LINK®

LinkSymphoKnee

Built on **TRUST.**

Product Rationale

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LinkSymphoKnee

Introduction

Rooted in trust and decades of expertise, the *LinkSymphoKnee* sets a new standard in bicondylar knee joint prostheses. Its design integrates knowledge from proven implant systems, advanced kinematic concepts, and cutting-edge material and coating technologies, ensuring optimal performance and adaptability.

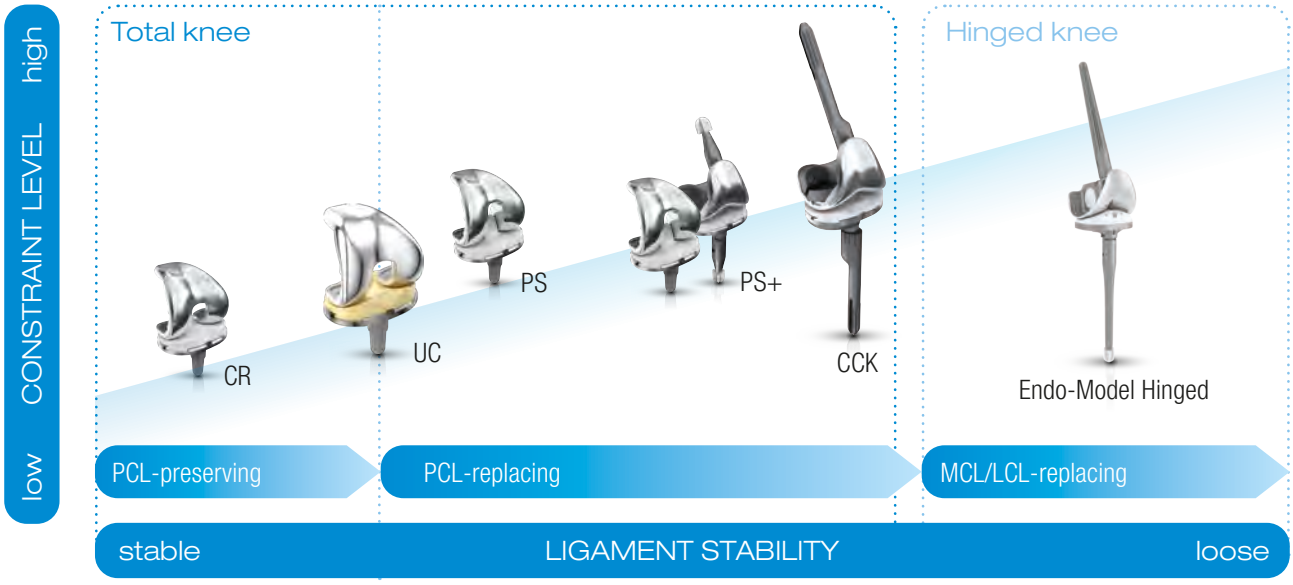
The *LinkSymphoKnee* is a versatile, complete knee system that supports a wide range of treatment scenarios, from primary procedures to complex revision cases.

Key Features and Configurations

- **Flexibility in design:**
  The system offers configurations that allow for posterior cruciate ligament (PCL) retention or substitution, as well as a condylar constraint knee (CCK) option. These configurations can be enhanced with stems and augments for additional support in more demanding cases.
  - Available configurations: CR (Posterior Cruciate ligament-Retaining), UC (Ultra Congruent), PS (Posterior Cruciate ligament-Sacrificing), PS+ (Posterior Cruciate ligament-Sacrificing with varus/valgus stability), CCK (Condylar Constrained Knee)
- **Tibial component options:**
  The tibial component is available in two designs:
  - Monoblock: A single-piece option for simplicity and durability, including an All-Poly PS tibial variant.
  - Modular: Compatible with all *LinkSymphoKnee* configurations, offering enhanced adaptability with stems and augments.
- **Material excellence:**
  Components are crafted using high-quality materials for durability and biocompatibility:
  - EndoDur (CoCrMo) or LINK PorEx (CoCrMo + TiNbN HighGliss) for superior wear resistance.
  - UHMWPE or E-Dur (HXLPE + Vitamin E) for improved polyethylene performance.
- **Fixation versatility:**
  The *LinkSymphoKnee* supports both cemented and uncemented fixation methods, offering surgeons flexibility to meet the needs of diverse patient profiles.

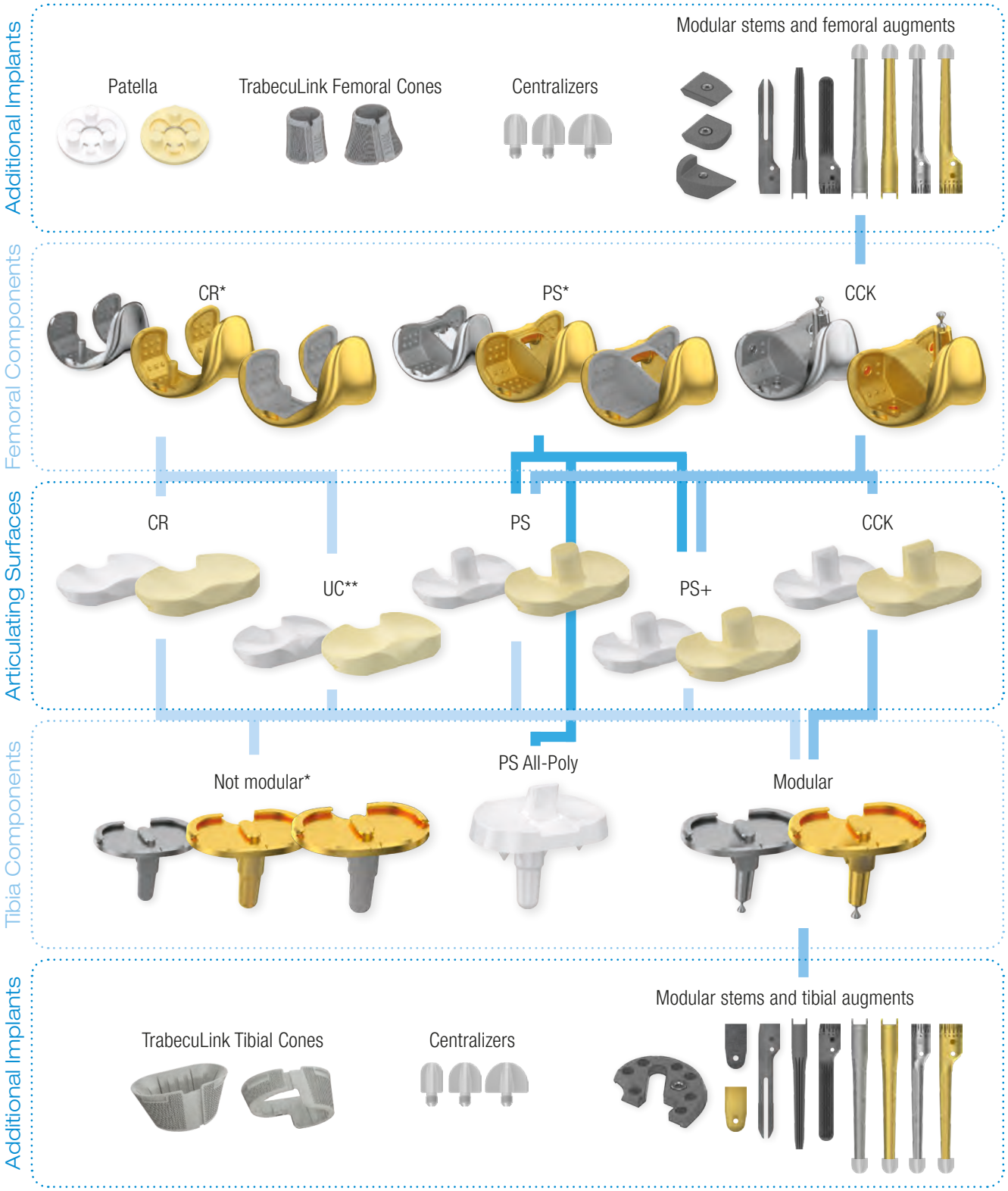
Designed to adapt to the complexities of modern knee arthroplasty, the *LinkSymphoKnee* combines innovation, reliability, and precision to deliver excellent patient outcomes. Whether for primary cases or complex revisions, this system is engineered to restore mobility and enhance quality of life.

LinkSymphoKnee



LinkSymphoKnee

Implants Combination Overview



* Uncemented components are not available for FDA markets
** LinkSymphoKnee UC (Ultra Congruent) released for FDA markets only

LinkSymphoKnee

System Overview

LinkSymphoKnee CR

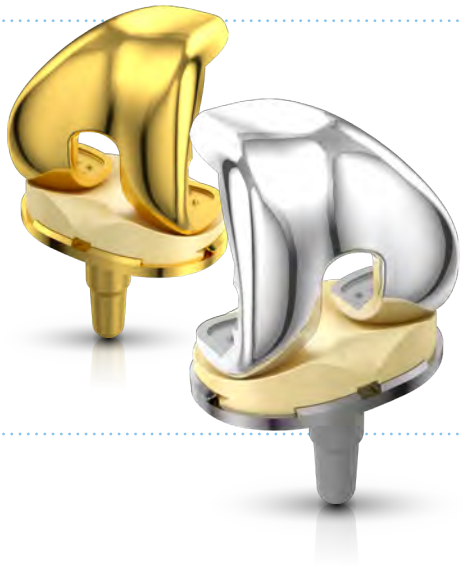
(Posterior Cruciate ligament-Retaining)

- Requires intact PCL
- Requires stable collateral ligaments
- The Femoral component same as UC

LinkSymphoKnee UC

(Ultra Congruent)

- PCL can be sacrificed, whilest femoral bone stock is preserved.
  - Can optionally be used as a CR solution
- Requires stable collateral ligaments.
- Femoral component same as CR



LinkSymphoKnee PS

(Posterior Cruciate ligament-Sacrificing)

- PCL is sacrificed
- Requires stable collateral ligaments
- Femoral component same as PS+

LinkSymphoKnee PS+

(Posterior Cruciate ligament-Sacrificing with varus/valgus stability)

- PCL is sacrificed
- Requires collateral ligaments
- Femoral component same as PS.

LinkSymphoKnee CCK

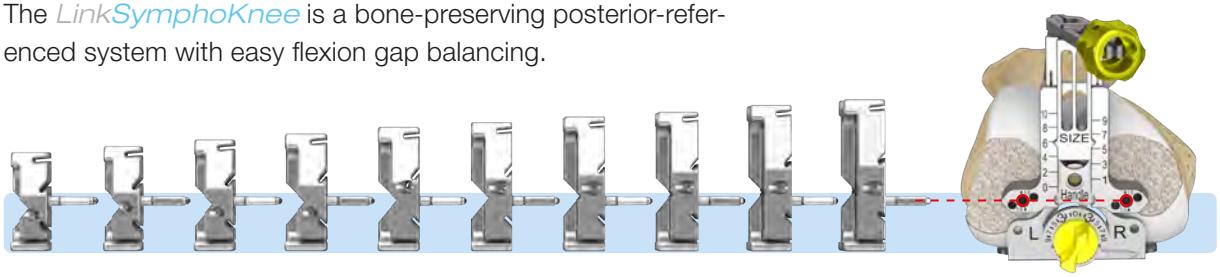
(Condylar Constrained Knee)

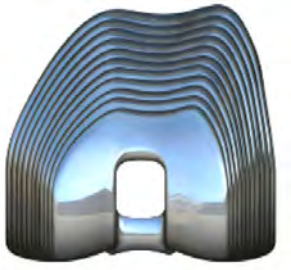
- PCL is sacrificed
- Requires collateral ligaments
  - Provides implant stability where soft tissue balance is not satisfying
- Stems can be combined with modular tibia and CCK femur
- Femoral component also compatible with the PS and PS+

LinkSymphoKnee

Design Philosophy

The *LinkSymphoKnee* is a bone-preserving posterior-referenced system with easy flexion gap balancing.





Narrow femoral component design

This ensures better position and alignment of the implant.
For wider native femora the LSK range comprises “+” sizes which increase the dimension in M-L of the implant.

- **Narrow design:** Prevents overhang, ensuring optimal fit for better patient outcomes.
- **Soft tissue protection:** Minimizes the risk of soft tissue impingement, reducing complications.
- **Improved longevity and comfort:** Enhances implant survival rates and reduces patient pain for better long-term results.[1]
- **Versatile alignment:** Accommodates a broader range of external rotation in the native knee, providing greater flexibility in treatment options.
- **Simplified sizing:** Eliminates the need to match native external rotation to select the largest femoral component, streamlining the surgical process.[2]

Condyle design

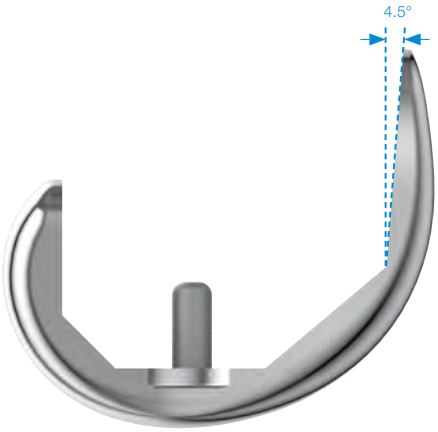
- The *LinkSymphoKnee* features a condyle design with a **decreasing multi-radius**.
- **Key benefits of this design:**
  - **Optimized stability:** Effectively manages the shifting forces in the knee during movement.
  - **Smooth motion transition:** Ensures seamless movement from flexion to extension.
  - **Reduced midflexion instability:** Minimizes the instability often experienced in mid-flexion, enhancing patient confidence and joint performance.
- This innovative design supports better knee functionality and improved outcomes during dynamic motion.

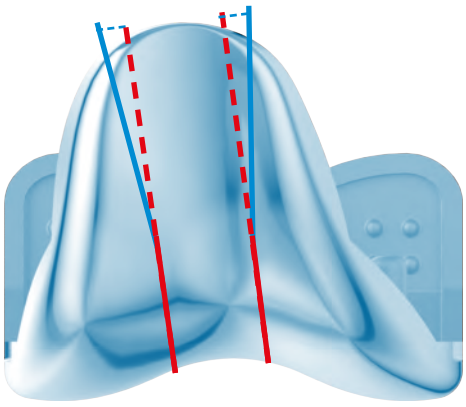
Patella-friendly Design

Anterior Knee Pain (AKP) and the *LinkSymphoKnee* solution

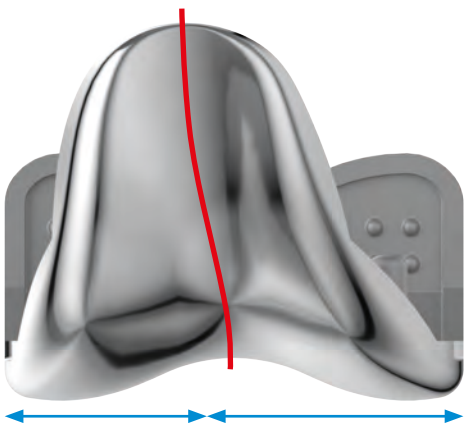
- **AKP in TKA:**
  - A leading cause of early revision surgery, often caused by offset errors, oversizing, rotational errors, or patellar maltracking.[4,5] In TKA the patella is often medialized by 2.5 mm compared to the native knee.[6]

- **Patella-friendly *LinkSymphoKnee* design:**
  - **Prevents maltracking:** Wide, shallow and lateralized trochlea groove optimizes patellar alignment.
    - Accommodates a variety of Q-angles.
    - The S-curve on the patellofemoral track ensures a smooth transition during flexion/extension.
  - **Minimizes offset errors:**
    - Thin patella shield prevents overstuffing.
    - 4.5° angled shield reduces notching and improves cement layer compression.
  - **Narrow femoral design:** Matches A/P dimensions without M/L overhang.
  - **Surgical versatility:** The option to trial the final patella shield position by using a drill-pin before the bone is cut ensures a precise fit of the implant.
  - This design addresses AKP risks, enhancing fit, alignment, and long-term outcomes.

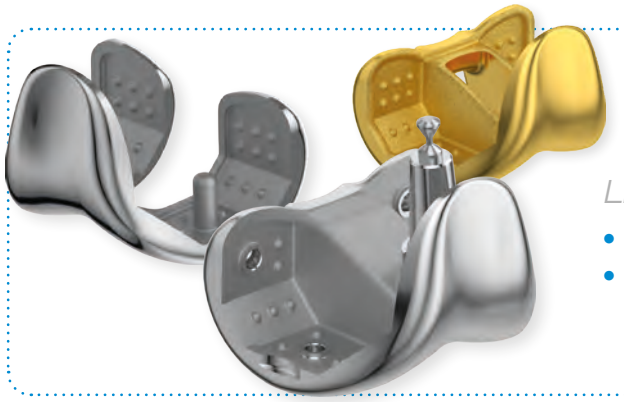




Trochlea groove widens in extension



Sizes

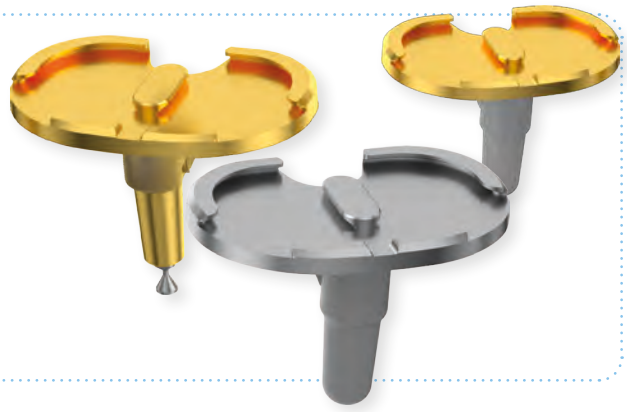


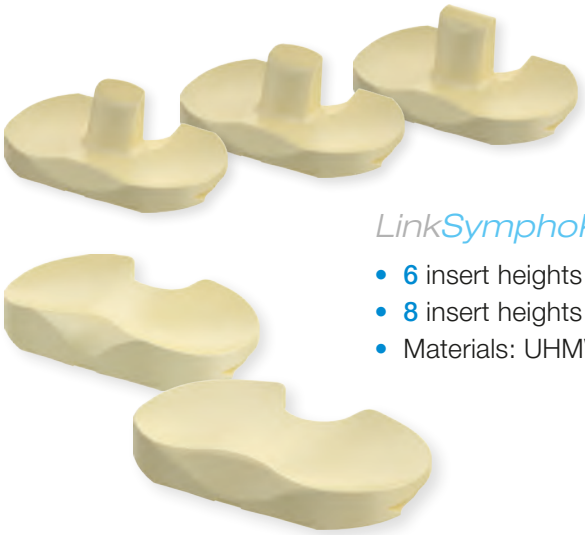
LinkSymphoKnee – Femoral Components

- **14** femoral sizes (CR, PS, CCK)
- Materials: EndoDur (CoCrMo) and LINK PorEx (TiNbN)

LinkSymphoKnee – Tibial Components

- **10** tibial sizes, monoblock as well as modular
- Materials: EndoDur (CoCrMo) and LINK PorEx (TiNbN)





LinkSymphoKnee – Articulating Surfaces

- **6** insert heights for CR, UC and PS/PS+ (10–18 mm) for each tibia size
- **8** insert heights for CCK (10-24 mm) for each tibia size
- Materials: UHMWPE or E-dur®

LinkSymphoKnee – All-Poly PS Tibial Components

- **3** insert heights (10, 12 and 14 mm) for All-Poly PS Tibial Components for each tibia size
- Material: UHMWPE

Stems

Conical Cemented Stems

- **10** length options (50 – 280 mm length)
- **4** diameters (10 – 15 mm)
- **3** offsets (0 mm, 3 mm, 6 mm)
- Material: EndoDur (CoCrMo) and LINK PorEx (TiNbN)

Cylindrical Press-Fit Stems

- **6** length options (80 – 240 mm)
- **11** diameters (10 – 20 mm)
- **3** offsets (0 mm, 3 mm, 6 mm)
- Material: Tilastan-S (Ti6Al4V)

Cylindrical Cementless Stems

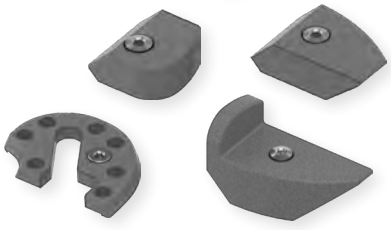
- **5** length options (80 – 240 mm)
- **11** diameters (10 – 20 mm)
- **3** offsets (0 mm, 3 mm, 6 mm)
- Material: Tilastan-S (Ti6Al4V)

Conical Cementless Stems

- **3** length options (80 – 240 mm)
- **13** diameters (10 – 20 mm)
- No offset options
- Material: Tilastan-S (Ti6Al4V)

Femoral and Tibial Augments

- **10** sizes
- **3** heights (5 – 15 mm)
- Material: Tilastan-S (Ti6Al4V)



LinkSymphoKnee

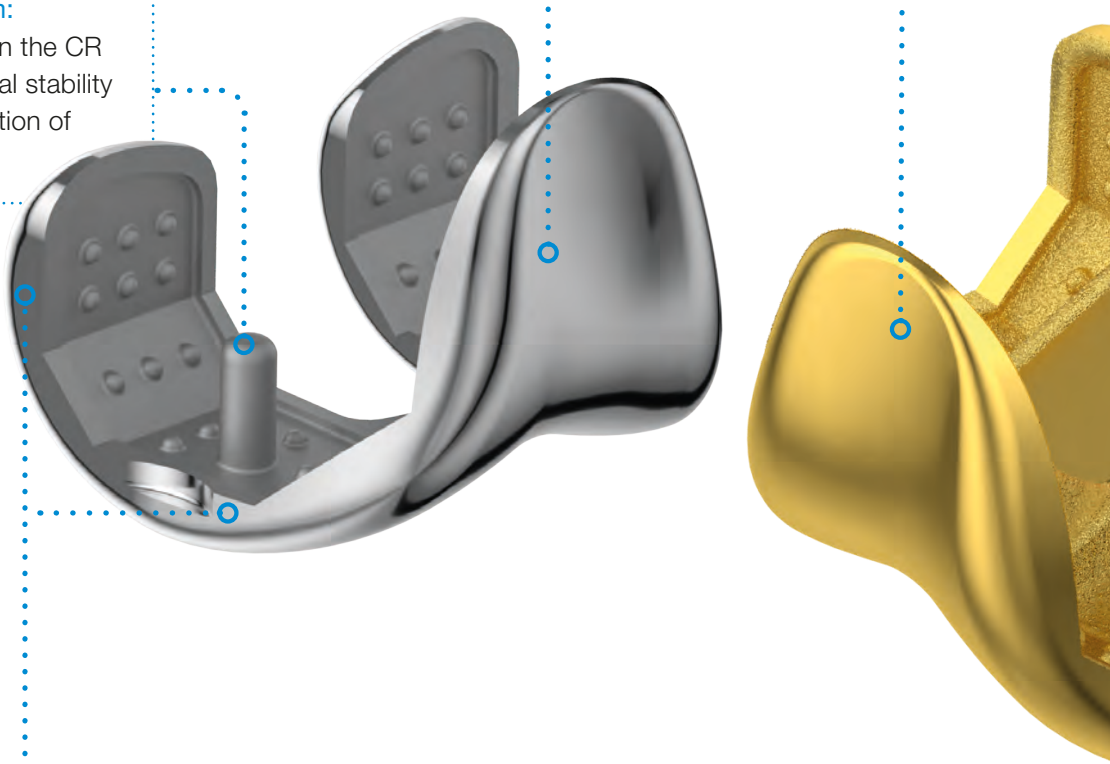
Femoral Components CR/PS

Anatomical notch geometry:
Cruciate-friendly, patella-friendly

Range of sizes
- 14 femoral sizes
- The femoral component growth evenly in 3 mm A-P

Groove depth
Reduced risk of PF ligament strain[6]

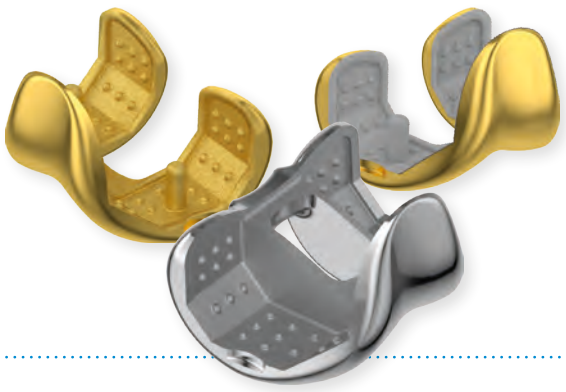
Mechanism:
The pegs on the CR provide initial stability and orientation of the femur



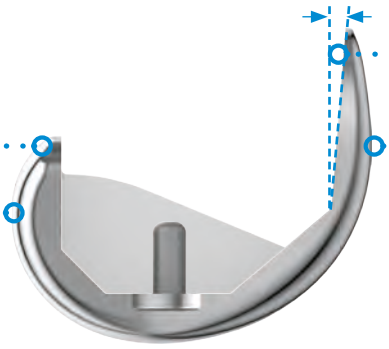
Equal distal and posterior thickness of 9 mm
Facilitates extension and flexion gap consistency

Material:
Available in EndoDur (CoCrMo) or LINK PorEx (TiNbN)

Fixation type:
The *LinkSymphoKnee* is available in cemented and uncemented fixation in combination with LINK PorEx only



LinkSymphoKnee – CR/PS



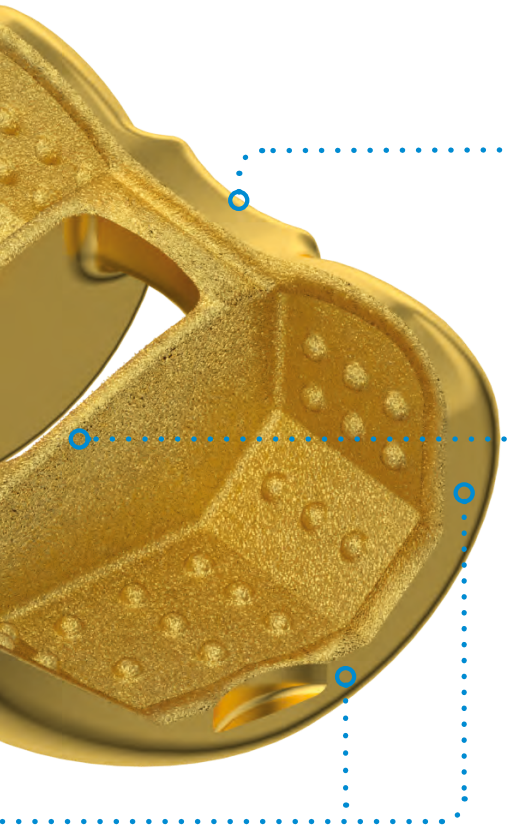
Rounded posterior condyles

Gradually decreasing flexion radius
Reduces mid-flexion instability

4.5° patellar flange angle

Low-profile patellar flange

Constant AP change (3 mm) for repeatable sizing



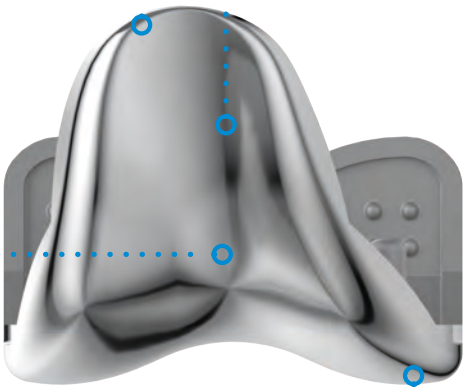
Mechanism:
- Improved jump height
- Less paradoxical motion
- Improved kinematics
- Early post–cam engagement

Concave cam with increased contact surface

Bone-preserving
Angled and open PS box

Narrow anterior flange
Forgiving to soft tissue

Wide proximal trochlear groove

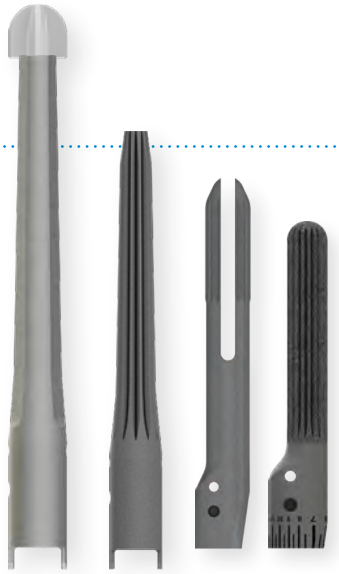


Medialized trochlear groove

Graduate coronal curvature
Larger sizes feature a wider gap between contact patches

LinkSymphoKnee

Femoral Components CCK



Modular Stems:
Increases stability in poor bone conditions[7]

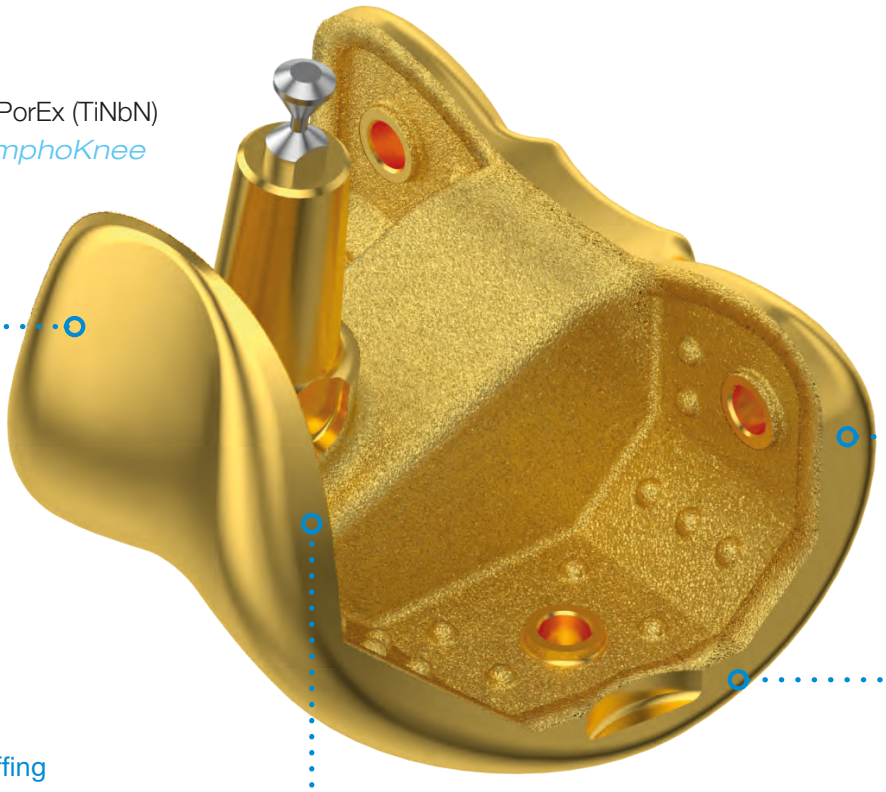
- Cemented (EnduDur-S, LINK PorEx):
- Press-fit (Tilastan-S)
- Cementless, conical (Tilastan-S)
- Cementless, cylindrical (Tilastan-S)

Fixationtype:
Cemented or cementless fixation with stems for additional stability

Range of sizes

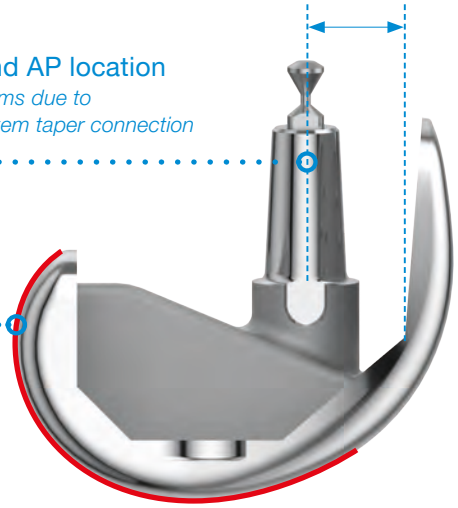
- 14 femoral sizes
- The femoral component growth evenly in 3 mm A-P

Material:
Available in LINK PorEx (TiNbN) for each *LinkSymphoKnee* configuration



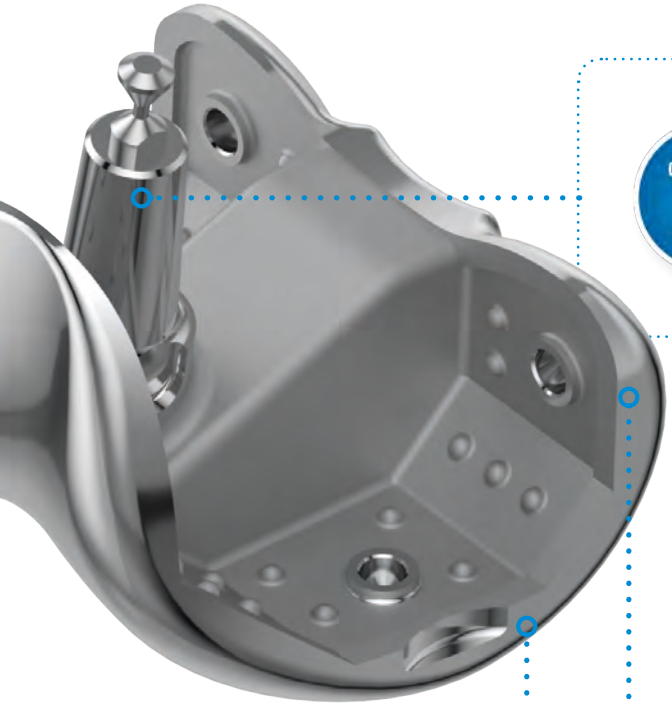
Reduced risk of overstuffing
Minimized patellar flange thickness

Features & Benefits - Femoral Components



Anatomic stem ML and AP location
Reduced need for offset stems due to anatomical position of the stem taper connection

Reduces mid-flexion instability
Gradually decreasing flexion radius

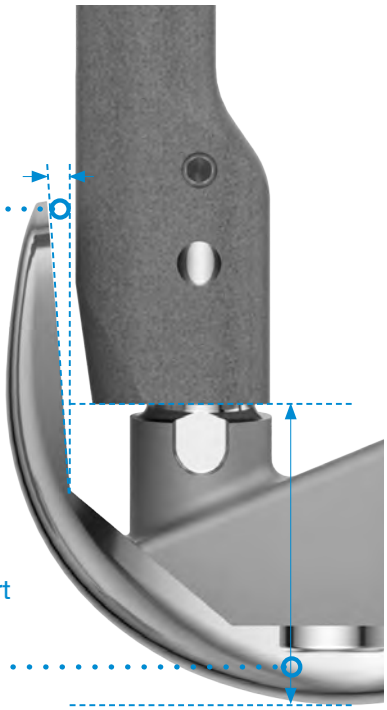


Mechanism:
The stem / Taper Cap helps to align the Femoral Component, provides initial stability and neutralizes rotational forces.[7]

Equal distal and posterior thickness of 9 mm
Facilitates extension and flexion gap consistency

Reduced risk of notching
4.5° patellar flange angle

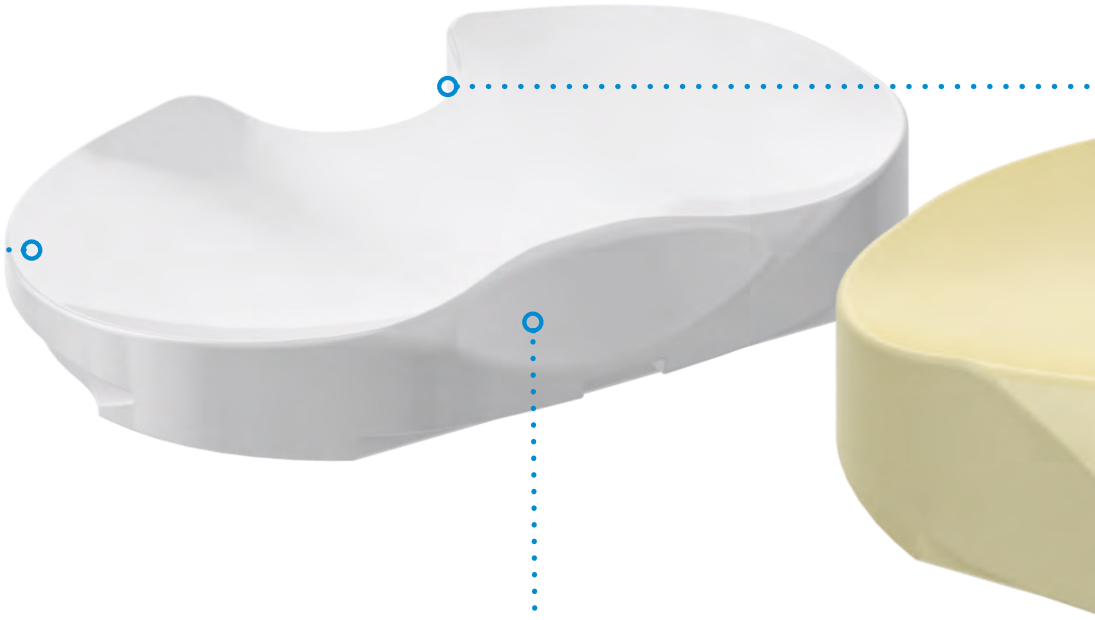
Stem connection and stem offset start close to joint line



LinkSymphoKnee

Articulating Surfaces CR/UC

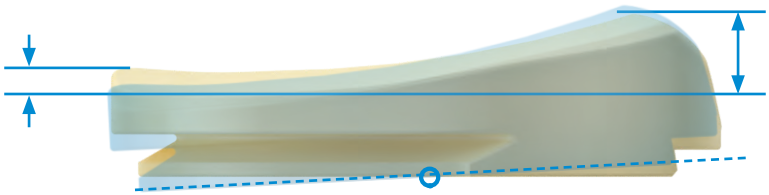
Material:
Available in UHMWPE or E-Dur (Vitamin E infused highly cross-linked UHMWPE)



2up / 2down compatibility
Flat mediolateral edge at posterior facet

Soft tissue sparing
High-flexion recess for patellar ligament

LinkSymphoKnee – Articulating Surface CR

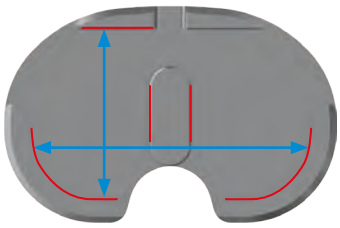


Posterior lip:
0.7-1.0 mm
size-dependent

Anterior lip:
2.6-5.4 mm
size-dependent

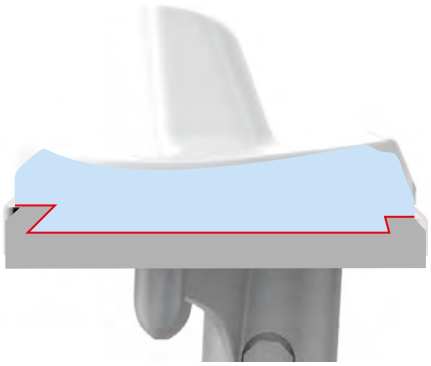
Optimized for **3°** bone resection

Triply-secured inserts:
AP and ML self-locking press-fit with antirotational guiding bar

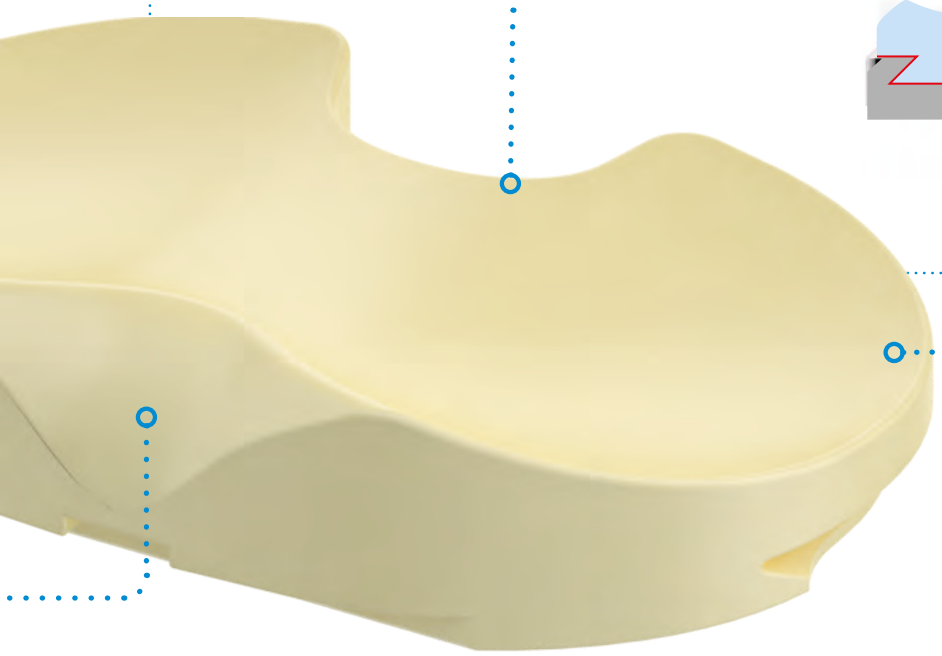


Fixation type:
Dovetail locking mechanism

- **Dovetail locking mechanism**
  The dovetail locking mechanism works via press-fit and does not require any additional screw. This locking mechanism is used for CR, UC, PS, PS+ and CCK Articulating Surfaces.

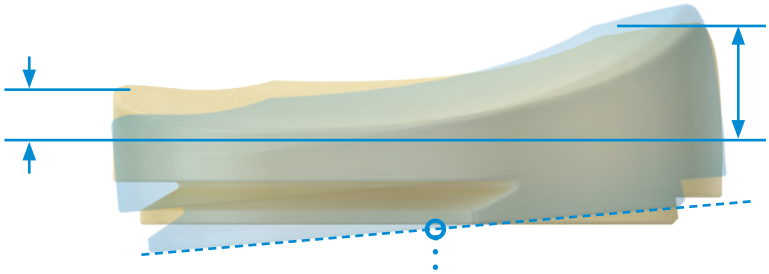


Soft tissue sparing
Wide intercondylar notch



2up / 2down
compatibility
Flat mediolateral edge at posterior facet

LinkSymphoKnee – Articulating Surface UC



Posterior lip:
3.5 mm
constant for all sizes

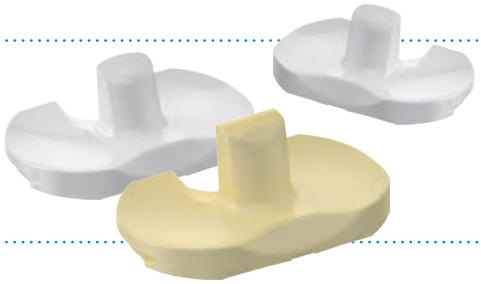
Anterior lip:
5.5-11 mm
size-dependent

Optimized for **5°**
bone resection

LinkSymphoKnee

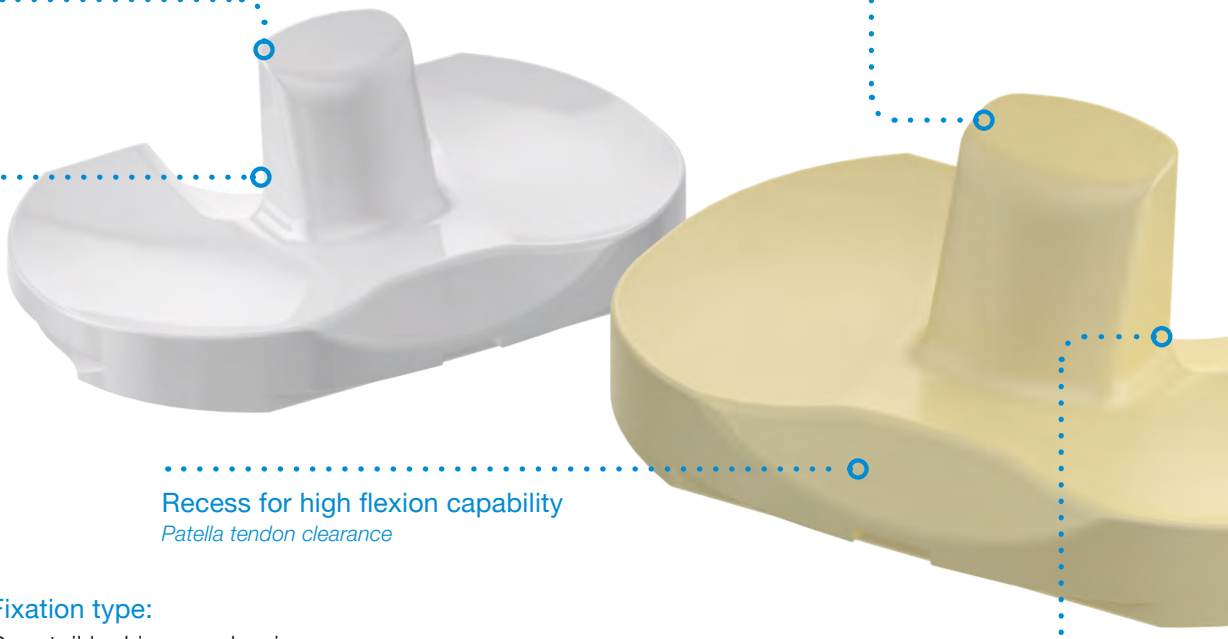
Articulating Surfaces PS/PS+/CCK

Material:
Available in UHMWPE or E-Dur (Vitamin E infused highly cross-linked UHMWPE)



PS jump height
17 mm

PS+ jump height
17 mm



PS Constraint
Free to rotate

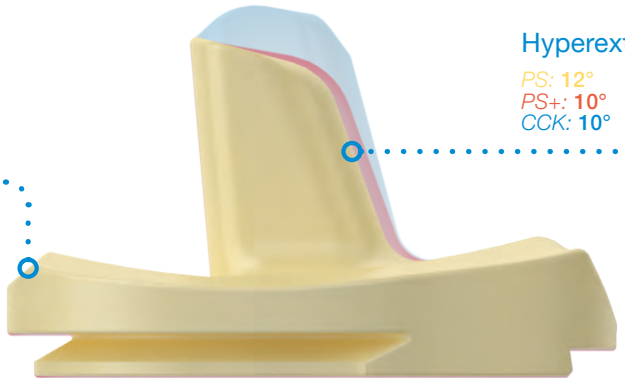
Recess for high flexion capability
Patella tendon clearance

Fixation type:
Dovetail locking mechanism

PS+ Constraint
Constrained **5°** *IE and* **3°** *V/V*

Posterior Chamfer reduces impingement

Hyperextension
PS: **12°**
PS+: **10°**
CCK: **10°**



The differences between the posterior-stabilized inserts

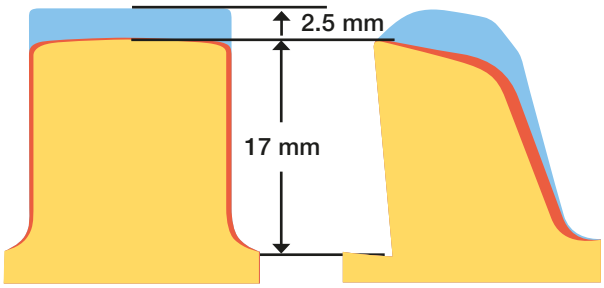
CCK jump height
17 mm

Recess on CCK post for high flexion capability

PS
PS+
CCK

Varus/Valgus (v/v) constrained			
	PS	PS+	CCK
IE Rotation	not limited	±5°	±2.5°
Varus/Valgus	±4°	±3°	±1°

16.5 mm
17.3 mm
17.4 mm

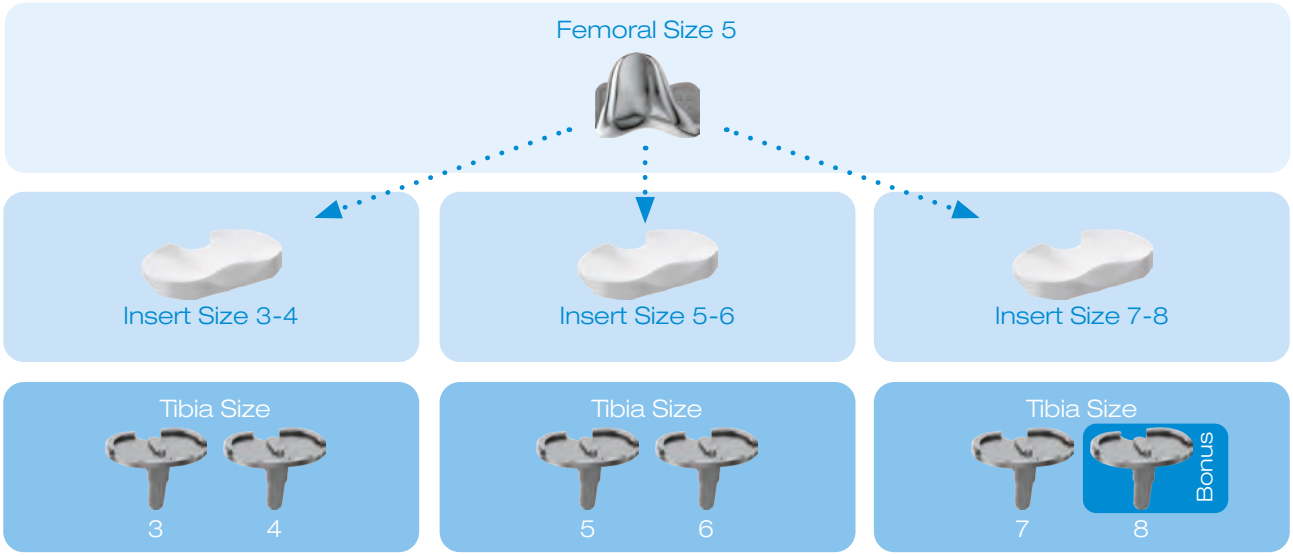


CCK Constraint
Constrained **2.5°** *IE and* **1°** *V/V*

Introperative flexibility

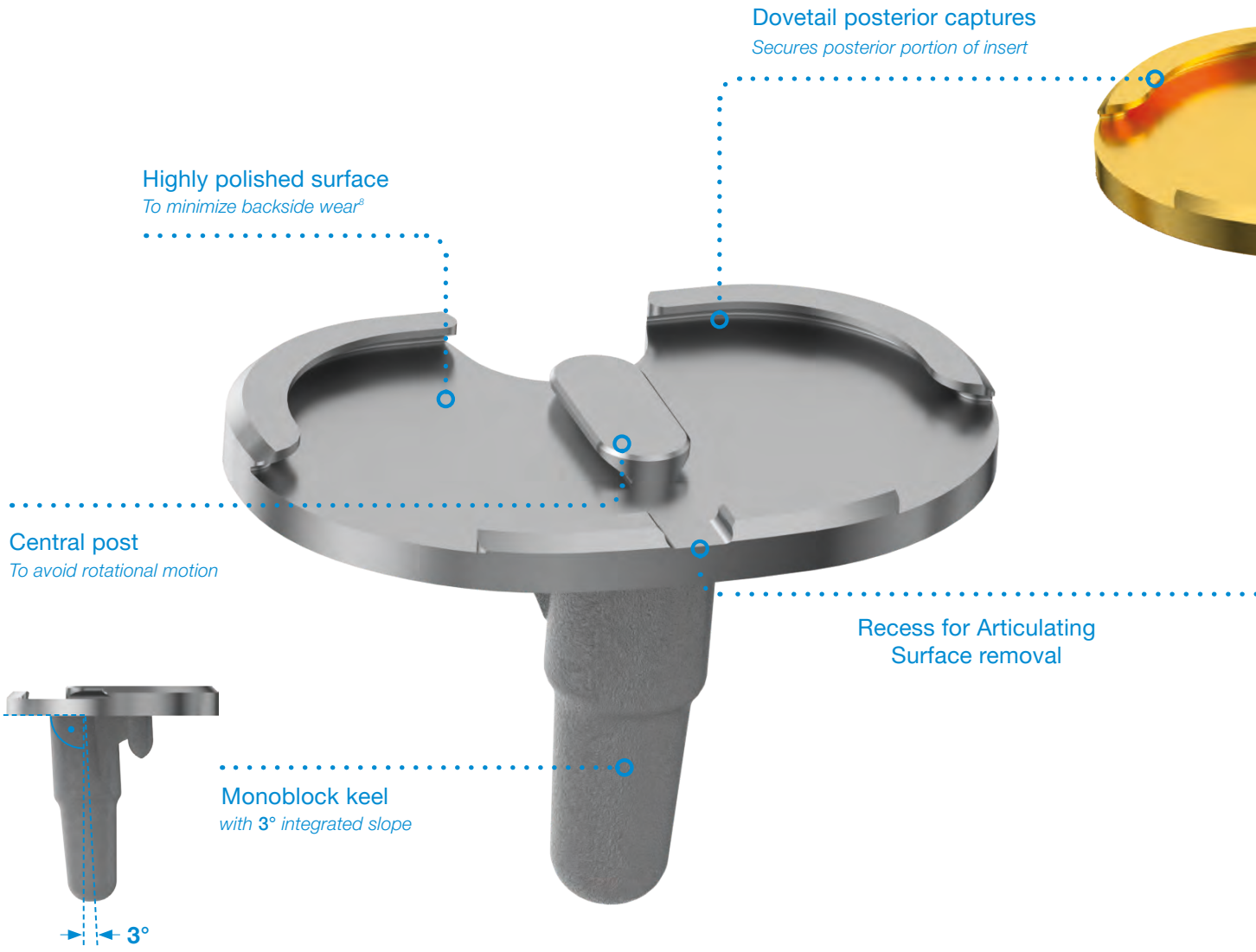
Small inventory many options (compatibility)

- **Femur insert matching**
  To allow the best fit for the patient, the femur is compatible with two sizes up and down on the tibia.



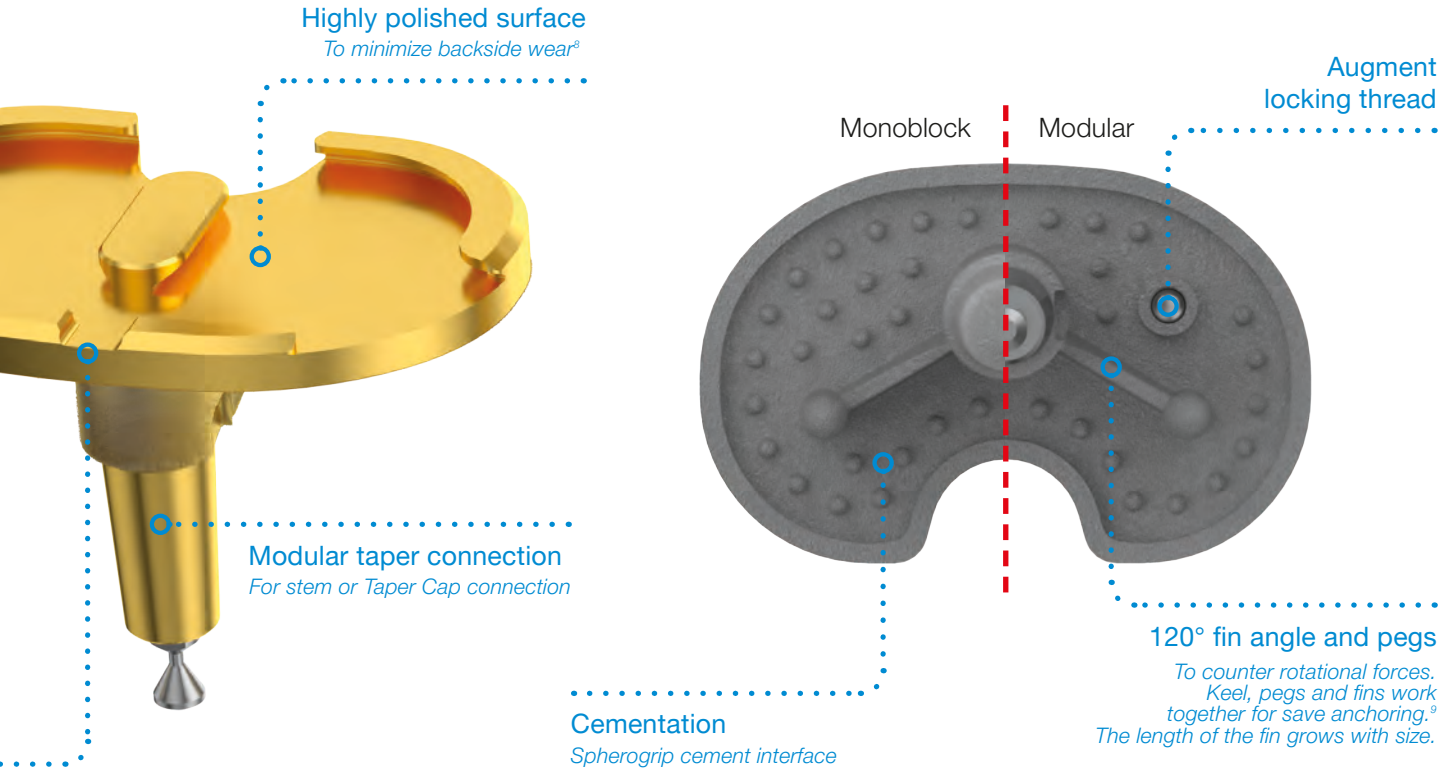
LinkSymphoKnee

Tibial Components



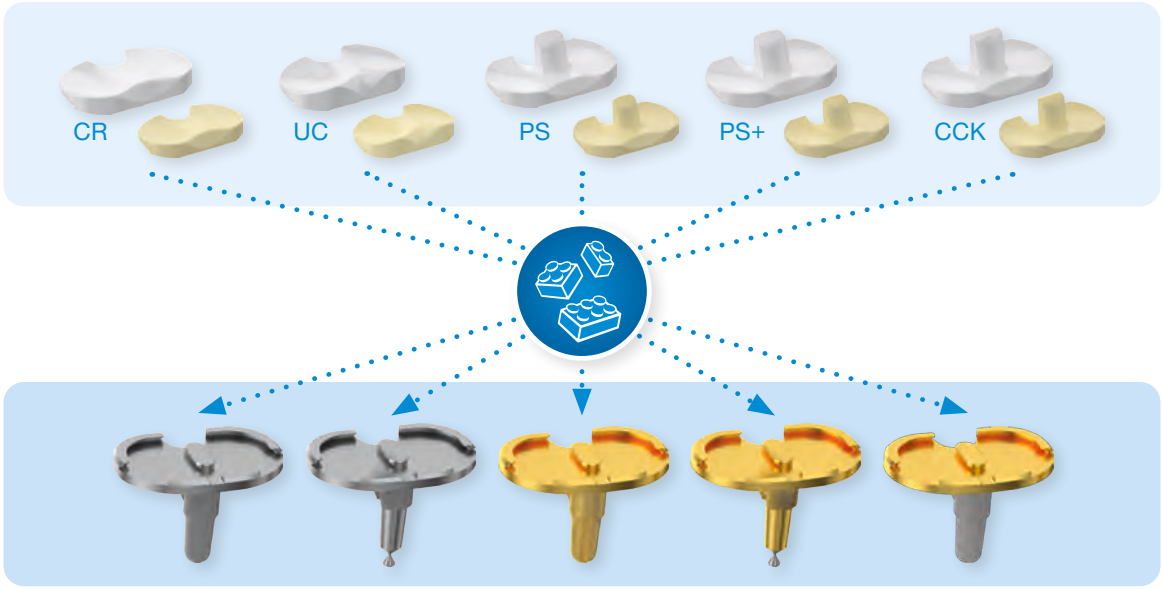
Material:
Available in EndoDur (CoCrMo) or LINK PorEx (TiNbN)

Fixationtype:
The *LinkSymphoKnee* is available in cemented and uncemented fixation in combination with LINK PorEx only



High flexibility & low storage need

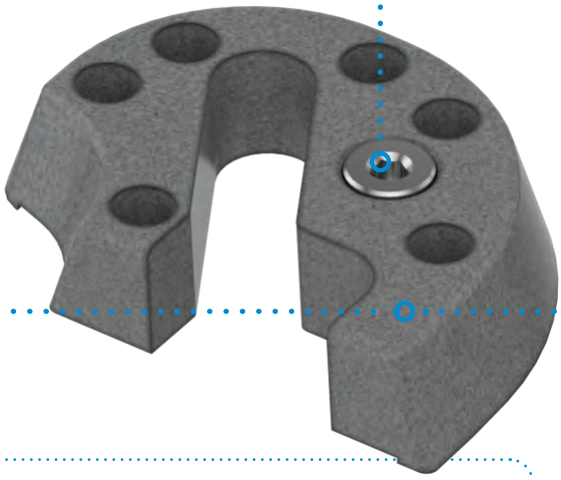
The dovetail locking mechanism is the same on all inserts. This allows for a small inventory of tibial components despite a variety of treatment options.



LinkSymphoKnee

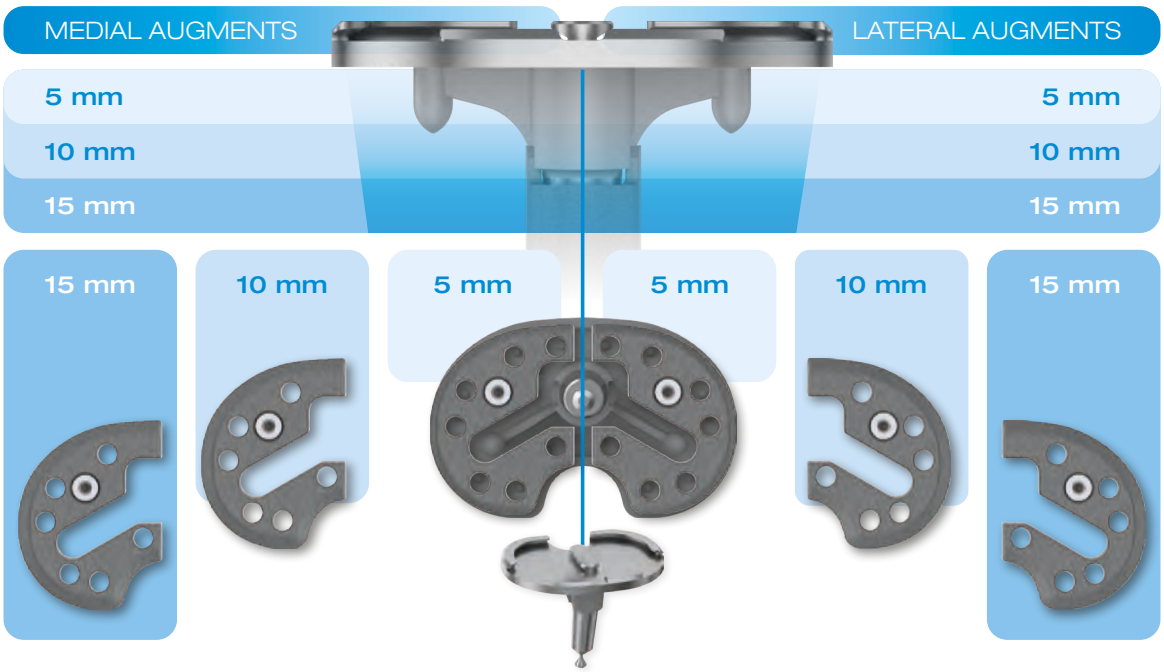
Augments

The *LinkSymphoKnee* offers a range of femoral and tibial augments designed to address bone deficiencies. Femoral augments compensate for distal and posterior femoral defects and pair with CCK femoral components, while tibial augments address proximal tibial defects and pair with modular tibial components. All screws are preassembled, ensuring a swift workflow. The tibial augments are conical and reduce the distal resection interface by up to **3** sizes tibially.



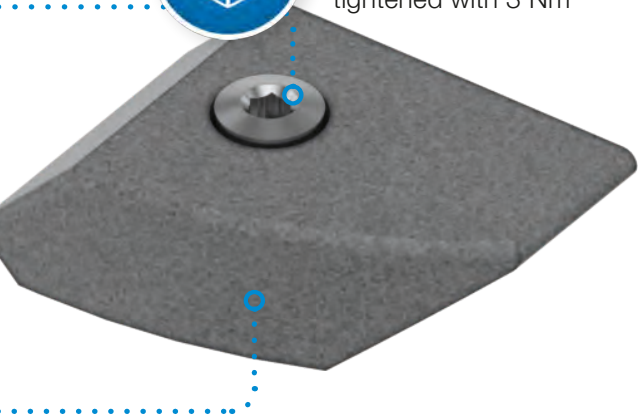
Material:
Tilastan-S (Ti6Al4V)

LinkSymphoKnee – Tibial Augments



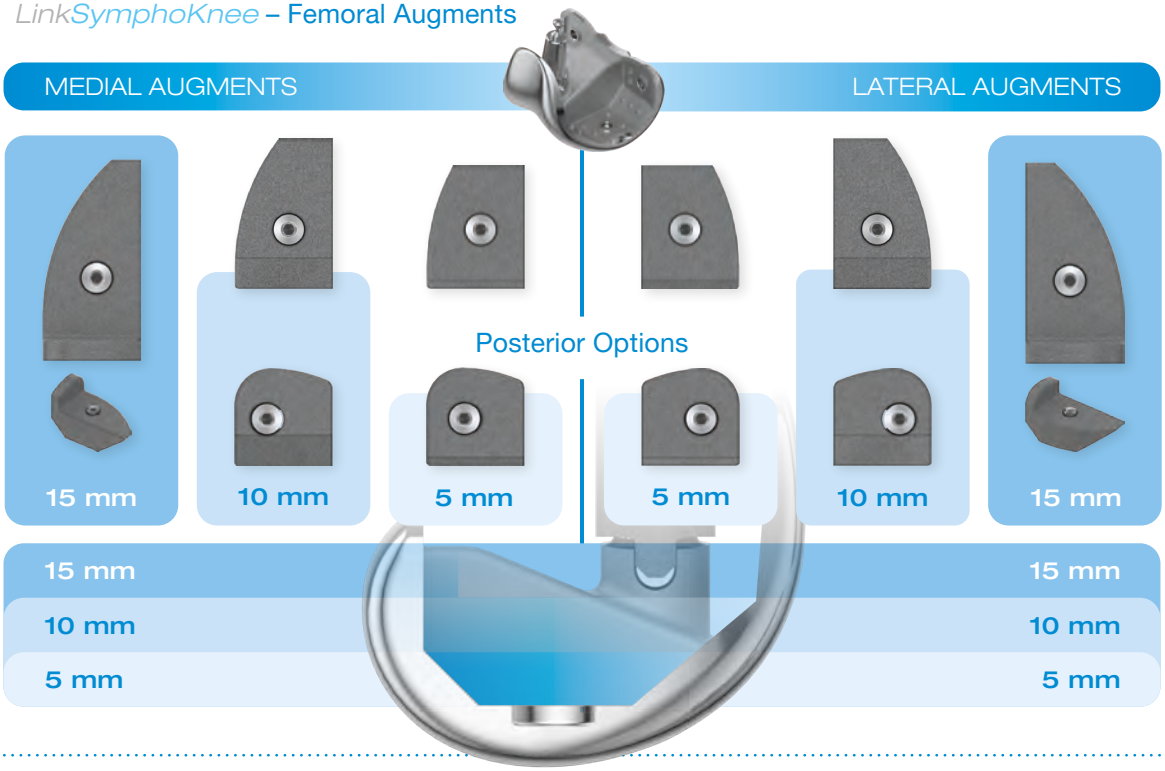
Wide range of sizes:
5 - 15 mm in height

Fixation:
1 pre-assembled screw
tightened with 3 Nm



Efficient surgical technique:
No additional instrument set needed

LinkSymphoKnee – Femoral Augments



LinkSymphoKnee

Stems

What is the function of stems in the TKA?

- Additional implant fixation in the diaphysis
- Load transfer from compromised metaphyseal bone structure to intact diaphysis bone structure.

“Although the use of the stem remains controversial in constrained TKA, the stem should be used routinely if there is inadequate bony surface.”[10]

Wide Variety

The *LinkSymphoKnee* offers an extensive stem portfolio, from 0 mm offset straight cemented up to 6 mm offset press-fit stems.

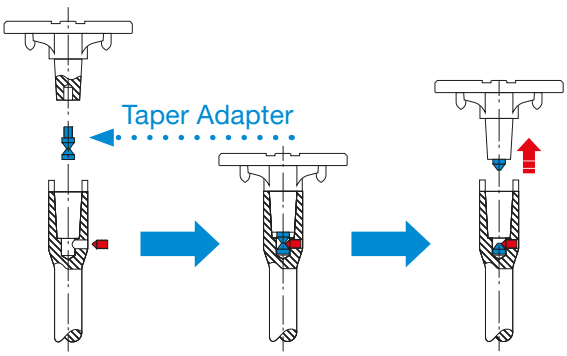
Rotation

Possibility of 360° of rotation for offset stems

Markings

For orientation of offset stems

- **Easy to revise**
  The taper adapter design disengages the stem from the modular tibia or CCK femur should a need for revision arise.

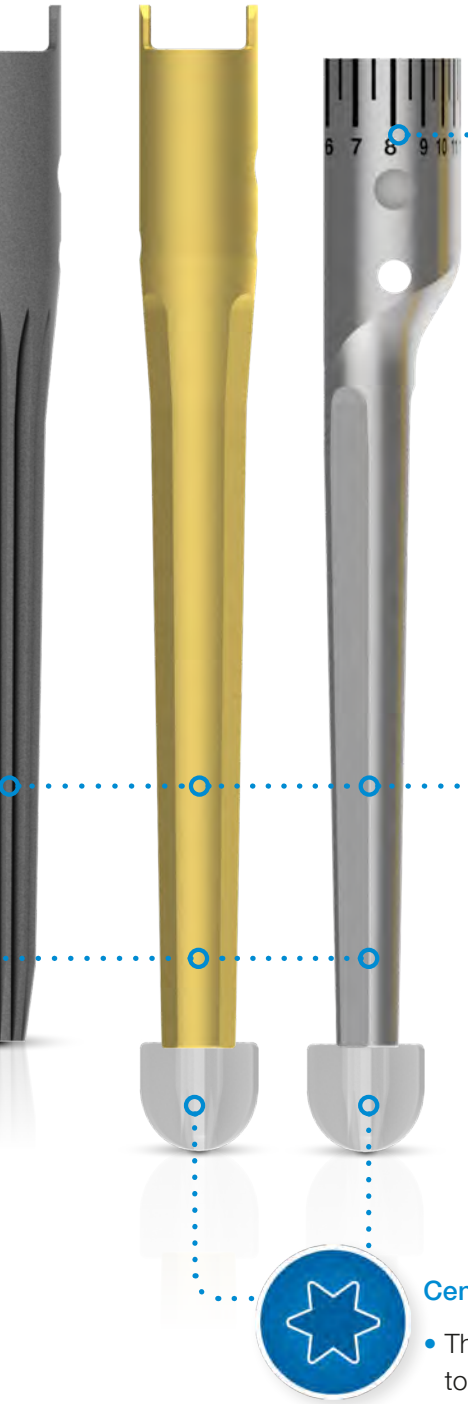


Material

- Cemented: EndoDur (CoCrMo) and LINK PorEx (TiNbN)
- Cementless: Tilastan-S

High flexibility & low storage need

- **Stem femur/tibia matching**
  To minimize storage space while ensuring best-fit solutions, the stem portfolio has only a female coupling and is compatible with the femur as well as the tibia component of the *LinkSymphoKnee*.



Offset Magnitude

0 mm, 3 mm and 6 mm

Why do we need offset

The significant variability of the bone canal relative to the femoral or tibial component necessitates adaptation of longer stems with an offset.
The femoral canal is often located anterior to the center of the femur component.
The tibia canal is often located anterior and medial to the plateau center.[11]

Wide range of sizes

- Cemented: 10 length (50 - 280 mm) and 4 diameters (10, 11, 13, 15 mm)
- Cementless: up to 6 length (80 - 240 mm) and 12 diameters (10 - 20 in 1-mm steps and 22 mm)

Centralizers

- The cemented stem must be assembled with a centralizer to find the ideal seating in the canal.

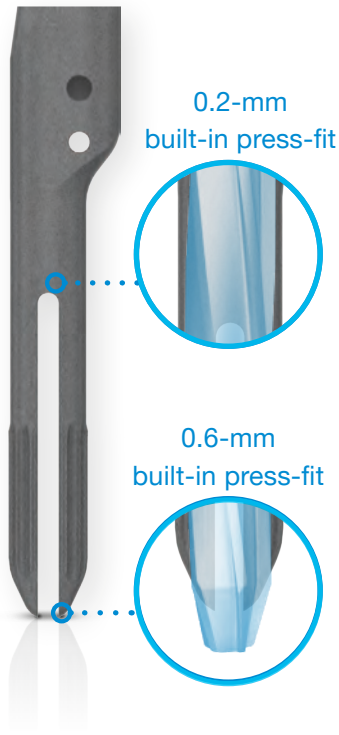
Allow a central position of the cemented stem in the medullary canal.
This prevents contact between the metal stem and the corticalis and therefore stress peaks in the bone in case of bending load.[6]

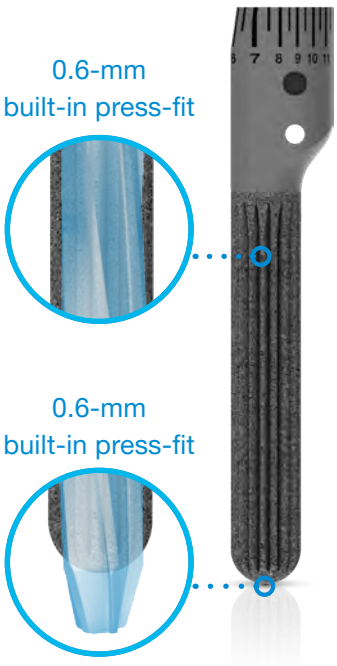
LinkSymphoKnee

Stems

Cylindrical Press-Fit Stems

- The **slotted stem design** with **rib structure** at the tip enhances **rotational stability**, prevents stress shielding, and reduces stem stiffness. This helps lessen **stem tip pain** in patients.[12]
- The **minimal roughness** of the stem is intended to provide a **firm grip** without full bone integration.
- Reduces the risk of **puncturing** or **fracturing** the bone during implantation of a **cementless stem**.[13]
- The combination of a **slotted press-fit design** and the **minimal roughness** of the stem surface allow **bone-preserving revision** if needed.



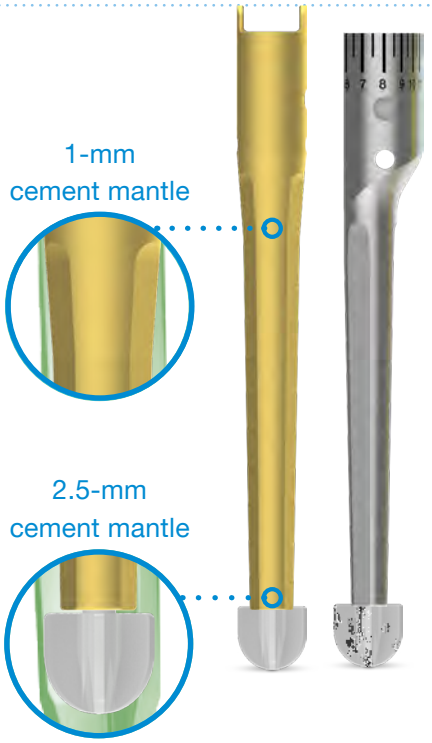


Cylindrical Cementless Stems

- The **cylindrical press-fit stems** provide **diaphyseal anchoring** with osteointegration.
- This design distributes the **load** from compromised metaphyseal bone to the intact **diaphysis**.
- **Ribs** forming a **star geometry** around the stem ensure **rotational stability** while distributing loads evenly and minimizing **peak forces**.
- The combination of ribs and the **PoroLink surface** promotes **bone ongrowth**, anchoring the stem firmly to handle **rotational, push,** and **pull forces**.[14]
- Highly effective in cases involving **periprosthetic fractures**.[15]

Efficient surgical technique
One small tray with only
6 additional instruments

Fixation Type
Cemented and cementless

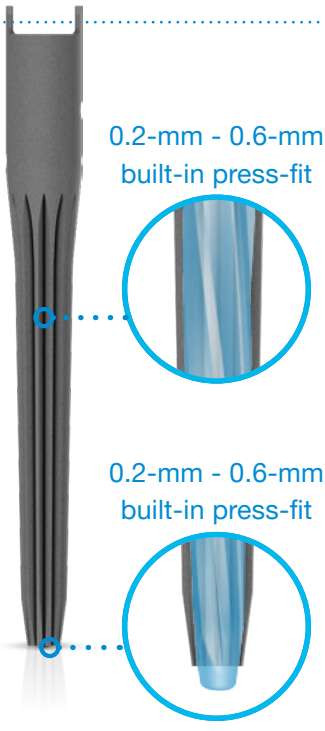


Conical Cemented Stems

- **Cemented stems** are made from **CoCrMo** and are also available with a **LINK PorEx coating**.
- Offering **freedom of placement** with the **short stem version**.
- The combination of **round** and **flat geometries** provides **rotational stability** while minimizing **peak stress** at the **stem/cement interface**.
- Manufactured from the same material as the implant.
- The **LINK PorEx coating** reduces **nickel ion release** and enhances **tribological properties**.[16]
- Used with the **Endo-Model Knee System since 1992** with excellent results.

Conical Cementless Stems

- The **conical press-fit stem** features ribs that increase the **surface area** for anchoring and distribute the **load** across the **metaphysis** and **diaphysis**.
- **Optimized Press-Fit**: As the stem diameter increases the press-fit decreases, allowing for **precise positioning**.
- The **conical design** allows for **self-centering preparation**, minimizing the risk of stem tilt.
- Used with the **Endo-Model Knee System since 1992**, delivering consistent success.

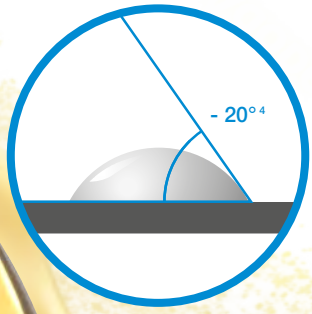


LinkSymphoKnee – LINK PorEx (TiNbN)

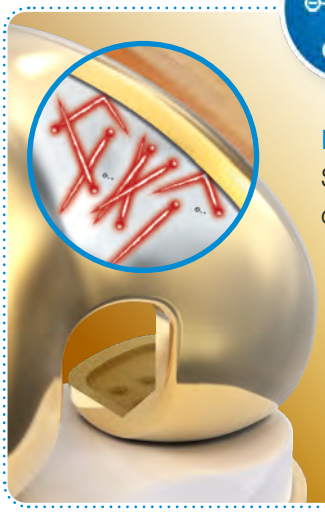
Material:
Available in LINK PorEx (TiNbN) for each *LinkSymphoKnee* configuration

Surface coatings:
The *LinkSymphoKnee* family with PorEx has a ceramic-like surface.[17]

Wettability:
LINK PorEx has high wettability, supporting lubrication in the joint.[17]



Hardness:
LINK PorEx has outstanding hardness.[17]



Metal ion release:
Significant reduction of metal ion release.[17]

ION

Surface coatings:
Protect the sliding surface from wear and scratches.[17]

E-dur® Description

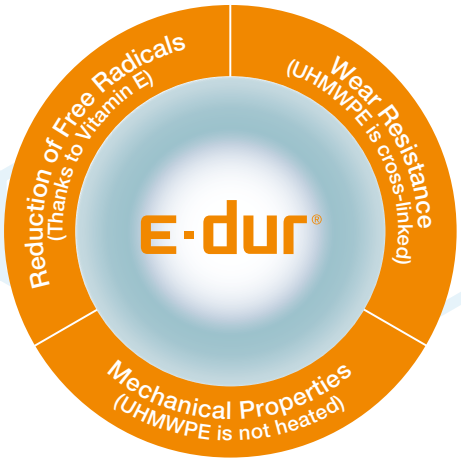
As early as the 1960s, studies confirmed that UHMWPE is an outstanding material for sliding bearings in joint replacements.[18,19,20]

The key properties of UHMWPE are:

- Biocompatibility
- High abrasion resistance[19,20]
- Impact resistance
- Fatigue strength and crack resistance

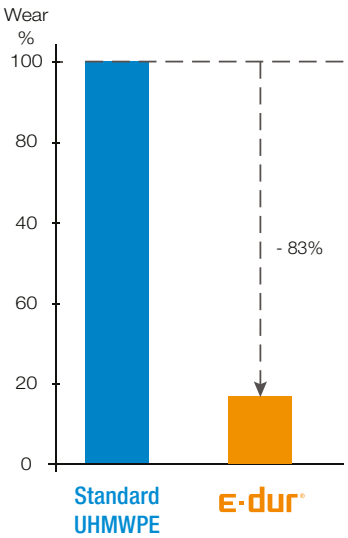
It therefore conforms to national and international standards for implant materials.[18,20]
Consequently, UHMWPE became the **"gold standard"** for tibial articular surfaces in knee joint reconstructions.[19,22] This status is confirmed by outstanding long-term results of published studies and registry data.[23,24,25] Now this **"gold standard"** for orthopedic implants has been improved by further increasing its mechanical properties and durability.[26] High crosslinking produced a marked improvement in abrasion resistance.[27-32] In addition, effective oxidation protection is achieved by enriching the material with vitamin E.[27,28]

In the production of E-dur® **Vit-E plateaus**, vitamin E is used as an antioxidant in order to protect the material by neutralizing the free radicals created by highly cross-linking. The product's mechanical properties and biocompatibility are preserved.[19,27,33-35]



- Vitamin E (α-tocopherol): 0.1%
- Irradiation for cross-linking: 75 kGy
- No additional heating
- Sterilization method: EtO

Properties



Wear Resistance[36]

The process of intensive cross-linking improves the abrasion resistance of UHMWPE, while enrichment with vitamin E counteracts the aging process.

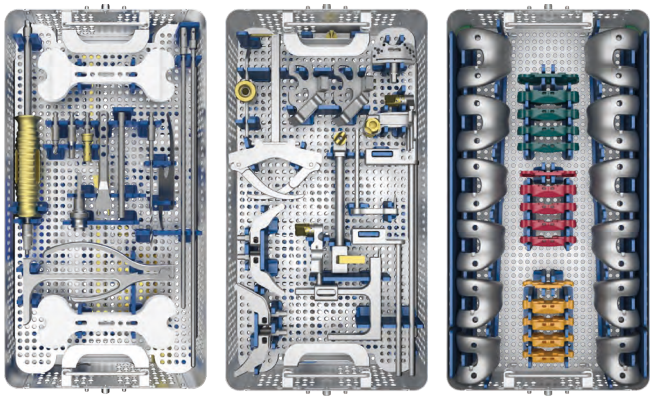
LinkSymphoKnee – Surgical Technique

The *LinkSymphoKnee* instruments follow the surgeon's preferences allowing for extra-medullary or intra-medullary alignment of the tibia as well as the option for femur first, tibia first, or distal cut first.

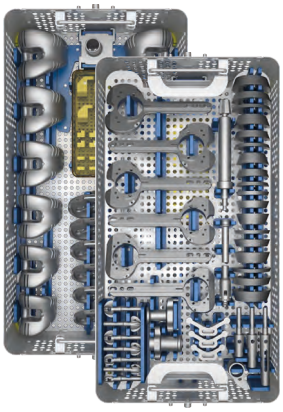
LinkSymphoKnee – Instruments

The *LinkSymphoKnee* instruments are a streamlined modular system designed to provide accurate and reproduceable results, with a minimized inventory. In a primary CR or PS case only three instrument trays are needed. Each further option, like a macro/micro or wide size, requires just one additional tray.

Primary



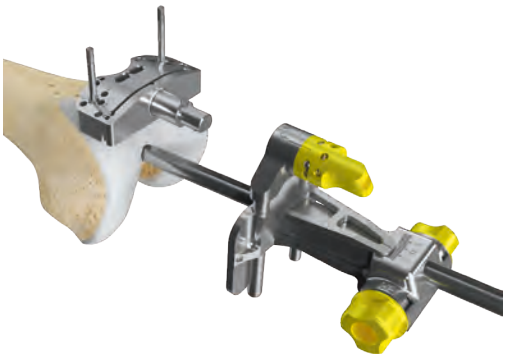
CCK



For revision surgery with the *LinkSymphoKnee* CCK, a minimum of only four instrument trays are needed. The intuitive and elegant instruments are inspired by the SPAR-K instruments from the Gemini SL. With the golden color it is easy to recognize moving parts and where to adjust the instruments.

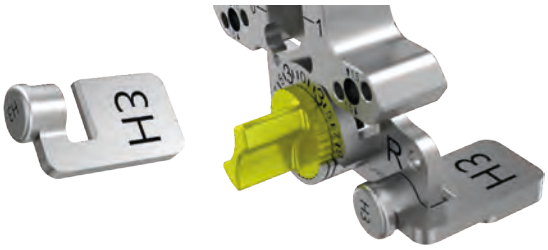
Distal Cut Resection Guide

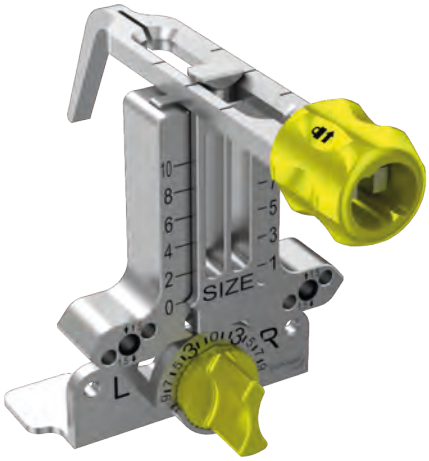
Accurately determines bone resection level even for severe defects with the option to adjust the varus/valgus.



Femoral Sizing Guide

The femur size is determined using the posterior condyles as a reference. The femur rotation can be adjusted with the golden knob.
A condylar defect can be addressed with magnetic shims.

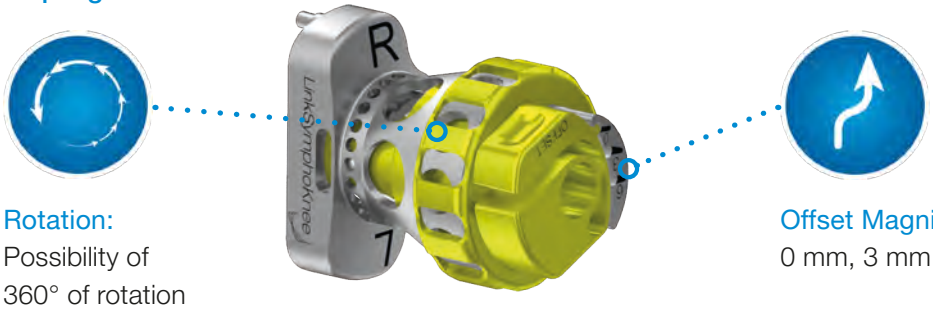




Offset Selector Guide

The CCK stem offset selector is a handy instrument to determine the correct offset if a stem is being used. This instrument can be used for left and right knees and has built in 6° valgus. The golden knob can be turned 360° while representing 0 mm, 3 mm, or 6 mm offset.

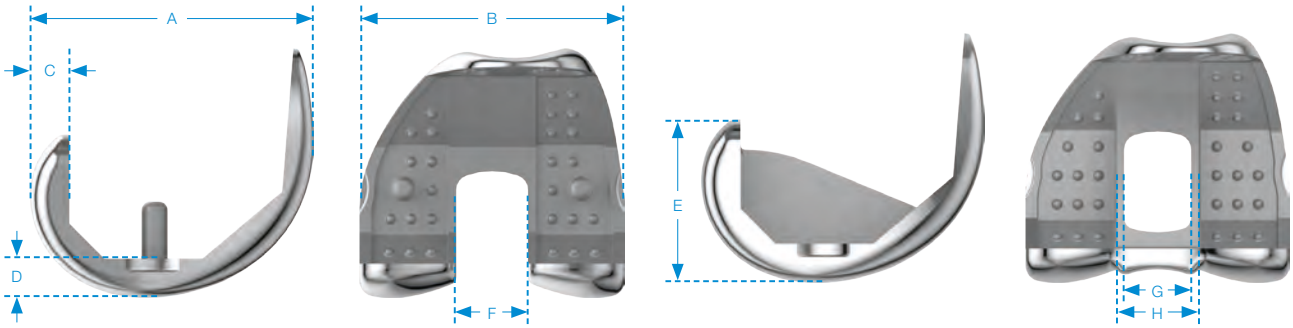
Feature: The determined offset and rotation is “saved” on the instrument for later stem and implant coupling.



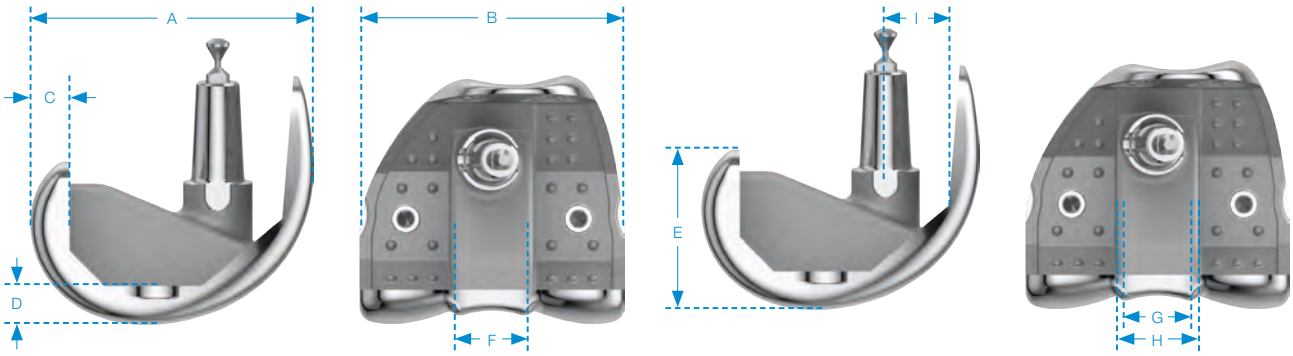
Rotation:
Possibility of 360° of rotation

Offset Magnitude:
0 mm, 3 mm and 6 mm

LinkSymphoKnee Femoral Components – CR/PS

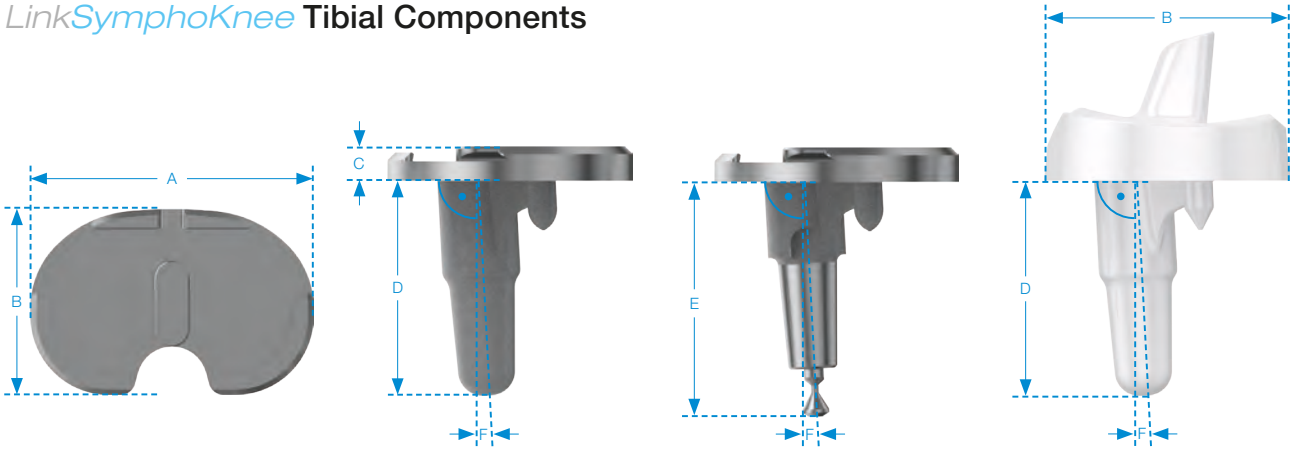


LinkSymphoKnee Femoral Components – CCK



Size	A	B	C/D	E	F	G	H	I
	AP mm	ML mm	Post & Distal Thickn. mm	Posterior Condyle Length mm	Condyle Width mm	Inner Box Width mm	Outer Box Width mm	Stem Location A-P mm
	CR/PS/ CCK	**CR/PS/ CCK**	**CR/PS/ CCK**	**CR/PS/ CCK**	**CR**	**PS/CCK**	**PS/CCK**	**CCK**
0	47	53.3	9	28.5	14.5	14.5	18.5	12
1	50	56	9	29.8	15.2	14.5	18.5	12.8
2	53	58.5	9	30.9	15.9	14.5	18.5	13.5
3	56	61	9	32.5	16.5	17.5	21.5	12.4
3+	56	63.5	9	32.5	16.5	17.5	21.5	12.4
4	59	63.5	9	34	17.2	17.5	21.5	13.6
4+	59	66	9	34	17.2	17.5	21.5	13.6
5	62	66	9	35.8	17.9	17.5	21.5	14.5
5+	62	69	9	35.8	17.9	17.5	21.5	14.5
6	65	69	9	37.3	18.7	17.5	21.5	14.8
7	68	72	9	38.9	19.5	17.5	21.5	15.5
8	71	75	9	40.1	20.3	17.5	21.5	16
9	74	78	9	41	21.1	17.5	21.5	17
10	77	81	9	42	22	17.5	21.5	17.5

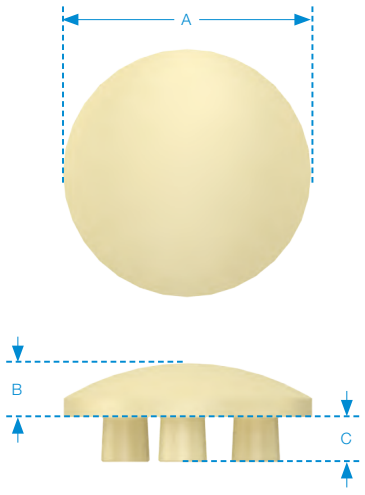
LinkSymphoKnee Tibial Components



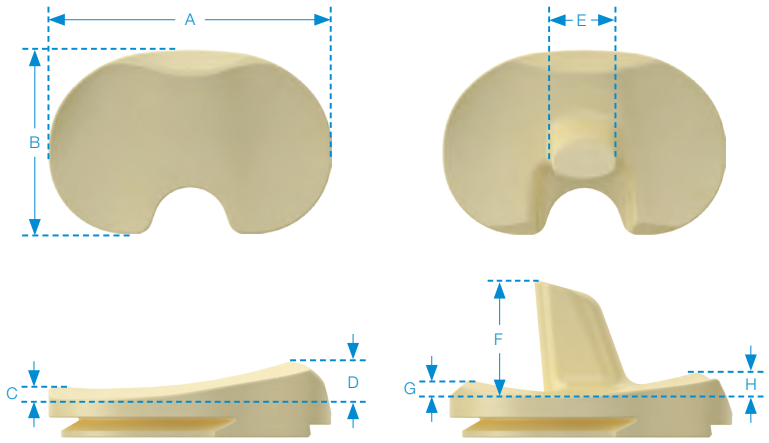
Size	A	B	C	D	E	F
	AP mm	ML mm	Plate Thickness mm	Stem Length mm	Stem Length mm	Slope
1	59	37.5	4	38.5	43.8	3°
2	62.5	40	4	38.5	43.8	3°
3	66	42.5	4	38.5	43.8	3°
4	69.5	45	4	38.5	43.8	3°
5	73	47.5	4	38.5	43.8	3°
6	76.5	50	4	38.5	43.8	3°
7	80	52.5	4	38.5	43.8	3°
8	83.5	55	4	38.5	43.8	3°
9	87	57.5	4	38.5	43.8	3°
10	90.5	60	4	38.5	43.8	3°

LinkSymphoKnee Patella Components

A	B	F
Ø mm	Height mm	Peg Height mm
25	6	5
28	6	5
31	7	5
34	8	5
37	9	5
40	10	5



LinkSymphoKnee Articulating Surfaces – CR, UC, PS, PS+, CCK



Size	A	B	C		D		E			F		G	H
	AP mm	ML mm	Post. Lip Height mm		Ant. Lip Height mm		Post Width mm			Post Height mm		Post. Lip Height mm	Ant. Lip Height mm
	All	All	CR	UC	CR	UC	PS	PS+	CCK	PS/PS+	CCK	All	All
1-2	59	37.5	0.8	3.5	3.1	5.5	13.5	14.3	14.35	18.4	21	2.1	2.1
1up	59	37.5	–	–	–	–	16.5	17.3	17.35	19.4	22	1.6	1.6
3-4	66	42.5	0.9	3.5	4.6	7.5	16.5	17.3	17.35	19.4	22	2.3	2.9
3-4down	66	42.5	–	–	–	–	13.5	14.3	14.35	18.4	21	2.9	3.9
5-6	73	47.5	1	3.5	5.6	9	16.5	17.3	17.35	20.4	23	3.1	3.6
7-8	80	52.5	1.1	3.5	6.6	9.5	16.5	17.3	17.35	21.4	24	3.5	4.6
9-10	87	57.5	1.2	3.5	7.4	11	16.5	17.3	17.35	22.4	25	4	5.1

Colour coding:
for streamlined workflow

The following table shows the possible *LinkSymphoKnee* – CR size combinations:

CR Femoral Component

Tibial Component	0	1	2	3/3+	4/4+	5/5+	6	7	8	9	10
1	CR Articulating Surface 1-2					x	x	x	x	x	x
2						x	x	x	x	x	x
3	x	CR Articulating Surface 3-4						x	x	x	x
4	x							x	x	x	x
5	x	x	x	CR Articulating Surface 5-6						x	x
6	x	x	x							x	x
7	x	x	x	x	x	CR Articulating Surface 7-8					
8	x	x	x	x	x						
9	x	x	x	x	x	x	x	CR Articulating Surface 9-10			
10	x	x	x	x	x	x	x				

The following table shows the possible *LinkSymphoKnee* – UC size combinations:

UC Femoral Component

Tibial Component	0	1	2	3/3+	4/4+	5/5+	6	7	8	9	10
1	UC Articulating Surface 1-2					x	x	x	x	x	x
2						x	x	x	x	x	x
3	x	UC Articulating Surface 3-4						x	x	x	x
4	x							x	x	x	x
5	x	x	x	UC Articulating Surface 5-6						x	x
6	x	x	x							x	x
7	x	x	x	x	x	UC Articulating Surface 7-8					
8	x	x	x	x	x						
9	x	x	x	x	x	x	x	UC Articulating Surface 9-10			
10	x	x	x	x	x	x	x				

The following table shows the possible *LinkSymphoKnee* – PS/PS+ size combinations:

PS Femoral Component

Tibial Component	0	1	2	3/3+	4/4+	5/5+	6	7	8	9	10
1	PS/PS+ Articulating Surface 1-2			PS/PS+ Articulating Surface 1-2up		x	x	x	x	x	x
2						x	x	x	x	x	x
3	x	PS/PS+ Articulating Surface 3-4down		PS/PS+ Articulating Surface 3-4				x	x	x	x
4	x							x	x	x	x
5	x	x	x	PS/PS+ Articulating Surface 5-6						x	x
6	x	x	x							x	x
7	x	x	x	x	x	PS/PS+ Articulating Surface 7-8					
8	x	x	x	x	x						
9	x	x	x	x	x	x	x	PS/PS+ Articulating Surface 9-10			
10	x	x	x	x	x	x	x				

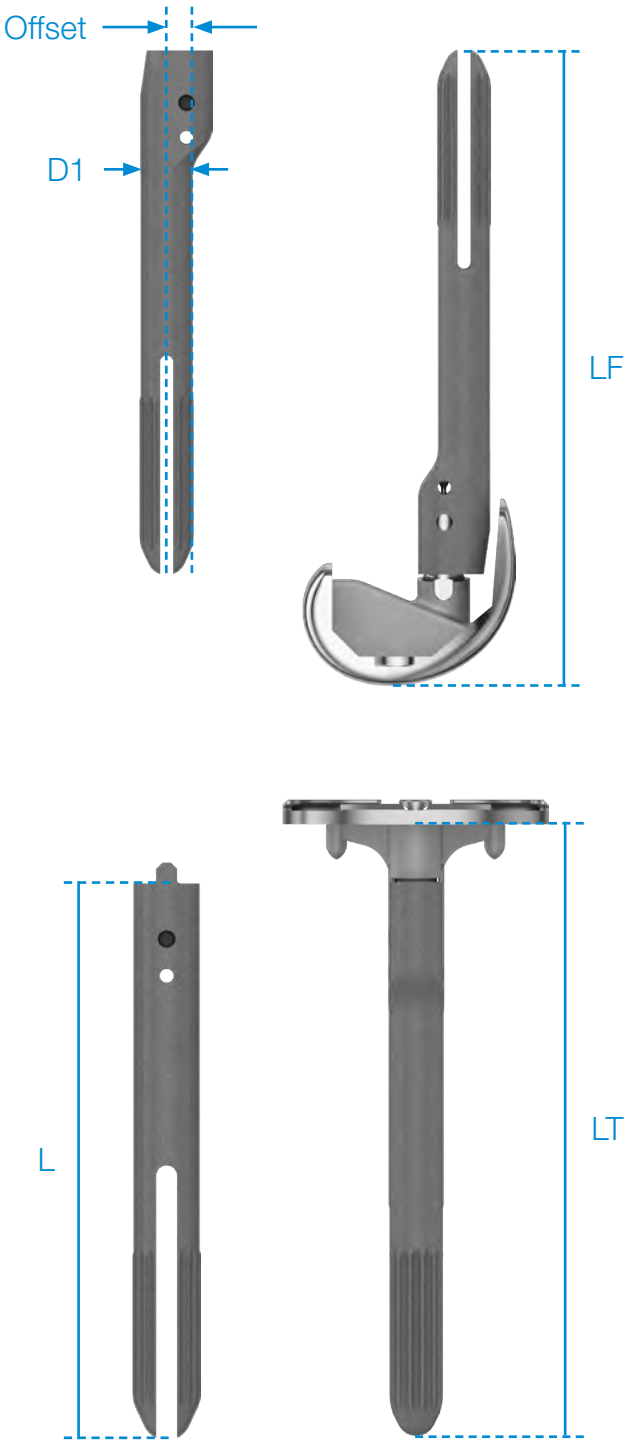
The following table shows the possible *LinkSymphoKnee* – CCK size combinations:

CCK Femoral Component

Tibial Component	0	1	2	3/3+	4/4+	5/5+	6	7	8	9	10
1	CCK Articulating Surface 1-2			CCK Articulating Surface 1-2up		x	x	x	x	x	x
2						x	x	x	x	x	x
3	x	CCK Articulating Surface 3-4down		CCK Articulating Surface 3-4				x	x	x	x
4	x							x	x	x	x
5	x	x	x	CCK Articulating Surface 5-6						x	x
6	x	x	x							x	x
7	x	x	x	x	x	CCK Articulating Surface 7-8					
8	x	x	x	x	x						
9	x	x	x	x	x	x	x	CCK Articulating Surface 9-10			
10	x	x	x	x	x	x	x				

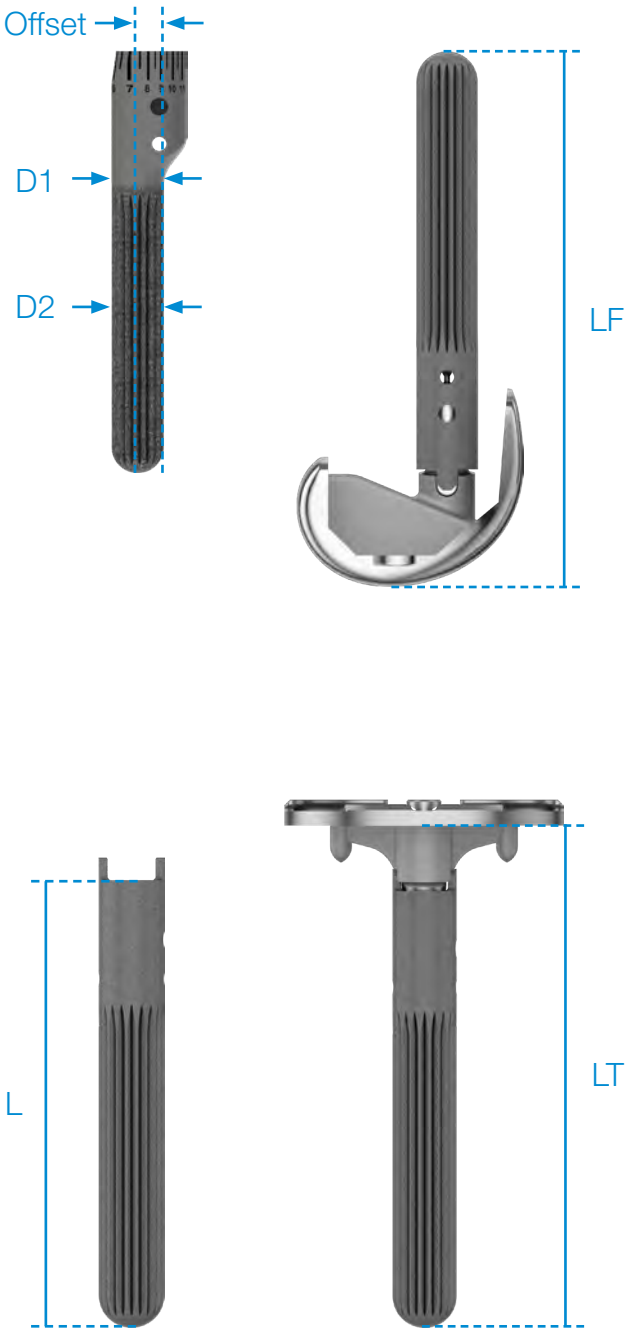
Symbol Description: **x** = Combination not permitted

Cylindrical Press-Fit Stems



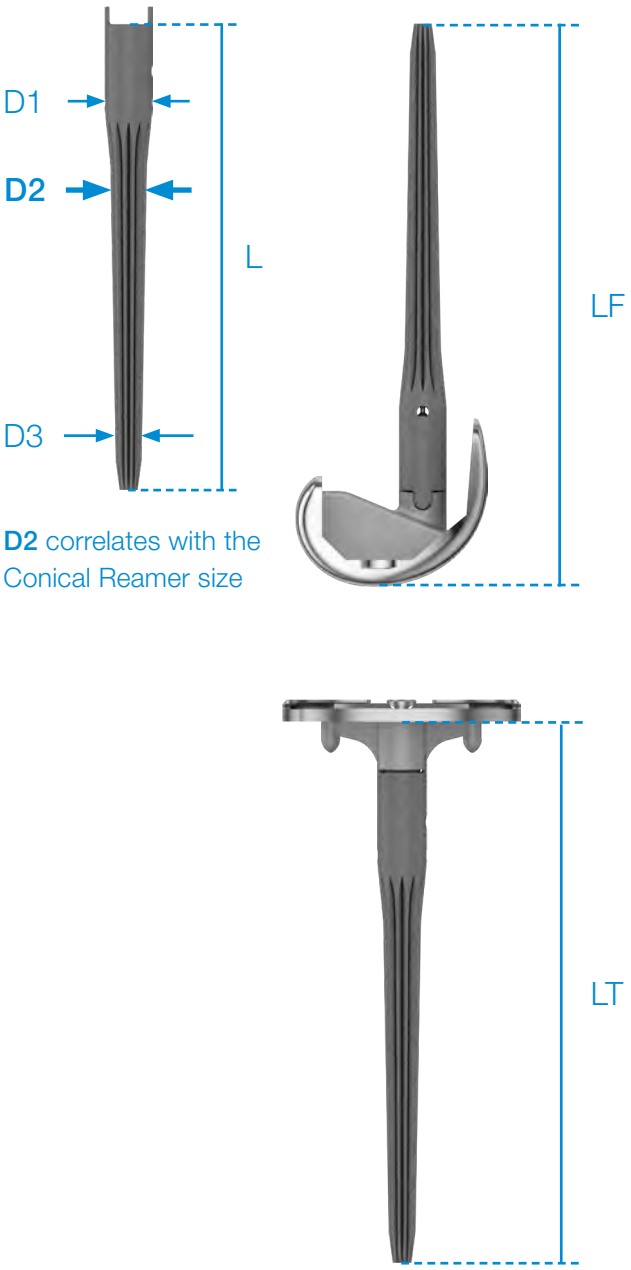
Offset magnitude mm	D1 mm	L mm	LF mm	LT mm
0/3/6	10	80	115	98
0/3/6	11	80	115	98
0/3/6	12	80	115	98
0/3/6	13	80	115	98
0/3/6	14	80	115	98
0/3/6	15	80	115	98
0/3/6	16	80	115	98
0/3/6	17	80	115	98
0/3/6	18	80	115	98
0/3/6	10	120	155	138
0/3/6	11	120	155	138
0/3/6	12	120	155	138
0/3/6	13	120	155	138
0/3/6	14	120	155	138
0/3/6	15	120	155	138
0/3/6	16	120	155	138
0/3/6	17	120	155	138
0/3/6	18	120	155	138
0/3/6	19	120	155	138
0/3/6	20	120	155	138
0/3/6	11	160	195	178
0/3/6	12	160	195	178
0/3/6	13	160	195	178
0/3/6	14	160	195	178
0/3/6	15	160	195	178
0/3/6	16	160	195	178
0/3/6	17	160	195	178
0/3/6	18	160	195	178
0/3/6	19	160	195	178
0/3/6	20	160	195	178
0/3/6	12	200	235	218
0/3/6	14	200	235	218
0/3/6	16	200	235	218
0/3/6	18	200	235	218
0/3/6	20	200	235	218
0/3/6	22	200	235	218
0/3/6	12	220	255	238
0/3/6	14	220	255	238
0/3/6	16	220	255	238
0/3/6	18	220	255	238
0/3/6	20	220	255	238
0/3/6	22	220	255	238
0/3/6	12	240	275	258
0/3/6	14	240	275	258
0/3/6	16	240	275	258
0/3/6	18	240	275	258
0/3/6	20	240	275	258
0/3/6	22	240	275	258

Cylindrical Cementless Stems



Offset magnitude mm	D1 mm	D2 mm	L mm	LF mm	LT mm
0/3/6	16	10	80	115	98
0/3/6	16	11	80	115	98
0/3/6	16	12	80	115	98
0/3/6	16	13	80	115	98
0/3/6	16	14	80	115	98
0/3/6	16	15	80	115	98
0/3/6	16	16	80	115	98
0/3/6	17	17	80	115	98
0/3/6	18	18	80	115	98
0/3/6	16	10	120	155	138
0/3/6	16	11	120	155	138
0/3/6	16	12	120	155	138
0/3/6	16	13	120	155	138
0/3/6	16	14	120	155	138
0/3/6	16	15	120	155	138
0/3/6	16	16	120	155	138
0/3/6	17	17	120	155	138
0/3/6	18	18	120	155	138
0/3/6	19	19	120	155	138
0/3/6	20	20	120	155	138
0/3/6	16	11	160	195	178
0/3/6	16	12	160	195	178
0/3/6	16	13	160	195	178
0/3/6	16	14	160	195	178
0/3/6	16	15	160	195	178
0/3/6	16	16	160	195	178
0/3/6	17	17	160	195	178
0/3/6	18	18	160	195	178
0/3/6	19	19	160	195	178
0/3/6	20	20	160	195	178
0/3/6	16	12	200	235	218
0/3/6	16	14	200	235	218
0/3/6	16	16	200	235	218
0/3/6	18	18	200	235	218
0/3/6	16	12	240	275	258
0/3/6	16	14	240	275	258
0/3/6	16	16	240	275	258
0/3/6	18	18	240	275	258

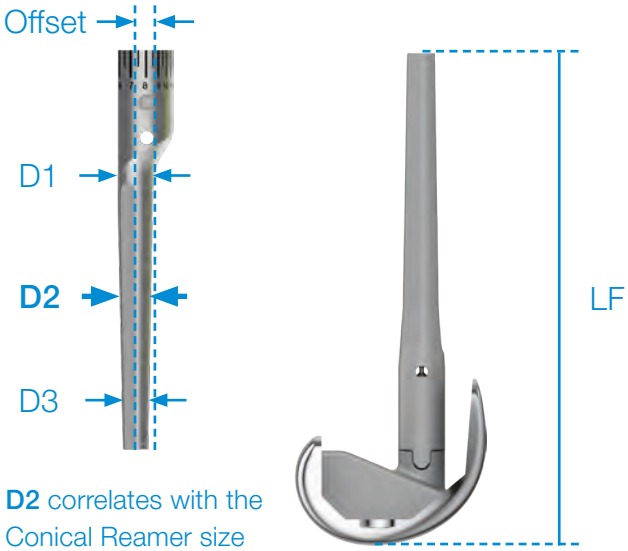
Conical Cementless Stems



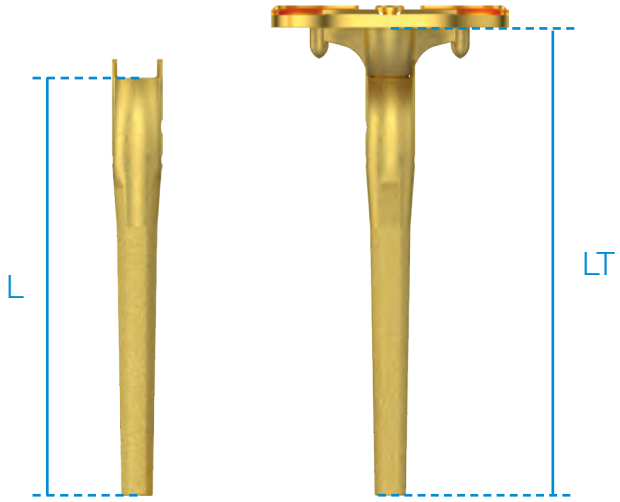
D2 correlates with the Conical Reamer size

D1 mm	D2 mm	D3 mm	L mm	LF mm	LT mm
16	12	9	128	163	146
16	13	10	128	163	146
16	14	11	128	163	146
16	15	12	128	163	146
16	16	13	128	163	146
17	17	14	128	163	146
18	18	15	128	163	146
19	19	16	128	163	146
20	20	17	128	163	146
21	21	18	128	163	146
22	22	19	128	163	146
23	23	20	128	163	146
24	24	21	128	163	146
16	12	9	158	193	176
16	13	10	158	193	176
16	14	11	158	193	176
16	15	12	158	193	176
16	16	13	158	193	176
17	17	14	158	193	176
18	18	15	158	193	176
19	19	16	158	193	176
20	20	17	158	193	176
21	21	18	158	193	176
22	22	19	158	193	176
23	23	20	158	193	176
24	24	21	158	193	176
16	12	9	188	223	206
16	13	10	188	223	206
16	14	11	188	223	206
18	15	12	188	223	206
16	16	13	188	223	206
17	17	14	188	223	206
18	18	15	188	223	206
19	19	16	188	223	206
20	20	17	188	223	206
21	21	18	188	223	206
22	22	19	188	223	206
23	23	20	188	223	206
24	24	21	188	223	206

Conical Cemented Stems

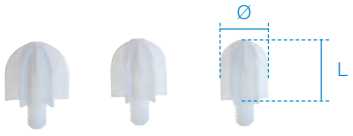


D2 correlates with the Conical Reamer size



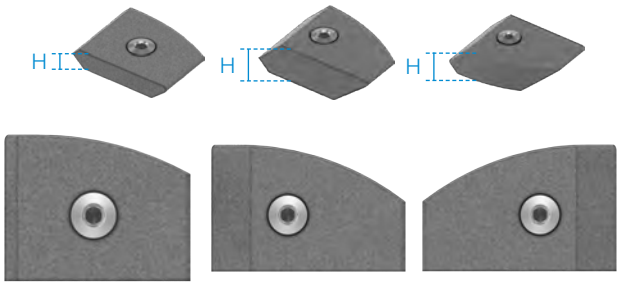
Offset magnitude mm	D1 mm	D2 mm	D3 mm	L mm	LF mm	LT mm
0	16	11	8	50	85	68
0/3/6	16	10	7	80	115	98
0/3/6	16	11	8	80	115	98
0/3/6	16	13	10	80	115	98
0/3/6	16	15	12	80	115	98
0	16	10	7	95	130	113
0	16	11	8	95	130	113
0	16	13	10	95	130	113
0	16	15	12	95	130	113
0/3/6	16	10	7	120	155	138
0/3/6	16	11	8	120	155	138
0/3/6	16	13	10	120	155	138
0/3/6	16	15	12	120	155	138
0	16	10	7	135	170	153
0	16	11	8	135	170	153
0	16	13	10	135	170	153
0	16	15	12	135	170	153
0/3/6	16	10	7	160	195	178
0/3/6	16	11	8	160	195	178
0/3/6	16	13	10	160	195	178
0/3/6	16	15	12	160	195	178
0/3/6	16	11	8	180	215	198
0/3/6	16	13	10	180	215	198
0/3/6	16	15	12	180	215	198
0	16	11	8	200	235	218
0	16	13	10	200	235	218
0	16	15	12	200	235	218
0/3/6	16	11	8	240	275	258
0/3/6	16	13	10	240	275	258
0/3/6	16	15	12	240	275	258
0	16	11	8	280	315	298
0	16	13	10	280	315	298
0	16	15	12	280	315	298

LinkSymphoKnee – Centralizers



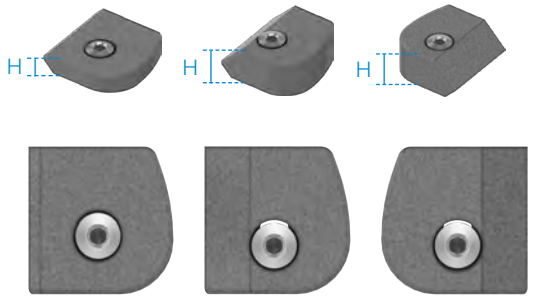
Ø mm	Length (L) mm
12	15
14	15
16	15
18	15
20	15
22	15
24	15

LinkSymphoKnee Femoral Augments – Distal



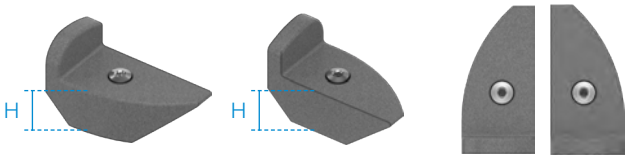
cemented		
Size	Side	Height mm
0	Medial-Right/Lateral-Left	5
0	Lateral-Right/Medial-Left	5
1-2	Medial-Right/Lateral-Left	5
1-2	Lateral-Right/Medial-Left	5
3-4	Medial-Right/Lateral-Left	5
3-4	Medial-Right/Lateral-Left	10
3-4	Lateral-Right/Medial-Left	5
3-4	Lateral-Right/Medial-Left	10
5-6	Medial-Right/Lateral-Left	5
5-6	Medial-Right/Lateral-Left	10
5-6	Lateral-Right/Medial-Left	5
5-6	Lateral-Right/Medial-Left	10
7-8	Medial-Right/Lateral-Left	5
7-8	Medial-Right/Lateral-Left	10
7-8	Lateral-Right/Medial-Left	5
7-8	Lateral-Right/Medial-Left	10
9-10	Medial-Right/Lateral-Left	5
9-10	Medial-Right/Lateral-Left	10
9-10	Lateral-Right/Medial-Left	5
9-10	Lateral-Right/Medial-Left	10

LinkSymphoKnee Femoral Augments – Posterior



cemented		
Size	Side	Height mm
0	Medial-Right/Lateral-Left	5
0	Lateral-Right/Medial-Left	5
1-2	Medial-Right/Lateral-Left	5
1-2	Lateral-Right/Medial-Left	5
3-4	Medial-Right/Lateral-Left	5
3-4	Medial-Right/Lateral-Left	10
3-4	Lateral-Right/Medial-Left	5
3-4	Lateral-Right/Medial-Left	10
5-6	Medial-Right/Lateral-Left	5
5-6	Medial-Right/Lateral-Left	10
5-6	Lateral-Right/Medial-Left	5
5-6	Lateral-Right/Medial-Left	10
7-8	Medial-Right/Lateral-Left	5
7-8	Medial-Right/Lateral-Left	10
7-8	Lateral-Right/Medial-Left	5
7-8	Lateral-Right/Medial-Left	10
9-10	Medial-Right/Lateral-Left	5
9-10	Medial-Right/Lateral-Left	10
9-10	Lateral-Right/Medial-Left	5
9-10	Lateral-Right/Medial-Left	10

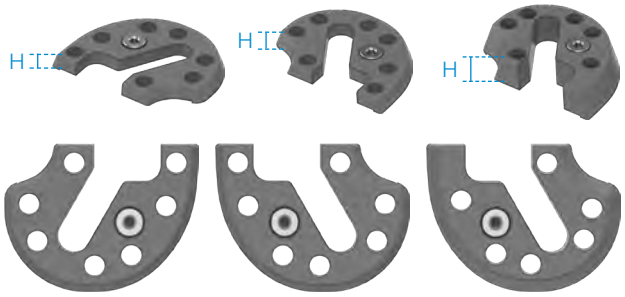
LinkSymphoKnee Femoral Augments – L-Shaped



cemented

Size	Side	Height mm
0	Medial-Right/Lateral-Left	10
0	Lateral-Right/Medial-Left	10
1-2	Medial-Right/Lateral-Left	10
1-2	Lateral-Right/Medial-Left	10
3-4	Medial-Right/Lateral-Left	15
3-4	Lateral-Right/Medial-Left	15
5-6	Medial-Right/Lateral-Left	15
5-6	Lateral-Right/Medial-Left	15
7-8	Medial-Right/Lateral-Left	15
7-8	Lateral-Right/Medial-Left	15
9-10	Medial-Right/Lateral-Left	15
9-10	Lateral-Right/Medial-Left	15

LinkSymphoKnee Tibial Augments



cemented

Size	Side	Height mm
1-2	Medial-Right/Lateral-Left	5
1-2	Medial-Right/Lateral-Left	10
1-2	Medial-Right/Lateral-Left	15
1-2	Lateral-Right/Medial-Left	5
1-2	Lateral-Right/Medial-Left	10
1-2	Lateral-Right/Medial-Left	15
3-4	Medial-Right/Lateral-Left	5
3-4	Medial-Right/Lateral-Left	10
3-4	Medial-Right/Lateral-Left	15
3-4	Lateral-Right/Medial-Left	5
3-4	Lateral-Right/Medial-Left	10
3-4	Lateral-Right/Medial-Left	15
5-6	Medial-Right/Lateral-Left	5
5-6	Medial-Right/Lateral-Left	10
5-6	Medial-Right/Lateral-Left	15
5-6	Lateral-Right/Medial-Left	5
5-6	Lateral-Right/Medial-Left	10
5-6	Lateral-Right/Medial-Left	15
7-8	Medial-Right/Lateral-Left	5
7-8	Medial-Right/Lateral-Left	10
7-8	Medial-Right/Lateral-Left	15
7-8	Lateral-Right/Medial-Left	5
7-8	Lateral-Right/Medial-Left	10
7-8	Lateral-Right/Medial-Left	15
9-10	Medial-Right/Lateral-Left	5
9-10	Medial-Right/Lateral-Left	10
9-10	Medial-Right/Lateral-Left	15
9-10	Lateral-Right/Medial-Left	5
9-10	Lateral-Right/Medial-Left	10
9-10	Lateral-Right/Medial-Left	15

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