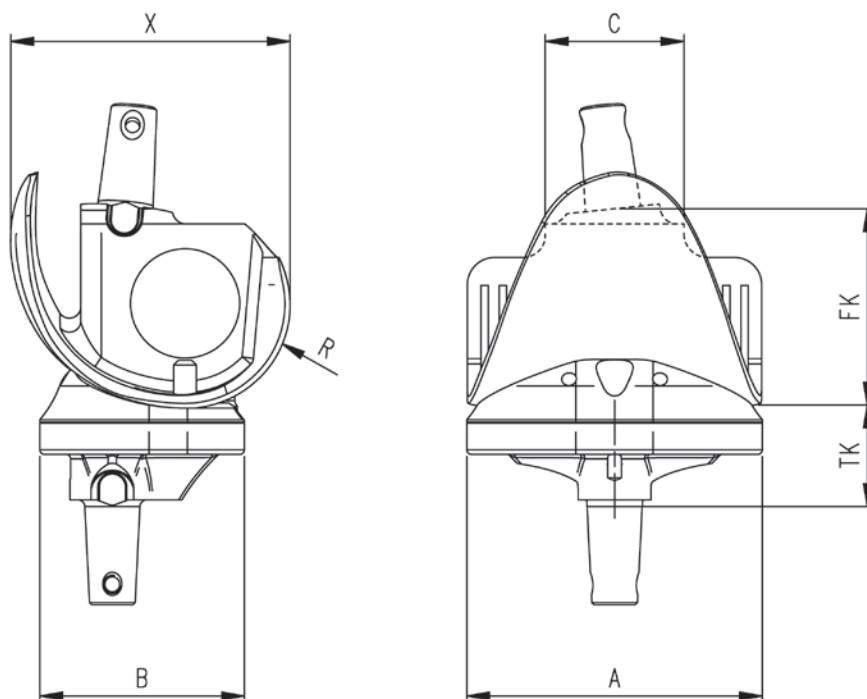
** (R) Radius in the sagittal plane: Measured from the center of axis.



*** Centralizers are not included in prosthesis packing.

Endo-Model – M Modular Knee Prosthesis System:

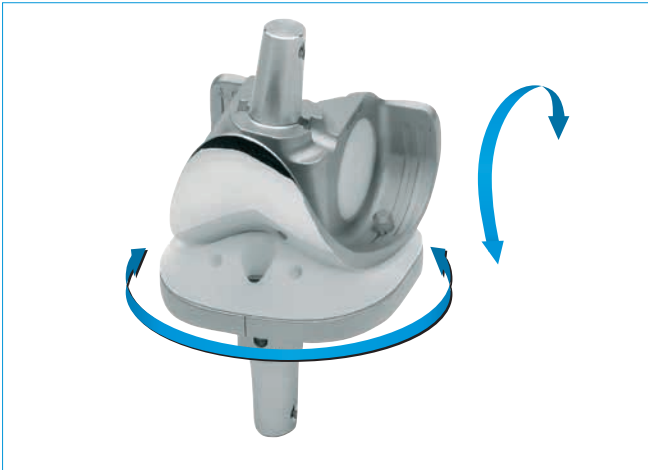
Measurements: Joint Components



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

Rotational Version



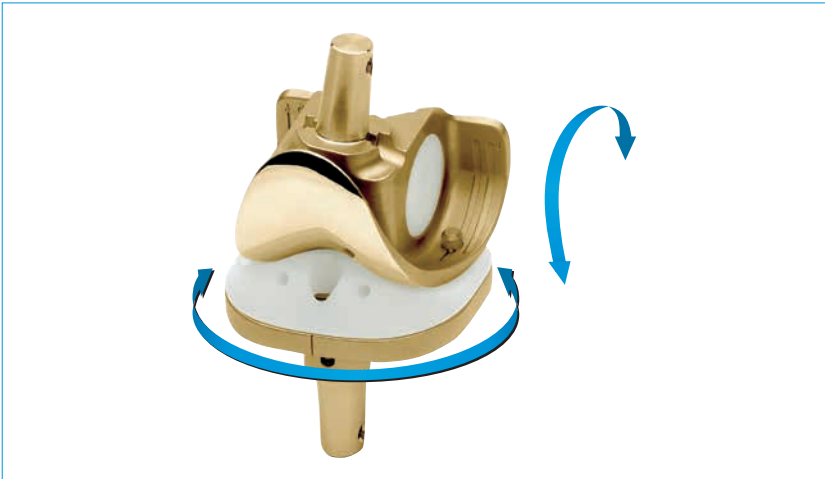
MAT EndoDur (CoCrMo), EndoDur – S (CoCrMo), UHMWPE, Tilastan-S				MAT EndoDur (CoCrMo), EndoDur – S (CoCrMo), UHMWPE, Tilastan-S			
Modular Joint Component Units consisting of:				Femoral Components:		Tibial Components:	
REF	Size	Version	Width mm	REF	Version	REF	Version
15-2815/11	x-small	right	55	15-2810/11	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.

Endo-Model – M: Modular Knee Prosthesis System:
Joint Components Rotational Version with LINK PorEx*

Rotational Version with LINK PorEx*



MAT EndoDur (CoCrMo)/LINK PorEx*, EndoDur – S (CoCrMo), UHMWPE, Tilastan-S

Modular Joint Component Units

REF	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

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

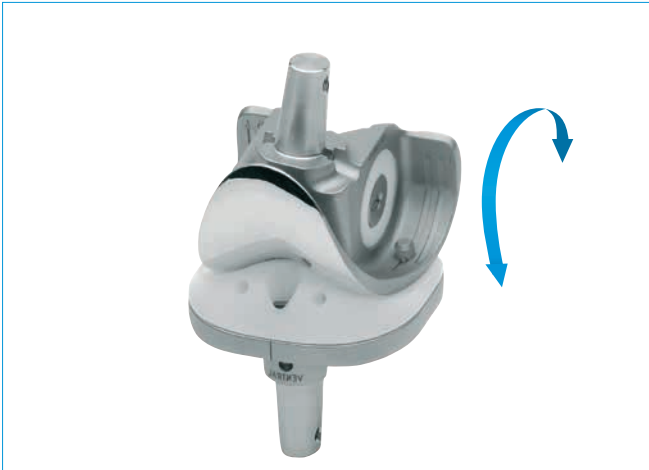
A pointed stem locking screw is already located inside the taper of each joint component (exception: single packed Tibial Components). The inside packing unit of each joint component includes a counter screw (+ replacement screw) to secure the stem locking screw.

Required: Additional Instrument Set V02, see page 44.

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


Endo-Model – M Modular Knee Prosthesis System:
Joint Components Hinged Version

Hinged Version



MAT EndoDur (CoCrMo), EndoDur – S (CoCrMo), UHMWPE, Tilastan-S

MAT EndoDur (CoCrMo), EndoDur – S (CoCrMo), UHMWPE, Tilastan-S

Modular Joint Component Units consisting of: 

Femoral Components:

Tibial Components:

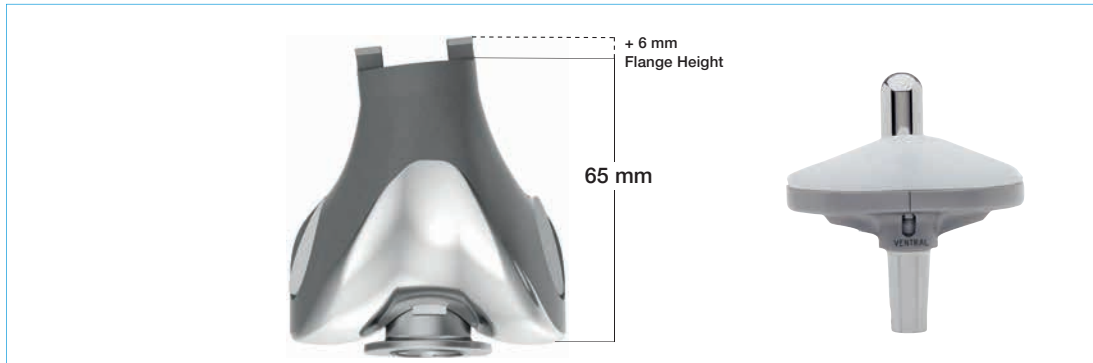
REF	Size	Version	Width mm	REF	Version	REF	Version
15-2835/11	x-small	right	55	15-2830/11	right	15-2834/01	neutral
15-2835/12	x-small	left	55	15-2830/12	left		
15-2836/11	small	right	60	15-2831/11	right	15-2834/02	neutral
15-2836/12	small	left	60	15-2831/12	left		
15-2837/11	medium	right	65	15-2832/11	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.

LINK Endo-Model EVO – W Modular Joint Components:
 Condylar Replacement

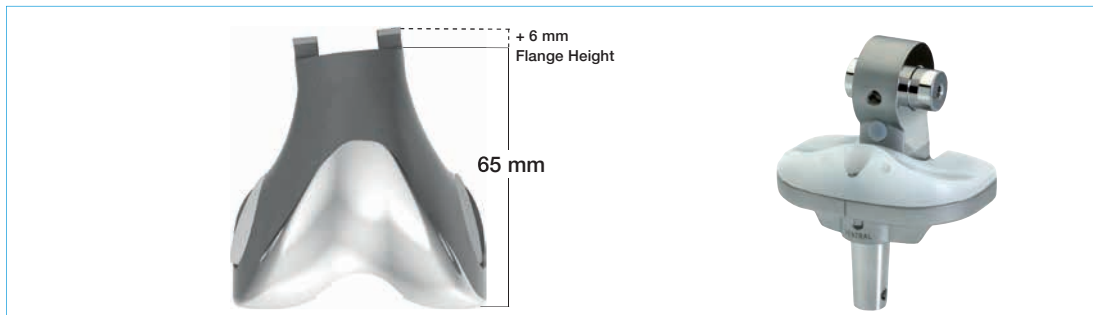
Rotating Hinge



Femoral Components:				Tibial Components:	
REF	Size	Side	Width mm	REF	Width mm
15-8541/06	small (S)	right	60	15-2814/02	60
15-8541/08	small (S)	left	60		
15-8541/10	medium (M)	right	65	15-2814/03	65
15-8541/12	medium (M)	left	65		
15-8541/14	large (L)	right	75	15-2814/04	75
15-8541/16	large (L)	left	75		

The joint components are equipped with an anti-luxation device. Femoral components feature female tapers.

Pure Hinge



Femoral Components:				Tibial Components:	
REF	Size	Side	Width mm	REF	Width mm
15-8561/06*	small (S)	right	60	15-2834/02	60
15-8561/08*	small (S)	left	60		
15-8561/10	medium (M)	right	65	15-2834/03	65
15-8561/12	medium (M)	left	65		
15-8561/14	large (L)	right	75	15-2834/04	75
15-8561/16	large (L)	left	75		

* Flexion 125°

LINK MEGASYSTEM-C Endo-Model Modular Joint Components:
with female taper, Intracondylar Version

Rotational Version



[MAT] CoCrMo, UHMWPE, Tilastan-S						
Unit consisting of:			Femoral Components:		Tibial Components:	
[REF]	Size	Side	[REF]	Width mm	[REF]	Width mm
15-8521/25	small (S)	right	15-8521/26	60	15-2814/02	60
15-8521/27	small (S)	left	15-8521/28	60		
15-8521/29	medium (M)	right	15-8521/30	65	15-2814/03	65
15-8521/31	medium (M)	left	15-8521/32	65		
15-8521/33	large (L)	right	15-8521/34	75	15-2814/04	75
15-8521/35	llarge (L)	left	15-8521/36	75		

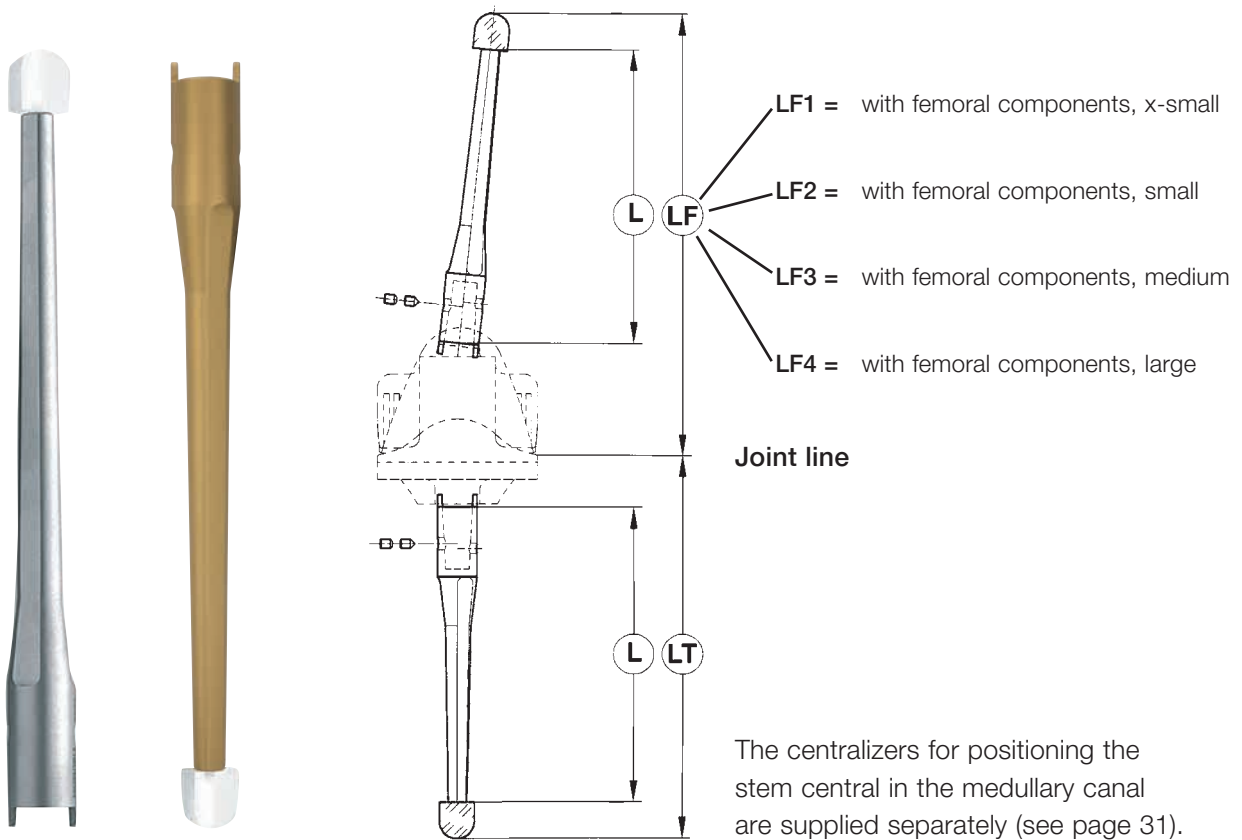
The joint components are equipped with an anti-luxation device. Femoral components feature female tapers.

Hinge Knee Version



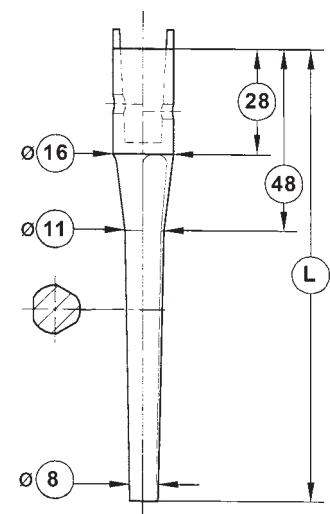
[MAT] CoCrMo, UHMWPE, Tilastan-S						
Femoral Components:				Tibial Components:		
[REF]	Size	Side	Width mm	[REF]	Width mm	
15-8551/26	small (S)	right	60	15-2834/02	60	
15-8551/28	small (S)	left	60			
15-8551/30	medium (M)	right	65	15-2834/03	65	
15-8551/32	medium (M)	left	65			
15-8551/34	large (L)	right	75	15-2834/04	75	
15-8551/36	large (L)	left	75			

Endo-Model – M Modular Stems: cemented



Cemented

MAT EndoDur – S (CoCrMo), EndoDur – S (CoCrMo)/LINK PorEx*							
REF	REF	L mm	Tibia LT mm	Assembly length**			
				Femur			
EndoDur – S (CoCrMo)	EndoDur – S (CoCrMo)/ LINKPorEx*			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



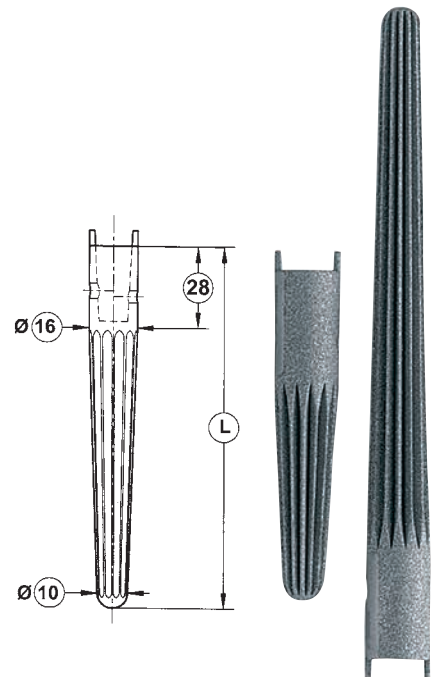
* LINK PorEx: TiNbN = Titanium Niobium Nitride; hypoallergenic coating (gold colour).

** Assembly length incl. centralizers to unit joint line.

Endo-Model – M Modular Stems: cementless

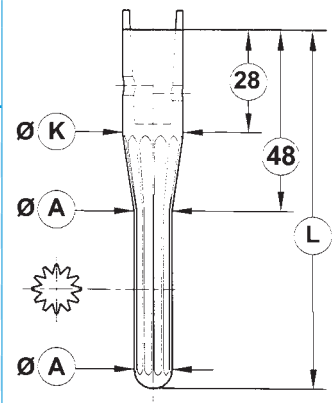
Cementless, conical

MAT Tilastan – S						
REF	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



Cementless, cylindrical

MAT Tilastan – S								
REF	L mm	Ø A mm	Ø K mm	Tibia LT mm	Assembly length			
					Femur LF1 mm	LF2 mm	LF3 mm	LF4 mm
15-2951/01	60	10	16	82	99	102	102	109
15-2951/02	60	12	16	82	99	102	102	109
15-2951/03	60	14	16	82	99	102	102	109
15-2951/04	60	16	16	82	99	102	102	109
15-2951/05	60	18	18	82	99	102	102	109
15-2951/06	120	12	16	142	159	162	162	169
15-2951/07	120	14	16	142	159	162	162	169
15-2951/08	120	16	16	142	159	162	162	169
15-2951/09	120	18	18	142	159	162	162	169
15-2951/10	160	12	16	182	199	202	202	209
15-2951/11	160	14	16	182	199	202	202	209
15-2951/12	160	16	16	182	199	202	202	209
15-2951/13	160	18	18	182	199	202	202	209
15-2951/14	200	12	16	222	239	242	242	249
15-2951/15	200	14	16	222	239	242	242	249
15-2951/16	200	16	16	222	239	242	242	249
15-2951/17	200	18	18	222	239	242	242	249
15-2951/18	240	12	16	262	279	282	282	289
15-2951/19	240	14	16	262	279	282	282	289
15-2951/20	240	16	16	262	279	282	282	289
15-2951/21	240	18	18	262	279	282	282	289
15-2951/22	280	12	16	302	319	322	322	329
15-2951/23	280	14	16	302	319	322	322	329
15-2951/24	280	16	16	302	319	322	322	329
15-2951/25	280	18	16	302	319	322	322	329



Endo-Model – M Femoral Segments UHMWPE:
for Endo-Model Rotational and Hinged Version



Femoral Segments for femoral components: Size 1 and 2

[MAT] UHMWPE			
For Femoral Components:			
[REF]	Size	Version	Width mm
Set: Size 1 (Height 20 mm)			➔
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

[REF]	Side
consisting of:	
15-2965/02	medial
15-2965/03	lateral
15-2961/04	medial
15-2961/05	lateral
15-2961/06	medial
15-2961/07	lateral
15-2961/08	medial
15-2961/09	lateral
15-2965/12	medial
15-2965/13	lateral
15-2961/14	medial
15-2961/15	lateral
15-2961/16	medial
15-2961/17	lateral
15-2961/18	medial
15-2961/19	lateral

For Femoral Components:			
[REF]	Size	Version	Width mm
Set: Size 2 (Height 25 mm)			➔
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

[REF]	Side
consisting of:	
15-2966/02	medial
15-2966/03	lateral
15-2962/04	medial
15-2962/05	lateral
15-2962/06	medial
15-2962/07	lateral
15-2962/08	medial
15-2962/09	lateral
15-2966/12	medial
15-2966/13	lateral
15-2962/14	medial
15-2962/15	lateral
15-2962/16	medial
15-2962/17	lateral
15-2962/18	medial
15-2962/19	lateral

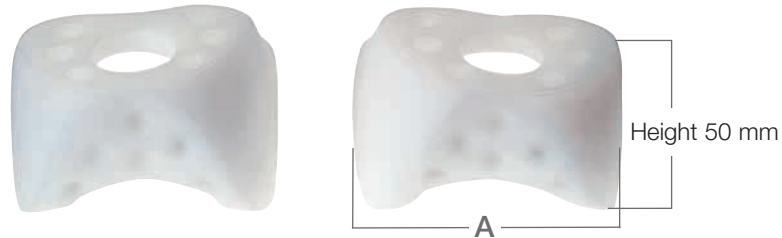
Endo-Model – M Femoral Segments Tilastan – S:
for Endo-Model Rotational and Hinged Version



Femoral Segments for femoral components: Size 1 and 2

[MAT] Tilastan – S					
For Femoral Components:					
[REF]	Size	Version	Width mm	[REF]	Side
Set: Size 1 (Height 20 mm)				consisting of:	
15-2971/00	x-small	right	55	15-2971/98	medial
15-2971/01	small	right	60	15-2971/99	lateral
15-2971/02	medium	right	65	15-2971/04	medial
15-2971/03	large	right	75	15-2971/05	lateral
15-2971/95	x-small	left	55	15-2971/06	medial
15-2971/10	small	left	60	15-2971/07	lateral
15-2971/11	medium	left	65	15-2971/08	medial
15-2971/12	large	left	75	15-2971/09	lateral
15-2971/96	x-small	left	55	15-2971/14	medial
15-2971/10	small	left	60	15-2971/15	lateral
15-2971/11	medium	left	65	15-2971/16	medial
15-2971/12	large	left	75	15-2971/17	lateral
15-2971/18	medial			15-2971/18	medial
15-2971/19	lateral			15-2971/19	lateral
For Femoral Components:					
[REF]	Size	Version	Width mm	[REF]	Side
Set: Size 2 (Height 25 mm)				consisting of:	
15-2972/00	x-small	right	55	15-2972/98	medial
15-2972/01	small	right	60	15-2972/99	lateral
15-2972/02	medium	right	65	15-2972/04	medial
15-2972/03	large	right	75	15-2972/05	lateral
15-2972/95	x-small	left	55	15-2972/06	medial
15-2972/10	small	left	60	15-2972/07	lateral
15-2972/11	medium	left	65	15-2972/08	medial
15-2972/12	large	left	75	15-2972/09	lateral
15-2972/96	x-small	left	55	15-2972/96	medial
15-2972/10	small	left	60	15-2972/97	lateral
15-2972/11	medium	left	65	15-2972/14	medial
15-2972/12	large	left	75	15-2972/15	lateral
15-2972/16	medial			15-2972/16	medial
15-2972/17	lateral			15-2972/17	lateral
15-2972/18	medial			15-2972/18	medial
15-2972/19	lateral			15-2972/19	lateral

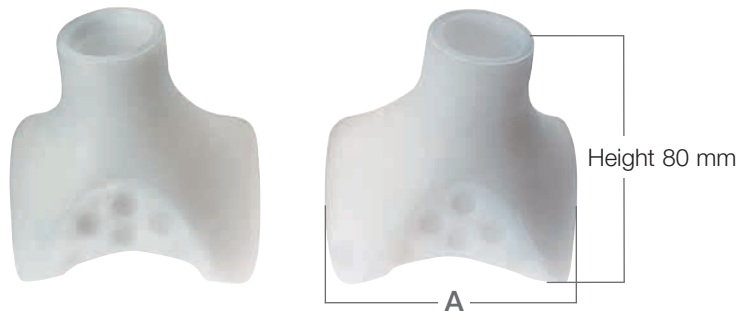
Endo-Model – M Femoral Segments UHMWPE:
for Endo-Model Rotational and Hinged Version



Femoral Segments, size 3*

[MAT] UHMWPE							
[REF]	Version	A mm	For Femoral Components:		A mm	Version	[REF]
			Size	Width mm			
Size 3* (Height 50 mm)							
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).
Not compatible with LINK MEGASYSTEM-C – Modular Joint Components Endo-Model with female taper.



Femoral Segments, size 4*

[MAT] UHMWPE							
[REF]	Version	A mm	For Femoral Components:		A mm	Version	[REF]
			Size	Width mm			
Size 4* (Height 80 mm)							
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).
Not compatible with LINK MEGASYSTEM-C – Modular Joint Components Endo-Model with female taper.

Endo-Model – M Femoral Segments UHMWPE:
for Endo-Model Rotational and Hinged Version



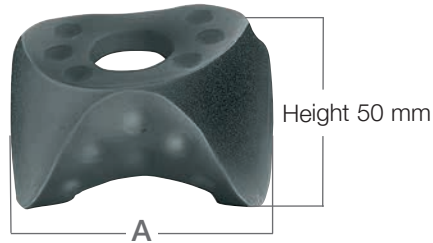
Femoral Segments*

(only to be used in combination with size 4)

MAT UHMWPE		
REF	Height mm	Size
15-2970/10	10	1
15-2970/20	20	2

* Not compatible with LINK MEGASYSTEM-C – Modular Joint Components Endo-Model with female taper.

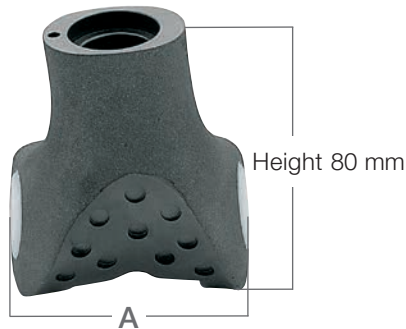
Endo-Model – M Femoral Segments Tilastan:
for Endo-Model Rotational and Hinged Version



Femoral Segments, Size 3*

[MAT] Tilastan, UHMWPE							
[REF]	Version	A mm	For Femoral Components:		A mm	Version	[REF]
			Size	Width mm			
Size 3* (Height 50 mm)							
15-2973/99	right	55	x-small	55	55	left	15-2973/00
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).
Not compatible with LINK MEGASYSTEM-C – Modular Joint Components Endo-Model with female taper.



Femoral Segments, Size 4*

[MAT] Tilastan, UHMWPE							
[REF]	Version	A mm	For Femoral Components:		A mm	Version	[REF]
			Size	Width mm			
Size 4* (Height 80 mm)							
15-2976/01	right	55	x-small	55	55	left	15-2976/02
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).
Not compatible with LINK MEGASYSTEM-C – Modular Joint Components Endo-Model with female taper.

Endo-Model – M Femoral Segments Tilastan – S:
for Endo-Model Rotational and Hinged Version



Distal Femoral Segments*

(only to be used in combination with size 4)

MAT Tilastan – S		
REF	Height mm	for size
15-2976/10	10	x-small
15-2976/20	20	x-small
15-2976/40	40	x-small
15-2976/60	60	x-small
15-2976/80	80	x-small
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

* Not compatible with LINK MEGASYSTEM-C – Modular Joint Components Endo-Model with female taper.

Endo-Model – M Proximal Tibial Spacers UHMWPE:
for Endo-Model Rotational and Hinged Version



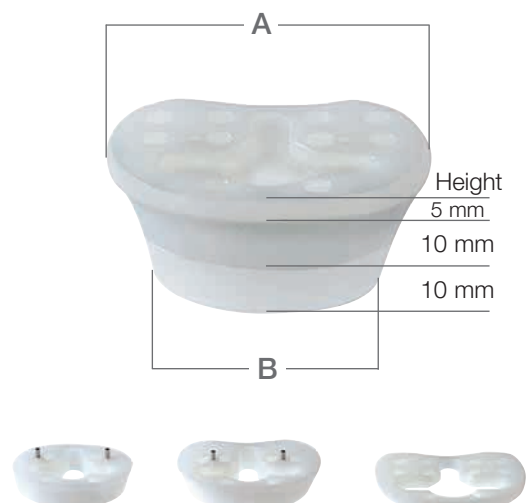
Proximal Tibial Spacers - straight -

[MAT] UHMWPE				
[REF]	Size	[REF]	Size	Height mm
Set:		consisting of:		
15-2516/70	x-small	15-2516/55	x-small	5
		15-2516/60	x-small	10
		15-2516/65	x-small	15
15-2516/29	small	15-2516/05	small	5
		15-2516/10	small	10
		15-2516/15	small	15
15-2517/29	medium	15-2517/05	medium	5
		15-2517/10	medium	10
		15-2517/15	medium	15
15-2519/29	large	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 -

[MAT] UHMWPE, EndoDur – S (CoCrMo)			
[REF]	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



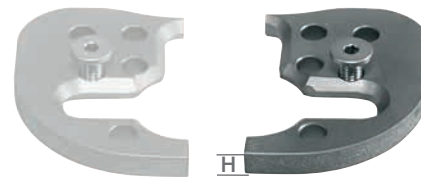
Endo-Modell – M Proximal Tibial Spacers Tilastan – S:
for Endo-Model Rotational and Hinged Version



Proximal Tibial Spacers, full

right and left, incl. 2 hexagon socket countersunks with flat head screw 2.5 mm, for lateral and medial application.

MAT Tilastan – S		
REF	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



Proximal Tibial Spacers, half

incl. hexagon socket countersunks with flat head screw 2.5 mm, for lateral and medial application.

MAT Tilastan – S		
REF	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

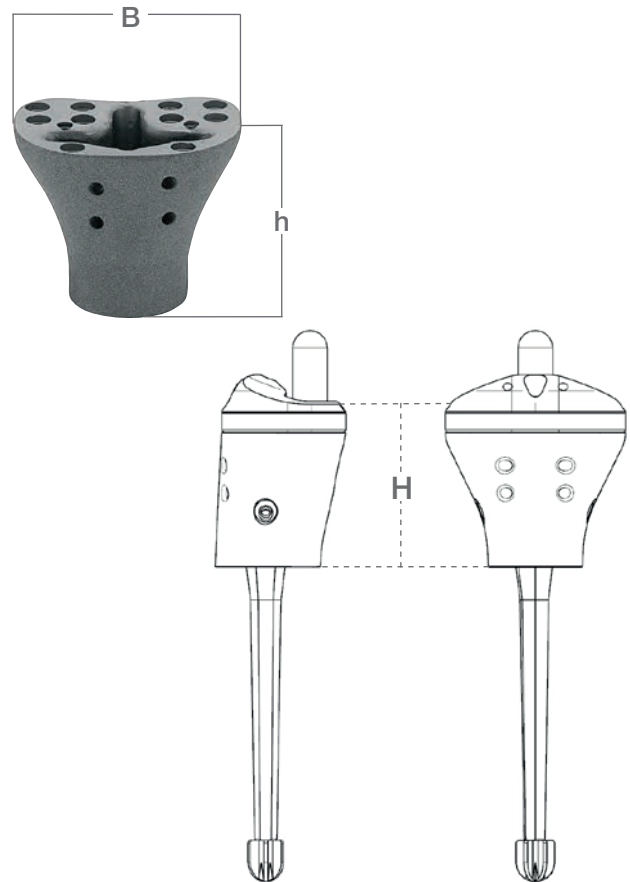
Important Information:

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

Endo-Model – M: Proximal Tibial Segments and Spacers Tilastan – S:
for Endo-Model Rotational and Hinged Version

Proximal Tibial Segments - anatomical -

MAT Tilastan – S				
REF	Size	B Width mm	h Height mm	H Height mm
15-2981/01	x-small	55	50	60
15-2982/01	small	60	50	60
15-2983/01	medium	65	50	60
15-2984/01	large	75	50	60



Proximal Tibial Spacers

MAT Tilastan – S		
REF	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

MAT UHMWPE		
REF	REF	Size
Set: consisting of:		
15-2975/01	15-2975/12 15-2975/14 15-2975/16	small medium large



Ø 12 mm



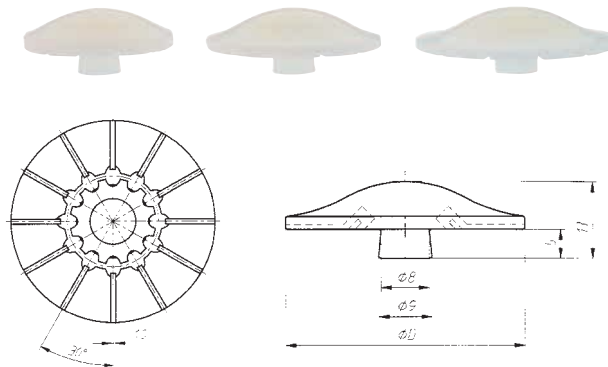
Ø 14 mm



Ø 16 mm

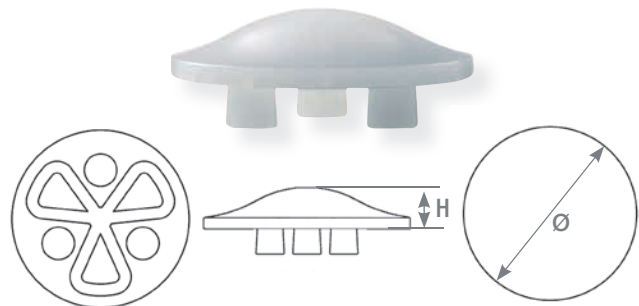
**Patellar Components
central, circular**

MAT UHMWPE		
REF	Size	Ø mm
15-2521/30	small	30
15-2521/35	medium	35
15-2521/40	large	40



**Patellar Components
3-pegs**

MAT UHMWPE			
REF	Size	Ø mm	Height mm
15-2522/30	1	30	8
15-2522/35	2	35	8
15-2522/40	3	40	8



Information on instruments and surgical technique available on request.

Replacement Sets – for Endo-Model Rotational Version

Replacement Sets for Rotational Knee Prostheses

MAT CoCrMo		
REF	Version	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

Each package contains:

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

Required: Additional Instrument Set V02, see page 44.

Replacement Sets for Rotational Tibial Plateaus

MAT UHMWPE/CoCrMo	
REF	Size
15-0027/17	x-small
15-0027/14	small
15-0027/15	medium
15-0027/16	large

Each package contains:

PE plateau and PE plateau anchoring screw.

Replacement Sets – for Endo-Model Hinged Version

Replacement Sets for Hinge Knee Prostheses, with security screw

MAT UHMWPE/CoCrMo		
REF	Version	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

Each package contains:

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

Replacement Sets for Hinge Knee Tibial Plateaus, with security screw

MAT UHMWPE/CoCrMo	
REF	Size
15-0027/40	x-small
15-0027/41	small
15-0027/42	medium
15-0027/43	large

Each package contains:

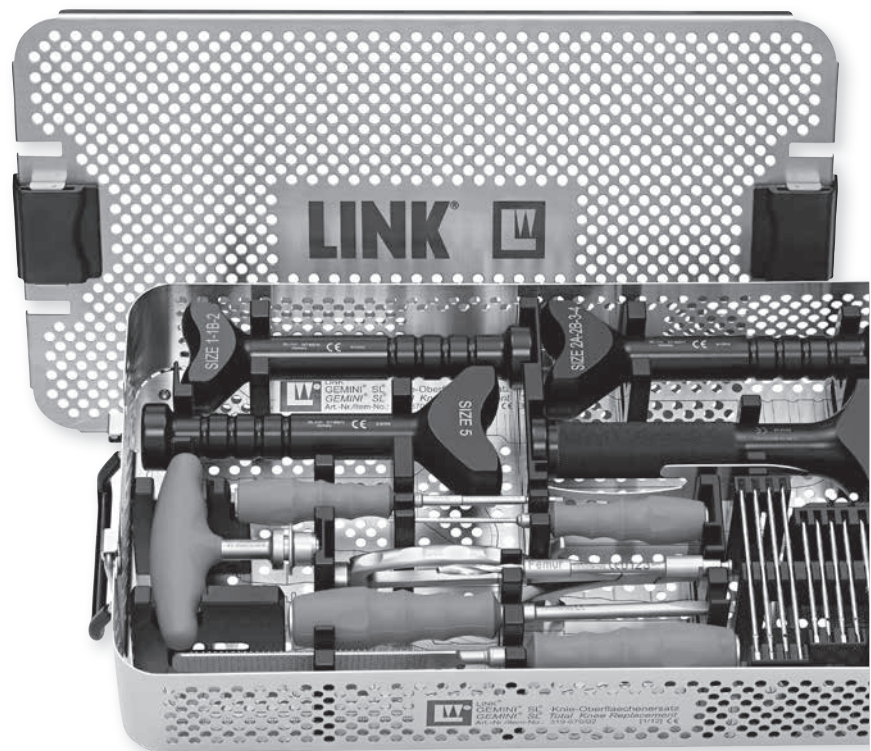
PE plateau and PE plateau anchoring screw.

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:

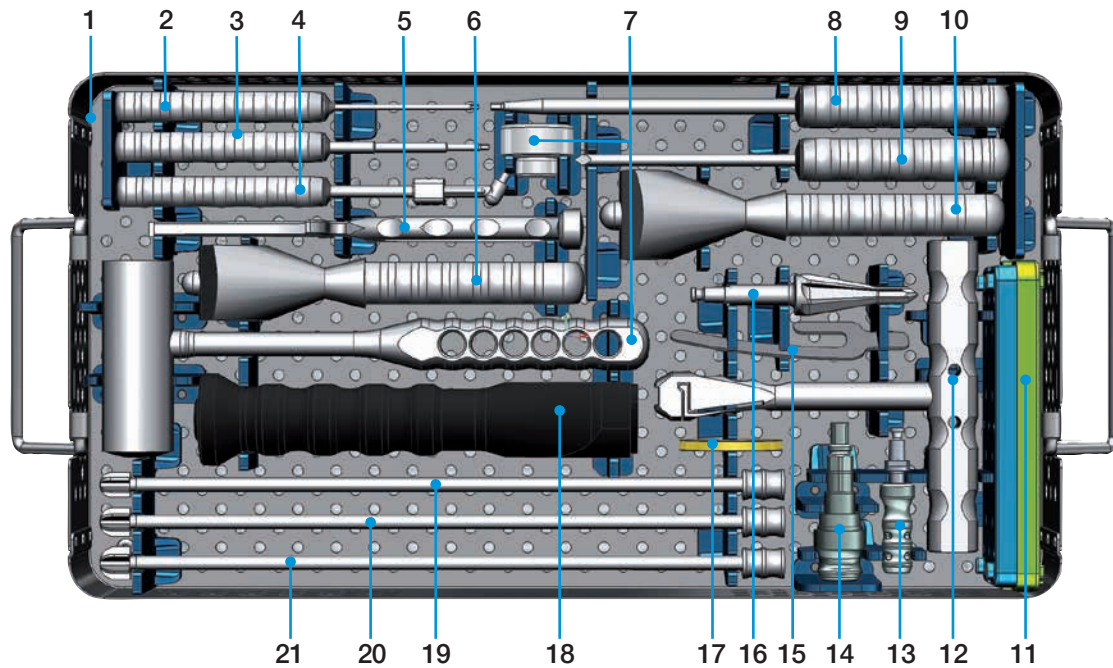
- Instruments are securely held in their respective positions in the tray
- Ergonomic arrangement means the instruments are easy to remove, ensuring that surgery proceeds smoothly
- Optimally organized individual trays facilitate the job of the instrument nurse during the surgical procedure
- Trays are 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.



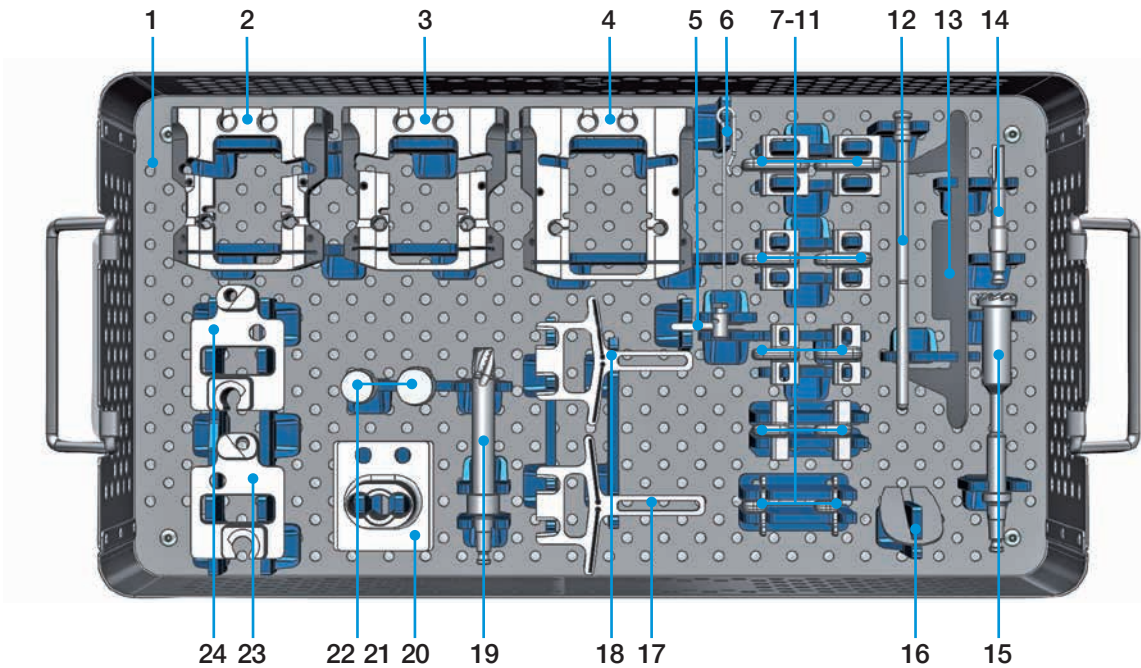
REF	MIRETO Instrument Set for Endo-Model Knee Joint Prostheses
15-6011/00	Case 1 – General Instruments
15-6012/00	Case 2 – Femoral Instruments (2 trays)
15-6013/00	Case 3 – Tibial Instruments
15-6014/00	Case 4 – Tapered Reamers conical & cylindrical
15-6015/00	Case 5 – Trial Prostheses (2 trays)
15-6016/00	Case 6 – Trial Prostheses cylindrical
15-6017/00	Case 7 – Tapered Reamers conical
15-6018/00	Case 8 – Instruments XS

15-6011/00 Case 1 – General Instruments



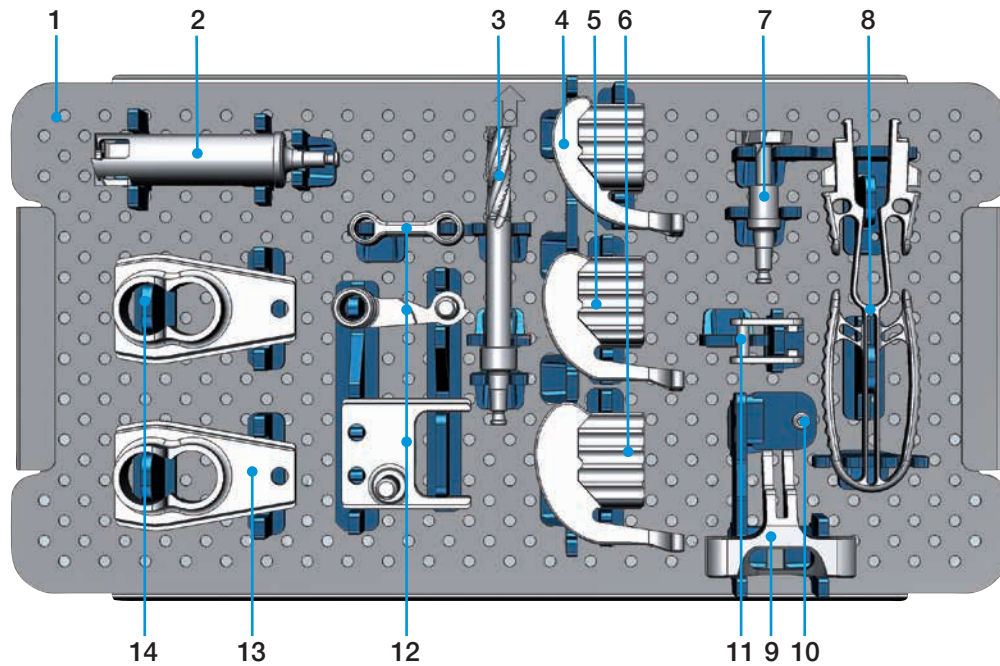
1	15-6001/00	Instrument Tray, Case 1 , empty, 485 x 253 x 80 mm
2	64-1181/16	Hex Screwdriver , with metal handle, hex. 2 mm
3	10-5373/01	Hex Screwdriver , with metal handle, hex. 2.5 mm
4	15-8035/02	Inserter Positioner for PE plateaus
5	317-586	Inserter/Extraction Forceps for fixation pins Ø 3 mm, 210 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	Wire Pins , Ø 3 mm, 65 mm (4 pieces)
	317-585/95	Wire Pins , Ø 3 mm, 95 mm (4 pieces) optional
	319-581/00	Drill Pins , Ø 3 mm, 65/80 mm (4 pieces)
	319-582/00	Drill Pins , Ø 3 mm, 95/110 mm (4 pieces)
	15-6096/00	Alignment Device for modular stems with female taper (1 piece)
12	15-6053/00	T-Handle , with Hudson fitting
13	16-3287/00B	Adapter , for LINK power tool snap lock adapter, with Hudson fitting
14	16-3283/00	Adapter , optional with fitting: Hudson female/Jacobs male
	16-3284/00	Hudson female/AO male
	16-3285/00	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)



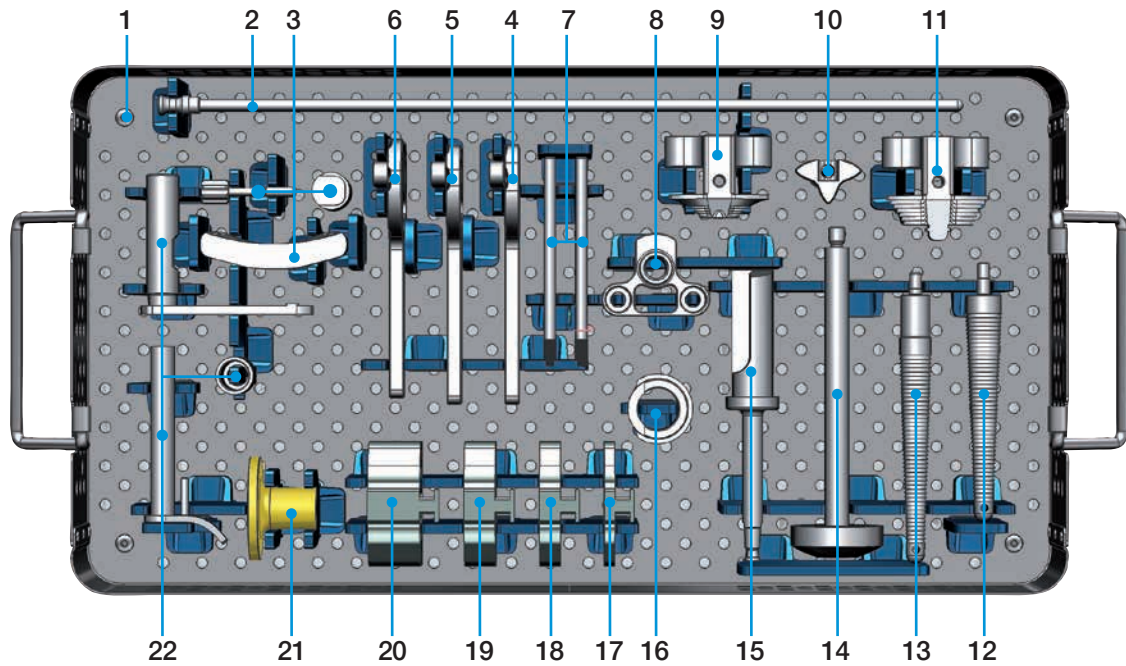
1	15-6002/00	Instrument Tray, Case 2 (Tray 1), empty below, 485 x 253 x 80 mm
Basic Frame		
2	15-6030/01	Size S
3	15-6030/02	Size M
4	15-6030/03	Size L
5	15-6111/00	Interlocking Pin for basic frame
6	15-6110/00	Interlocking Spring for basic frame
Spacer, complete, 2 pieces		
7	15-6045/00	Height 2 mm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

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



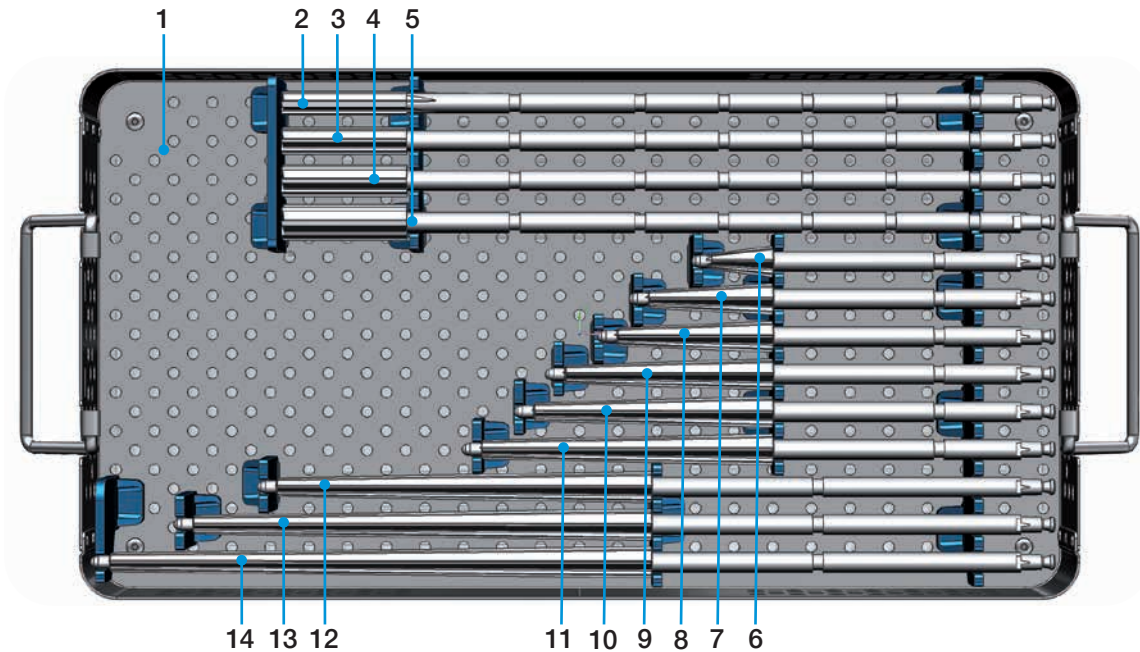
1	15-6002/00	Instrument Tray, Case 2 (Tray 2) , empty above, 485 x 253 x 80 mm
2	15-6036/00	Reamer for box pre-milling, Ø 24 mm
3	15-6042/01	Reamer for box profile milling, Ø 12 mm, 100 mm
		Basic Milling Guidances for condyle milling, complete
4	15-6043/01	Size S
5	15-6043/02	Size M
6	15-6043/03	Size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

15-6013/00 Case 3 – Tibial Instruments



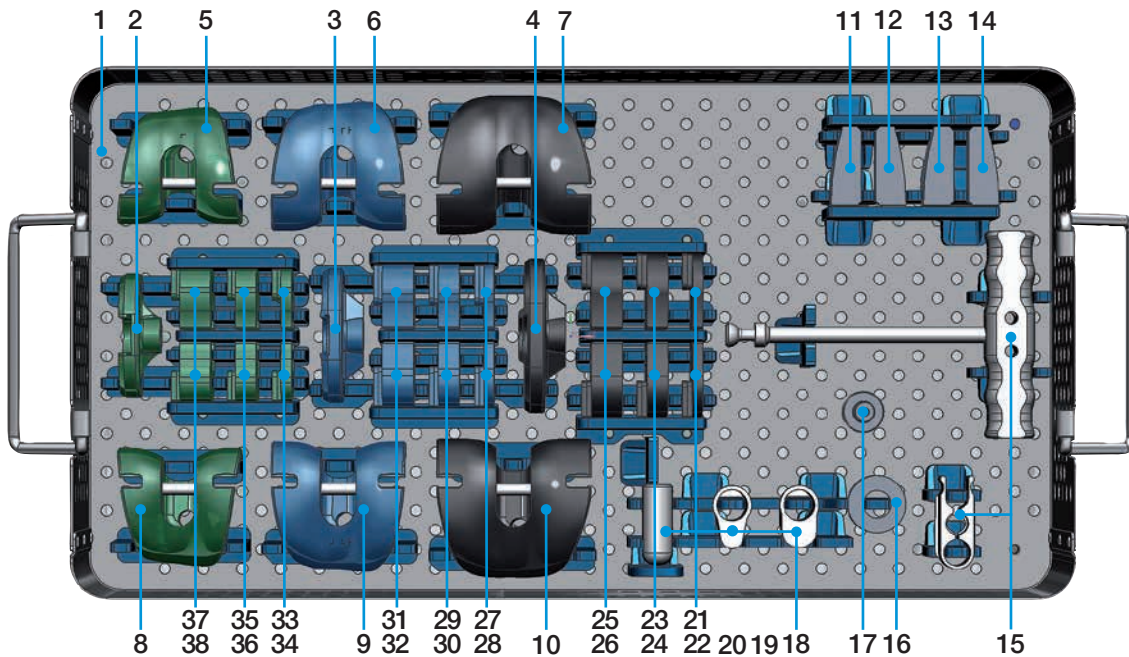
1	15-6003/00	Instrument Tray, Case 3, empty, 485 x 253 x 80 mm
2	16-3242/00	Alignment Rod Tibia
3	15-6058/00	Tibial Saw Guide, 3 parts
		Drill Templates Tibia
4	15-6050/01	Size S
5	15-6050/02	Size M
6	15-6050/03	Size L
7	16-3211/00	Guide Rod (2 pieces)
8	15-6051/00	Alignment Gauge
9	15-6054/01	Compressor, 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



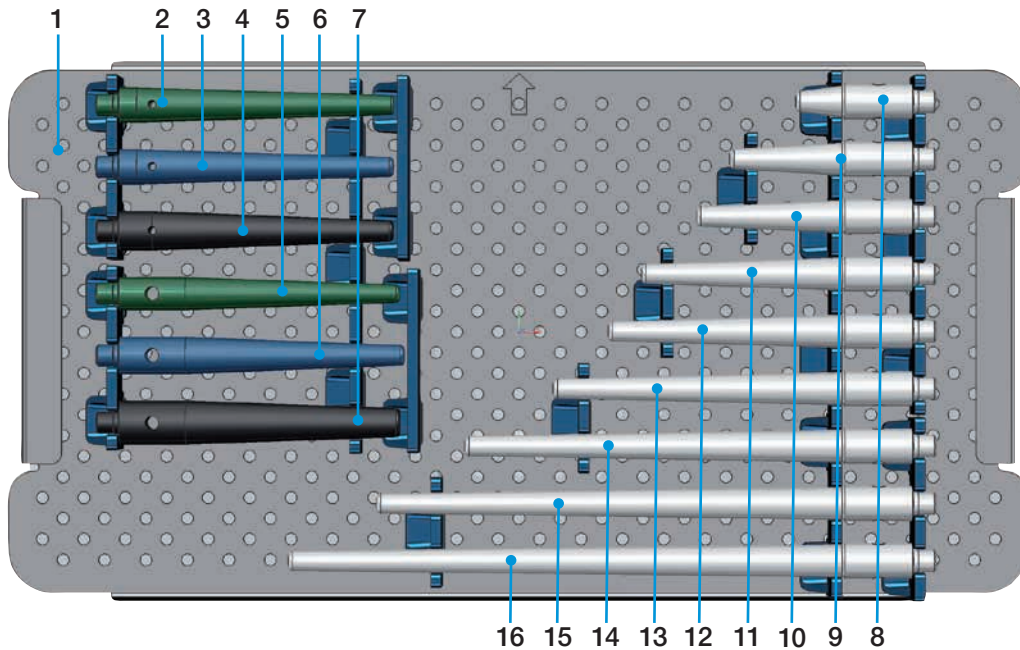
1	15-6004/00	Instrument Tray, Case 4, empty, 485 x 253 x 80 mm	
Tapered Reamers, cylindrical, with Hudson fitting B			
2	15-6048/00	Ø 12 mm	
3	15-6048/01	Ø 14 mm	
4	15-6048/02	Ø 16 mm	
5	15-6048/03	Ø 18 mm	
Tapered Reamers, conical, with Hudson fitting B			
6	15-6047/01	Ø 16 mm	50 mm
7	15-6047/02	Ø 16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

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



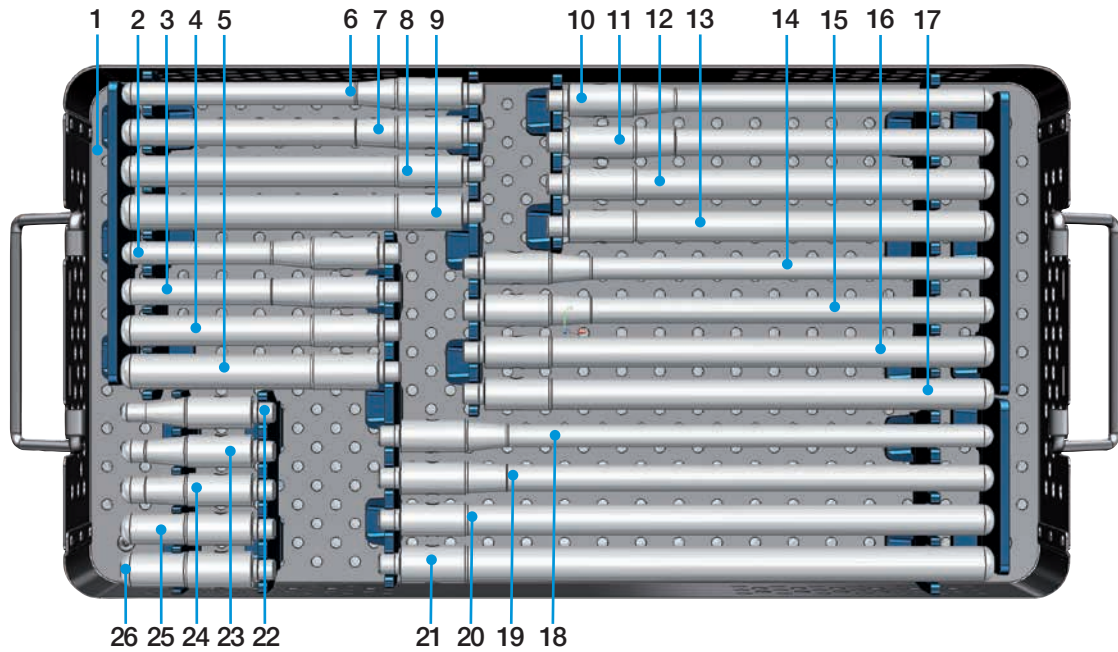
1	15-6005/00	Instrument Tray, Case 5 (Tray 1), empty below, 485 x 253 x 80 mm		
2	15-6065/01	Tibia Trial Prostheses, intracondylar		
3	15-6065/02	Size M		
4	15-6065/03	Size L		
5	15-6067/01	Femur Trial Prostheses, intracondylar		
6	15-6067/02	Size M	left	
7	15-6067/03	Size L	left	
8	15-6068/01	Size S	right	
9	15-6068/02	Size M	right	
10	15-6068/03	Size L	right	
11	15-6088/01	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)



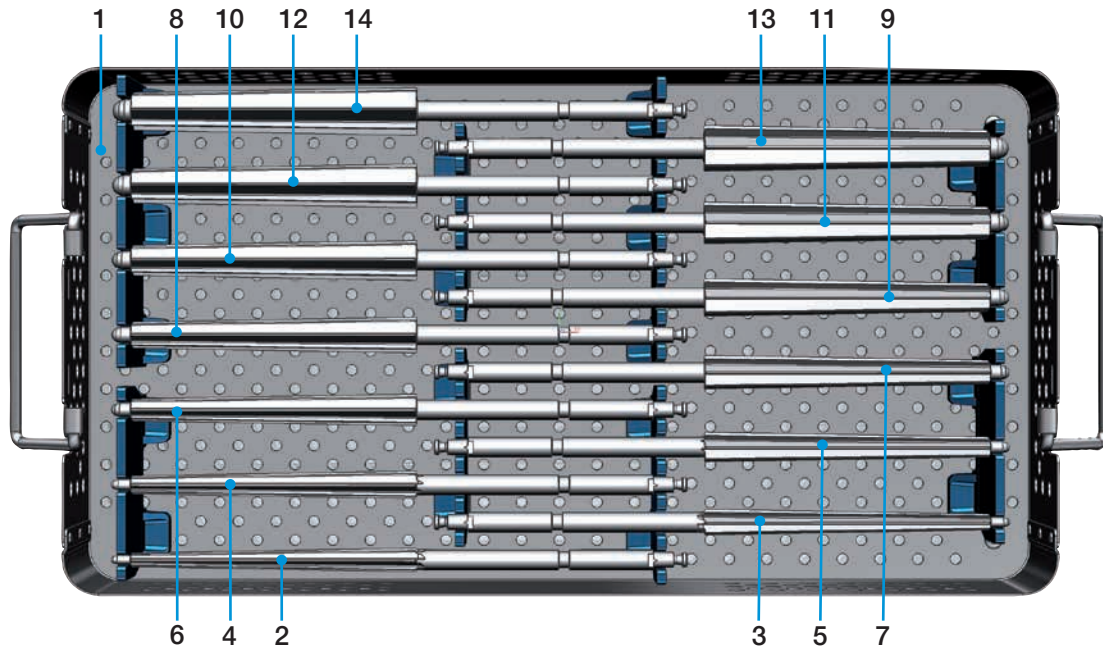
1	15-6005/00	Instrument Tray, Case 5 (Tray 2), empty, 485 x 253 x 80 mm
Tibial Trial Stems, for Endo-Model prosthesis stems		
2	15-6063/01	Size S
3	15-6063/02	Size M
4	15-6063/03	Size L
Femoral Trial Stems, for Endo-Model prosthesis stems		
5	15-6064/01	Size S
6	15-6064/02	Size M
7	15-6064/03	Size L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

15-6016/00 Case 6 – Cylindrical Trial Stems



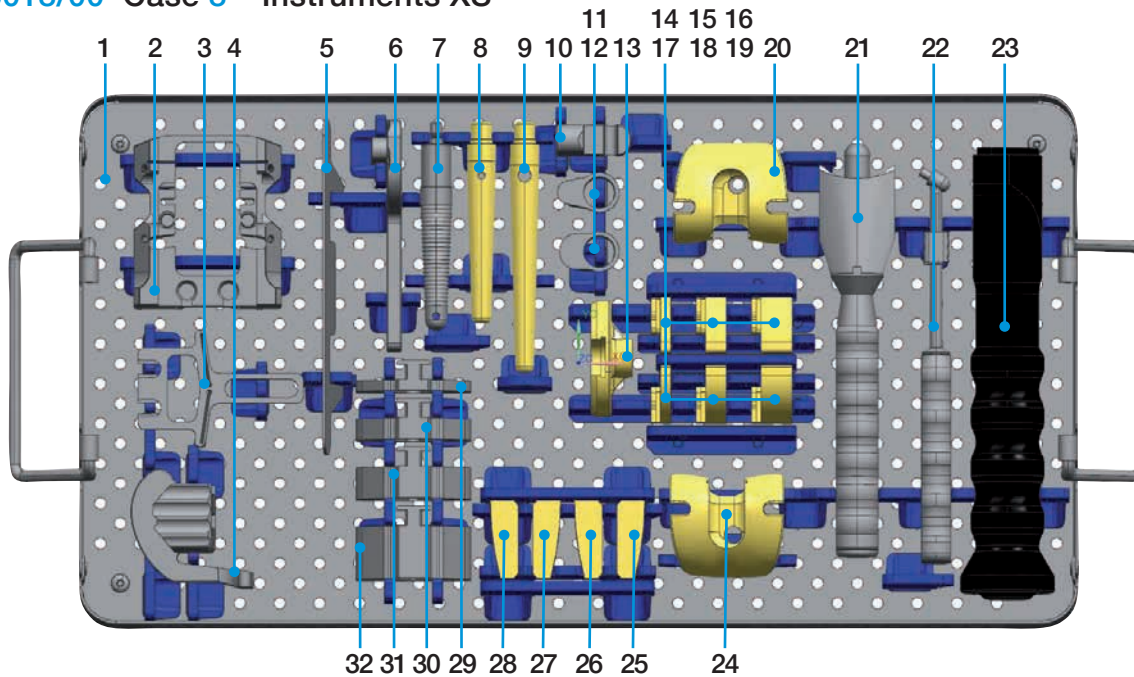
1	15-6006/00	Instrument Tray, Case 6, empty, 485 x 253 x 80 mm	
		Trial Stems, cylindrical, cementless	
2	15-6073/01	Ø 12 mm	Length 120 mm
3	15-6073/02	Ø 14 mm	Length 120 mm
4	15-6073/03	Ø 16 mm	Length 120 mm
5	15-6073/04	Ø 18 mm	Length 120 mm
6	15-6074/01	Ø 12 mm	Length 160 mm
7	15-6074/02	Ø 14 mm	Length 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	
Tapered Reamers: 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

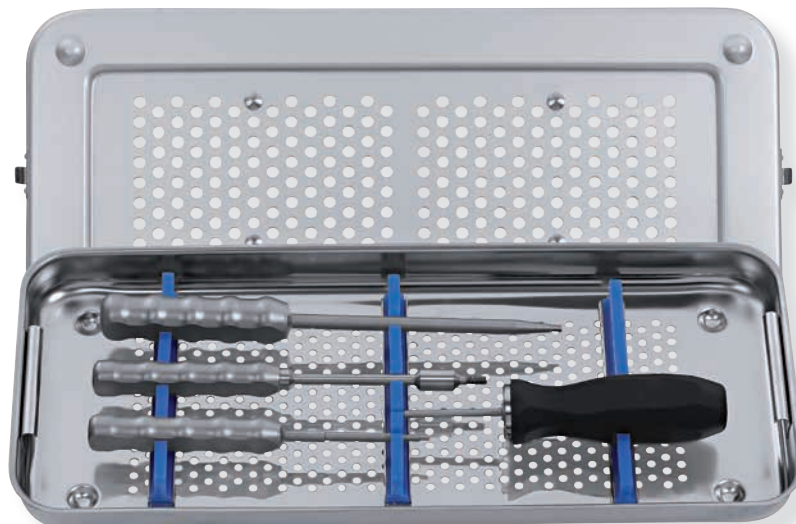
15-6018/00 Case 8 – Instruments XS



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



REF	for Rotational Knee Prostheses Endo-Model and Endo-Model – M (with V02 coupling mechanism)
15-2529/90	Set , complete, in 1 small container K1, on 1 tray with storage racks
05-1000/01	Small Container K1 , only, 460 x 190 x 92 mm
15-2529/91	Tray , empty, 405 x 165 x 50 mm
64-8008/02	Hex Screwdriver with metal handle, wrench size 3.5 mm, 250 mm
15-2544	Separate Rod for removal of the rotating bushing version V02, Ø M5, 210 mm
10-5373/01	Hex Screwdriver with metal handle, wrench size 2.5 mm, 180 mm
15-2545	Torque Wrench , wrench size 2.5 mm, 205 mm

Additional Instruments (not included in Instrument Set)



Extractor

for modular stems with female taper,
taper type 12/10 mm (for 3 mm + 6 mm noses)

REF	Length
15-0036/81	230 mm

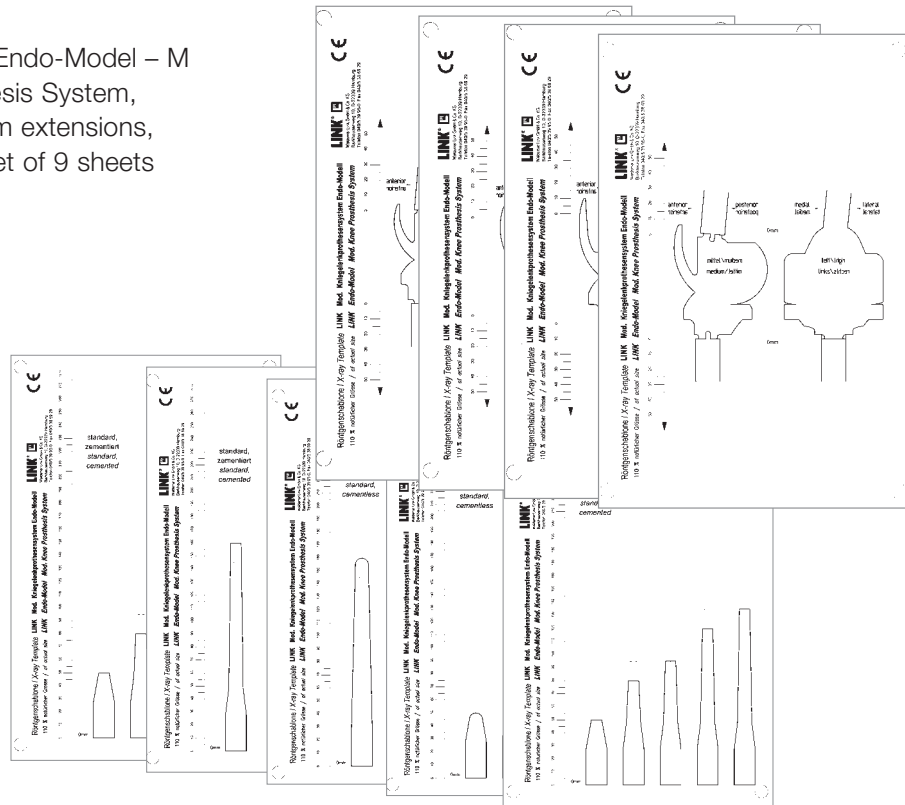
Guide Rod with Slaphammer (without picture)

(optional for stem extraction:
guide rod 317-661 in combination with
driver extractor 15-8516/45 or 15-0036/81)

REF	Length
317-661	365 mm

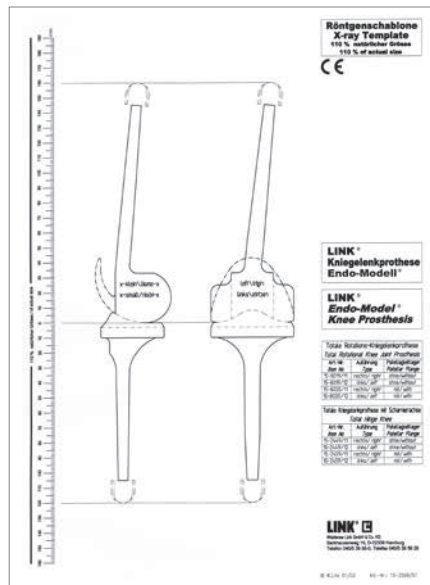
15-2599/05

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

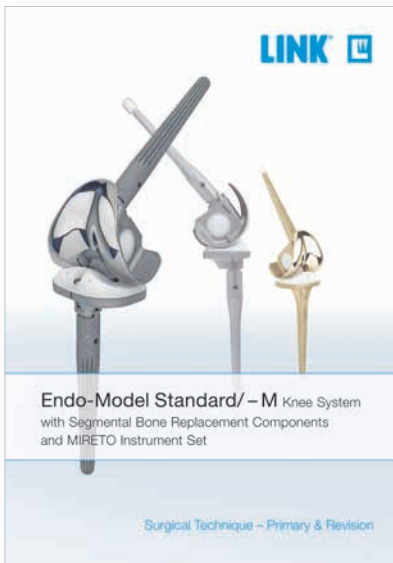


15-2599/01

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

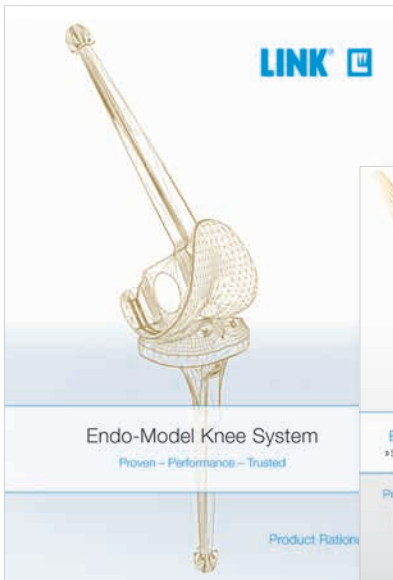


- E. Engelbrecht, A. Siegel, J. Röttger, and Prof. H. W. Buchholz*
Statistics of Total Knee Replacement: Partial and Total Knee Replacement, Design St. Georg
Journal of Clinical Orthopaedics, 1976, No. 120, pp 54-64 (K3)
- E. Engelbrecht, E. Nieder, E. Strickle, A. Keller
Intrakondyläre Kniegelenkendoprothese 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 Scharniergelenkendoprothese 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-Modell®
Springer Verlag: Tokyo, Berlin, Heidelberg, New York (1997) (K57)
- E. Nieder
Revisionsalloarthroplastik des Kniegelenks
Sonderausgabe aus: Orthopädische Operationslehre, Band III/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 periprothetische 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 (Suppl1) 29: S1-2
- M. Zinck, R. Sellkau
Rotationsknieprothese Endo-Modell®- Geführter Oberflächenersatz mit Sti(e)
Orthopäde 2000 (Suppl1) 29: S 38-42
- M. Crowa, E. Cenna, C. Olivero
Rotating knee prosthesis – Surface or hinge replacement?
Orthopäde 2000 (Suppl1) 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.Sellckau, 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 Periarthritic Fractures
The Journal of Arthroplasty, Vol 18, No 8, 2003 (K82)
- G. Petrou, H. Petrou, C. Tilkeridis, T. Stavarakis, T. Kapetsis, N. Kremmidas, M. Gavras
Medium-term results with a primary cemented rotating-hinge total knee replacement A 7-TO 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)

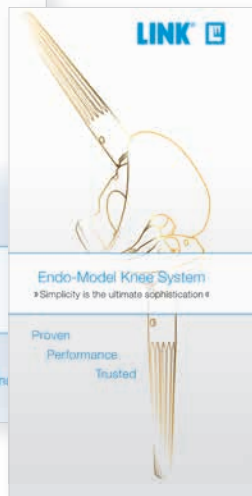


Endo-Model Standard/- M
Knee System with Segmental
Bone Replacement Components
and MIRETO Instrument Set
Surgical Technique –
Primary & Revision

Endo-Model – M
Modular Knee Prosthesis
System with Segmental Bone
Replacement Components,
Surgical Technique



Endo-Model Knee System
Product Rationale
& Teaserflyer




LINK PorEx
TiNbN-Coatings
for custom-made
orthopedic implants,
Materials and
Coatings



Patella Components
for LINK Knee Prosthesis
System

Endo-Model Knee System
Literature Research



 For more information please register for our LINK Media Library (linkorthopaedics.com)

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

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.

Products shown in this document may not be available in your country. The product availability is subject to the approval and/or registration regulations of the respective country. Please contact Waldemar Link GmbH & Co. KG if you have questions about the availability of LINK products in your country.

Waldemar Link GmbH & Co. KG and/or other corporate affiliated entities own, use or have applied for the following trademarks in many jurisdictions: LINK, BiMobile, SP II, Modell Lubinus, E-Dur, EndoDur, T.O.P. II, BetaCup, CombiCup PF, CombiCup SC, CombiCup R, MobileLink, C.F.P., LCU, SP-CL, LCP, MIT-H, Endo-Model, Endo-Model SL, MP, MEGASYSTEM-C, GEMINI SL, SPAR-K, LCK, HX, TiCaP, X-LINKed, PorAg, LINK PorEx, BiPorEx, PorEx-Z, TrabecuLink, Tilastan, customLINK, RescueSleeve, Stactip, VACUCAST.

Other trademarks and trade names may be used in this document to refer to either the entities claiming the marks and/or names or their products and are the property of their respective owners.



Waldemar Link GmbH & Co. KG

Barkhausenweg 10 · 22339 Hamburg · Germany
Phone +49 40 53995-0 · info@linkhh.de
www.linkorthopaedics.com

